ConocoPhillips
76 Broadway
Sacramento, California 95818

RECEIVED

2:33 pm, Feb 22, 2011
Alameda County
Environmental Health

February 18, 2011

Ms. Barbara Jakub
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

Re: **Additional Assessment Report**
Former 76 Service Station No. 3538
411 West MacArthur Boulevard
Oakland, California

RO # 0251

Dear Ms. Jakub:

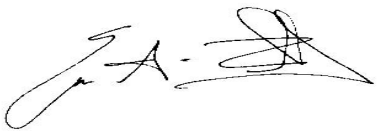
I declare under penalty of perjury that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

If you have any questions or need additional information, please call:

Ted Moise (Contractor)
ConocoPhillips
Risk Management & Remediation
76 Broadway
Sacramento, CA 95818

Phone: (510) 245-5162
Fax: (918) 662-4480
Ted.Moise@contractor.conocophillips.com

Sincerely,



Eric G. Hetrick
Site Manager
Risk Management & Remediation

Attachment

anteagroup
Antea Group
11050 White Rock Road, Suite 110
Rancho Cordova, California 95670
www.anteagroup.com

February 18, 2011

Mr. Barbara Jakub
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

RE: **ADDITIONAL ASSESSMENT REPORT**
Former 76 Service Station No. 3538
411 W. MacArthur Boulevard
Oakland, California
AOC 1178
RO# 0251

Dear Mr. Wickham:

Due to global rebranding, as of January 5, 2011 Delta Consultants has become Antea Group. Any work performed or reports submitted prior to this date will be referenced using the Delta name.

On behalf of ConocoPhillips Company (COP), Antea Group is submitting this *Additional Assessment Report*, for the above referenced location.

Please contact Jan Wagoner at (916) 503-1275 if you have questions.

Sincerely,
ANTEA GROUP

Jan W. Wagoner
Senior Project Manager

cc: Mr. Ted Moise - ConocoPhillips (electronic copy only)

ADDITIONAL ASSESSMENT REPORT

Former 76 Service Station No. 3538
411 W. MacArthur Blvd
Oakland, CA

Antea Group Project No. C103538061

February 18, 2011

Prepared for:
ConocoPhillips
76 Broadway
Sacramento, CA 95818

Prepared by:
Antea™Group
11050 White Rock Road
Suite 110
Rancho Cordova, CA
95670

Inogen Environmental Alliance

Antea USA, Inc.

ADDITIONAL ASSESSMENT REPORT

76 Service Station No. 3538
411 W. MacArthur Blvd
Oakland, California

February 18, 2011

Prepared for

ConocoPhillips Company
76 Broadway
Sacramento, California

The material and data in this report were prepared under the supervision and direction of the undersigned.

ANTEA GROUP

Alan Buehler
Staff Geologist

Jan Wagoner
Project Manager

Dennis S. Dettloff, P.G.
California Registered Professional Geologist No. 7480

PROFESSIONAL GEOLOGIST
DENNIS SHANNON DETTLOFF
No. 7480
STATE OF CALIFORNIA

1.0 INTRODUCTION

On behalf of ConocoPhillips (COP), Antea™Group has prepared this *Additional Assessment Report.* Assessment activities were performed as described in Delta's *Work Plan for Additional Assessment*, dated June 3, 2009, and *Amendment to Work Plan for Additional Assessment*, dated November 5, 2010, and were approved in an Alameda County Health Care Services Agency (ACHCSA) letter to COP dated October 5, 2010 (Appendix A). As an appropriate access agreement for the private property south of the site and a City of Oakland encroachment permit could not be obtained for Webster Street to coincide with the drilling of SB-8, SB-9, and SB-10, borings SB-6 and SB-7 are pending.

2.0 SITE BACKGROUND

2.1 SITE DESCRIPTION

The site is located at the southwest corner of West MacArthur Boulevard and Webster Street in Oakland, California (Figure 1). The site is a former service station, and all underground storage tanks (USTs) and product piping have been removed. A canopy over the former dispenser island locations and a station building located in the southwestern portion of the site are still in place (Figure 2). There are currently six groundwater monitoring wells (MW-1 through MW-6) on and in the vicinity of the site. Properties in the immediate vicinity of the site are utilized for commercial and residential purposes.

2.2 PREVIOUS ASSESSMENT

A site map with historical sampling locations is included as Figure 4.

July 1989: One 10,000-gallon and one 12,000-gallon gasoline USTs were removed and replaced with two new 12,000-gallon USTs. One 550-gallon waste oil UST and the associated piping for all three tanks were also removed. No holes or cracks were observed in the gasoline USTs; however, holes were observed in the waste oil UST. Groundwater was encountered in the former UST pit at a depth of approximately 10.5 feet below ground surface (bgs), which prohibited the collection of soil samples below the former fuel USTs. Confirmation soil samples from the sidewalls contained moderate maximum concentrations of total petroleum hydrocarbons as gasoline (TPHg), and low maximum concentrations of benzene. These sample areas were subsequently over-excavated. Soil samples from the base of the waste oil UST pit did not contain TPHg or benzene, toluene, ethyl-benzene, and xylenes (BTEX compounds). (Kaprealian Engineering, INC., 1989)

September 1989: Kaprealian Engineering, INC. (KEI) installed four groundwater monitoring wells at the site to depths of approximately 30 feet bgs.

November 1992: Two additional groundwater monitoring wells were installed off-site to a depth of 30 feet bgs. (KEI, 1993)

September 1998: Two 12,000-gallon gasoline USTs and associated product piping and dispensers were removed from the site during station demolition activities. No holes or cracks were observed in the tanks. Confirmation soil samples contained low maximum concentrations of TPHg and benzene. Methyl tertiary-butyl ether (MTBE) was below the laboratory's indicated reporting limits.

October 2003: Site environmental consulting responsibilities were transferred to TRC.

March 2006: TRC conducted additional soil and groundwater assessment at the site. The investigation involved the advancement of three onsite soil borings (SB-3, SB-4, and SB-5) and two offsite soil borings (SB-1 and SB-2) to sufficient depth to obtain representative groundwater samples (approximately 16 feet bgs).

October 2007: Site environmental consulting responsibilities were transferred to Delta.

2.3 SENSITIVE RECEPTORS

In 2002, Gettler-Ryan, Inc. requested that California Department of Water Resources (DWR) perform a record search of their files for the presence of water supply wells within a 2,000 foot radius of the site. The DWR file search revealed that there are no water supply wells located within 2,000 feet of the site. The nearest well identified is a private water well located approximately 2,500 feet east-southeast of the site, in the cross-gradient groundwater flow direction.

2.4 SITE GEOLOGY AND HYDROGEOLOGY

Based on review of regional geologic maps the site is underlain by Late Pleistocene Alluvium. This alluvium is considered to be alluvial fan deposits, and is described as consisting of weakly consolidated, slightly weathered, irregularly interbedded clay, silt, and gravel. The maximum thickness of these deposits is unknown, but is considered to be at least 150 feet thick.

Based on subsurface investigation performed at the site, the first 1.5 feet of the subsurface is composed of artificial fill. The fill is underlain by an unsaturated zone consisting of clay with minor amounts of sand and gravel, to a depth of approximately 18 feet blow ground surface (bgs). The saturated zone, extending from approximately 18 to 30 feet bgs (limit of exploration), is composed of gravel with silt and sand, interbedded with clayey sand and clayey silt.

Monitoring and sampling of wells at the site has been performed since September 1989. Depth to groundwater has varied from approximately 11 to 19 feet below top of casing (TOC). Groundwater flow direction has been predominantly towards the south and south-southeast with occasional deviation to the east-southeast and southwest.

3.0 ADDITIONAL ASSESSMENT

3.1 PRE-FIELD ACTIVITIES

Before commencing field operations Antea Group prepared a site-specific health and safety plan in accordance with state and federal requirements for use during site assessment activities. Antea Group also obtained the appropriate permits from Alameda County Public Works Agency (ACPWA) (Appendix B).

Prior to performing any drilling activities, Antea Group identified and marked the proposed boring locations and notified Underground Service Alert (USA) as required. A private utility locating service was also contracted to clear the proposed boring locations for underground utilities.

All the proposed soil boring locations were cleared by air vacuum to five feet bgs, to avoid damage to possible underground utilities.

3.2 SOIL AND GROUNDWATER BORINGS

The purpose of the proposed borings was to confirm the petroleum hydrocarbon concentrations reported during the soil and groundwater investigation activities detailed in TRC's *Soil and Groundwater Investigation Report*, dated April 28, 2006 and monitoring well MW-3 installation activities detailed in Kaprealian Engineering, Inc.'s (KEI's) *Preliminary Groundwater Investigation at Unocal Service Station #3538*, dated October 23, 1989. Initially, 5 borings were proposed, two offsite down-gradient (SB-6 and BS-7), and three onsite (SB-8 through SB-10). Borings SB-8 through SB-10 are shown on Figure 2. However, due to permitting and access agreement issues, only the onsite borings were advanced. Borings SB-6 and SB-7 will be advanced once access agreements are in place for SB-6.

On December 15, 16, 20, and 21, 2010, Antea Group oversaw air-knifing and advancement of three direct push soil borings SB-8 through SB-10. Boring SB-8 was advanced to 25 feet bgs in the vicinity of MW-3, north of the former UST pit, and east of the former dispenser islands. Boring SB-9 was advanced to 30 feet bgs in the vicinity of boring SB-3, east of the former UST pit. Boring SB-10 was advanced to 30 feet bgs in the vicinity of boring SB-5, south of the former UST pit and dispenser islands.

For boring SB-8, only one hole was advanced for soil sampling and the collection of a grab groundwater sample. For borings SB-9 and SB-10, three holes were advanced at each location: one for soil sampling, and two for collection of two depth discrete groundwater samples.

3.2.1 Soil Sampling

Soil was collected continuously from just below the air-vacuum cleared depth of 5 feet bgs to total depth in each borehole using GeoProbe direct push technology equipped with acetate liners. Soil was logged for lithology using the Unified Soils Classification System (USCS). Soil samples were collected continuously in boring SB-8 from 5 feet bgs to 20 feet bgs. Four soil samples were collected for analysis from 5, 10, 15, and 20 feet bgs. Soil samples were collected continuously in borings SB-9 and SB-10 from 5 feet bgs to 30 feet bgs. Six soil samples were collected for analysis from 5, 10, 15, 20, 25, and 30 feet bgs from each borehole.

Each sample was collected by cutting a six-inch section from the acetate liner at the corresponding depth. Each sample was then capped with Teflon® sheeting and tight-fitting plastic end caps, labeled, and placed on ice in preparation for transportation to a California-certified laboratory. All sampled were accompanied by proper chain of custody (COC) documentation.

3.2.2 Groundwater Sampling

Groundwater samples were collected from each borehole using HydroPunch® technology in which 0.75-inch temporary polyvinyl chloride (PVC) well screen is exposed to groundwater bearing zones using direct push technology. Groundwater samples collected from boring SB-8 were depth discrete grab samples collected with screen exposed from 20 to 25 feet bgs. Initially, based on lithological data, an attempt was made to obtain a grab sample with temporary well screen exposed from 15 to 20 feet bgs, but no water was encountered.

Based on lithologic data collected during soil sampling, two depth discrete groundwater samples were collected from each boring SB-9 and SB-10. In both borings, the shallow sample was collected with temporary screen exposed from 17 to 22 feet bgs, while the deep sample was collected with temporary screen exposed from 24 to 29 feet bgs.

All groundwater samples were collected in appropriate sample bottles, labeled, and placed on ice in preparation for transportation to a California-certified laboratory. All samples were accompanied by proper COC documentation.

3.2.3 Analysis

Soil and groundwater samples were analyzed for TPHg, BTEX, and 8 fuel oxygenates [MTBE, tert-butyl alcohol (TBA), ethylene dibromide (EDB), 1,2 dicholoroethane (1,2-DCA), di-isopropyl ether (DIPE), tert amyl methyl ether (TAME), ethyl tert butyl ether (ETBE), and ethanol] by Environmental Protection Agency (EPA) Method 8260. A copy of the certified laboratory report is included as Appendix C.

3.3 DISPOSAL OF DRILL CUTTINGS AND WASTEWATER

Drill cuttings and wastewater generated during proposed soil, groundwater and soil vapor assessment activities were placed into properly labeled 55-gallon Department of Transportation (DOT) approved steel drums and temporarily stored at the service station site. Samples of the drill cuttings and wastewater were collected, properly labeled and placed on ice for submittal to a California-certified laboratory and analyzed for TPHg, BTEX, and MTBE by EPA Method 8260B. Additionally, soil samples will also be analyzed for CAM 17 metals by EPA Method 6010. A chain-of-custody accompanied the samples during transportation to the laboratory. Subsequent to receiving the laboratory analytical results, the drummed drill cuttings and wastewater will be profiled and transported for disposed of at a COP approved facility.

4.0 DISCUSSION

A site map with current wells and current investigation sampling locations is included as Figure 2. A site map with historical sampling locations is includes as Figure 3. Current soil and grab groundwater analytical results are included in Table 1 and Table 2, respectively. Historical soil and grab groundwater analytical results are included in Table 3 and Table 4, respectively. Boring logs for borings SB-8 through SB-10 are included as Appendix D.

Historical groundwater flow directions are presented in a rose diagram as Figure 4. In the 2006 *Soil and Groundwater Investigation Report*, TRC included a rose diagram that depicted the predominant groundwater flow directions through first quarter 2006 to be east and southwest. After re-evaluation of this existing data, and the addition of data from second quarter 2006 through third quarter 2010, Figure 4 shows the predominant groundwater flow directions to be south and south-southeast. Since second quarter 1994, all reported flow directions have been generally southerly, ranging between east-southeast and southwest, with the exception of second quarter 2001 (northeast), and third quarter 2006 (west). Since third quarter 2007, reported flow directions have been to the south.

Borings SB-8 and SB-9 were confirmation sampling locations for monitoring well MW-3 and boring SB-3, respectively. Boring SB-10 was a sampling location down-gradient of the former USTs.

Benzene concentrations present in soil in the original borings for monitoring well MW-3 and boring SB-3 were the main concern of the regulatory agency. Benzene concentrations in soil from each of the borings (SB-8, SB-9, and SB-10) from all depths were below laboratory indicated reporting limits, with the exception of 15 and 20 feet bgs in boring SB-9 (1.4 milligrams per kilogram (mg/kg) and 0.17 mg/kg benzene, respectively). This data confirms that benzene concentrations in soil in the vicinity of monitoring well MW-3 and boring SB-8 are no longer present and benzene is not present in the soil in the vicinity of boring SB-10 to 30 feet bgs. While benzene concentrations in the soil sample collected

from boring SB-9 were higher than those in boring SB-3, soil sampled collected at both 5 feet and 10 feet bgs were below the laboratory's indicated reporting limits.

This would indicate at least 10 to 15 feet of soil with no reportable benzene concentrations are present immediately below the ground surface in boring SB-9 and no reportable benzene concentrations were reported in boring SB-8 to 20 feet bgs. This would indicate the potential for vapor intrusion in the vicinity of borings SB-3, MW-3, SB-8, SB-9, and SB-10 are minimal and no additional vapor intrusion assessment is necessary.

The highest soil TPHg concentrations were reported in boring SB-8, just north of the former gasoline USTs, and just east of the former dispenser islands. In this boring, TPHg was reported at a concentration of 520 mg/kg at 20 feet bgs. TPHg concentrations at shallower depths in this boring were below or near the laboratory's indicated reporting limits. TPHg concentrations reported in soil samples collected from boring SB-9 were below 10 mg/kg at each depth sampled. TPHg concentrations reported in soil samples collected from boring SB-10, south of the former USTs, were below 1.0 mg/kg from each depth sampled.

Benzene was reported in groundwater samples collected from each of the borings and each depth, with the exception of boring SB-8 (between 20 to 25 feet bgs) which was below laboratory's indicated reporting limits. Benzene was present in both the shallow (17-22 feet bgs) and deep (24-29 feet bgs) samples collected from boring SB-9. The shallow sample contained 420 µg/L benzene, while the deep sample contained 79 µg/L benzene. Both of these concentrations are lower than the 510 µg/L benzene reported in groundwater samples collected from boring SB-3 in 2006. Benzene concentrations in the shallow (17-22 feet bgs) and deep (24-29 feet bgs) samples collected from boring SB-10 were 20 µg/L and 1.8 µg/L, respectively.

TPHg concentrations in groundwater were the highest in samples collected from boring SB-9, in the middle of the driveway along the eastern edge of the property, cross-gradient to the former USTs. TPHg was reported in this boring at a maximum concentration of 9,500 µg/L from the shallow sample (17-22 feet bgs). The deeper sample (24-29 feet bgs) from boring SB-9 reported a TPHg concentration of 2,900 µg/L. Only one sample (20-25 feet bgs was collected from boring SB-8, with a reported TPHg concentration of 2,000 µg/L. TPHg in boring SB-10 was reported with a maximum concentration of 1,500 µg/L in the shallower sample (17-22 feet bgs) and a concentration of 310 µg/L in the deeper sample (24-29 feet bgs).

