ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
OFFICE OF THE DIRECTOR
1131 HARBOR BAY PARKWAY
ALAMEDA, CA 94502
(510) 567-6777
FAX (510) 337-9135

November 26, 2012

Ms. Shari London
ConocoPhillips
3900 Kilroy Airport Way
Long Beach, CA 90806 *(Sent via E-mail to: Shari.A.London@conocophillips.com)*

Mr. Mohammad Ahmadi
Lafayette Investment Group, LLC
587 Ygnacio Valley Road
Walnut Creek, CA 94596

Ms. Elizabeth Bochnak
64 Glenwild Rd.
Madison, NJ 07940

Subject: Case Closure Transmittal; Fuel Leak Case No. RO0002967 Global ID # T0619732490, Unocal #1028 / ConocoPhillips #251028, 5300 Broadway, Oakland, CA 94618

Dear Ms. London, et. al.:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Health (ACEH) is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- Residual pollution remaining in soil beneath the site includes TPH as diesel at concentrations of up to 447 ppm and TPH as gasoline at concentrations of 5.2 ppm.
- Maximum concentrations of up to 45 ppb ethylbenzene remain in groundwater beneath the site.
- Case closure for this fuel leak site is granted for the commercial land use only. If a change in land use to any residential or other conservative land use scenario occurs at this site, Alameda County Environmental Health (ACEH) must be notified as required by Government Code Section 65850.2.2. ACEH will re-evaluate the case upon receipt of approved development/construction plans.
- Excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures by the responsible party prior to and during excavation and construction activities.
- This site is to be entered into the City of Oakland Permit Tracking System due to the residual contamination on site.

If you have any questions, please call Barbara Jakub at (510) 639-1287. Thank you.

Sincerely,

Donna L. Drogos, P.E.
Division Chief

Enclosures:
1. Remedial Action Completion Certificate
2. Case Closure Summary

cc:
Leroy Griffin (w/enc via electronic mail:
lgriffin@oaklandnet.com)
Oakland, Fire Department

Barbara Jakub (w/ enc via e-mail), D. Drogos (w/ enc via e-mail), T. Le (via e-mail and w/orig enc)
Geotracker

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REMEDIAL ACTION COMPLETION CERTIFICATION

November 26, 2012

Shari A. London
ConocoPhillips
3900 Kilroy Airport Way
Long Beach, CA, 90806
(Sent via e-mail to:
Shari.A.London@conocophillips.com)

Mr. Mohammad Ahmadi
Lafayette Investment Group, LLC
587 Ygnacio Valley Road
Walnut Creek, CA 94596

Ms. Elizabeth Bochnak
64 Glenwild Rd.
Madison, NJ 07940

Subject: Case Closure for Fuel Leak Case No. RO0002967 Global ID # T0619732490, Unocal #1028 / ConocoPhillips #251028, 5300 Broadway, Oakland, CA 94618

Dear Ms. London, etal:

This letter confirms the completion of a site investigation and remedial action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank(s) are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25299.37 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.77 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

Claims for reimbursement of corrective action costs submitted to the Underground Storage Tank Cleanup Fund more than 365 days after the date of this letter or issuance or activation of the Fund's Letter of Commitment, whichever occurs later, will not be reimbursed unless one of the following exceptions applies:

- Claims are submitted pursuant to Section 25299.57, subdivision (k) (reopened UST case); or
- Submission within the timeframe was beyond the claimant's reasonable control, ongoing work is required for closure that will result in the submission of claims beyond that time period, or that under the circumstances of the case, it would be unreasonable or inequitable to impose the 365-day time period.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code. Please contact our office if you have any questions regarding this matter.

Sincerely,

Ariu Levi
Director

CASE CLOSURE SUMMARY
LEAKING UNDERGROUND FUEL STORAGE TANK - LOCAL OVERSIGHT PROGRAM

I. AGENCY INFORMATION

Date: June 29, 2012

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 639-1287
Responsible Staff Person: Barbara Jakub	Title: Hazardous Materials Specialist

II. CASE INFORMATION

Site Facility Name: UNOCAL #1028 / ConocoPhillips #251028		
Site Facility Address: 5300 Broadway, Oakland, CA 94618		
RB Case No.: ---	Local Case No.: ---	LOP Case No.: RO0002967
URF Filing Date: 10/19/07	Geotracker ID: T0619732490	APN: 48A-7035-19-1

Responsible Parties	Addresses	Phone Numbers
Ed C. Ralston ConocoPhillips	76 Broadway Sacramento, CA, 95818	916-558-7633
Mohammed Ahmadi Lafayette Investment Group LLC	587 Ygnacio Valley Rd. Walnut Creek, CA	925-979-0560
Elizabeth Bochnak	64 Glenwild Road Madison, NJ, 079402436	----

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
----	NA*	----	----	----
Piping			NA*	----

* Business was sold to current operator along with the current USTs. Case opened after divestment sampling. The USTs were not removed for this closure and are; therefore, not included in this table.

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Unknown. Contamination reported during 2007 due diligence site assessment.		
Site characterization complete? Yes	Date Approved By Oversight Agency: -----	
Monitoring wells installed? Yes	Number: 3	Proper screened interval? Yes
Highest GW Depth Below Ground Surface: 1.16 ft bgs	Lowest Depth: 4.72 ft bgs	Flow Direction: Northwest
Most Sensitive Current Use: Potential drinking water source.		

Summary of Production Wells in Vicinity: No water supply wells were identified within a ½ mile of the site.	
Are drinking water wells affected? No	Aquifer Name: East Bay Plain
Is surface water affected? No	Nearest SW Name: Claremont Country Club pond (0.25 miles SE)
Off-Site Beneficial Use Impacts (Addresses/Locations): None Identified	
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health, Geotracker and City of Oakland Fire Department

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL

Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	*None removed	----	----
Piping	None removed	----	----
Free Product	None encountered	----	----
Soil	None removed	----	----
Groundwater	None removed	----	----

* Business was sold to current operator along with the current USTs. Case opened after divestment sampling. The USTs were not removed for this closure and are; therefore, not included in this table.

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS BEFORE AND AFTER CLEANUP
(Please see Attachments 1 through 6 for additional information on contaminant locations and concentrations)

Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After
TPH (Gas)	5.2	5.2	5,300	<50
TPH (Diesel)	447	447	15,000/25,000[1]	<50
TPH (Motor Oil)	NA	NA	NA	NA
Oil and Grease	NA	NA	NA	NA
Benzene	<0.005	<0.005	<5	<0.5
Toluene	<0.005	<0.005	<5	<0.5
Ethylbenzene	0.007	0.007	45	45
Xylenes	<0.005	<0.005	6	<1.5
Heavy Metals (Cd, Cr, Pb, Ni, Zn)	16.7^	16.7^	NA	NA
MTBE	<0.0049*	<0.0049*	2.5**	1.2***
Other (8240/8270)	NA	NA	NA	NA

[1] duplicate grab groundwater sample.
^ 16.7 ppm Pb. Cd, Cr, Ni, and Zn not analyzed.