Historically, groundwater flow was predominantly to the south-southeast and south, and to a lesser extent northeast, east northeast, southwest, and south-southwest. During the 2006 TRC investigation, reported TPHg concentrations in boring SB-2 (east across Webster Street) were below the laboratory's indicated reporting limits for each constituent analyzed. This indicates that while residual petroleum hydrocarbons may be present in boring SB-9, petroleum hydrocarbons have not migrated offsite across Webster Street (Figure 3). Petroleum hydrocarbons present in boring SB-10 indicate petroleum hydrocarbons are present in groundwater south of the former USTs.

5.0 RECOMMENDATIONS

In Delta's *Work plan for Additional Assessment*, dated June 3, 2009, and *Amendment to Work plan for Additional Assessment*, dated November 5, 2010, the proposed scope of work included advancing boring SB-6 in the private property immediately to the south of the site, and boring SB-7 in the street southeast of the site at the corner of Webster Street and 37th Street. Due to access issues with the

private property owner on which the proposed SB-6 boring is located, and permitting issues with the City of Oakland, borings SB-6 and SB-7 were not advanced as part of this investigation. The purpose of boring SB-6 was to better assess offsite impact south of the USTs and site. The purpose of SB-7 was to better assess any possible migration of site impact offsite to the southeast.

Upon implementation of an access agreement for boring SB-6, and proper permitting for boring SB-7, these borings will be advanced. However, Antea Group proposes to shift the location of boring SB-6 slightly to the west closer to the property line between the 402 37th Street and 412 37th Street properties. This location will put this boring in a more directly down-gradient (south) of the former USTs and boring SB-10. The locations of proposed borings SB-6 and SB-7 are shown on Figure 5.

In ACHCSA's letter to COP dated October 5, 2010, a work plan for assessment of soil vapor pathways was requested upon the confirmation of the presence of benzene in the vicinity of MW-3 and SB-3. ACHCSA's main concern was in regards to soil vapor was the soil sample from MW-3 at 10 feet bgs. No benzene concentrations were reported in boring SB-8. While benzene is present in boring SB-9, the shallowest reported benzene concentrations are at 15 feet bgs. Between 10 and 15 feet of soil with no reportable benzene concentrations are present below the ground surface in the vicinity of borings SB-3 and SB-9 and benzene was not reported in each of the soil sample collected from borings SB-8 and SB-10 to the maximum depths of 20 feet bgs and 30 feet bgs, respectively. As such, Antea Group does not recommend performance of a soil vapor assessment investigation, and has not prepared the work plan noted in ACHCSA's letter of October 5, 2010.

6.0 LIMITATIONS AND CERTIFICATIONS

This report was prepared in accordance with the scope of work outlined in Antea Group's contract and with generally accepted professional engineering and environmental consulting practices existing at the time this report was prepared and applicable to the location of the site. It was prepared for the exclusive use of ConocoPhillips for the expressed purpose stated above. Any re-use of this report for a different purpose or by others not identified above shall be at the user's sole risk without liability to Antea Group. To the extent that this report is based on information provided to Antea Group by third parties, Antea Group may have made efforts to verify this third party information, but Antea Group cannot guarantee the completeness or accuracy of this information. The opinions expressed and data collected are based on the conditions of the site existing at the time of the field investigation. No other warranties, expressed or implied, are made by Antea Group.

CONSULTANT: ANTEA GROUP

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FIGURES

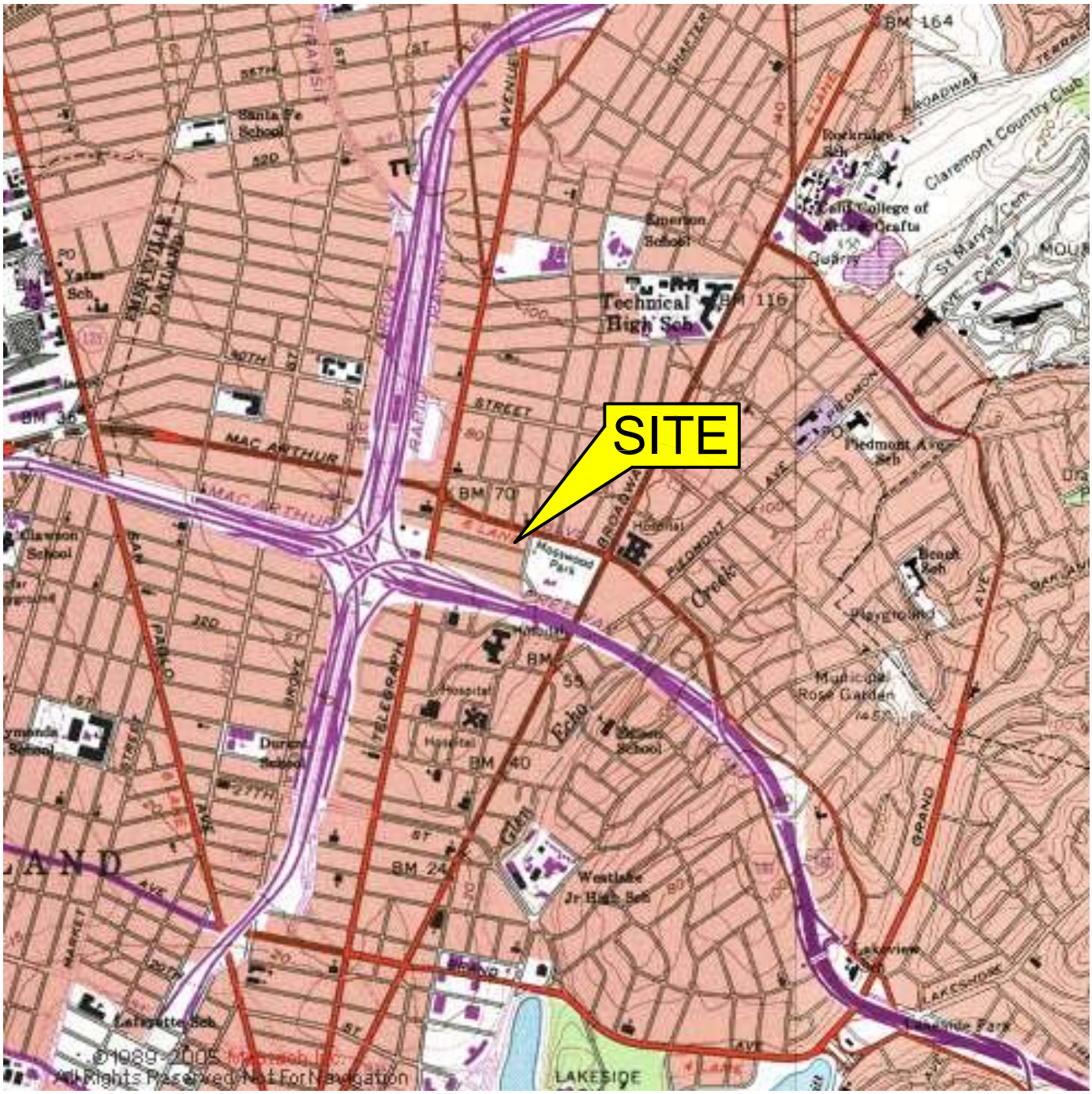
Figure 1 – Site Locator Map
Figure 2 – Site Plan with Current Well and Current Investigation Sampling Locations
Figure 3 – Site Plan with Historical Sampling Locations
Figure 4 – Historical Groundwater Flow Direction Rose Diagram
Figure 5 – Site Plan with Proposed Borings

TABLES

Table 1 – Current Soil Analytical Results
Table 2 – Current Grab Groundwater Analytical Results
Table 3 – Historical Soil Analytical Results

APPENDICES

FIGURES



North

0 2400 FT 4800 FT

SCALE: 1 : 24,000

SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, OAKLAND WEST QUADRANGLE (1993)

FIGURE 1

SITE LOCATION MAP

FORMER 76 STATION NO. 3538
411 WEST MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

PROJECT NO. C103538	DRAWN BY JH 11/14/08
FILE NO. 3538-Site Locator	PREPARED BY NP
REVISION NO.	REVIEWED BY DB

anteagroup

EVERGREEN
BAPTIST
CHURCH

MW–6

BP
STATION

DISPENSER ISLANDS
& CANOPIES

WEST MACARTHUR BOULEVARD

MW–5

MW–4

MW–3

SB–8

RESIDENTIAL
419/421
WEST
MACARTHUR

FORMER
DISPENSER
ISLANDS

FORMER UST

FORMER UST

SB–9

STATION
BUILDING

MW–1

CANOPY

SB–10

MW–2

FORMER
WASTE OIL UST

SHED

LOT

WEBSTER STREET

PLAYGROUND

RESIDENTIAL
428 37TH
STREET

RESIDENTIAL
424 37TH
STREET

RESIDENTIAL
420 37TH
STREET

RESIDENTIAL
416 37TH
STREET

RESIDENTIAL
412 37TH
STREET

RESIDENTIAL
402 37TH
STREET

LEGEND

APPROXIMATE PROPERTY BOUNDARY

GROUNDWATER MONITORING WELL

SOIL BORING (DELTA 2010)

N

0 30 FT

SCALE

SOURCE: Site plan by Gettler–Ryan, August 2000.

FIGURE 2
SITE PLAN WITH CURRENT WELLS AND CURRENT SAMPLING LOCATIONS
FORMER 76 STATION 3538
411 WEST MACARTUR BOULEVARD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
C103538	AB	JH
DATE	REVIEWED BY	FILE NAME
2/10/11	LH	76–3538

anteagroup

EVERGREEN
BAPTIST
CHURCH

BP
STATION

DISPENSER ISLANDS
& CANOPIES

MW-6

WEST MACARTHUR BOULEVARD

MW-5

RESIDENTIAL
419/421
WEST
MACARTHUR

STATION
BUILDING

MW-4
SB-4
P2
P3(6)
MW-3
SB-8
SW3
SW4
P4(6)
P1
A2
B2
SB-3
FORMER
DISPENSER
ISLANDS
SW2
P3
P2(6)
P4
SB-9
SW4(2)
P1(6)
FORMER UST
FORMER UST
A1
B1
CANOPY
MW-1
WO1
SB-10
SW1(4)
SW1
MW-2
SB-5
FORMER
WASTE OIL UST
SHED
LOT
WEBSTER STREET
SB-2
PLAYGROUND
SB-1

RESIDENTIAL
428 37TH
STREET

RESIDENTIAL
424 37TH
STREET

RESIDENTIAL
420 37TH
STREET

RESIDENTIAL
416 37TH
STREET

RESIDENTIAL
412 37TH
STREET

RESIDENTIAL
402 37TH
STREET

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- GROUNDWATER MONITORING WELL
- SOIL BORING (DELTA 2010)
- SOIL BORING (TRC 2006)
- SOIL SAMPLING LOCATION (GRI 1999)
- SOIL SAMPLING LOCATION (KEI 1982)

N

0 30 FT
SCALE

SOURCE: Site plan by Gettler-Ryan, August 2000.

FIGURE 3
SITE PLAN WITH HISTORICAL SAMPLING LOCATIONS

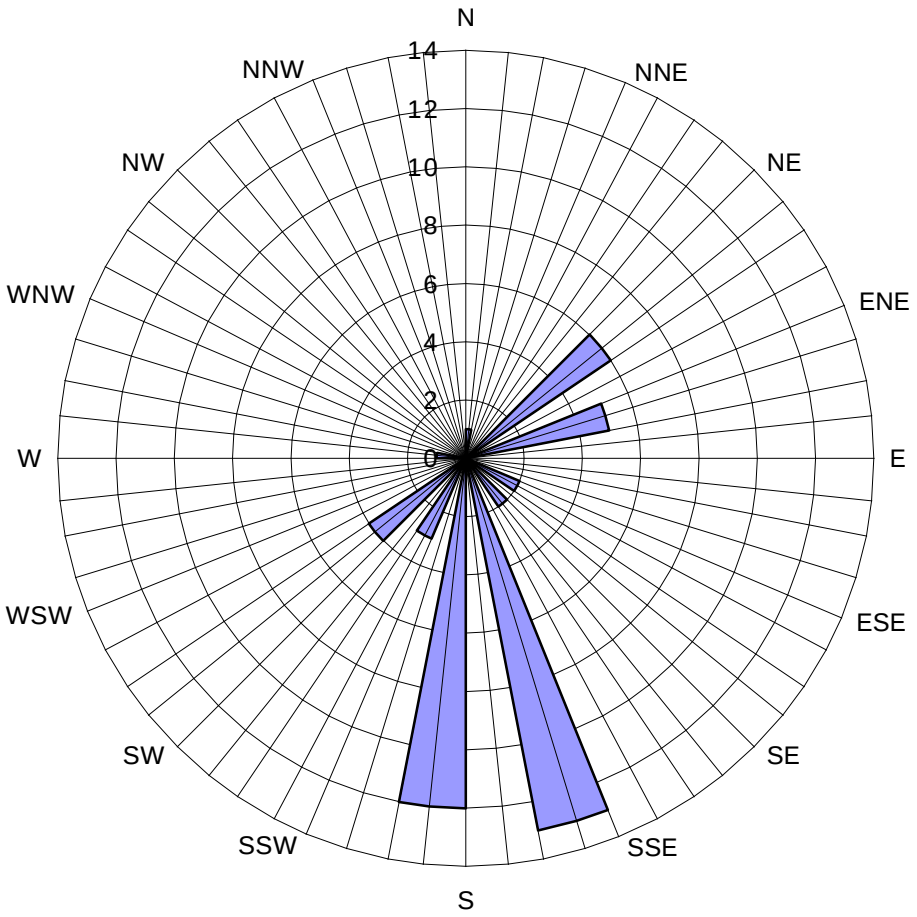
FORMER 76 STATION 3538
411 WEST MACARTUR BOULEVARD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
C103538	CM	JH
DATE	REVIEWED BY	FILE NAME
2/16/11	JW	76-3538

anteagroup

FIGURE 4

Historic Groundwater Flow Directions
Site No. 3538
411 W. MacArthur Blvd
Oakland, California



Legend

Concentric circles represent quarterly montoring events.
Second Quarter 1990
through
Third Quarter 2010.
49 data points shown.

EVERGREEN
BAPTIST
CHURCH

MW–6

BP
STATION

DISPENSER ISLANDS
& CANOPIES

WEST MACARTHUR BOULEVARD

MW–5

MW–4

MW–3

SB–8

RESIDENTIAL
419/421
WEST
MACARTHUR

FORMER
DISPENSER
ISLANDS

FORMER UST

FORMER UST

SB–9

STATION
BUILDING

MW–1

CANOPY

SB–10

MW–2

FORMER
WASTE OIL UST

SHED

LOT

SB–6

WEBSTER STREET

PLAYGROUND

SB–7

RESIDENTIAL
428 37TH
STREET

RESIDENTIAL
424 37TH
STREET

RESIDENTIAL
420 37TH
STREET

RESIDENTIAL
416 37TH
STREET

RESIDENTIAL
412 37TH
STREET

RESIDENTIAL
402 37TH
STREET

LEGEND

APPROXIMATE PROPERTY BOUNDARY

GROUNDWATER MONITORING WELL

SOIL BORING (DELTA 2010)

PROPOSED SOIL BORING

N

0 30 FT

SCALE

SOURCE: Site plan by Gettler–Ryan, August 2000.

FIGURE 5
SITE PLAN WITH PROPOSED BORING LOCATIONS

FORMER 76 STATION 3538
411 WEST MACARTUR BOULEVARD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
C103538	CM	JH
DATE	REVIEWED BY	FILE NAME
2/16/11	JW	76–3538

anteagroup

TABLES

Table 1
Soil Analytical Results
76 Service Station No. 3538
411 W. MacArthur Blvd
Oakland, CA

Sample ID	Date	Depth (ft)	TPHg (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)	Ethanol (mg/kg)
SB-8@5	12/20/10	5	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0
SB-8@10	12/20/10	10	**0.30**	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0
SB-8@15	12/20/10	15	<10	<0.025	<0.025	<0.025	<0.050	<0.025	<0.25	<0.025	<0.025	<0.025	<0.025	<0.025	<5.0
SB-8@20	12/20/10	20	**520**	<1.2	**19**	**19**	**86**	<1.2	<12	<1.2	<1.2	<1.2	<1.2	<1.2	<250
SB-9@5	12/20/10	5	**9.9**	<0.025	<0.025	**0.10**	**0.059**	<0.025	<0.25	<0.025	<0.025	<0.025	<0.025	<0.025	<5.0
SB-9@10	12/20/10	10	**3.0**	<0.0050	**0.011**	**0.069**	**0.28**	**0.014**	**0.40**	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0
SB-9@15	12/20/10	15	<10	**1.4**	**0.28**	**0.14**	**0.66**	**0.04**	<0.25	<0.025	<0.025	<0.025	<0.025	<0.025	<5.0
SB-9@20	12/20/10	20	**4.5**	**0.17**	**0.10**	**0.067**	**0.37**	**0.62**	**0.58**	<0.025	<0.025	<0.025	<0.025	<0.025	<5.0
SB-9@25	12/20/10	25	**0.30**	<0.0050	**0.014**	**0.0050**	**0.028**	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0
SB-9@30	12/20/10	30	**0.28**	<0.0050	**0.02**	**0.011**	**0.043**	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0
SB-10@5	12/21/10	5	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0
SB-10@10	12/21/10	10	**0.28**	<0.0050	<0.0050	<0.0050	**0.017**	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0
SB-10@15	12/21/10	15	**0.47**	<0.0050	<0.0050	**0.0055**	**0.024**	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0
SB-10@20	12/21/10	20	**0.31**	<0.0050	<0.0050	**0.047**	<0.010	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0
SB-10@25	12/21/10	25	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0
SB-10@30	12/21/10	30	<0.20	<0.0050	<0.0050	<0.0050	**0.012**	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0

TPHg = total petroleum hydrocarbons as gasoline MTBE = metyl tert butyl ether TBA = tert butyl alcohol TAME = tert amyl methyl ether DIPE = diisopropyl ether
ETBE = ethyl tert butyl ether EDB = ethylene dibromide 1,2-DCA = 1,2 dicholorethane ND = non detect, where reporting limit is not known
bold = value above reporting limit mg.kg = milligrams per kilogram

Table 2
Groundwater Analytical Results
76 Service Station No. 3538
411 W. MacArthur Blvd
Oakland, CA

Sample ID	Date	Depth	TPHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	TBA	DIPE	ETBE	TAME	EDB	1,2-DCA	Ethanol
		(ft)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
SB-8@20-25	12/20/10	20-25	**2000**	<0.50	**48**	**98**	**340**	<0.50	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250
SB-9@17-22	12/20/10	17-22	**9500**	**430**	**2000**	**330**	**2100**	**190**	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<2500
SB-9@24-29	12/20/10	24-29	**2900**	**79**	**470**	**100**	**540**	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<5.0	<2500
SB-10@17-22	12/20/10	17-22	**1500**	**20**	**0.96**	**75**	**8.3**	<0.50	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250
SB-10@24-29	12/20/10	24-29	**310**	**1.8**	**25**	**12**	**63**	**5.8**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250

TPHg = total petroleum hydrocarbons as gasoline MTBE = metyl tert butyl ether TBA = tert butyl alcohol TAME = tert amyl methyl ether DIPE = diisopropyl ether
ETBE = ethyl tert butyl ether EDB = ethylene dibromide 1,2-DCA = 1,2 dicholorethane TOG = total oil and grease ND = non detect, where reporting limit is not known
bold = value above reporting limit ug/L = micrograms per liter

Table 3
Historical Soil Analytical Results
Former 76 Service Station No. 3538
411 W. MacArthur Blvd
Oakland, CA

Sample ID	Date	Depth (ft)	TPHg (mg/kg)	TPHd (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	TAME (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	EDB (mg/kg)	1-2,DCA (mg/kg)	Ethanol (mg/kg)	TOG (mg/kg)	Lead (mg/kg)
SW-1	6/12/1989	10	**3100**	--	**12**	**300**	**730**	**110**	--	--	--	--	--	--	--	--	--	--
SW-1 (4)	6/12/1989	10	<1.0	--	<0.050	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--	--
SW2	6/12/1989	10	**1.1**	--	**0.1**	<0.10	**0.18**	<0.10	--	--	--	--	--	--	--	--	--	--
SW3	6/12/1989	10	**5.7**	--	**0.26**	<0.10	**0.45**	**0.23**	--	--	--	--	--	--	--	--	--	--
SW4	6/12/1989	10	**2.5**	--	<0.050	<0.10	**0.24**	<0.10	--	--	--	--	--	--	--	--	--	--
SW4 (2)	6/12/1989	10	**11**	--	**0.61**	**0.51**	**1.3**	**0.44**	--	--	--	--	--	--	--	--	--	--
P1	6/12/1989	6.5	<1.0	--	<0.050	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--	--
P2	6/12/1989	6.5	<1.0	--	<0.050	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--	--
P3	6/12/1989	5.5	<1.0	--	<0.050	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--	--
P4	6/12/1989	10	**170**	--	**0.71**	**12**	**47**	**6.8**	--	--	--	--	--	--	--	--	--	--
WO1	6/12/1989	8.5	<1.0	--	<0.050	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--	--
MW-1 (5)	9/6/1989	5	**3.4**	<1.0	<0.050	<0.010	<0.010	<0.010	--	--	--	--	--	--	<5.0	--	<50	--
MW1 (10)	9/6/1989	10	**5**	<1.0	<0.050	<0.010	<0.010	<0.010	--	--	--	--	--	--	<5.0	--	<50	--
MW1 (15)	9/6/1989	15	**2.2**	<1.0	<0.050	<0.010	<0.010	<0.010	--	--	--	--	--	--	<5.0	--	<50	--
MW1 (19)	9/6/1989	19	<1.0	<1.0	<0.050	<0.010	<0.010	<0.010	--	--	--	--	--	--	<5.0	--	<50	--
MW2 (5)	9/6/1989	5	**1.4**	--	<0.050	<0.010	<0.010	<0.010	--	--	--	--	--	--	--	--	--	--
MW2 (10)	9/6/1989	10	<1.0	--	<0.050	<0.010	<0.010	<0.010	--	--	--	--	--	--	--	--	--	--
MW2 (15)	9/6/1989	15	**1.8**	--	<0.050	<0.010	<0.010	<0.010	--	--	--	--	--	--	--	--	--	--
MW2 (19)	9/6/1989	19	**13**	--	**1.5**	**2.1**	**0.34**	**1.8**	--	--	--	--	--	--	--	--	--	--
MW3 (5)	9/6/1989	5	**1.3**	--	<0.050	<0.010	<0.010	<0.010	--	--	--	--	--	--	--	--	--	--
MW3 (10)	9/6/1989	10	**1.8**	--	**0.29**	<0.010	<0.010	<0.010	--	--	--	--	--	--	--	--	--	--
MW3 (15)	9/6/1989	15	**3.3**	--	<0.050	<0.010	<0.010	<0.010	--	--	--	--	--	--	--	--	--	--
MW3 (18.5)	9/6/1989	18.5	<1.0	--	<0.050	<0.010	<0.010	<0.010	--	--	--	--	--	--	--	--	--	--
MW4 (5)	9/6/1989	5	**3.1**	--	<0.050	<0.010	<0.010	<0.010	--	--	--	--	--	--	--	--	--	--
MW4 (10)	9/6/1989	10	**17**	--	<0.050	<0.010	<0.010	**0.1**	--	--	--	--	--	--	--	--	--	--
MW4 (15)	9/6/1989	15	**20**	--	<0.050	<0.010	<0.010	**0.27**	--	--	--	--	--	--	--	--	--	--
MW4 (18.5)	9/6/1989	18.5	**2.1**	--	<0.050	<0.010	<0.010	<0.010	--	--	--	--	--	--	--	--	--	--
MW5 (5)	11/18/1992	5	<1.0	--	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--
MW5 (10)	11/18/1992	10	<1.0	--	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--
MW5 (15)	11/18/1992	15	<1.0	--	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--
MW5 (21)	11/18/1992	21	<1.0	--	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--
MW6 (5)	11/18/1992	5	<1.0	--	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--
MW6 (10)	11/18/1992	10	<1.0	--	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--
MW6 (15)	11/18/1992	15	<1.0	--	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--
MW6 (19.5)	11/18/1992	19.5	<1.0	--	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--
A1 (19)	9/14/1998	19	**3.5**	--	**0.53**	**0.36**	**0.069**	**0.40**	<0.050	--	--	--	--	--	--	--	--	**26**
A2 (18)	9/14/1998	18	**12**	--	**0.050**	**0.075**	<0.0050	**0.026**	<0.050	--	--	--	--	--	--	--	--	<1.0
B1 (19.5)	9/14/1998	19.5	**360**	--	**1.5**	**15**	**7.0**	**44**	<0.050	--	--	--	--	--	--	--	--	**1.7**
B2 (19.5)	9/14/1998	19.5	**6.7**	--	**0.017**	**1.8**	**0.24**	**1.4**	<0.050	--	--	--	--	--	--	--	--	**2.7**
P1 (6)	9/14/1998	6	<1.0	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	--	--	--	--	--	--	--	--	**11**
P2 (6)	9/14/1998	6	<1.0	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	--	--	--	--	--	--	--	--	**1.3**
P3 (6)	9/14/1998	6	<1.0	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	--	--	--	--	--	--	--	--	<1.0
P4 (6)	9/14/1998	6	<1.0	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	--	--	--	--	--	--	--	--	<1.0

Table 3
Historical Soil Analytical Results
Former 76 Service Station No. 3538
411 W. MacArthur Blvd
Oakland, CA

Sample ID	Date	Depth (ft)	TPHg (mg/kg)	TPHd (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	TAME (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	EDB (mg/kg)	1-2,DCA (mg/kg)	Ethanol (mg/kg)	TOG (mg/kg)	Lead (mg/kg)
SB-1@5	3/27/2006	5	<0.97	--	<0.0049	<0.0049	<0.0049	<0.0097	<0.0049	<0.0097	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.49	--	--
SB-1@9	3/27/2006	9	**2.8**	--	<0.0048	<0.0048	<0.0048	<0.0097	<0.0048	<0.0097	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.48	--	--
SB-2@5	3/27/2006	5	<0.97	--	<0.0049	<0.0049	<0.0049	<0.0097	<0.0049	<0.0097	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.49	--	--
SB-2@9	3/27/2006	9	<0.93	--	<0.0047	<0.0047	<0.0047	<0.0093	<0.0047	<0.0093	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.47	--	--
SB-3@14	3/27/2006	14	**1.3**	--	**0.11**	<0.0046	**0.061**	**0.055**	**0.64**	**0.19**	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.46	--	--
SB-3@16	3/27/2006	16	**6100**	--	<9.7	**53**	**86**	**420**	<9.7	<19	<9.7	<9.7	<9.7	<9.7	<9.7	<190	--	--
SB-4@5	3/27/2006	5	<0.93	--	<0.0047	<0.0047	<0.0047	<0.0093	<0.0047	<0.0093	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.47	--	--
SB-4@15	3/27/2006	15	<0.92	--	<0.0046	<0.0046	<0.0046	<0.0092	<0.0046	<0.0092	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.46	--	--
SB-5@9	3/27/2006	9	<0.93	--	<0.0046	<0.0046	<0.0046	<0.0093	<0.0046	<0.0093	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.46	--	--
SB-5@13	3/27/2006	13	<0.93	--	<0.0047	<0.0047	<0.0047	<0.0093	<0.0047	<0.0093	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.47	--	--
SB-8@5	12/20/10	5	<0.20	--	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	--	--
SB-8@10	12/20/10	10	**0.30**	--	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	--	--
SB-8@15	12/20/10	15	<10	--	<0.025	<0.025	<0.025	<0.050	<0.025	<0.25	<0.025	<0.025	<0.025	<0.025	<0.025	<5.0	--	--
SB-8@20	12/20/10	20	**520**	--	<1.2	**19**	**19**	**86**	<1.2	<12	<1.2	<1.2	<1.2	<1.2	<1.2	<250	--	--
SB-9@5	12/20/10	5	**9.9**	--	<0.025	<0.025	**0.10**	**0.059**	<0.025	<0.25	<0.025	<0.025	<0.025	<0.025	<0.025	<5.0	--	--
SB-9@10	12/20/10	10	**3.0**	--	<0.0050	**0.011**	**0.069**	**0.28**	**0.014**	**0.40**	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	--	--
SB-9@15	12/20/10	15	<10	--	**1.4**	**0.28**	**0.14**	**0.66**	**0.04**	<0.25	<0.025	<0.025	<0.025	<0.025	<0.025	<5.0	--	--
SB-9@20	12/20/10	20	**4.5**	--	**0.17**	**0.10**	**0.067**	**0.37**	**0.62**	**0.58**	<0.025	<0.025	<0.025	<0.025	<0.025	<5.0	--	--
SB-9@25	12/20/10	25	**0.30**	--	<0.0050	**0.014**	**0.0050**	**0.028**	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	--	--
SB-9@30	12/20/10	30	**0.28**	--	<0.0050	**0.02**	**0.011**	**0.043**	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	--	--
SB-10@5	12/21/10	5	<0.20	--	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	--	--
SB-10@10	12/21/10	10	**0.28**	--	<0.0050	<0.0050	<0.0050	**0.017**	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	--	--
SB-10@15	12/21/10	15	**0.47**	--	<0.0050	<0.0050	**0.0055**	**0.024**	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	--	--
SB-10@20	12/21/10	20	**0.31**	--	<0.0050	<0.0050	**0.047**	<0.010	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	--	--
SB-10@25	12/21/10	25	<0.20	--	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	--	--
SB-10@30	12/21/10	30	<0.20	--	<0.0050	<0.0050	<0.0050	**0.012**	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	--	--

TPHg = total petroleum hydrocarbons as gasoline TPHd = total petroleum hydrocarbons as diesel MTBE = metyl tert butyl ether TBA = tert butyl alcohol TAME = tert amyl methyl ether DIPE = diisopropyl ether
ETBE = ethyl tert butyl ether EDB = ethylene dibromide 1,2-DCA = 1,2 dicholorethane TOG = total oil and grease **bold** = value above reporting limit mg/kg = milligrams per kilogram

Table 4
Historical Grab Groundwater Analytical Results
Former 76 Service Station No. 3538
411 W. MacArthur Blvd
Oakland, CA

Sample ID	Date	Depth (ft)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	TBA (ug/L)	TAME (ug/L)	DIPE (ug/L)	ETBE (ug/L)	EDB (ug/L)	1-2,DCA (ug/L)	Ethanol (ug/L)
SB-1W	3/27/2006	--	**120**	**11**	<0.050	<0.050	<1.0	**130**	**28**	<0.050	<0.050	<0.050	<0.050	<0.050	<100
SB-2W	3/27/2006	--	<50	<0.050	<0.050	<0.050	<1.0	<0.050	<5.0	<0.050	<0.050	<0.050	<0.050	<0.050	<100
SB-3W	3/27/2006	--	**13000**	**510**	**470**	**1400**	**2600**	**340**	**57**	<0.050	<0.050	<0.050	<0.050	<0.050	<100
SB-4W	3/27/2006	--	<50	<0.050	<0.050	<0.050	<1.0	**3.4**	<5.0	<0.050	<0.050	<0.050	<0.050	<0.050	<100
SB-5W	3/27/2006	--	**3000**	**44**	**63**	**1.2**	**30**	**53**	**17**	<0.050	<0.050	<0.050	<0.050	<0.050	<100
SB-8@20-25	12/20/10	20-25	**2000**	<0.50	**48**	**98**	**340**	<0.50	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250
SB-9@17-22	12/20/10	17-22	**9500**	**430**	**2000**	**330**	**2100**	**190**	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<2500
SB-9@24-29	12/20/10	24-29	**2900**	**79**	**470**	**100**	**540**	<5.0	<5.0	<5.0	<100	<5.0	<5.0	<5.0	<2500
SB-10@17-22	12/20/10	17-22	**1500**	**20**	**0.96**	**75**	**8.3**	<0.50	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250
SB-10@24-29	12/20/10	24-29	**310**	**1.8**	**25**	**12**	**63**	**5.8**	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250

TPHg = total petroelum hydrocarbons as gasoline TPHd = total petroleum hydrocarbons as diesel MTBE = metyl tert butyl ether TBA = tert butyl alcohol TAME = tert amyl methyl ether
DIPE = diisopropyl ether ETBE = ethyl tert butyl ether EDB = ethylene dibromide 1,2-DCA = 1,2 dicholorethane TOG = total oil and grease ND = non detect, where reporting limit is not known
bold = value above reporting limit ug/L = micrograms per liter

APPENDIX A

ACHCSA Letter dated October 5, 2010

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Director

ENVIRONMENTAL HEALTH DEPARTMENT
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

October 5, 2010

Mr. Bill Borgh
ConocoPhillips
76 Broadway
Sacramento, CA 95818

Messrs. Arthur Yu and Kevin Ma
411 W. MacArthur Blvd.
Oakland, CA 94609

Subject: Work Plan, Approval for Fuel Leak Case No. RO0000251 and Geotracker Global ID T0600101472, Unocal #3538, 411 W. MacArthur Blvd., Oakland, CA 94609

Dear Messrs. Borgh, Yu and Ma:

Thank you for the recently submitted documents entitled, *Site Conceptual Model* dated October 15, 2008, and Work Plan for Additional Assessment dated May 27, 2009 which were prepared by Delta Environmental for the subject site. Alameda County Environmental Health (ACEH) staff has reviewed the case file including the above-mentioned report/work plan for the above-referenced site. The SCM identifies additional work that is needed and the work plan presents work plan that addresses the identified data gaps.

The proposed scope of work may be implemented provided that the modifications requested in the technical comments below are addressed and incorporated during the field implementation. Submittal of a revised Work Plan is not required unless an alternate scope of work outside that described in the Work Plan and technical comments below is proposed. However, submittal of a map showing the locations of additional borings is required.

TECHNICAL COMMENTS

1. **Soil and Groundwater Characterization** – In addition to the proposed off-site sampling location, ACEH requests that you perform a boring downgradient of the source area to delineate the vertical extent of groundwater contamination and requests that you determine if the residual concentrations of benzene detected in soil in MW-3 and SB-3 are still present. If they are present please present a plan to assess the vapor pathway at the site in the report requested below.

NOTIFICATION OF FIELDWORK ACTIVITIES

Please schedule and perform the proposed work. Please provide ACEH with at least three (3) business days notification prior to conducting the fieldwork (e-mail preferred to barbara.jakub@acgov.org).