NA = Not analyzed

* <0.0005 ppm MTBE; <0.025 ppm TBA; <0.0049 ppm TAME; <0.001 ppm ETBE; <0.0049 ppm DIPE; <0.66 ppm EtOH ; <0.0049 ppm EDB; and <0.0049 ppm EDC

** <2.5 ppb MTBE; 7.5 ppb TBA; <0.8 ppb TAME; <0.8 ppb ETBE; <0.8 ppb DIPE; <250 EtOH; <1.0 EDB and <1.0 ppb EDC.

*** <1.2 ppb MTBE; <5.0 ppb TBA; <0.5 ppb TAME; <0.5 ppb ETBE; <0.5 ppb DIPE; <250 EtOH; <1.0 EDB and <1.0 ppb EDC.

Site History and Description of Corrective Actions:

The Site is currently operated by an independent gasoline station operator but was formerly ConocoPhillips. The current site owner purchased the USTs currently in place along with the property.

Fuel leak case RO528 was closed on 4/20/1994 for the ConocoPhillips service station. That closure was for the USTs removed on 11/22/1989 and replaced with the USTs currently present at the site (in the same location) which are not part of this closure.

On September 27, 2007, ATC advanced three soil borings for a property transaction, ATC-2, ATC, 4 and ATC-5. Soil samples contained maximum concentrations of 5.2 ppm TPHg in ATC- 5 from 5 feet below ground surface (bgs). Grab groundwater samples detected up to 25,000 ppb TPHd and 5,300 ppb TPHg in boring ATC-2. (No diesel tanks were reported to have been on-site.) The soil sample from ATC04 contained methylene chloride at 0.007ppm but no petroleum hydrocarbons. No groundwater sample was collected from ATC-4.

December 1, through 10, 2010 – Antea Group oversaw Cascade Drilling install monitoring wells MW-1, MW-2 and MW-3, advance 3 soil borings and attempt one CPT boring. Monitoring well MW-1 was placed adjacent to former boring ATC-2. The maximum concentration was 447 ppm Diesel Range Organics (DRO) in MW-2 from 7.5 to 8 feet bgs. No gasoline range organics (GRO), BTEX or oxygenates were detected in soil. Groundwater from the monitoring wells had maximum detections of 119 ppb GRO, 74.4 ppb DRO and 2.5 ppb MTBE.

December 2010 – August 2011 – Quarterly groundwater monitoring was performed at site for four quarters. Maximum concentrations of 119 ppb GRO, 74.4 ppb DRO and 2.5 ppb MTBE were reported from groundwater in the wells. Contaminant concentrations in groundwater have reduced over the four quarters of monitoring to present levels shown in the table above.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes		
Does corrective action protect public health for current land use? Alameda County Environmental Health staff does not make specific determinations concerning public health risk. However, based upon the information available in our files to date, it does not appear that the release would present a risk to human health based upon current land use and conditions.		
Site Management Requirements: Case closure for this fuel leak site is granted for the commercial land use only. If a change in land use to any residential or other conservative land use scenario occurs at this site, Alameda County Environmental Health (ACEH) must be notified as required by Government Code Section 65850.2.2. ACEH will re-evaluate the case upon receipt of approved development/construction plans. Excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures by the responsible party prior to and during excavation and construction activities. This site is to be entered into the City of Oakland Permit Tracking System due to the residual contamination on site.		
Should corrective action be reviewed if land use changes? Yes		
Was a deed restriction or deed notification filed? No		Date Recorded: ---
Monitoring Wells Decommissioned: No	Number Decommissioned: 0	Number Retained: 3
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: None		

V. ADDITIONAL COMMENTS, DATA, ETC.

Considerations and/or Variances:

- No diesel UST was ever reported to be at the site. Yet diesel was reported in groundwater at the site at up to 25,000 ppb in the initial sample event but were <50 ppb in subsequent sample events. There are multiple divestment sites in the ConocoPhillips portfolio where diesel was detected with no diesel USTs having been reported at the site and the problem has not been confirmed as to a lab or cross-contamination issue.

Conclusion:

Alameda County Environmental Health staff believe that the levels of residual contamination do not pose a significant threat to water resources, public health and safety, and the environment under the current commercial land use based upon the information available in our files to date. No further investigation or cleanup for the fuel leak case is necessary unless a change in land use to any residential or other conservative land use scenario occurs at the site. ACEH staff recommend closure for this site.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Barbara Jakub, P.G.	Title: Hazardous Materials Specialist
Signature: Barbara Jakub	Date: 6/29/12
Approved by: Donna L. Drogos, P.E.	Title: Division Chief
Signature: Donna L Drogos	Date: 07/02/12

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

VII. REGIONAL BOARD NOTIFICATION

Regional Board Staff Name: Cherie McCaulou	Title: Engineering Geologist
Notification Date: 7/3/2012	

VIII. MONITORING WELL DECOMMISSIONING

Date Requested by ACEH: 8/16/2012	Date of Well Decommissioning Report: 11/2/2012	
All Monitoring Wells Decommissioned: (Yes) No	Number Decommissioned: 3	Number Retained: 0
Reason Wells Retained: — — —		
Additional requirements for submittal of groundwater data from retained wells: — — —		
ACEH Concurrence - Signature: Barbara Jakub		Date: 11/6/12

Attachments:

1. Site Vicinity Map (1 pp)
2. Site Plans (1 pp)
3. Soil Analytical Data (2 pp)
4. Groundwater Analytical Data (2 pp)
5. Boring Logs (9 pp)
6. Cross Sections (1 pp)

This document and the related CASE CLOSURE LETTER & REMEDIAL ACTION COMPLETION CERTIFICATE shall be retained by the lead agency as part of the official site file.

Jakub, Barbara, Env. Health

From: Cherie MCcaulou [CMccaulou@waterboards.ca.gov]
Sent: Tuesday, July 03, 2012 1:26 PM
To: Jakub, Barbara, Env. Health
Subject: Re: Closure Summary for RO2967