TECHNICAL REPORT REQUEST

Please submit technical reports to ACEH (Attention: Barbara Jakub), according to the following schedule:

- **November 5, 2010** – Map showing locations of requested borings.
- **January 5, 2010** – SWI with vapor pathway assessment work plan if needed.

Thank you for your cooperation. Should you have any questions or concerns regarding this correspondence or your case, please call me at (510) 639-1287 or send me an electronic mail message at barbara.jakub@acgov.org.

Sincerely,

Barbara J. Jakub, P.G.
Hazardous Materials Specialist

Enclosure: Responsible Party(ies) Legal Requirements/Obligations
ACEH Electronic Report Upload (ftp) Instructions

cc: Jan Wagoner, Delta Environmental, 11050 White Rock Rd., Suite 110 Rancho Cordova, CA 95670 (Sent via E-mail to: jwagoner@deltaenv.com)
Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032 (*Sent via E-mail to: lgriffin@oaklandnet.com*
Donna Drogos, ACEH (*Sent via E-mail to: donna.drogos@acgov.org*)
Barbara Jakub, ACEH (*Sent via E-mail to: barbara.jakub@acgov.org*)
GeoTracker, e-file

Responsible Party(ies) Legal Requirements/Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/electronic_submittal/report_rqmts.shtml.

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	**REVISION DATE:** July 20, 2010
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:
  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

1) Obtain User Name and Password:
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to dehloptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to dehloptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.

d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

APPENDIX B

ACPWA Drilling Permits

Alameda County Public Works Agency - Water Resources Well Permit

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 12/07/2010 By jamesy

Permit Numbers: W2010-0989
Permits Valid from 12/15/2010 to 12/24/2010

Application Id: 1291420038960 **City of Project Site:** Oakland
Site Location: 411 W MacArthur Blvd, Oakland, CA
Project Start Date: 12/15/2010 **Completion Date:** 12/24/2010
Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

Applicant: Delta - Jan Wagoner **Phone:** 916-503-1275
11050 Whitte Rock Rd, Ste 110, Rancho Cordova, CA 95670
Property Owner: Ted Moise Conoco Phillips **Phone:** 916-558-7612
76 Broadway, Sacramento, CA 95818
Client: ** same as Property Owner **

Total Due: $265.00
Receipt Number: WR2010-0418 **Total Amount Paid:** $265.00
Payer Name : Delta Paid By: CHECK **PAID IN FULL**

Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitorinig Study - 3 Boreholes
Driller: Cascade Drillign - Lic #: 938110 - Method: other **Work Total: $265.00**

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2010-0989	12/07/2010	03/15/2011	3	2.00 in.	30.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.

2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

4. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

6. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits

required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

7. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

APPENDIX C

Certified Laboratory Reports

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 01/07/2011

Jan Wagoner

Delta Environmental Consultants, Inc.
11050 White Rock Rd, Suite 110
Rancho Cordova, CA 95670

RE: 3538
BC Work Order: 1018019
Invoice ID: B092882

Enclosed are the results of analyses for samples received by the laboratory on 12/22/2010. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Molly Meyers

Contact Person: Molly Meyers
Client Service Rep

Authorized Signature

Table of Contents

Table of Contents

ConocoPhillips Chain Of Custody Record

BC Laboratories, Inc.
4100 Atlas Court
Bakersfield, CA 93308
(661) 327-4911 (661) 327-1918 fax

ConocoPhillips Site Manager: Ted Moise
INVOICE REMITTANCE ADDRESS: CONOCOPHILLIPS, Attn: Dee Hutchinson, 3611 South Harbor, Suite 200, Santa Ana, CA. 92704

ConocoPhillips SAP Project Number:
ConocoPhillips Requisition / Line Number:
DATE:
PAGE: ____ of ____

SAMPLING COMPANY: Delta Consultants	Valid Value ID:
ADDRESS: 11050 White Rock Road #110, Rancho Cordova, CA 95670	
PROJECT CONTACT (Hardcopy or PDF Report to): Jan Wagoner	
TELEPHONE: 916-503-1275	FAX: 916-638-8385
E-MAIL: jwagoner@deltaenv.com	
SAMPLER NAME(S) (Print): Alan Buehler	CONSULTANT PROJECT NUMBER: C103538
CONOCOPHILLIPS SITE NUMBER: 76 Service Station No. 3538	GLOBAL ID NO.:
SITE ADDRESS (Street and City): 411 W. MacArthur Blvd, Oakland, CA	CONOCOPHILLIPS SITE MANAGER: Bill Borgh
EDF DELIVERABLE TO (PP or Designee): Jan Wagoner	PHONE NO.: 916-503-1275
E-MAIL: Ted.Moise@contractor.conocophillips.	LAB USE ONLY: 10-18019

TURNAROUND TIME (CALENDAR DAYS): ☐ 14 DAYS ☐ 7 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NEEDED ☑

Please CC Alan Buehler (abuehler@deltaenv.com) on reports

**Hold TPHd analysis until further notice

* Field Point name only required if different from Sample ID

REQUESTED ANALYSES

LAB USE ONLY	Sample Identification/Field Point Name*	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPHg - 8015	TPHg - 8260	TPHd - 8015	BTEX - 8260	MTBE - 8260	Oxys - 8260	TEMPERATURE ON RECEIPT C°
1	SB-8@5	12/20/10	10:30a	Soil	1		X	X	X	X	X	Various Preservatives Not Field Filtered
2	SB-8@10	12/20/10	10:40a	Soil	1		X	X	X	X	X	Various Preservatives Not Field Filtered
3	SB-8@15	12/20/10	10:45a	Soil	1		X	X	X	X	X	Various Preservatives Not Field Filtered
4	SB-8@20	12/20/10	11:00a	Soil	1		X	X	X	X	X	Various Preservatives Not Field Filtered
5	SB-9@5	12/20/10	1:15p	Soil	1		X	X	X	X	X	Various Preservatives Not Field Filtered
6	SB-9@10	12/20/10	1:20p	Soil	1		X	X	X	X	X	
7	SB-9@15	12/20/10	1:25	Soil	1		X	X	X	X	X	
8	SB-9@20	12/20/10	1:30p	Soil	1		X	X	X	X	X	
9	SB-9@25	12/20/10	1:35p	Soil	1		X	X	X	X	X	
10	SB-9@30	12/20/10	2:00p	Soil	1		X	X	X	X	X	

FIELD NOTES:
Oxys: EDB, 1,2-DCA, TAME, DIPE, ETBE, TBA, ethanol

CHK BY
DISTRIBUTION
LAB COPY
SUB-OUT ☐

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
		12.22.10	1350
Relinquished by: (Signature)	Received by: (Signature)	Date	Time
		12.22.10	1800
Relinquished by: (Signature)	Received by: (Signature)	Date	Time
		12-22-10	2045

12.22.10 2045

8/18/03 Revision

ConocoPhillips Chain Of Custody Record

BC Laboratories, Inc.
4100 Atlas Court
Bakersfield, CA 93308
(661) 327-4911 (661) 327-1918 fax

ConocoPhillips Site Manager: Ted Moise
INVOICE REMITTANCE ADDRESS: CONOCOPHILLIPS, Attn: Dee Hutchinson, 3611 South Harbor, Suite 200, Santa Ana, CA. 92704
ConocoPhillips SAP Project Number:
ConocoPhillips Requisition / Line Number:
DATE: PAGE: of

SAMPLING COMPANY: Delta Consultants	Valid Valve ID:
ADDRESS: 11050 White Rock Road #110, Rancho Cordova, CA 95670	
PROJECT CONTACT (Hardcopy or PDF Report to): Jan Wagoner	
TELEPHONE: 916-503-1275	FAX: 916-638-8385
E-MAIL: jwagoner@deltaenv.com	
SAMPLER NAME(S) (Print): Alan Buehler	CONSULTANT PROJECT NUMBER: C103538
CONOCOPHILLIPS SITE NUMBER: 76 Service Station No. 3538	GLOBAL ID NO.:
SITE ADDRESS (Street and City): 411 W. MacArthur Blvd, Oakland, CA	CONOCOPHILLIPS SITE MANAGER: Bill Borgh
EDF DELIVERABLE TO (ZIP or Designee): Jan Wagoner	PHONE NO.: 916-503-1275
E-MAIL: Ted.Moise@contractor.conocophillips.	LAB USE ONLY: 10-18019

TURNAROUND TIME (CALENDAR DAYS): ☐ 14 DAYS ☐ 7 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS

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Please CC Alan Buehler (abuehler@deltaenv.com) on reports

**Hold TPHd analysis until further notice

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REQUESTED ANALYSES

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-11	SB-10@5	12/21/10	8:30a	Soil	1		X	X	X	X	X	Various Preservatives Not Field Filtered
-12	SB-10@10	12/21/10	8:40a	Soil	1		X	X	X	X	X	Various Preservatives Not Field Filtered
-13	SB-10@15	12/21/10	8:45a	Soil	1		X	X	X	X	X	Various Preservatives Not Field Filtered
-14	SB-10@20	12/21/10	9:00a	Soil	1		X	X	X	X	X	Various Preservatives Not Field Filtered
-15	SB-10@25	12/21/10	9:05a	Soil	1		X	X	X	X	X	Various Preservatives Not Field Filtered
-16	SB-10@30	12/21/10	9:20a	Soil	1		X	X	X	X	X	
-17	Comp Soil	12/21/10	12:45p	Soil	2		X	X	X	X	X	

FIELD NOTES:
Oxys: EDB, 1,2-DCA, TAME, DIPE, ETBE, TBA, ethanol

Relinquished by: (Signature)	Received by: (Signature)	Date: 12.22.10	Time: 1350
Relinquished by: (Signature) Kazo Dickey 12.22.10	Received by: (Signature)	Date: 12-22-10	Time: 1800
Relinquished by: (Signature) 12.22.10 2045	Received by: (Signature)	Date: 12-22-10	Time: 2045

SHE/03 Revision

ConocoPhillips Chain Of Custody Record

BC Laboratories, Inc.
4100 Atlas Court
Bakersfield, CA 93308
(661) 327-4911 (661) 327-1918 fax

ConocoPhillips Site Manager: Ted Moise
INVOICE REMITTANCE ADDRESS: CONOCOPHILLIPS, Attn: Dee Hutchinson, 3611 South Harbor, Suite 200, Santa Ana, CA. 92704
ConocoPhillips SAP Project Number:
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DATE:
PAGE: ____ of ____

SAMPLING COMPANY: Delta Consultants	Valid Value ID:
ADDRESS: 11050 White Rock Road #110, Rancho Cordova, CA 95670	
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SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NEEDED ☑

Please CC Alan Buehler (abuehler@deltaenv.com) on reports

**Hold TPHd analysis until further notice

* Field Point name only required if different from Sample ID

REQUESTED ANALYSES

LAB USE ONLY	Sample Identification/Field Point Name*	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPHg - 8015	TPHg - 8260	TPHd - 8015	BTEX - 8260	MTBE - 8260	Oxys - 8260	TEMPERATURE ON RECEIPT C°
-18	SB-8@20-25	12/20/10	11:00a	H2O	7		X	X	X	X	X	Various Preservatives Not Field Filtered
-19	SB-9@17-22	12/20/10	2:45p	H2O	7		X	X	X	X	X	Various Preservatives Not Field Filtered
-20	SB-9@24-29	12/20/10	4:00p	H2O	7		X	X	X	X	X	Various Preservatives Not Field Filtered
-21	SB-10@17-22	12/21/10	12:00p	H2O	7		X	X	X	X	X	Various Preservatives Not Field Filtered
-22	SB-10@24-29	12/21/10	10:00a	H2O	7		X	X	X	X	X	Various Preservatives Not Field Filtered
-23	Comp H2O	12/21/10	12:30p	H2O	7		X	X	X	X	X	

FIELD NOTES:
Oxys: EDB, 1,2-DCA, TAME, DIPE, ETBE, TBA, ethanol

	Relinquished by: (Signature)	Received by: (Signature)	Date	Time
1		Kasa Dickey	12-22-10	1350
2	Kasa Dickey 12-22-10	R C Ruyard	12-22-10	1800
3	R C Ruyard 12-22-10 2045		12-22-10	2045

9/19/03 Revision

Chain of Custody and Cooler Receipt Form for 1018019 Page 4 of 6

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 1 Of 3

Submission #: 10-18019

SHIPPING INFORMATION
Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☒ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☒ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☒ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals: Ice Chest ☐ Intact? Yes ☐ No ☐ | Containers ☐ Intact? Yes ☐ No ☐ | None ☒ Comments:

All samples received? Yes ☒ No ☐ All samples containers intact? Yes ☒ No ☐ Description(s) match COC? Yes ☒ No ☐

COC Received ☒ YES ☐ NO

Emissivity: 0.95 Container: Soil Sleeve Thermometer ID: 1183

Temperature: A 4.7 °C / C 4.7 °C

Date/Time 12-22-10 2051

Analyst Init JDW

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
P1A PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE	A	A	A	A	A	A	A	A	A	A
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments: Description of samples was written on the plastic bags they were packaged in.
Sample Numbering Completed By: JDW Date/Time: 12/22/10 2132 1932 JDW 12-22
A = Actual / C = Corrected

[H:\DOCS\WP80\LAB_DOCS\FORMS\SAMREC2.WPD]

Chain of Custody and Cooler Receipt Form for 1018019 Page 5 of 6

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 2 of 3

Submission #: 10-18019

SHIPPING INFORMATION
Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☒ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☒ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☒ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals: Ice Chest ☐ Intact? Yes ☐ No ☐ | Containers ☐ Intact? Yes ☐ No ☐ | None ☒ Comments:

All samples received? Yes ☒ No ☐ All samples containers intact? Yes ☒ No ☐ Description(s) match COC? Yes ☒ No ☐

COC Received ☒ YES ☐ NO

Emissivity: 0.95 Container: Soil Sleeve Thermometer ID: 1103

Temperature: A 4.7 °C / C 4.7 °C

Date/Time 12-22-10 2051

Analyst Init JDW

SAMPLE CONTAINERS	SAMPLE NUMBERS: 11	12	13	14	15	16	17	18	19	20
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL								A	A	A
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER								B	B	B
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE	A	A	A	A	A	A	AB			
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments: Description of samples was written on the plastic bags they were packaged in.

Sample Numbering Completed By: JDW Date/Time: 12/22/10 2139 1933 1000 12-22

A = Actual / C = Corrected

[H:\DOCS\NPB\LAB_DOCS\FORMS\SAMREC2.WPD]

Chain of Custody and Cooler Receipt Form for 1018019 Page 6 of 6

BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 3 of 3

Submission #: 10-18019

SHIPPING INFORMATION
Federal Express ☐ UPS ☐ Hand Delivery ☐
BC Lab Field Service ☑ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☑ None ☐
Box ☐ Other ☐ (Specify)_____

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals: Ice Chest ☐ Intact? Yes ☐ No ☐ | Containers ☐ Intact? Yes ☐ No ☐ | None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.95 Container: Soil Sleeve Thermometer ID: 1103

Temperature: A 4.7 °C / C 4.7 °C

Date/Time 12-22-10 2051

Analyst Init JDW

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL PHYSICAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
P1A PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A 10	A 10	A 10							
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 631										
QT EPA 8015M										
QT AMBER	B	B	B							
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments: Description of samples was written on the plastic bags they were packaged in. -21B
Sample Numbering Completed By: JDW Date/Time: 12/22/10 2132
(H:\DOCS\WPEGILAB_DOCS\FORMS\SAMREC2.WPD)
JDW 12-22 was received 3/4 full.
A = Actual C = Corrected

Delta Environmental Consultants, Inc.
11050 White Rock Rd, Suite 110
Rancho Cordova, CA 95670

Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1018019-01	**COC Number:**	---	**Receive Date:**	12/22/2010 20:45
	Project Number:	3538	**Sampling Date:**	12/20/2010 10:30
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SB-8@5	**Lab Matrix:**	Solids
	Sampled By:	DECR	**Sample Type:**	Soil
			Delivery Work Order:	
			Global ID:	
			Location ID (FieldPoint):	SB-8
			Matrix:	SO
			Sample QC Type (SACode):	CS
			Cooler ID:	
1018019-02	**COC Number:**	---	**Receive Date:**	12/22/2010 20:45
	Project Number:	3538	**Sampling Date:**	12/20/2010 10:40
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SB-8@10	**Lab Matrix:**	Solids
	Sampled By:	DECR	**Sample Type:**	Soil
			Delivery Work Order:	
			Global ID:	
			Location ID (FieldPoint):	SB-8
			Matrix:	SO
			Sample QC Type (SACode):	CS
			Cooler ID:	
1018019-03	**COC Number:**	---	**Receive Date:**	12/22/2010 20:45
	Project Number:	3538	**Sampling Date:**	12/20/2010 10:45
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SB-8@15	**Lab Matrix:**	Solids
	Sampled By:	DECR	**Sample Type:**	Soil
			Delivery Work Order:	
			Global ID:	
			Location ID (FieldPoint):	SB-8
			Matrix:	SO
			Sample QC Type (SACode):	CS
			Cooler ID:	

Delta Environmental Consultants, Inc.
11050 White Rock Rd, Suite 110
Rancho Cordova, CA 95670

Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1018019-04	**COC Number:**	---	**Receive Date:** 12/22/2010 20:45
	Project Number:	3538	**Sampling Date:** 12/20/2010 11:00
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	SB-8@20	**Lab Matrix:** Solids
	Sampled By:	DECR	**Sample Type:** Soil
			Delivery Work Order:
			Global ID:
			Location ID (FieldPoint): SB-8
			Matrix: SO
			Sample QC Type (SACode): CS
			Cooler ID:
1018019-05	**COC Number:**	---	**Receive Date:** 12/22/2010 20:45
	Project Number:	3538	**Sampling Date:** 12/20/2010 13:15
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	SB-9@5	**Lab Matrix:** Solids
	Sampled By:	DECR	**Sample Type:** Soil
			Delivery Work Order:
			Global ID:
			Location ID (FieldPoint): SB-9
			Matrix: SO
			Sample QC Type (SACode): CS
			Cooler ID:
1018019-06	**COC Number:**	---	**Receive Date:** 12/22/2010 20:45
	Project Number:	3538	**Sampling Date:** 12/20/2010 13:20
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	SB-9@10	**Lab Matrix:** Solids
	Sampled By:	DECR	**Sample Type:** Soil
			Delivery Work Order:
			Global ID:
			Location ID (FieldPoint): SB-9
			Matrix: SO
			Sample QC Type (SACode): CS
			Cooler ID:

Delta Environmental Consultants, Inc.
11050 White Rock Rd, Suite 110
Rancho Cordova, CA 95670

Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1018019-07	**COC Number:**	---	**Receive Date:** 12/22/2010 20:45
	Project Number:	3538	**Sampling Date:** 12/20/2010 13:25
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	SB-9@15	**Lab Matrix:** Solids
	Sampled By:	DECR	**Sample Type:** Soil
			Delivery Work Order:
			Global ID:
			Location ID (FieldPoint): SB-9
			Matrix: SO
			Sample QC Type (SACode): CS
			Cooler ID:
1018019-08	**COC Number:**	---	**Receive Date:** 12/22/2010 20:45
	Project Number:	3538	**Sampling Date:** 12/20/2010 13:30
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	SB-9@20	**Lab Matrix:** Solids
	Sampled By:	DECR	**Sample Type:** Soil
			Delivery Work Order:
			Global ID:
			Location ID (FieldPoint): SB-9
			Matrix: SO
			Sample QC Type (SACode): CS
			Cooler ID:
1018019-09	**COC Number:**	---	**Receive Date:** 12/22/2010 20:45
	Project Number:	3538	**Sampling Date:** 12/20/2010 13:35
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	SB-9@25	**Lab Matrix:** Solids
	Sampled By:	DECR	**Sample Type:** Soil
			Delivery Work Order:
			Global ID:
			Location ID (FieldPoint): SB-9
			Matrix: SO
			Sample QC Type (SACode): CS
			Cooler ID:

Delta Environmental Consultants, Inc.
11050 White Rock Rd, Suite 110
Rancho Cordova, CA 95670

Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1018019-10	**COC Number:**	---	**Receive Date:** 12/22/2010 20:45
	Project Number:	3538	**Sampling Date:** 12/20/2010 14:00
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	SB-9@30	**Lab Matrix:** Solids
	Sampled By:	DECR	**Sample Type:** Soil
			Delivery Work Order:
			Global ID:
			Location ID (FieldPoint): SB-9
			Matrix: SO
			Sample QC Type (SACode): CS
			Cooler ID:
1018019-11	**COC Number:**	---	**Receive Date:** 12/22/2010 20:45
	Project Number:	3538	**Sampling Date:** 12/21/2010 08:30
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	SB-10@5	**Lab Matrix:** Solids
	Sampled By:	DECR	**Sample Type:** Soil
			Delivery Work Order:
			Global ID:
			Location ID (FieldPoint): SB-10
			Matrix: SO
			Sample QC Type (SACode): CS
			Cooler ID:
1018019-12	**COC Number:**	---	**Receive Date:** 12/22/2010 20:45
	Project Number:	3538	**Sampling Date:** 12/21/2010 08:40
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	SB-10@10	**Lab Matrix:** Solids
	Sampled By:	DECR	**Sample Type:** Soil
			Delivery Work Order:
			Global ID:
			Location ID (FieldPoint): SB-10
			Matrix: SO
			Sample QC Type (SACode): CS
			Cooler ID:

Delta Environmental Consultants, Inc.
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Rancho Cordova, CA 95670

Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1018019-13	**COC Number:**	---	**Receive Date:**	12/22/2010 20:45
	Project Number:	3538	**Sampling Date:**	12/21/2010 08:45
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SB-10@15	**Lab Matrix:**	Solids
	Sampled By:	DECR	**Sample Type:**	Soil
			Delivery Work Order:	
			Global ID:	
			Location ID (FieldPoint):	SB-10
			Matrix:	SO
			Sample QC Type (SACode):	CS
			Cooler ID:	
1018019-14	**COC Number:**	---	**Receive Date:**	12/22/2010 20:45
	Project Number:	3538	**Sampling Date:**	12/21/2010 09:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SB-10@20	**Lab Matrix:**	Solids
	Sampled By:	DECR	**Sample Type:**	Soil
			Delivery Work Order:	
			Global ID:	
			Location ID (FieldPoint):	SB-10
			Matrix:	SO
			Sample QC Type (SACode):	CS
			Cooler ID:	
1018019-15	**COC Number:**	---	**Receive Date:**	12/22/2010 20:45
	Project Number:	3538	**Sampling Date:**	12/21/2010 09:05
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SB-10@25	**Lab Matrix:**	Solids
	Sampled By:	DECR	**Sample Type:**	Soil
			Delivery Work Order:	
			Global ID:	
			Location ID (FieldPoint):	SB-10
			Matrix:	SO
			Sample QC Type (SACode):	CS
			Cooler ID:	

Delta Environmental Consultants, Inc.
11050 White Rock Rd, Suite 110
Rancho Cordova, CA 95670

Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1018019-16	**COC Number:**	---	**Receive Date:** 12/22/2010 20:45
	Project Number:	3538	**Sampling Date:** 12/21/2010 09:20
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	SB-10@30	**Lab Matrix:** Solids
	Sampled By:	DECR	**Sample Type:** Soil
			Delivery Work Order:
			Global ID:
			Location ID (FieldPoint): SB-10
			Matrix: SO
			Sample QC Type (SACode): CS
			Cooler ID:
1018019-17	**COC Number:**	---	**Receive Date:** 12/22/2010 20:45
	Project Number:	3538	**Sampling Date:** 12/21/2010 12:45
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	Comp Soil	**Lab Matrix:** Solids
	Sampled By:	DECR	**Sample Type:** Soil
			Delivery Work Order:
			Global ID:
			Location ID (FieldPoint): COMP
			Matrix: SO
			Sample QC Type (SACode): CS
			Cooler ID:
1018019-18	**COC Number:**	---	**Receive Date:** 12/22/2010 20:45
	Project Number:	3538	**Sampling Date:** 12/20/2010 11:00
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	SB-8@20-25	**Lab Matrix:** Water
	Sampled By:	DECR	**Sample Type:** Water
			Delivery Work Order:
			Global ID:
			Location ID (FieldPoint): SB-8
			Matrix: W
			Sample QC Type (SACode): CS
			Cooler ID:

Delta Environmental Consultants, Inc.
11050 White Rock Rd, Suite 110
Rancho Cordova, CA 95670

Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1018019-19	**COC Number:**	---	**Receive Date:**	12/22/2010 20:45
	Project Number:	3538	**Sampling Date:**	12/20/2010 14:45
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SB-9@17-22	**Lab Matrix:**	Water
	Sampled By:	DECR	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID:	
			Location ID (FieldPoint):	SB-9
			Matrix:	W
			Sample QC Type (SACode):	CS
			Cooler ID:	
1018019-20	**COC Number:**	---	**Receive Date:**	12/22/2010 20:45
	Project Number:	3538	**Sampling Date:**	12/20/2010 16:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SB-9@24-29	**Lab Matrix:**	Water
	Sampled By:	DECR	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID:	
			Location ID (FieldPoint):	SB-9
			Matrix:	W
			Sample QC Type (SACode):	CS
			Cooler ID:	
1018019-21	**COC Number:**	---	**Receive Date:**	12/22/2010 20:45
	Project Number:	3538	**Sampling Date:**	12/21/2010 12:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SB-10@17-22	**Lab Matrix:**	Water
	Sampled By:	DECR	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID:	
			Location ID (FieldPoint):	SB-10
			Matrix:	W
			Sample QC Type (SACode):	CS
			Cooler ID:	

Delta Environmental Consultants, Inc.
11050 White Rock Rd, Suite 110
Rancho Cordova, CA 95670

Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1018019-22	**COC Number:**	---	**Receive Date:**	12/22/2010 20:45
	Project Number:	3538	**Sampling Date:**	12/21/2010 10:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SB-10@24-29	**Lab Matrix:**	Water
	Sampled By:	DECR	**Sample Type:**	Water
	Delivery Work Order:			
	Global ID:			
	Location ID (FieldPoint): SB-10			
	Matrix: W			
	Sample QC Type (SACode): CS			
	Cooler ID:			
1018019-23	**COC Number:**	---	**Receive Date:**	12/22/2010 20:45
	Project Number:	3538	**Sampling Date:**	12/21/2010 12:30
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	Comp H2O	**Lab Matrix:**	Water
	Sampled By:	DECR	**Sample Type:**	Water
	Delivery Work Order:			
	Global ID:			
	Location ID (FieldPoint): COMP			
	Matrix: W			
	Sample QC Type (SACode): CS			
	Cooler ID:			

Delta Environmental Consultants, Inc.
11050 White Rock Rd, Suite 110
Rancho Cordova, CA 95670

Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1018019-01 | **Client Sample Name:** 3538, SB-8@5, 12/20/2010 10:30:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dibromoethane	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dichloroethane	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethylbenzene	ND	mg/kg	0.0050	EPA-8260	ND		1
Methyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Toluene	ND	mg/kg	0.0050	EPA-8260	ND		1
Total Xylenes	ND	mg/kg	0.010	EPA-8260	ND		1
t-Amyl Methyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
t-Butyl alcohol	ND	mg/kg	0.050	EPA-8260	ND		1
Diisopropyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethanol	ND	mg/kg	1.0	EPA-8260	ND		1
Ethyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	0.20	Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	89.9	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	96.7	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	95.0	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	12/29/10	12/30/10 05:01	MCQ	MS-V3	1	BTL1883

Delta Environmental Consultants, Inc.
11050 White Rock Rd, Suite 110
Rancho Cordova, CA 95670

Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1018019-02 | **Client Sample Name:** 3538, SB-8@10, 12/20/2010 10:40:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dibromoethane	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dichloroethane	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethylbenzene	ND	mg/kg	0.0050	EPA-8260	ND		1
Methyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Toluene	ND	mg/kg	0.0050	EPA-8260	ND		1
Total Xylenes	ND	mg/kg	0.010	EPA-8260	ND		1
t-Amyl Methyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
t-Butyl alcohol	ND	mg/kg	0.050	EPA-8260	ND		1
Diisopropyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethanol	ND	mg/kg	1.0	EPA-8260	ND		1
Ethyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	**0.30**	**mg/kg**	**0.20**	**Luft-GC/MS**	**ND**		1
1,2-Dichloroethane-d4 (Surrogate)	90.6	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.4	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	96.2	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	12/29/10	12/30/10 05:27	MCQ	MS-V3	1	BTL1883

Delta Environmental Consultants, Inc.
11050 White Rock Rd, Suite 110
Rancho Cordova, CA 95670

Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1018019-03 | **Client Sample Name:** 3538, SB-8@15, 12/20/2010 10:45:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	mg/kg	0.025	EPA-8260	ND	A01	1
1,2-Dibromoethane	ND	mg/kg	0.025	EPA-8260	ND	A01	1
1,2-Dichloroethane	ND	mg/kg	0.025	EPA-8260	ND	A01	1
Ethylbenzene	ND	mg/kg	0.025	EPA-8260	ND	A01	1
Methyl t-butyl ether	ND	mg/kg	0.025	EPA-8260	ND	A01	1
Toluene	ND	mg/kg	0.025	EPA-8260	ND	A01	1
Total Xylenes	ND	mg/kg	0.050	EPA-8260	ND	A01	1
t-Amyl Methyl ether	ND	mg/kg	0.025	EPA-8260	ND	A01	1
t-Butyl alcohol	ND	mg/kg	0.25	EPA-8260	ND	A01	1
Diisopropyl ether	ND	mg/kg	0.025	EPA-8260	ND	A01	1
Ethanol	ND	mg/kg	5.0	EPA-8260	ND	A01	1
Ethyl t-butyl ether	ND	mg/kg	0.025	EPA-8260	ND	A01	1
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	10	Luft-GC/MS	ND	A01	2
1,2-Dichloroethane-d4 (Surrogate)	97.2	%	70 - 121 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4 (Surrogate)	98.3	%	70 - 121 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate)	102	%	81 - 117 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	97.8	%	81 - 117 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene (Surrogate)	100	%	74 - 121 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	102	%	74 - 121 (LCL - UCL)	EPA-8260			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	12/29/10	12/30/10 22:31	MCQ	MS-V3	5	BTL1883
2	EPA-8260	12/29/10	01/03/11 14:01	MCQ	MS-V3	50	BTL1883

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Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1018019-04 | **Client Sample Name:** 3538, SB-8@20, 12/20/2010 11:00:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	mg/kg	1.2	EPA-8260	ND	A01	1
1,2-Dibromoethane	ND	mg/kg	1.2	EPA-8260	ND	A01	1
1,2-Dichloroethane	ND	mg/kg	1.2	EPA-8260	ND	A01	1
Ethylbenzene	**19**	**mg/kg**	**1.2**	**EPA-8260**	**ND**	**A01**	1
Methyl t-butyl ether	ND	mg/kg	1.2	EPA-8260	ND	A01	1
Toluene	**19**	**mg/kg**	**1.2**	**EPA-8260**	**ND**	**A01**	1
Total Xylenes	**86**	**mg/kg**	**2.5**	**EPA-8260**	**ND**	**A01**	1
t-Amyl Methyl ether	ND	mg/kg	1.2	EPA-8260	ND	A01	1
t-Butyl alcohol	ND	mg/kg	12	EPA-8260	ND	A01	1
Diisopropyl ether	ND	mg/kg	1.2	EPA-8260	ND	A01	1
Ethanol	ND	mg/kg	250	EPA-8260	ND	A01	1
Ethyl t-butyl ether	ND	mg/kg	1.2	EPA-8260	ND	A01	1
Total Purgeable Petroleum Hydrocarbons	**520**	**mg/kg**	**200**	**Luft-GC/MS**	**ND**	**A01**	2
1,2-Dichloroethane-d4 (Surrogate)	101	%	70 - 121 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4 (Surrogate)	103	%	70 - 121 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate)	102	%	81 - 117 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	103	%	81 - 117 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene (Surrogate)	101	%	74 - 121 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	101	%	74 - 121 (LCL - UCL)	EPA-8260			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	12/29/10	12/30/10 23:07	MCQ	MS-V3	250	BTL1883
2	EPA-8260	12/29/10	01/03/11 14:27	MCQ	MS-V3	1000	BTL1883

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Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1018019-05 | **Client Sample Name:** 3538, SB-9@5, 12/20/2010 1:15:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	mg/kg	0.025	EPA-8260	ND	A01	1
1,2-Dibromoethane	ND	mg/kg	0.025	EPA-8260	ND	A01	1
1,2-Dichloroethane	ND	mg/kg	0.025	EPA-8260	ND	A01	1
Ethylbenzene	**0.10**	**mg/kg**	**0.025**	**EPA-8260**	**ND**	**A01**	1
Methyl t-butyl ether	ND	mg/kg	0.025	EPA-8260	ND	A01	1
Toluene	ND	mg/kg	0.025	EPA-8260	ND	A01	1
Total Xylenes	**0.059**	**mg/kg**	**0.050**	**EPA-8260**	**ND**	**A01**	1
t-Amyl Methyl ether	ND	mg/kg	0.025	EPA-8260	ND	A01	1
t-Butyl alcohol	ND	mg/kg	0.25	EPA-8260	ND	A01	1
Diisopropyl ether	ND	mg/kg	0.025	EPA-8260	ND	A01	1
Ethanol	ND	mg/kg	5.0	EPA-8260	ND	A01	1
Ethyl t-butyl ether	ND	mg/kg	0.025	EPA-8260	ND	A01	1
Total Purgeable Petroleum Hydrocarbons	**9.9**	**mg/kg**	**1.0**	**Luft-GC/MS**	**ND**	**A01**	1
1,2-Dichloroethane-d4 (Surrogate)	100	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.5	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	98.1	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	12/29/10	12/31/10 00:00	MCQ	MS-V3	5	BTL1883