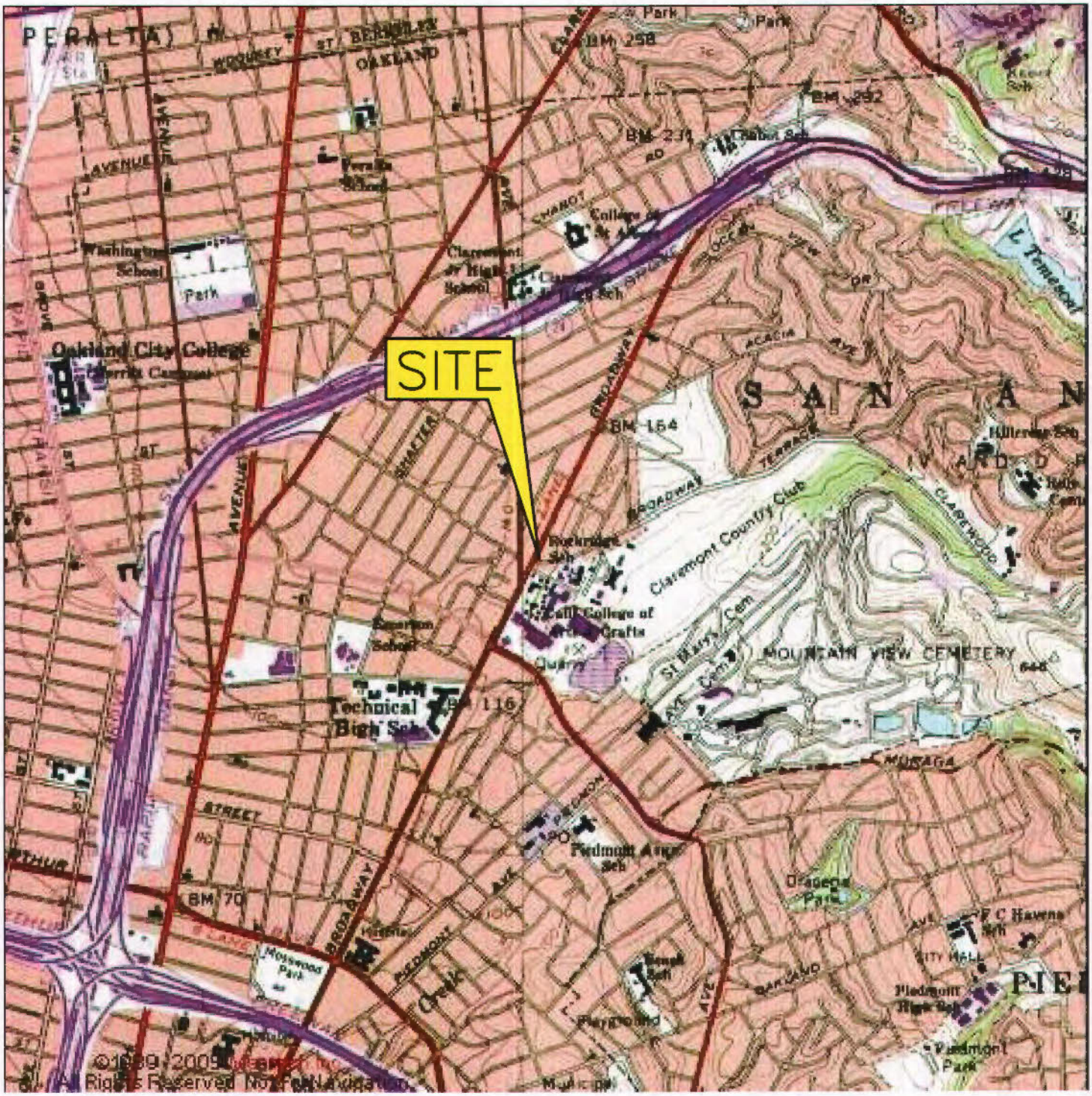
Hi Barbara - Thank you for the notice for case closure. We have no objection to ACEH's recommendation to close this case.

>>> "Jakub, Barbara, Env. Health" <barbara.jakub@acgov.org> 7/3/2012 1:14 PM >>>
Hi Cherie,
Attached is a closure summary for RO2967; Unocal #1098?Conocophillips #251028 located at 5300 Boradway, Oakland, CA to comply with the RWQCB's 30-day review period. If no comments from the RWQCB are received within the 30-day review period, ACEH will proceed with case closure.
Please contact me if you have any comments or questions about the subject site.
Regards,

Barbara Jakub, P.G.
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Pky.
Alameda, CA 94502
Direct: 510-639-1287
Fax: 510-337-9335

PDF copies of case files can be downloaded at:

http://ehgis.acgov.org/dehpublic/dehpublic.jsp



N

0 1600 FT

SCALE

FIGURE 1
SITE LOCATION MAP

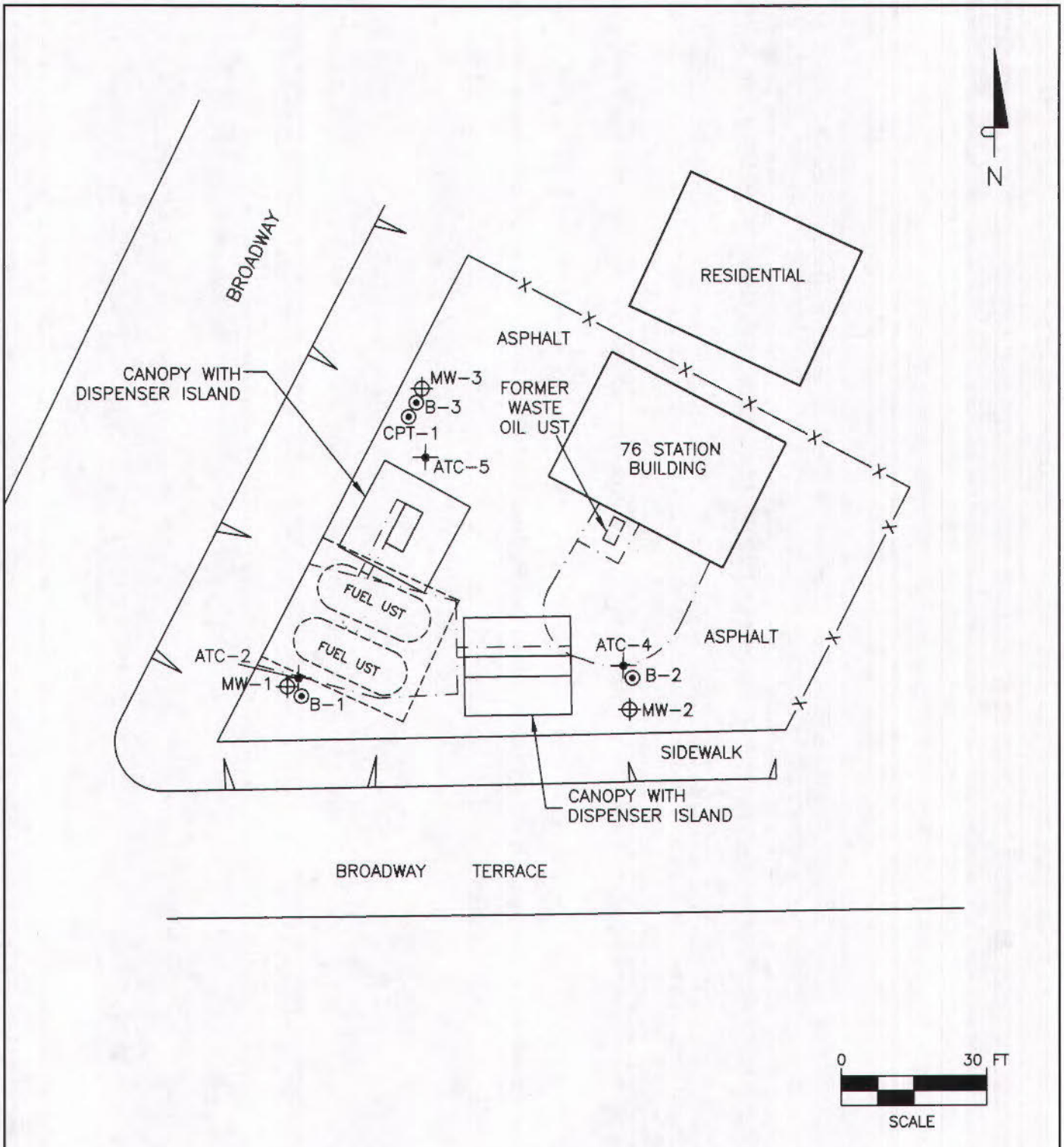
76 STATION NO. 1028
5300 BROADWAY AVENUE
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
140251028	NP	JH
DATE	REVIEWED BY	FILE NAME
04/19/10	LH	1028-Topo

DELTA®

SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, OAKLAND EAST QUADRANGLE (1973)

ATTACHMENT 1



LEGEND:

MW-3 ⊕ MONITORING WELL (DELTA 2010)

B-3 ⊙ SOIL BORING (DELTA 2010)

ATC-5 ✦ SOIL BORING (ATC 2007)

LIMITS OF EXCAVATION (ANTEA 2011)

SITE MAP ADAPTED FROM A SURVEY BY MIDCOAST ENGINEERS, DECEMBER 2010 AND A SITE MAP BY ATC ASSOCIATES, 2007.

FIGURE 2
SITE MAP

76 STATION NO. 1028
5300 BROADWAY
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
140251028	NaP	JH
DATE	REVIEWED BY	FILE NAME
05/17/11	LH	1028-Site

antea group

ATTACHMENT 2

ATTACHMENT 3

TABLE 1
SUMMARY OF SOIL ANALYTICAL DATA
ConocoPhillips Site No. 251028
5300 Broadway Avenue, Oakland, California

Sample ID	Sample Depth (feet bgs)	Sample Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Other HVOC (mg/kg)	Oxygenates (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH (mg/kg)
			EPA 8260B						EPA 8015B Modified		EPA 418.1
ATC-2d5.0	5	09/27/07	<0.005	<0.005	<0.005	<0.005	All analytes ND.	All analytes ND.	1.4	23	11.3
ATC-4d10.0	10	09/27/07	<0.005	<0.005	<0.005	<0.005	methylene chloride (0.007)	All analytes ND.	<1.0	<12	16.7
ATC-5d5.0	5	09/27/07	<0.005	<0.005	0.007	<0.005	All remaining analytes ND.	All analytes ND.	5.2	<12	13.8
ATC-5d10.0	10	09/27/07	<0.005	<0.005	<0.005	<0.005	All analytes ND.	All analytes ND.	<1.0	<12	9.63

Notes:
bgs - Below ground surface.
mg/kg - Milligrams per kilogram (equivalent to parts per million).
HVOC - Halogenated volatile organic compounds.
* - Only compounds detected at a concentration exceeding their respective laboratory method Limit of Quantitation (LOQ) are noted
TPH - Total petroleum hydrocarbons.
TPH-GRO - Gasoline range organic hydrocarbons.
TPH-DRO - Diesel range organic hydrocarbons.
EPA - Environmental Protection Agency
<0.005 - Analyte not detected above specific laboratory method LOQ
ND - Analyte not detected above specific laboratory method LOQ

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL DATA
ConocoPhillips Site No. 251028
5300 Broadway Avenue, Oakland, California

Sample ID	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Other HVOC (µg/L)	Oxygenates (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)
		EPA 8260B						EPA 8015B Modified	
ATC-2	09/27/07	<5	<5	<5	<5	All analytes ND.	All analytes ND.	73	15,000
B-2**	09/27/07	<5	<5	<5	<5	All analytes ND.	All analytes ND.	69	25,000
ATC-5	09/27/07	<5	<5	45	6	All remaining analytes ND.	All analytes ND.	5,300	18,000

Notes:
µg/L - Micrograms per liter (equivalent to parts per billion).
HVOC - Halogenated volatile organic compounds.
* - Only compounds detected at a concentration exceeding their respective laboratory method Limit of Quantitation (LOQ) are noted.
TPH - Total petroleum hydrocarbons.
TPH-GRO - Gasoline range organic hydrocarbons.
TPH-DRO - Diesel range organic hydrocarbons.
EPA - Environmental Protection Agency
<5 - Analyte not detected above specific laboratory method LOQ.
ND - Analyte not detected above specific laboratory method LOQ.
** - Duplicate groundwater sample collected from boring ATC-2.

ATTACHMENT 4

Table 1
Summary of Soil Analytical Data
76 Branded Service Station No. 1028
5300 Broadway
Oakland California