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Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1018019-06 | **Client Sample Name:** 3538, SB-9@10, 12/20/2010 1:20:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dibromoethane	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dichloroethane	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethylbenzene	**0.069**	**mg/kg**	**0.0050**	**EPA-8260**	**ND**		1
Methyl t-butyl ether	**0.014**	**mg/kg**	**0.0050**	**EPA-8260**	**ND**		1
Toluene	**0.011**	**mg/kg**	**0.0050**	**EPA-8260**	**ND**		1
Total Xylenes	**0.28**	**mg/kg**	**0.010**	**EPA-8260**	**ND**		1
t-Amyl Methyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
t-Butyl alcohol	**0.40**	**mg/kg**	**0.050**	**EPA-8260**	**ND**		1
Diisopropyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethanol	ND	mg/kg	1.0	EPA-8260	ND		1
Ethyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	**3.0**	**mg/kg**	**1.0**	**Luft-GC/MS**	**ND**	**A01**	2
1,2-Dichloroethane-d4 (Surrogate)	116	%	70 - 121 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4 (Surrogate)	98.3	%	70 - 121 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate)	98.9	%	81 - 117 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.7	%	81 - 117 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene (Surrogate)	102	%	74 - 121 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	99.6	%	74 - 121 (LCL - UCL)	EPA-8260			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	12/29/10	12/30/10 07:12	MCQ	MS-V3	1	BTL1883
2	EPA-8260	12/29/10	12/31/10 00:26	MCQ	MS-V3	5	BTL1883

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Project: 3538
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Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1018019-07 | **Client Sample Name:** 3538, SB-9@15, 12/20/2010 1:25:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	**1.4**	**mg/kg**	**0.025**	**EPA-8260**	**ND**	**A01**	1
1,2-Dibromoethane	ND	mg/kg	0.025	EPA-8260	ND	A01	1
1,2-Dichloroethane	ND	mg/kg	0.025	EPA-8260	ND	A01	1
Ethylbenzene	ND	mg/kg	0.25	EPA-8260	ND	A01	2
Methyl t-butyl ether	**0.040**	**mg/kg**	**0.025**	**EPA-8260**	**ND**	**A01**	1
Toluene	**0.28**	**mg/kg**	**0.25**	**EPA-8260**	**ND**	**A01**	2
Total Xylenes	**0.66**	**mg/kg**	**0.50**	**EPA-8260**	**ND**	**A01**	2
t-Amyl Methyl ether	ND	mg/kg	0.025	EPA-8260	ND	A01	1
t-Butyl alcohol	ND	mg/kg	0.25	EPA-8260	ND	A01	1
Diisopropyl ether	ND	mg/kg	0.025	EPA-8260	ND	A01	1
Ethanol	ND	mg/kg	5.0	EPA-8260	ND	A01	1
Ethyl t-butyl ether	ND	mg/kg	0.025	EPA-8260	ND	A01	1
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	10	Luft-GC/MS	ND	A01	2
1,2-Dichloroethane-d4 (Surrogate)	109	%	70 - 121 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4 (Surrogate)	100	%	70 - 121 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate)	110	%	81 - 117 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.4	%	81 - 117 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene (Surrogate)	95.9	%	74 - 121 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	100	%	74 - 121 (LCL - UCL)	EPA-8260			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	12/29/10	01/03/11 14:54	MCQ	MS-V3	5	BTL1883
2	EPA-8260	12/29/10	12/31/10 00:53	MCQ	MS-V3	50	BTL1883

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Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1018019-08 | **Client Sample Name:** 3538, SB-9@20, 12/20/2010 1:30:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	**0.17**	**mg/kg**	**0.025**	**EPA-8260**	**ND**	**A01**	1
1,2-Dibromoethane	ND	mg/kg	0.025	EPA-8260	ND	A01	1
1,2-Dichloroethane	ND	mg/kg	0.025	EPA-8260	ND	A01	1
Ethylbenzene	**0.067**	**mg/kg**	**0.025**	**EPA-8260**	**ND**	**A01**	1
Methyl t-butyl ether	**0.62**	**mg/kg**	**0.025**	**EPA-8260**	**ND**	**A01**	1
Toluene	**0.10**	**mg/kg**	**0.025**	**EPA-8260**	**ND**	**A01**	1
Total Xylenes	**0.37**	**mg/kg**	**0.050**	**EPA-8260**	**ND**	**A01**	1
t-Amyl Methyl ether	ND	mg/kg	0.025	EPA-8260	ND	A01	1
t-Butyl alcohol	**0.58**	**mg/kg**	**0.25**	**EPA-8260**	**ND**	**A01**	1
Diisopropyl ether	ND	mg/kg	0.025	EPA-8260	ND	A01	1
Ethanol	ND	mg/kg	5.0	EPA-8260	ND	A01	1
Ethyl t-butyl ether	ND	mg/kg	0.025	EPA-8260	ND	A01	1
Total Purgeable Petroleum Hydrocarbons	**4.5**	**mg/kg**	**1.0**	**Luft-GC/MS**	**ND**	**A01**	1
1,2-Dichloroethane-d4 (Surrogate)	93.8	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	101	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	101	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	12/29/10	01/03/11 15:20	MCQ	MS-V3	5	BTL1883

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Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1018019-09 | **Client Sample Name:** 3538, SB-9@25, 12/20/2010 1:35:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dibromoethane	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dichloroethane	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethylbenzene	**0.0050**	**mg/kg**	**0.0050**	**EPA-8260**	**ND**		1
Methyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Toluene	**0.014**	**mg/kg**	**0.0050**	**EPA-8260**	**ND**		1
Total Xylenes	**0.028**	**mg/kg**	**0.010**	**EPA-8260**	**ND**		1
t-Amyl Methyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
t-Butyl alcohol	ND	mg/kg	0.050	EPA-8260	ND		1
Diisopropyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethanol	ND	mg/kg	1.0	EPA-8260	ND		1
Ethyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	**0.30**	**mg/kg**	**0.20**	**Luft-GC/MS**	**ND**		1
1,2-Dichloroethane-d4 (Surrogate)	98.2	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	100	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	96.9	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	12/29/10	12/31/10 02:12	MCQ	MS-V3	1	BTL1884

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Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1018019-10 | **Client Sample Name:** 3538, SB-9@30, 12/20/2010 2:00:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dibromoethane	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dichloroethane	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethylbenzene	**0.011**	**mg/kg**	**0.0050**	**EPA-8260**	**ND**		1
Methyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Toluene	**0.020**	**mg/kg**	**0.0050**	**EPA-8260**	**ND**		1
Total Xylenes	**0.043**	**mg/kg**	**0.010**	**EPA-8260**	**ND**		1
t-Amyl Methyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
t-Butyl alcohol	ND	mg/kg	0.050	EPA-8260	ND		1
Diisopropyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethanol	ND	mg/kg	1.0	EPA-8260	ND		1
Ethyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	**0.28**	**mg/kg**	**0.20**	**Luft-GC/MS**	**ND**		1
1,2-Dichloroethane-d4 (Surrogate)	88.7	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	97.3	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	96.9	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	12/29/10	12/30/10 08:59	MCQ	MS-V3	1	BTL1884

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Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1018019-11 | **Client Sample Name:** 3538, SB-10@5, 12/21/2010 8:30:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dibromoethane	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dichloroethane	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethylbenzene	ND	mg/kg	0.0050	EPA-8260	ND		1
Methyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Toluene	ND	mg/kg	0.0050	EPA-8260	ND		1
Total Xylenes	ND	mg/kg	0.010	EPA-8260	ND		1
t-Amyl Methyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
t-Butyl alcohol	ND	mg/kg	0.050	EPA-8260	ND		1
Diisopropyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethanol	ND	mg/kg	1.0	EPA-8260	ND		1
Ethyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	0.20	Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.6	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.5	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	96.8	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	12/29/10	01/03/11 15:46	MCQ	MS-V3	1	BTL1884

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Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1018019-12 | **Client Sample Name:** 3538, SB-10@10, 12/21/2010 8:40:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dibromoethane	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dichloroethane	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethylbenzene	ND	mg/kg	0.0050	EPA-8260	ND		1
Methyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Toluene	ND	mg/kg	0.0050	EPA-8260	ND		1
Total Xylenes	**0.017**	**mg/kg**	**0.010**	**EPA-8260**	**ND**		1
t-Amyl Methyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
t-Butyl alcohol	ND	mg/kg	0.050	EPA-8260	ND		1
Diisopropyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethanol	ND	mg/kg	1.0	EPA-8260	ND		1
Ethyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	**0.28**	**mg/kg**	**0.20**	**Luft-GC/MS**	**ND**		1
1,2-Dichloroethane-d4 (Surrogate)	93.3	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	98.8	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	97.9	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	12/29/10	12/30/10 09:52	MCQ	MS-V3	1	BTL1884

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Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1018019-13 | **Client Sample Name:** 3538, SB-10@15, 12/21/2010 8:45:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dibromoethane	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dichloroethane	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethylbenzene	**0.0055**	**mg/kg**	**0.0050**	**EPA-8260**	**ND**		1
Methyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Toluene	ND	mg/kg	0.0050	EPA-8260	ND		1
Total Xylenes	**0.024**	**mg/kg**	**0.010**	**EPA-8260**	**ND**		1
t-Amyl Methyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
t-Butyl alcohol	ND	mg/kg	0.050	EPA-8260	ND		1
Diisopropyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethanol	ND	mg/kg	1.0	EPA-8260	ND		1
Ethyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	**0.47**	**mg/kg**	**0.20**	**Luft-GC/MS**	**ND**		1
1,2-Dichloroethane-d4 (Surrogate)	89.4	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.1	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	99.6	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	12/29/10	12/30/10 10:19	MCQ	MS-V3	1	BTL1884

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Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1018019-14 | **Client Sample Name:** 3538, SB-10@20, 12/21/2010 9:00:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dibromoethane	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dichloroethane	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethylbenzene	**0.047**	**mg/kg**	**0.0050**	**EPA-8260**	**ND**		1
Methyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Toluene	ND	mg/kg	0.0050	EPA-8260	ND		1
Total Xylenes	ND	mg/kg	0.010	EPA-8260	ND		1
t-Amyl Methyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
t-Butyl alcohol	ND	mg/kg	0.050	EPA-8260	ND		1
Diisopropyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethanol	ND	mg/kg	1.0	EPA-8260	ND		1
Ethyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	**0.31**	**mg/kg**	**0.20**	**Luft-GC/MS**	**ND**		1
1,2-Dichloroethane-d4 (Surrogate)	98.9	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	101	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	101	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	12/29/10	01/04/11 14:25	MCQ	MS-V3	1	BTL1884

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Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1018019-15 | **Client Sample Name:** 3538, SB-10@25, 12/21/2010 9:05:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dibromoethane	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dichloroethane	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethylbenzene	ND	mg/kg	0.0050	EPA-8260	ND		1
Methyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Toluene	ND	mg/kg	0.0050	EPA-8260	ND		1
Total Xylenes	ND	mg/kg	0.010	EPA-8260	ND		1
t-Amyl Methyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
t-Butyl alcohol	ND	mg/kg	0.050	EPA-8260	ND		1
Diisopropyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethanol	ND	mg/kg	1.0	EPA-8260	ND		1
Ethyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	0.20	Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	88.0	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	96.3	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	97.6	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	12/29/10	12/30/10 11:11	MCQ	MS-V3	1	BTL1884

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Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1018019-16 | **Client Sample Name:** 3538, SB-10@30, 12/21/2010 9:20:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dibromoethane	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dichloroethane	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethylbenzene	ND	mg/kg	0.0050	EPA-8260	ND		1
Methyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Toluene	ND	mg/kg	0.0050	EPA-8260	ND		1
Total Xylenes	**0.012**	**mg/kg**	**0.010**	**EPA-8260**	**ND**		1
t-Amyl Methyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
t-Butyl alcohol	ND	mg/kg	0.050	EPA-8260	ND		1
Diisopropyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethanol	ND	mg/kg	1.0	EPA-8260	ND		1
Ethyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	mg/kg	0.20	Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	91.5	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	98.2	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	99.7	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	12/29/10	12/30/10 11:38	MCQ	MS-V3	1	BTL1884

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Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1018019-17 | **Client Sample Name:** 3538, Comp Soil, 12/21/2010 12:45:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dibromoethane	ND	mg/kg	0.0050	EPA-8260	ND		1
1,2-Dichloroethane	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethylbenzene	ND	mg/kg	0.0050	EPA-8260	ND		1
Methyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Toluene	ND	mg/kg	0.0050	EPA-8260	ND		1
Total Xylenes	ND	mg/kg	0.010	EPA-8260	ND		1
t-Amyl Methyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
t-Butyl alcohol	ND	mg/kg	0.050	EPA-8260	ND		1
Diisopropyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Ethanol	ND	mg/kg	1.0	EPA-8260	ND		1
Ethyl t-butyl ether	ND	mg/kg	0.0050	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	**0.20**	**mg/kg**	**0.20**	**Luft-GC/MS**	**ND**		1
1,2-Dichloroethane-d4 (Surrogate)	89.1	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.2	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	99.4	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	12/29/10	12/30/10 12:04	MCQ	MS-V3	1	BTL1884

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Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Total Concentrations (TTLC)

BCL Sample ID: 1018019-17 | **Client Sample Name:** 3538, Comp Soil, 12/21/2010 12:45:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Antimony	ND	mg/kg	5.0	EPA-6010B	ND		1
Arsenic	**3.0**	**mg/kg**	**1.0**	**EPA-6010B**	**ND**		1
Barium	**120**	**mg/kg**	**0.50**	**EPA-6010B**	**ND**		1
Beryllium	**0.54**	**mg/kg**	**0.50**	**EPA-6010B**	**ND**		1
Cadmium	ND	mg/kg	0.50	EPA-6010B	ND		1
Chromium	**42**	**mg/kg**	**0.50**	**EPA-6010B**	**ND**		1
Cobalt	**9.8**	**mg/kg**	**2.5**	**EPA-6010B**	**ND**		1
Copper	**14**	**mg/kg**	**1.0**	**EPA-6010B**	**ND**		1
Lead	**6.3**	**mg/kg**	**2.5**	**EPA-6010B**	**ND**		1
Mercury	ND	mg/kg	0.16	EPA-7471A	ND		2
Molybdenum	ND	mg/kg	2.5	EPA-6010B	ND		1
Nickel	**77**	**mg/kg**	**0.50**	**EPA-6010B**	**ND**		1
Selenium	ND	mg/kg	1.0	EPA-6010B	ND		1
Silver	ND	mg/kg	0.50	EPA-6010B	ND		1
Thallium	ND	mg/kg	5.0	EPA-6010B	ND		1
Vanadium	**34**	**mg/kg**	**0.50**	**EPA-6010B**	**ND**		1
Zinc	**27**	**mg/kg**	**2.5**	**EPA-6010B**	**ND**		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6010B	01/03/11	01/04/11 09:36	ARD	PE-OP2	1	BUA0029
2	EPA-7471A	01/05/11	01/06/11 11:23	MEV	CETAC1	0.992	BUA0232

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Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1018019-18 | **Client Sample Name:** 3538, SB-8@20-25, 12/20/2010 11:00:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	**98**	**ug/L**	**0.50**	**EPA-8260**	**ND**		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Toluene	**48**	**ug/L**	**0.50**	**EPA-8260**	**ND**		1
Total Xylenes	**340**	**ug/L**	**5.0**	**EPA-8260**	**ND**	**A01**	2
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	**2000**	**ug/L**	**250**	**Luft-GC/MS**	**ND**	**A01**	2
1,2-Dichloroethane-d4 (Surrogate)	89.5	%	76 - 114 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4 (Surrogate)	101	%	76 - 114 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate)	94.7	%	88 - 110 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.9	%	88 - 110 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene (Surrogate)	110	%	86 - 115 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	101	%	86 - 115 (LCL - UCL)	EPA-8260			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	12/30/10	12/30/10 19:40	KEA	MS-V12	1	BTL1912
2	EPA-8260	12/30/10	01/03/11 17:25	JSK	HPCHEM	5	BTL1923

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Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1018019-19 | **Client Sample Name:** 3538, SB-9@17-22, 12/20/2010 2:45:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	**430**	**ug/L**	**5.0**	**EPA-8260**	**ND**	**A01**	1
1,2-Dibromoethane	ND	ug/L	5.0	EPA-8260	ND	A01	1
1,2-Dichloroethane	ND	ug/L	5.0	EPA-8260	ND	A01	1
Ethylbenzene	**330**	**ug/L**	**5.0**	**EPA-8260**	**ND**	**A01**	1
Methyl t-butyl ether	**190**	**ug/L**	**5.0**	**EPA-8260**	**ND**	**A01**	1
Toluene	**2000**	**ug/L**	**25**	**EPA-8260**	**ND**	**A01**	2
Total Xylenes	**2100**	**ug/L**	**10**	**EPA-8260**	**ND**	**A01**	1
t-Amyl Methyl ether	ND	ug/L	5.0	EPA-8260	ND	A01	1
t-Butyl alcohol	ND	ug/L	100	EPA-8260	ND	A01	1
Diisopropyl ether	ND	ug/L	5.0	EPA-8260	ND	A01	1
Ethanol	ND	ug/L	2500	EPA-8260	ND	A01	1
Ethyl t-butyl ether	ND	ug/L	5.0	EPA-8260	ND	A01	1
Total Purgeable Petroleum Hydrocarbons	**9500**	**ug/L**	**500**	**Luft-GC/MS**	**ND**	**A01**	1
1,2-Dichloroethane-d4 (Surrogate)	131	%	76 - 114 (LCL - UCL)	EPA-8260		S09	1
1,2-Dichloroethane-d4 (Surrogate)	106	%	76 - 114 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate)	97.8	%	88 - 110 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.9	%	88 - 110 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene (Surrogate)	113	%	86 - 115 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	103	%	86 - 115 (LCL - UCL)	EPA-8260			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	01/03/11	01/03/11 15:38	KEA	MS-V12	10	BTL1914
2	EPA-8260	01/03/11	01/03/11 17:04	JSK	HPCHEM	50	BTL1923