Sample ID	Date	Time	Depth	GRO	DRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	ETBE (mg/kg)	DIPE (mg/kg)	TAME (mg/kg)	Ethanol (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)	Total Lead (mg/kg)
B-1@4.5-5_20101207	12/7/2010	15:43	4.5-5	<0.13	3.3	<0.0016	<0.0016	<0.0016	<0.0048	<0.0016	<0.0081	<0.0016	<0.0016	<0.0016	<0.21	<0.0016	<0.0016	NA
B-1@7.5-8_20101207	12/7/2010	15:38	7.5-8	<0.25	<1.9	<0.0030	<0.0030	<0.0030	<0.0091	<0.0030	<0.015	<0.0030	<0.0030	<0.0030	<0.41	<0.0030	<0.0030	NA
B-1@14.5-15_20101207	12/7/2010	16:17	14.5-15	<0.28	<2.0	<0.0034	<0.0034	<0.0034	<0.010	<0.0034	<0.017	<0.0034	<0.0034	<0.0034	<0.45	<0.0034	<0.0034	NA
B-2@3.5-4_20101208	12/8/2010	9:18	3.5-4	<0.24	<2.0	<0.0029	<0.0029	<0.0029	<0.0088	<0.0029	<0.015	<0.0029	<0.0029	<0.0029	<0.39	<0.0029	<0.0029	NA
B-2@4.5-5_20101208	12/8/2010	9:08	4.5-5	<0.26	<2.0	<0.0031	<0.0031	<0.0031	<0.0094	<0.0031	<0.016	<0.0031	<0.0031	<0.0031	<0.42	<0.0031	<0.0031	NA
B-2@6-6.5_20101208	12/8/2010	9:25	6-6.5	<0.20	<1.9	<0.0024	<0.0024	<0.0024	<0.0071	<0.0024	<0.012	<0.0024	<0.0024	<0.0024	<0.31	<0.0024	<0.0024	NA
B-2@12.5-13_20101208	12/8/2010	9:39	12.5-13	<0.20	<2.0	<0.0024	<0.0024	<0.0024	<0.0072	<0.0024	<0.012	<0.0024	<0.0024	<0.0024	<0.32	<0.0024	<0.0024	NA
B-3@4.5-5_20101207	12/7/2010	8:00	4.5-5	<0.26	**2.0**	<0.0031	<0.0031	<0.0031	<0.0094	<0.0031	<0.016	<0.0031	<0.0031	<0.0031	<0.42	<0.0031	<0.0031	NA
B-3@7.5-8_20101207	12/7/2010	8:09	7.5-8	<0.26	<2.0	<0.0031	<0.0031	<0.0031	<0.0094	<0.0031	<0.016	<0.0031	<0.0031	<0.0031	<0.42	<0.0031	<0.0031	NA
B-3@17.5-18_20101207	12/7/2010	9:00	17.5-18	<0.41	<1.9	<0.0049	<0.0049	<0.0049	<0.015	<0.0049	<0.025	<0.0049	<0.0049	<0.0049	<0.66	<0.0049	<0.0049	NA
MW-1@5-5.5_20101207	12/7/2010	11:30	5-5.5	<0.19	**2.0**	<0.0023	<0.0023	<0.0023	<0.0068	<0.0023	<0.011	<0.0023	<0.0023	<0.0023	<0.30	<0.0023	<0.0023	NA
MW-1@7.5-8_20101207	12/7/2010	11:37	7.5-8	<0.18	<2.0	<0.0022	<0.0022	<0.0022	<0.0067	<0.0022	<0.011	<0.0022	<0.0022	<0.0022	<0.30	<0.0022	<0.0022	NA
MW-1@11.5-12_20101207	12/7/2010	12:05	11.5-12	<0.35	<2.0	<0.0042	<0.0042	<0.0042	<0.013	<0.0042	<0.021	<0.0042	<0.0042	<0.0042	<0.56	<0.0042	<0.0042	NA
MW-2@1.5-2_20101208	12/8/2010	10:28	1.5-2	<0.18	<2.0	<0.0022	<0.0022	<0.0022	<0.0065	<0.0022	<0.011	<0.0022	<0.0022	<0.0022	<0.29	<0.0022	<0.0022	NA
MW-2@4.5-5_20101208	12/8/2010	10:23	4.5-5	<0.23	<2.0	<0.0027	<0.0027	<0.0027	<0.0081	<0.0027	<0.014	<0.0027	<0.0027	<0.0027	<0.36	<0.0027	<0.0027	NA
MW-2@7.5-8_20101208	12/8/2010	10:37	7.5-8	<0.24	**447**	<0.0028	<0.0028	<0.0028	<0.0085	<0.0028	<0.014	<0.0028	<0.0028	<0.0028	<0.38	<0.0028	<0.0028	NA
MW-2@11.5-12_20101208	12/8/2010	10:45	11.5-12	<0.20	<2.0	<0.0024	<0.0024	<0.0024	<0.0071	<0.0024	<0.012	<0.0024	<0.0024	<0.0024	<0.31	<0.0024	<0.0024	NA
MW-3@4.5-5_20101206	12/6/2010	12:52	4.5-5	<0.18	<2.0	<0.0021	<0.0021	<0.0021	<0.0064	<0.0021	<0.011	<0.0021	<0.0021	<0.0021	<0.29	<0.0021	<0.0021	NA
MW-3@9.5-10_20101206	12/6/2010	12:55	9.5-10	<0.22	<2.0	<0.0027	<0.0027	<0.0027	<0.0080	<0.0027	<0.013	<0.0027	<0.0027	<0.0027	<0.36	<0.0027	<0.0027	NA
MW-3@11.5-12_20101206	12/6/2010	12:59	11.5-12	<0.19	<1.9	<0.0022	<0.0022	<0.0022	<0.0067	<0.0022	<0.011	<0.0022	<0.0022	<0.0022	<0.30	<0.0022	<0.0022	NA
COMP ABCD	12/8/2010	11:35	NA	<0.24	**119**	<0.0029	<0.0029	<0.0029	<0.0086	<0.0029	NA	NA	NA	NA	NA	NA	NA	**8.9**
Residential ESL (shallow soil)	--	--	<3m	83	83	0.044	2.9	2.3	2.3	0.023	0.075	NA	NA	NA	NA	0.00033	0.0045	200

NOTES

Depth measured in feet below ground surface
Bold concentrations indicate detections over laboratory reporting limit

mg/kg	milligrams per kilogram
MTBE	methyl tertiary butyl ether
TBA	tertiary buty alcohol
ETBE	ethyl tertiary butyl ether
DIPE	di-isopropyl ether
TAME	tertiary amyl ethyl ether
EDB	ethylene dibromide
1,2-DCA	1,2-dichloroethane
ESL	Regional Water Quality Control Board - San Francisco Region Environmental Screening Level

ESL based on residential land use, shallow soil, and groundwater as a potential drinking resource.

TABLE 2
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 Service Station No. 1028
5300 BROADWAY AVE
OAKLAND, CALIFORNIA

anteagroup

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA													
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	GRO (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-1	12/21/2010	176.62	1.16	NP	175.46	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	2/17/2011	176.62	1.29	NP	175.33	56.8	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	4/4/2011	176.62	1.53	NP	175.09	<50.0	119	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	8/8/2011	176.62	2.50	NP	174.12	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
MW-2	12/21/2010	181.36	4.19	NP	177.17	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	2/17/2011	181.36	4.10	NP	177.26	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	4/4/2011	181.36	4.35	NP	177.01	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	8/8/2011	181.36	4.72	NP	176.64	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
MW-3	12/21/2010	176.40	2.08	NP	174.32	74.4	<50.0	<0.50	<0.50	<0.50	<1.5	0.87	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	2/17/2011	176.40	2.20	NP	174.20	<50.0	52.1	<0.50	<0.50	<0.50	<1.5	2.5	<0.50	<0.50	<0.50	7.5	<250	<1.0	<1.0
	4/4/2011	176.40	3.15	NP	173.25	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	0.92	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	8/8/2011	176.40	3.52	NP	172.88	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	1.2	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0

Gauging Notes:
TOC - Top of Casing
ft - Feet
NP - LNAPL not present
LNAPL - Light non-aqueous phase liquid
* - Corrected for LNAPL if present (assumes LNAPL specific gravity = 0.75)
-- - No information available

Analytical Notes:
< - Not detected at or above indicated laboratory reporting limit
ug/L - micrograms/liter
DRO- diesel range organics
GRO- gasoline range organics
MTBE- Methyl tertiary-butyl ether
TBA- Tertiary-butyl alcohol
DIPE- Di-isopropyl ether
ETBE- Ethyl tertiary-butyl ether
TAME- Tertiary-amyl methyl ether

TABLE 1
CURRENT GROUNDWATER GAUGING AND ANALYTICAL DATA
76 Service Station No. 1028
5300 BROADWAY AVE
OAKLAND, CALIFORNIA

anteagroup

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA													
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	GRO (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-1	8/8/2011	176.62	2.50	NP	174.12	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
MW-2	8/8/2011	181.36	4.72	NP	176.64	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
MW-3	8/8/2011	176.40	3.52	NP	172.88	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	1.2	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0

Gauging Notes:
TOC - Top of Casing
ft - Feet
NP - LNAPL not present
LNAPL - Light non-aqueous phase liquid
* - Corrected for LNAPL if present (assumes LNAPL specific gravity = 0.75)
-- - No information available

Analytical Notes:
< - Not detected at or above indicated laboratory reporting limit
ug/L - micrograms/liter
DRO- diesel range organics
GRO- gasoline range organics
MTBE- Methyl tertiary-butyl ether
TBA- Tertiary-butyl alcohol
DIPE- Di-isopropyl ether
ETBE- Ethyl tertiary-butyl ether
TAME- Tertiary-amyl methyl ether

LOG OF BORING ATC-2

SHEET 1 OF 1

Client ConocoPhillips Company
Project Name Conoco Phillips Site No. 251028
Number 34.75118.3103
Location 5300 Broadway Avenue, Oakland, CA

Drill Contractor Cascade Drilling Inc.
Drill Method Geoprobe
Drilling Started 9/27/07 Ended 9/27/07
Logged By Jonathan Flomerfelt

Elevation (ft amsl) –
Total Depth 13
Depth To Water ▽ ATD 7

DEPTH (feet)	SAMPLE NO.	BLOWS/6"	PID (ppm)	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
						Airknifed to 5' bgs. No sample recovery.	
5	NR B-2-5		0.0	GP		CLAYEY GRAVEL. 75% gravel. 25% clay. Yellow. Wet. Angular gravel.	5
10	CT B-2-10		0.0			90% gravel. 10% clay.	10
	CT B-2-13		0.0			Bottom of hole at 13 feet	
15							15

REGISTERED GEOLOGIST
GIRARD E. MORGAN
No. 5289
6/30/10
Date Expires
STATE OF CALIFORNIA

ATC ASSOCIATES INC.
9185 S. Farmer Ave., Ste 107
Tempe, Arizona 85284
Phone: 480.894.2056
Fax: 480.894.2497

Remarks : Groundwater encountered at 7' bgs. Refusal at approximately 13' bgs.

See key sheet for symbols and abbreviations used above.

LOG A EWNN05 251028 BORING LOGS.GPJ LOG A EWNN05.GDT 11/1/07

ATTACHMENT 5

LOG OF BORING ATC-4

SHEET 1 OF 1

Client ConocoPhillips Company
Project Name Conoco Phillips Site No. 251028
Number 34.75118.3103
Location 5300 Broadway Avenue, Oakland, CA

Drill Contractor Cascade Drilling Inc.
Drill Method Geoprobe
Drilling Started 9/27/07 Ended 9/27/07
Logged By Jonathan Flomerfelt

Elevation (ft amsl) --
Total Depth 10
Depth To Water

DEPTH (feet)	SAMPLE NO.	BLOWS/6"	PID (ppm)	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
						Airknifed to 5' bgs. No sample recovery.	
5	CT B-4-5		0.0	GP		SANDY GRAVEL. 70% gravel. 30% sand. Brown. Dry.	5
10	CT B-4-10		0.0			Bottom of hole at 10 feet	10
15							15
20							20
25							25

REGISTERED GEOLOGIST
GIRARD E MORGAN
No. 5289
6/30/10
Date Expires
STATE OF CALIFORNIA

ATC ASSOCIATES INC.
9185 S. Farmer Ave., Ste 107
Tempe, Arizona 85284
Phone: 480.894.2056
Fax: 480.894.2497

Remarks : No groundwater encountered. Refusal at approximately 10' bgs.

See key sheet for symbols and abbreviations used above.

LOG A EVANS 251028 BORING LOGS.GPJ LOG A EVANS05.GDT 11/1/07

LOG OF BORING ATC-5

SHEET 1 OF 1

Client ConocoPhillips Company
Project Name Conoco Phillips Site No. 251028
Number 34.75118.3103
Location 5300 Broadway Avenue, Oakland, CA

Drill Contractor Cascade Drilling Inc.
Drill Method Geoprobe
Drilling Started 9/27/07 Ended 9/27/07
Logged By Jonathan Flomerfelt

Elevation (ft amsl) –
Total Depth 10
Depth To Water ▽ ATD 7

DEPTH (feet)	SAMPLE NO.	BLOWS/6"	PID (ppm)	USCS	LITHOLOGY	DESCRIPTION	DEPTH FEET
						Airknifed to 5' bgs. No sample recovery.	
5	CT B-5-5		33.8				5
			99.1	SP		GRAVELLY SAND. 70% sand. 30% gravel. Brownish yellow. Wet. ▽	
10	CT B-5-10		396	GM		SILTY GRAVEL. 70% gravel. 30% silt. Light yellowish brown. Dry to damp. Shale bedrock fragments.	10
						Bottom of hole at 10 feet	
15							15
20							20
25							25

REGISTERED GEOLOGIST
GIRARD E. MORGAN
No. 5289
6/30/10
Date Expires
STATE OF CALIFORNIA

VATC ASSOCIATES INC.
9185 S. Farmer Ave., Ste 107
Tempe, Arizona 85284
Phone: 480.894.2056
Fax: 480.894.2497

Remarks : Groundwater encountered at 7' bgs.

See key sheet for symbols and abbreviations used above.

LOG A EWNN05 251028 BORING LOGS.GPJ LOG A EWNN05.GDT 11/1/07

Project No:	140251028	Client:	COP/ELT	Well/ Boring ID: MW-1
Logged By:	Nadine Periat	Location:	5300 Broadway, Oakland, CA	Page 1 of 1
Driller:	Cascade Drilling, LP	Date Drilled:	12/7/2010	
Drilling Method:	Hollow Stem Auger	Hole Diameter:	8 inches	
Sampling Method:	Direct Push	Hole Depth:	12 feet	
Casing Type:	Sch 40 PVC	Well Diameter:	2 inches	
Slot Size:	0.02	Well Depth:	12 feet	
Gravel Pack:	#3 Sand	Casing Stickup:	NA	
Elevation		Northing		Easting

Location Map

See Attached Site Map

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
									Concrete
	▼	Moist			1			GP	**Poorly Graded Gravel with Sand**, brown, 60% gravel, 35% coarse sand, 5% fines.
					2			CL	**Lean Clay,** black, <5% sand, medium plasticity, roots
		Moist			3			GC	**Clayey Gravel,** brown, 70% fine angular gravel, 30% fines. Gravel is fractured shale bedrock, up to 1" diameter fluffy texture, could be artificial fill, 4-6" cobbles at 3', some red chert and granitic rock fragments
	▽	Wet			4				**Shale Bedrock,** brown-gray, vertical fracture planes similar to those observed in MW-2, strike and dip are not possible due to depth.
		Wet	0.1		5				
					6				As above, veins of soft, crystalline white precipitate
		Wet			7				
		Wet	0.1		8				
					9				
		Moist	0.1		10				As above, no precipitate
		Moist			11				
			0.2		12				

Bottom of Boring at 12 feet below grade

PROFESSIONAL GEOLOGIST
LIA HOLDEN
No. 8584
Exp.
STATE OF CALIFORNIA

Legend:

- Portland Cement
- Bentonite Seal
- #3 Sand Pack
- Blank Casing
- 0.02 inch Screen
- ▽ First Encountered Groundwater
- ▼ Static Groundwater

anteagroup

Project No:	140251028	Client:	COP/ELT
Logged By:	Nadine Periat	Location:	5300 Broadway, Oakland, CA
Driller:	Cascade Drilling, LP	Date Drilled:	12/8/2010
Drilling Method:	Hollow Stem Auger	Hole Diameter:	8 inches
Sampling Method:	Direct Push	Hole Depth:	12 feet
Casing Type:	Sch 40 PVC	Well Diameter:	2 inches
Slot Size:	0.02	Well Depth:	12 feet
Gravel Pack:	#3 Sand	Casing Stickup:	NA

Well/ Boring ID: MW-2
Page 1 of 1

Location Map

See Attached Site Map

Elevation	Northing	Easting

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
									Asphalt
		damp	0.4		1			GP	**Poorly Graded Gravel with Sand**, brown, 60% gravel, 35% coarse sand, 5% fines.
					2				Air knfe refusal at 1.5 feet below grade.
		damp	0.4		3				**Shale Bedrock,** brown-gray, fractured but not weathered vertical fracture planes striking ~250° and 346° bedding planes have 260° strike and 18° SE dip.
	▼	damp	0.5		4				
		damp			5				As above
		damp	0.3		6				
					7				
		damp	0.3		8				As above, more difficult to drill through.
					9				
		damp			10				
			0.5		11				As above, sampling rods nearly stuck in hole,
		damp			12				
			0.4						sampling refusal at 12 feet.