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Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1018019-20 | **Client Sample Name:** 3538, SB-9@24-29, 12/20/2010 4:00:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	**76**	**ug/L**	**5.0**	**EPA-8260**	**ND**	**A01**	1
1,2-Dibromoethane	ND	ug/L	5.0	EPA-8260	ND	A01	1
1,2-Dichloroethane	ND	ug/L	5.0	EPA-8260	ND	A01	1
Ethylbenzene	**100**	**ug/L**	**5.0**	**EPA-8260**	**ND**	**A01**	1
Methyl t-butyl ether	ND	ug/L	5.0	EPA-8260	ND	A01	1
Toluene	**470**	**ug/L**	**5.0**	**EPA-8260**	**ND**	**A01**	1
Total Xylenes	**540**	**ug/L**	**10**	**EPA-8260**	**ND**	**A01**	1
t-Amyl Methyl ether	ND	ug/L	5.0	EPA-8260	ND	A01	1
t-Butyl alcohol	ND	ug/L	100	EPA-8260	ND	A01	1
Diisopropyl ether	ND	ug/L	5.0	EPA-8260	ND	A01	1
Ethanol	ND	ug/L	2500	EPA-8260	ND	A01	1
Ethyl t-butyl ether	ND	ug/L	5.0	EPA-8260	ND	A01	1
Total Purgeable Petroleum Hydrocarbons	**2900**	**ug/L**	**500**	**Luft-GC/MS**	**ND**	**A01**	1
1,2-Dichloroethane-d4 (Surrogate)	125	%	76 - 114 (LCL - UCL)	EPA-8260		S09	1
Toluene-d8 (Surrogate)	102	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	101	%	86 - 115 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	01/03/11	01/03/11 15:20	KEA	MS-V12	10	BTL1914

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Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1018019-21 | **Client Sample Name:** 3538, SB-10@17-22, 12/21/2010 12:00:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	**20**	**ug/L**	**0.50**	**EPA-8260**	**ND**	**Z1**	1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND	Z1	1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND	Z1	1
Ethylbenzene	**75**	**ug/L**	**0.50**	**EPA-8260**	**ND**	**Z1**	1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND	Z1	1
Toluene	**0.96**	**ug/L**	**0.50**	**EPA-8260**	**ND**	**Z1**	1
Total Xylenes	**8.3**	**ug/L**	**1.0**	**EPA-8260**	**ND**	**Z1**	1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND	Z1	1
t-Butyl alcohol	ND	ug/L	10	EPA-8260	ND	Z1	1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND	Z1	1
Ethanol	ND	ug/L	250	EPA-8260	ND	Z1	1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND	Z1	1
Total Purgeable Petroleum Hydrocarbons	**1500**	**ug/L**	**50**	**Luft-GC/MS**	**ND**	**Z1**	1
1,2-Dichloroethane-d4 (Surrogate)	91.8	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	95.3	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	115	%	86 - 115 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	12/30/10	12/30/10 18:46	KEA	MS-V12	1	BTL1912

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Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1018019-22 | **Client Sample Name:** 3538, SB-10@24-29, 12/21/2010 10:00:00AM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	**1.8**	**ug/L**	**0.50**	**EPA-8260**	**ND**	**Z1**	1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND	Z1	1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND	Z1	1
Ethylbenzene	**12**	**ug/L**	**0.50**	**EPA-8260**	**ND**	**Z1**	1
Methyl t-butyl ether	**5.8**	**ug/L**	**0.50**	**EPA-8260**	**ND**	**Z1**	1
Toluene	**25**	**ug/L**	**0.50**	**EPA-8260**	**ND**	**Z1**	1
Total Xylenes	**63**	**ug/L**	**1.0**	**EPA-8260**	**ND**	**Z1**	1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND	Z1	1
t-Butyl alcohol	ND	ug/L	10	EPA-8260	ND	Z1	1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND	Z1	1
Ethanol	ND	ug/L	250	EPA-8260	ND	Z1	1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND	Z1	1
Total Purgeable Petroleum Hydrocarbons	**310**	**ug/L**	**50**	**Luft-GC/MS**	**ND**	**Z1**	1
1,2-Dichloroethane-d4 (Surrogate)	90.0	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	95.2	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	102	%	86 - 115 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	12/30/10	12/30/10 18:28	KEA	MS-V12	1	BTL1912

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Rancho Cordova, CA 95670

Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1018019-23 | **Client Sample Name:** 3538, Comp H2O, 12/21/2010 12:30:00PM

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	**1.7**	**ug/L**	**0.50**	**EPA-8260**	**ND**		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	**11**	**ug/L**	**0.50**	**EPA-8260**	**ND**		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Toluene	**14**	**ug/L**	**0.50**	**EPA-8260**	**ND**		1
Total Xylenes	**43**	**ug/L**	**1.0**	**EPA-8260**	**ND**		1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Total Purgeable Petroleum Hydrocarbons	**490**	**ug/L**	**50**	**Luft-GC/MS**	**ND**		1
1,2-Dichloroethane-d4 (Surrogate)	94.5	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	88.4	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	106	%	86 - 115 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	12/30/10	12/30/10 18:09	KEA	MS-V12	1	BTL1912

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Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTL1883						
Benzene	BTL1883-BLK1	ND	mg/kg	0.0050		
1,2-Dibromoethane	BTL1883-BLK1	ND	mg/kg	0.0050		
1,2-Dichloroethane	BTL1883-BLK1	ND	mg/kg	0.0050		
Ethylbenzene	BTL1883-BLK1	ND	mg/kg	0.0050		
Methyl t-butyl ether	BTL1883-BLK1	ND	mg/kg	0.0050		
Toluene	BTL1883-BLK1	ND	mg/kg	0.0050		
Total Xylenes	BTL1883-BLK1	ND	mg/kg	0.010		
t-Amyl Methyl ether	BTL1883-BLK1	ND	mg/kg	0.0050		
t-Butyl alcohol	BTL1883-BLK1	ND	mg/kg	0.050		
Diisopropyl ether	BTL1883-BLK1	ND	mg/kg	0.0050		
Ethanol	BTL1883-BLK1	ND	mg/kg	1.0		
Ethyl t-butyl ether	BTL1883-BLK1	ND	mg/kg	0.0050		
Total Purgeable Petroleum Hydrocarbons	BTL1883-BLK1	ND	mg/kg	0.20		
1,2-Dichloroethane-d4 (Surrogate)	BTL1883-BLK1	93.6	%	70 - 121 (LCL - UCL)		
Toluene-d8 (Surrogate)	BTL1883-BLK1	99.5	%	81 - 117 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BTL1883-BLK1	100	%	74 - 121 (LCL - UCL)		
QC Batch ID: BTL1884						
Benzene	BTL1884-BLK1	ND	mg/kg	0.0050		
1,2-Dibromoethane	BTL1884-BLK1	ND	mg/kg	0.0050		
1,2-Dichloroethane	BTL1884-BLK1	ND	mg/kg	0.0050		
Ethylbenzene	BTL1884-BLK1	ND	mg/kg	0.0050		
Methyl t-butyl ether	BTL1884-BLK1	ND	mg/kg	0.0050		
Toluene	BTL1884-BLK1	ND	mg/kg	0.0050		
Total Xylenes	BTL1884-BLK1	ND	mg/kg	0.010		
t-Amyl Methyl ether	BTL1884-BLK1	ND	mg/kg	0.0050		
t-Butyl alcohol	BTL1884-BLK1	ND	mg/kg	0.050		
Diisopropyl ether	BTL1884-BLK1	ND	mg/kg	0.0050		
Ethanol	BTL1884-BLK1	ND	mg/kg	1.0		
Ethyl t-butyl ether	BTL1884-BLK1	ND	mg/kg	0.0050		
Total Purgeable Petroleum Hydrocarbons	BTL1884-BLK1	ND	mg/kg	0.20		
1,2-Dichloroethane-d4 (Surrogate)	BTL1884-BLK1	103	%	70 - 121 (LCL - UCL)		
Toluene-d8 (Surrogate)	BTL1884-BLK1	102	%	81 - 117 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BTL1884-BLK1	99.5	%	74 - 121 (LCL - UCL)		

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Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTL1912						
Benzene	BTL1912-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BTL1912-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BTL1912-BLK1	ND	ug/L	0.50		
Ethylbenzene	BTL1912-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BTL1912-BLK1	ND	ug/L	0.50		
Toluene	BTL1912-BLK1	ND	ug/L	0.50		
Total Xylenes	BTL1912-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BTL1912-BLK1	ND	ug/L	0.50		
t-Butyl alcohol	BTL1912-BLK1	ND	ug/L	10		
Diisopropyl ether	BTL1912-BLK1	ND	ug/L	0.50		
Ethanol	BTL1912-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BTL1912-BLK1	ND	ug/L	0.50		
Total Purgeable Petroleum Hydrocarbons	BTL1912-BLK1	ND	ug/L	50		
1,2-Dichloroethane-d4 (Surrogate)	BTL1912-BLK1	91.3	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BTL1912-BLK1	95.9	%	88 - 110 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BTL1912-BLK1	101	%	86 - 115 (LCL - UCL)		
QC Batch ID: BTL1914						
Benzene	BTL1914-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BTL1914-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BTL1914-BLK1	ND	ug/L	0.50		
Ethylbenzene	BTL1914-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BTL1914-BLK1	ND	ug/L	0.50		
Toluene	BTL1914-BLK1	ND	ug/L	0.50		
Total Xylenes	BTL1914-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BTL1914-BLK1	ND	ug/L	0.50		
t-Butyl alcohol	BTL1914-BLK1	ND	ug/L	10		
Diisopropyl ether	BTL1914-BLK1	ND	ug/L	0.50		
Ethanol	BTL1914-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BTL1914-BLK1	ND	ug/L	0.50		
Total Purgeable Petroleum Hydrocarbons	BTL1914-BLK1	ND	ug/L	50		
1,2-Dichloroethane-d4 (Surrogate)	BTL1914-BLK1	104	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BTL1914-BLK1	102	%	88 - 110 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BTL1914-BLK1	94.6	%	86 - 115 (LCL - UCL)		

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Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTL1923						
Toluene	BTL1923-BLK1	ND	ug/L	0.50		
Total Xylenes	BTL1923-BLK1	ND	ug/L	1.0		
Total Purgeable Petroleum Hydrocarbons	BTL1923-BLK1	ND	ug/L	50		
1,2-Dichloroethane-d4 (Surrogate)	BTL1923-BLK1	105	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BTL1923-BLK1	98.2	%	88 - 110 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BTL1923-BLK1	106	%	86 - 115 (LCL - UCL)		

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Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BTL1883										
Benzene	BTL1883-BS1	LCS	0.13954	0.12500	mg/kg	112		70 - 130		
Toluene	BTL1883-BS1	LCS	0.12711	0.12500	mg/kg	102		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BTL1883-BS1	LCS	0.046423	0.050000	mg/kg	92.8		70 - 121		
Toluene-d8 (Surrogate)	BTL1883-BS1	LCS	0.048081	0.050000	mg/kg	96.2		81 - 117		
4-Bromofluorobenzene (Surrogate)	BTL1883-BS1	LCS	0.049287	0.050000	mg/kg	98.6		74 - 121		
QC Batch ID: BTL1884										
Benzene	BTL1884-BS1	LCS	0.12435	0.12500	mg/kg	99.5		70 - 130		
Toluene	BTL1884-BS1	LCS	0.12307	0.12500	mg/kg	98.5		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BTL1884-BS1	LCS	0.052476	0.050000	mg/kg	105		70 - 121		
Toluene-d8 (Surrogate)	BTL1884-BS1	LCS	0.049873	0.050000	mg/kg	99.7		81 - 117		
4-Bromofluorobenzene (Surrogate)	BTL1884-BS1	LCS	0.051986	0.050000	mg/kg	104		74 - 121		
QC Batch ID: BTL1912										
Benzene	BTL1912-BS1	LCS	22.080	25.000	ug/L	88.3		70 - 130		
Toluene	BTL1912-BS1	LCS	21.810	25.000	ug/L	87.2		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BTL1912-BS1	LCS	8.9800	10.000	ug/L	89.8		76 - 114		
Toluene-d8 (Surrogate)	BTL1912-BS1	LCS	9.6600	10.000	ug/L	96.6		88 - 110		
4-Bromofluorobenzene (Surrogate)	BTL1912-BS1	LCS	10.210	10.000	ug/L	102		86 - 115		
QC Batch ID: BTL1914										
Benzene	BTL1914-BS1	LCS	28.610	25.000	ug/L	114		70 - 130		
Toluene	BTL1914-BS1	LCS	29.410	25.000	ug/L	118		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BTL1914-BS1	LCS	10.370	10.000	ug/L	104		76 - 114		
Toluene-d8 (Surrogate)	BTL1914-BS1	LCS	10.040	10.000	ug/L	100		88 - 110		
4-Bromofluorobenzene (Surrogate)	BTL1914-BS1	LCS	9.9400	10.000	ug/L	99.4		86 - 115		
QC Batch ID: BTL1923										
Toluene	BTL1923-BS1	LCS	27.240	25.000	ug/L	109		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BTL1923-BS1	LCS	10.640	10.000	ug/L	106		76 - 114		
Toluene-d8 (Surrogate)	BTL1923-BS1	LCS	9.7100	10.000	ug/L	97.1		88 - 110		
4-Bromofluorobenzene (Surrogate)	BTL1923-BS1	LCS	10.240	10.000	ug/L	102		86 - 115		

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Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BTL1883	Used client sample: N										
Benzene	MS	1016633-93	ND	0.14269	0.12500	mg/kg		114		70 - 130	
	MSD	1016633-93	ND	0.14385	0.12500	mg/kg	0.8	115	20	70 - 130	
Toluene	MS	1016633-93	ND	0.13107	0.12500	mg/kg		105		70 - 130	
	MSD	1016633-93	ND	0.12851	0.12500	mg/kg	2.0	103	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1016633-93	ND	0.046518	0.050000	mg/kg		93.0		70 - 121	
	MSD	1016633-93	ND	0.046623	0.050000	mg/kg	0.2	93.2		70 - 121	
Toluene-d8 (Surrogate)	MS	1016633-93	ND	0.049709	0.050000	mg/kg		99.4		81 - 117	
	MSD	1016633-93	ND	0.050263	0.050000	mg/kg	1.1	101		81 - 117	
4-Bromofluorobenzene (Surrogate)	MS	1016633-93	ND	0.047151	0.050000	mg/kg		94.3		74 - 121	
	MSD	1016633-93	ND	0.048348	0.050000	mg/kg	2.5	96.7		74 - 121	
QC Batch ID: BTL1884	Used client sample: N										
Benzene	MS	1016633-94	ND	0.12127	0.12500	mg/kg		97.0		70 - 130	
	MSD	1016633-94	ND	0.12769	0.12500	mg/kg	5.2	102	20	70 - 130	
Toluene	MS	1016633-94	ND	0.12098	0.12500	mg/kg		96.8		70 - 130	
	MSD	1016633-94	ND	0.13017	0.12500	mg/kg	7.3	104	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1016633-94	ND	0.053497	0.050000	mg/kg		107		70 - 121	
	MSD	1016633-94	ND	0.050784	0.050000	mg/kg	5.2	102		70 - 121	
Toluene-d8 (Surrogate)	MS	1016633-94	ND	0.050616	0.050000	mg/kg		101		81 - 117	
	MSD	1016633-94	ND	0.049659	0.050000	mg/kg	1.9	99.3		81 - 117	
4-Bromofluorobenzene (Surrogate)	MS	1016633-94	ND	0.051297	0.050000	mg/kg		103		74 - 121	
	MSD	1016633-94	ND	0.050435	0.050000	mg/kg	1.7	101		74 - 121	
QC Batch ID: BTL1912	Used client sample: N										
Benzene	MS	1016633-83	ND	25.270	25.000	ug/L		101		70 - 130	
	MSD	1016633-83	ND	26.570	25.000	ug/L	5.0	106	20	70 - 130	
Toluene	MS	1016633-83	ND	25.010	25.000	ug/L		100		70 - 130	
	MSD	1016633-83	ND	26.470	25.000	ug/L	5.7	106	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1016633-83	ND	8.8000	10.000	ug/L		88.0		76 - 114	
	MSD	1016633-83	ND	8.8600	10.000	ug/L	0.7	88.6		76 - 114	
Toluene-d8 (Surrogate)	MS	1016633-83	ND	9.7500	10.000	ug/L		97.5		88 - 110	
	MSD	1016633-83	ND	9.6700	10.000	ug/L	0.8	96.7		88 - 110	
4-Bromofluorobenzene (Surrogate)	MS	1016633-83	ND	10.580	10.000	ug/L		106		86 - 115	
	MSD	1016633-83	ND	10.390	10.000	ug/L	1.8	104		86 - 115	
QC Batch ID: BTL1914	Used client sample: N										
Benzene	MS	1016633-84	ND	21.090	25.000	ug/L		84.4		70 - 130	
	MSD	1016633-84	ND	25.340	25.000	ug/L	18.3	101	20	70 - 130	
Toluene	MS	1016633-84	ND	22.440	25.000	ug/L		89.8		70 - 130	
	MSD	1016633-84	ND	27.310	25.000	ug/L	19.6	109	20	70 - 130	