Bottom of Boring at 12 feet below grade
Groundwater not encountered during drilling.

PROFESSIONAL GEOLOGIST
LIA HOLDEN
No. 8584
Exp. 4/11
STATE OF CALIFORNIA

Legend:

- Portland Cement
- Bentonite Seal
- #3 Sand Pack
- Blank Casing
- 0.02 inch Screen
- ▼ Static Groundwater

Project No:	140251028	Client:	COP/ELT	Well/ Boring ID: MW-3
Logged By:	Nadine Periat	Location:	5300 Broadway, Oakland, CA	Page 1 of 1
Driller:	Cascade Drilling, LP	Date Drilled:	12/6/2010	
Drilling Method:	Hollow Stem Auger	Hole Diameter:	8 inches	
Sampling Method:	Direct Push	Hole Depth:	12 feet	
Casing Type:	Sch 40 PVC	Well Diameter:	2 inches	
Slot Size:	0.02	Well Depth:	12 feet	
Gravel Pack:	#3 Sand	Casing Stickup:	NA	
Elevation		Northing		Easting

Location Map

See Attached Site Map

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
									Asphalt
		Moist			1			GC	**Clayey Gravel**, brown-orange mottled, 60% coarse gravel, 40% fines clay has medium plasticity.
	▼				2			CL	**Lean Clay with Gravel,** brown orange mottled, 15% cobbles, clay is sticky and difficult to air knife through, cobbles are red chert.
		Moist			3				**Shale bedrock**, clayey, ~3" angular cobbles, clay in bedrock fractures
	▽	Moist			4				
		Moist	1		5				As above, rock is dry, slough is wet, some clay veins in bedrock, may be from pulvarization in sampler, rock is red oxidized.
		Moist			6				
		Moist			7				
		Moist			8				
		Moist			9				
			1.2		10				
		Moist			11				As above, less weathered.
			0.4		12				

Bottom of Boring at 12 feet below grade

PROFESSIONAL GEOLOGIST
LIA HOLDEN
No. 8584
Exp.
STATE OF CALIFORNIA

Legend:

- Portland Cement
- Bentonite Seal
- #3 Sand Pack
- Blank Casing
- 0.02 inch Screen
- ▽ First Encountered Groundwater
- ▼ Static Groundwater

anteagroup

Project No:	I40251028	Client:	COP/ELT
Logged By:	Nadine Periat	Location:	5300 Broadway, Oakland, CA
Driller:	Cascade Drilling, LP	Date Drilled:	12/7/2010
Drilling Method:	Direct Push	Hole Diameter:	3 inches
Sampling Method:	Direct Push	Hole Depth:	15 feet
Casing Type:	NA	Well Diameter:	NA
Slot Size:	NA	Well Depth:	NA
Gravel Pack:	NA	Casing Stickup:	NA

Well/ Boring ID: B-1

Location Map

See Attached Site Map

Elevation	Northing	Easting

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
					0			Concrete
					1		GP	**Poorly Graded Gravel with Sand**, brown, 60% gravel, 35% coarse sand, 5% fines.
					2		CL	**Lean Clay**, black, <5% sand, medium plasticity, roots
							GC	**Clayey Gravel**, brown, 70% fine angular gravel, 30% fines
					3			Gravel is fractured shale bedrock, up to 1" diameter
	▽	wet						fluffy texture, could be artificial fill, 4-6" cobbles at 3',
					4			some red chert and granitic angular gravel
		wet						**Shale Bedrock,** brown-gray, vertical fracture planes with
					5			horizontal bedding, well indurated.
								No Recovery - Acetate liner crushed.
		wet			6			As above (shale bedrock)
			0.4		7			
		moist						
			0.4		8			As above (shale bedrock)
					9			
		damp	0.6		10			
					11			As above (shale bedrock)
		damp	0.7		12			
					13			
			0.6					
		damp			14			Geoprobe refusal at 14 feet
					15			Hydropunch to 15 feet, no sample recovery.

Legend:

Portland Cement

▽ First Encountered Groundwater

PROFESSIONAL GEOLOGIST
LIA HOLDEN
No. 8584
Exp. 4/11
STATE OF CALIFORNIA

Project No:	I40251028	Client:	COP/ELT	Well/ Boring ID: B-2
Logged By:	Nadine Periat	Location:	5300 Broadway, Oakland, CA	Page 1 of 1
Driller:	Cascade Drilling, LP	Date Drilled:	12/7/2010	Location Map
Drilling Method:	Direct Push	Hole Diameter:	3 inches	See Attached Site Map
Sampling Method:	Direct Push	Hole Depth:	13 feet	
Casing Type:	NA	Well Diameter:	NA	
Slot Size:	NA	Well Depth:	NA	
Gravel Pack:	NA	Casing Stickup:	NA	
Elevation		Northing		Easting

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
									Asphalt
					1			GP	**Poorly Graded Gravel with Sand**, brown, 60% small gravel
		damp							35% coarse sand, 5% fines (base rock)
					2				Air knfe refusal at 2.5 feet below grade.
		damp							**Shale Bedrock**, brown-gray, fractured but not weathered
			0.2		3				vertical fracture planes striking ~250° and 346°
									bedding planes have 260° strike and 18° SE dip.
					4				
		moist			5				As above, moist in center of core, dry on outside.
			0.4		6				
					7				
			0.4						
		moist			8				As above
					9				
			0.6						
					10				
		damp	0.3		11				As above
					12				
			0.3		13				Refusal at 13 feet below grade, groundwater not encountered

Bottom of Boring at 13 Feet Below Grade

Legend:

Portland Cement

PROFESSIONAL GEOLOGIST
LIA HOLDEN
No. 8584
Exp. 4/11
STATE OF CALIFORNIA

anteagroup

Project No:	140251028	Client:	COP/ELT
Logged By:	Nadine Periat	Location:	5300 Broadway, Oakland, CA
Driller:	Cascade Drilling, LP	Date Drilled:	12/7/2010
Drilling Method:	Direct Push	Hole Diameter:	3 inches
Sampling Method:	Direct Push	Hole Depth:	18 feet
Casing Type:	NA	Well Diameter:	NA
Slot Size:	NA	Well Depth:	NA
Gravel Pack:	NA	Casing Stickup:	NA
Elevation		Northing	Easting