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Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BTL1914	Used client sample: N										
1,2-Dichloroethane-d4 (Surrogate)	MS	1016633-84	ND	10.160	10.000	ug/L		102		76 - 114	
	MSD	1016633-84	ND	10.140	10.000	ug/L	0.2	101		76 - 114	
Toluene-d8 (Surrogate)	MS	1016633-84	ND	10.230	10.000	ug/L		102		88 - 110	
	MSD	1016633-84	ND	10.290	10.000	ug/L	0.6	103		88 - 110	
4-Bromofluorobenzene (Surrogate)	MS	1016633-84	ND	9.5400	10.000	ug/L		95.4		86 - 115	
	MSD	1016633-84	ND	9.8600	10.000	ug/L	3.3	98.6		86 - 115	
QC Batch ID: BTL1923	Used client sample: N										
Toluene	MS	1016633-85	ND	27.580	25.000	ug/L		110		70 - 130	
	MSD	1016633-85	ND	27.760	25.000	ug/L	0.7	111	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1016633-85	ND	10.930	10.000	ug/L		109		76 - 114	
	MSD	1016633-85	ND	10.620	10.000	ug/L	2.9	106		76 - 114	
Toluene-d8 (Surrogate)	MS	1016633-85	ND	10.220	10.000	ug/L		102		88 - 110	
	MSD	1016633-85	ND	9.9400	10.000	ug/L	2.8	99.4		88 - 110	
4-Bromofluorobenzene (Surrogate)	MS	1016633-85	ND	10.130	10.000	ug/L		101		86 - 115	
	MSD	1016633-85	ND	10.200	10.000	ug/L	0.7	102		86 - 115	

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Total Concentrations (TTLC)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BUA0029						
Antimony	BUA0029-BLK1	ND	mg/kg	5.0		
Arsenic	BUA0029-BLK1	ND	mg/kg	1.0		
Barium	BUA0029-BLK1	ND	mg/kg	0.50		
Beryllium	BUA0029-BLK1	ND	mg/kg	0.50		
Cadmium	BUA0029-BLK1	ND	mg/kg	0.50		
Chromium	BUA0029-BLK1	ND	mg/kg	0.50		
Cobalt	BUA0029-BLK1	ND	mg/kg	2.5		
Copper	BUA0029-BLK1	ND	mg/kg	1.0		
Lead	BUA0029-BLK1	ND	mg/kg	2.5		
Molybdenum	BUA0029-BLK1	ND	mg/kg	2.5		
Nickel	BUA0029-BLK1	ND	mg/kg	0.50		
Selenium	BUA0029-BLK1	ND	mg/kg	1.0		
Silver	BUA0029-BLK1	ND	mg/kg	0.50		
Thallium	BUA0029-BLK1	ND	mg/kg	5.0		
Vanadium	BUA0029-BLK1	ND	mg/kg	0.50		
Zinc	BUA0029-BLK1	ND	mg/kg	2.5		
QC Batch ID: BUA0232						
Mercury	BUA0232-BLK1	ND	mg/kg	0.16		

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Total Concentrations (TTLC)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BUA0029										
Antimony	BUA0029-BS1	LCS	102.02	100.00	mg/kg	102		75 - 125		
Arsenic	BUA0029-BS1	LCS	10.253	10.000	mg/kg	103		75 - 125		
Barium	BUA0029-BS1	LCS	104.84	100.00	mg/kg	105		75 - 125		
Beryllium	BUA0029-BS1	LCS	10.869	10.000	mg/kg	109		75 - 125		
Cadmium	BUA0029-BS1	LCS	10.292	10.000	mg/kg	103		75 - 125		
Chromium	BUA0029-BS1	LCS	104.51	100.00	mg/kg	105		75 - 125		
Cobalt	BUA0029-BS1	LCS	106.44	100.00	mg/kg	106		75 - 125		
Copper	BUA0029-BS1	LCS	101.97	100.00	mg/kg	102		75 - 125		
Lead	BUA0029-BS1	LCS	108.56	100.00	mg/kg	109		75 - 125		
Molybdenum	BUA0029-BS1	LCS	102.42	100.00	mg/kg	102		75 - 125		
Nickel	BUA0029-BS1	LCS	108.35	100.00	mg/kg	108		75 - 125		
Selenium	BUA0029-BS1	LCS	9.7475	10.000	mg/kg	97.5		75 - 125		
Silver	BUA0029-BS1	LCS	10.723	10.000	mg/kg	107		75 - 125		
Thallium	BUA0029-BS1	LCS	105.87	100.00	mg/kg	106		75 - 125		
Vanadium	BUA0029-BS1	LCS	100.79	100.00	mg/kg	101		75 - 125		
Zinc	BUA0029-BS1	LCS	105.71	100.00	mg/kg	106		75 - 125		
QC Batch ID: BUA0232										
Mercury	BUA0232-BS1	LCS	1.2413	1.5000	mg/kg	82.8		75 - 125		

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Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Total Concentrations (TTLC)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUA0029	Used client sample: N										
Antimony	DUP	1018116-01	ND	ND		mg/kg			20		
	MS	1018116-01	ND	98.903	100.00	mg/kg		98.9		16 - 119	
	MSD	1018116-01	ND	99.109	100.00	mg/kg	0.2	99.1	20	16 - 119	
Arsenic	DUP	1018116-01	ND	ND		mg/kg			20		
	MS	1018116-01	ND	10.127	10.000	mg/kg		101		75 - 125	
	MSD	1018116-01	ND	9.8156	10.000	mg/kg	3.1	98.2	20	75 - 125	
Barium	DUP	1018116-01	0.16908	ND		mg/kg			20		
	MS	1018116-01	0.16908	103.95	100.00	mg/kg		104		75 - 125	
	MSD	1018116-01	0.16908	104.61	100.00	mg/kg	0.6	104	20	75 - 125	
Beryllium	DUP	1018116-01	0.51800	0.53135		mg/kg	2.5		20		
	MS	1018116-01	0.51800	11.626	10.000	mg/kg		111		75 - 125	
	MSD	1018116-01	0.51800	11.315	10.000	mg/kg	2.7	108	20	75 - 125	
Cadmium	DUP	1018116-01	ND	ND		mg/kg			20		
	MS	1018116-01	ND	10.866	10.000	mg/kg		109		75 - 125	
	MSD	1018116-01	ND	10.380	10.000	mg/kg	4.6	104	20	75 - 125	
Chromium	DUP	1018116-01	0.31011	ND		mg/kg			20		A02
	MS	1018116-01	0.31011	106.08	100.00	mg/kg		106		75 - 125	
	MSD	1018116-01	0.31011	101.20	100.00	mg/kg	4.7	101	20	75 - 125	
Cobalt	DUP	1018116-01	0.89462	ND		mg/kg			20		
	MS	1018116-01	0.89462	111.60	100.00	mg/kg		111		75 - 125	
	MSD	1018116-01	0.89462	106.34	100.00	mg/kg	4.8	105	20	75 - 125	
Copper	DUP	1018116-01	0.60346	ND		mg/kg			20		
	MS	1018116-01	0.60346	107.86	100.00	mg/kg		107		75 - 125	
	MSD	1018116-01	0.60346	105.31	100.00	mg/kg	2.4	105	20	75 - 125	
Lead	DUP	1018116-01	0.84341	ND		mg/kg			20		
	MS	1018116-01	0.84341	113.32	100.00	mg/kg		112		75 - 125	
	MSD	1018116-01	0.84341	107.57	100.00	mg/kg	5.2	107	20	75 - 125	
Molybdenum	DUP	1018116-01	ND	ND		mg/kg			20		
	MS	1018116-01	ND	106.08	100.00	mg/kg		106		75 - 125	
	MSD	1018116-01	ND	101.24	100.00	mg/kg	4.7	101	20	75 - 125	
Nickel	DUP	1018116-01	0.18905	ND		mg/kg			20		
	MS	1018116-01	0.18905	112.48	100.00	mg/kg		112		75 - 125	
	MSD	1018116-01	0.18905	107.30	100.00	mg/kg	4.7	107	20	75 - 125	
Selenium	DUP	1018116-01	ND	ND		mg/kg			20		
	MS	1018116-01	ND	9.7680	10.000	mg/kg		97.7		75 - 125	
	MSD	1018116-01	ND	9.1484	10.000	mg/kg	6.6	91.5	20	75 - 125	
Silver	DUP	1018116-01	ND	ND		mg/kg			20		
	MS	1018116-01	ND	8.9307	10.000	mg/kg		89.3		75 - 125	
	MSD	1018116-01	ND	8.8391	10.000	mg/kg	1.0	88.4	20	75 - 125	

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Reported: 01/07/2011 17:08
Project: 3538
Project Number: 4514546539
Project Manager: Jan Wagoner

Total Concentrations (TTLC)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BUA0029	Used client sample: N										
Thallium	DUP	1018116-01	ND	ND		mg/kg			20		
	MS	1018116-01	ND	107.20	100.00	mg/kg		107		75 - 125	
	MSD	1018116-01	ND	106.57	100.00	mg/kg	0.6	107	20	75 - 125	
Vanadium	DUP	1018116-01	149.09	152.33		mg/kg	2.1		20		
	MS	1018116-01	149.09	260.46	100.00	mg/kg		111		75 - 125	
	MSD	1018116-01	149.09	253.55	100.00	mg/kg	2.7	104	20	75 - 125	
Zinc	DUP	1018116-01	2.9149	3.0144		mg/kg	3.4		20		
	MS	1018116-01	2.9149	120.83	100.00	mg/kg		118		75 - 125	
	MSD	1018116-01	2.9149	114.68	100.00	mg/kg	5.2	112	20	75 - 125	
QC Batch ID: BUA0232	Used client sample: N										
Mercury	DUP	1018241-04	0.047143	ND		mg/kg			20		A02
	MS	1018241-04	0.047143	0.81476	0.79365	mg/kg		96.7		85 - 115	
	MSD	1018241-04	0.047143	0.81762	0.79365	mg/kg	0.4	97.1	20	85 - 115	

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Notes And Definitions

MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
A01	PQL's and MDL's are raised due to sample dilution.
A02	The difference between duplicate readings is less than the PQL.
S09	The surrogate recovery on the sample for this compound was not within the control limits.
Z1	Combined two VOAs for a complete sample.

APPENDIX D

Boring Logs for Borings SB-8 Through SB-10

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Project No: C103535061
Logged By: A. Buehler
Driller: Cascade Drilling
Drilling Method: Direct Push
Sampling Method: Acetate Liner
Casing Type: N/A
Slot Size: N/A
Gravel Pack: N/A

Client: ConocoPhillips
Location: Oakland, CA
Date Drilled: 12/20/10
Hole Diameter: 2"
Hole Depth: 20'
Well Diameter: N/A
Well Depth: N/A
First Water Depth:
Static Water Depth:

Elevation:
Northing:
Easting:

Boring/Well No: **SB-8**
Page 1 of 1

Site Address:
411 W. MacArthur Blvd, Oakland, CA

Well Completion (Backfill / Casing)	Water Level	Moisture Content	PID Reading (ppm)	Sample Identification	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Neat Cement Grout									Air-knife clearance to 5 ft.
			0.6	SB-8 @5	5			CL	brown/green mottled, sandy lean clay with gravel, 20% sand, 10% gravel, damp
					7			ML	Brown/black mottled, sandy silt, 30% sand, trace gravel, mild odor, damp
			5.8	SB-8 @10	10				
					13			GM	Brown/gray, silty gravel with sand, 10% silt, 30% gravel, moist
			0.7	SB-8 @15	15			CL	Brown/gray, lean clay, 5% sand, moist
					16			GC	Brown, clayey gravel with sand, 10% clay, 20% sand, moist to wet
					18			ML	Brown/gray mottles, sandy silt, 30% sand, very dense, damp
			440	SB-8 @20	20				
									Total Depth = 20 ft

Project No:	5697	Client:	COP	Boring/Well No:	**SB-9**
Logged By:	A Buehler	Location:	Oakland	Page 1 of	2
Driller:	Cascade	Date Drilled:	12/20/2010		
Drilling Method:	Direct Push	Hole Diameter:	2 in		
Sampling Method:	Acetate	Hole Depth:	20 ft		
Casing Type:	N/A	Well Diameter:	N/A		
Slot Size:	N/A	Well Depth:	N/A		
Gravel Pack:	N/A	▼ First Water Depth:			
		▽ Static Water Depth:			
Elevation:		Northing:		Easting:	

Well Completion	Water Level	Moisture Content	PID Reading (ppm)	Sample Identification	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
					1				Air-knife clearance to 5 ft
					2				
					3				
					4				
					5				
			6.7	SB-9 @5	6				Gray, gravelly lean clay, 20% gravel, moist, no odor
					7			ML	Brown/black mottled, sandy silt with gravel, 20% sand, 10% gravel
					8				
					9				
Backfill / Casing: Neat Cement Grout			7.5	SB-9 @10	10			CL	Brown/gray mottled, gravelly lean clay, 10% gravel, moist, slight odor
					11				
					12			SP	Dark brown, sand, fine sand, wet
					13			ML	Brown/orange/gray mottled, sandy silt, 40% sand, damp
					14				
			910	SB-9 @15	15				
	▼				16				Dark brown/gray layered, sandy silt, 35% sand, saturated
					17				
					18				
					19				
			37	SB-9 @20	20			SM	Gray, Silty sand, fine sand, 25% silt, saturated
					21				
					22				

Project No: C103535061
Logged By: A. Buehler
Driller: Cascade Drilling
Drilling Method: Direct Push
Sampling Method: Acetate Liner
Casing Type: N/A
Slot Size: N/A
Gravel Pack: N/A

Client: ConocoPhillips
Location: Oakland, CA
Date Drilled: 12/20/10
Hole Diameter: 2"
Hole Depth: 20'
Well Diameter: N/A
Well Depth: N/A
▼ First Water Depth:
▽ Static Water Depth:

Boring/Well No: **SB-9**
Page 2 of 2

Elevation:
Northing:
Easting:

Well Completion (Backfill / Casing)	Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Neat Cement Grout					23				
					24			ML	Gray/green sandy silt, 30% sand, very dense, dry
			12.5	SB-9 @25	25				
		▼							Same as above, saturated
					26			CL	Brown/gray mottled, lean clay, very dense, moist
					27				
					28				
					29				
			4.6	SB-9 @30	30				Total Depth = 30 ft
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				

Project No:	5697	Client:	COP	Boring/Well No: **SB-9**	
Logged By:	A Buehler	Location:	Oakland	Page 2 of	2
Driller:	Cascade	Date Drilled:	12/21/2010		
Drilling Method:	Direct Push	Hole Diameter:	2 in		
Sampling Method:	Acetate	Hole Depth:	20 ft		
Casing Type:	N/A	Well Diameter:	N/A		
Slot Size:	N/A	Well Depth:	N/A		
Gravel Pack:	N/A	First Water Depth:			
		Static Water Depth:			
Elevation:		Northing:		Easting:	

Well Completion: Backfill	Well Completion: Casing	Water Level	Moisture Content	PID Reading (ppm)	Sample Identification	Depth (feet)	Sample: Recovery	Sample: Interval	Soil Type	LITHOLOGY / DESCRIPTION
						1				Air-knife cleared to 5 ft
						2				
						3				
						4				
						5				
				0	SB-10 @5	6			CL	Brown, Gravelly lean clay with sand, 20% gravel, 10% sand, saturated
						7			CL	Brown/gray/green layered sandy lean clay, 15% sand, moist, no odor
						8				
						9				
				0.5	SB-10 @10	10				
						11				
						12				
						13			SW	Brown, gravelly sand, 20% gravel, moist
						14				
						15			CL	Brown/oraange/green mottled, sandy lean clay, 25% sand, dense
				0.6	SB-10 @15	16			ML	Brown/gray layered, sandy silt, 40% sand
						17				
						18				
						19				
						20				
				9.3	SB-10 @20	21				Gray, sandy silt, 40% sand, moist
						22			GM	Brown, sandy silt with gravel, 25% sand, 40% gravel, moist
Neat Cement Grout										

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Project No: C103535061
Logged By: A. Buehler
Driller: Cascade Drilling
Drilling Method: Direct Push
Sampling Method: Acetate Liner
Casing Type: N/A
Slot Size: N/A
Gravel Pack: N/A

Client: ConocoPhillips
Location: Oakland, CA
Date Drilled: 12/21/10
Hole Diameter: 2"
Hole Depth: 20'
Well Diameter: N/A
Well Depth: N/A
First Water Depth:
Static Water Depth:

Boring/Well No: **SB-10**
Page 2 of 2

Elevation:
Northing:
Easting:

Well Completion: Backfill / Casing	Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample: Recovery / Interval	Soil Type	LITHOLOGY / DESCRIPTION
Neat Cement Grout			0	SB-10 @25	23–25		ML	Brown/gray, sandy silt, 40% sand, moist
					25–26		SM	Brown silty sand, 50% sand, saturated
					26–30		CL	Brown, sandy lean clay, 10% sand, moist, very dense
			0	SB-10 @30	30			Total Depth = 30 ft
					31–44			