Well/ Boring ID: B-3
Page 1 of 1

Location Map

See Attached Site Map

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
									Asphalt
					1			GC	**Clayey Gravel**, brown-orange mottled, 60% coarse gravel, clay has medium plasticity.
					2			CL	**Lean Clay with Gravel,** brown orange mottled, 15% cobbles, clay is sticky and difficult to air knife through, cobbles are red chert.
	▽	wet							
		wet			3				**Shale Bedrock**, slighlty weathered, 15% clay, clay in bedrock fractures
					4				
		wet			5				
			0.4						As above
		wet			6				
					7				
		moist							
			0.3		8				As above
		damp			9				
			0.4		10				
		damp			11				
			0.3		12				
									As above, less clayey, much harder rock, coming out of sampler as fine gravel, pulvarized by sampler. Acetate liner damaged, rocks stuck in sampler
		damp			13				
					14				
			0.3		15				
					16				
					17				As above
		damp	0.4		18				

Bottom of Boring at 18 Feet Below Grade

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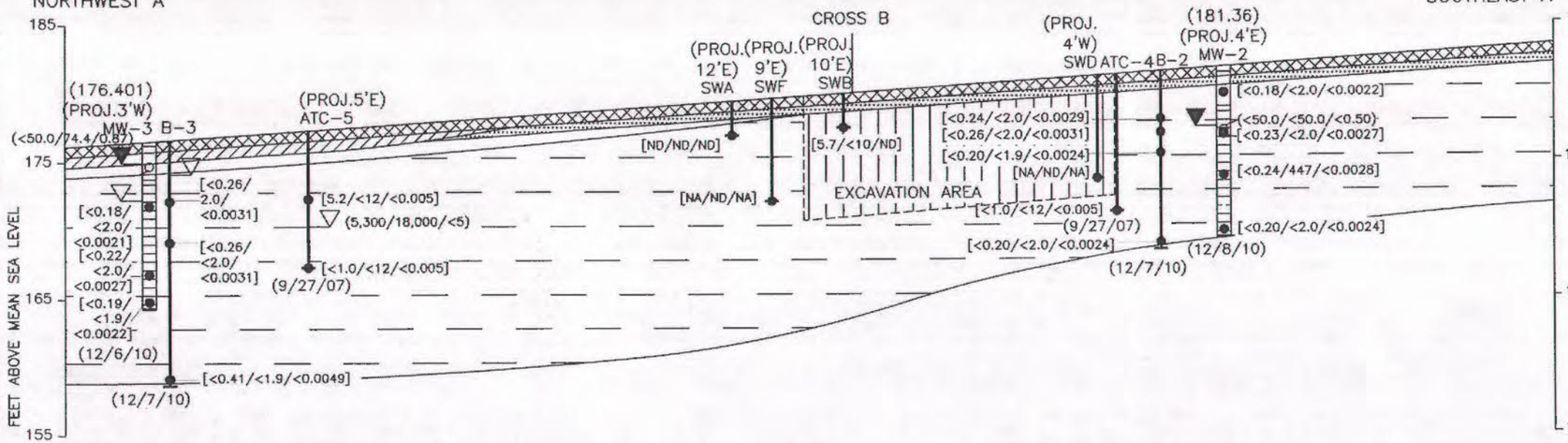
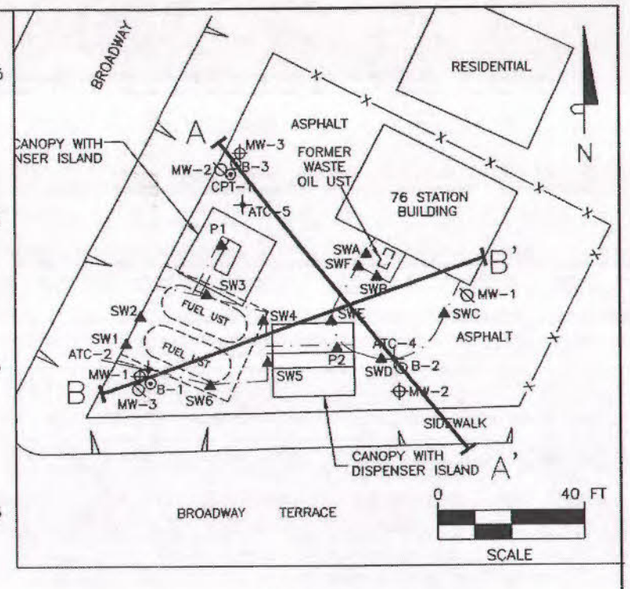
Legend:

- Portland Cement
- ▽ First Encountered Groundwater

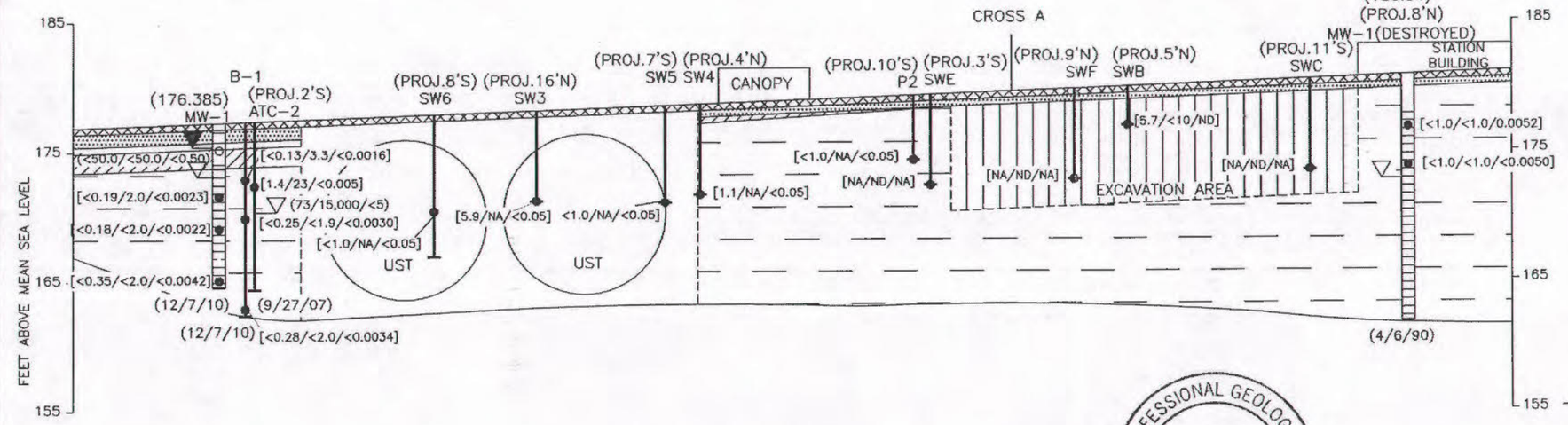
NORTHWEST A



SOUTHEAST A'



SOUTHWEST B



NORTHEAST B'

LEGEND

(181.36)	TOP OF CASING ELEVATION (ft/msl)
(PROJ.4'E)	PROJECTED DISTANCE FROM LINE
MW-2	WELL / BORING NAME
	WELL CASING / EXPLORATORY BORING
	SOIL SAMPLE LOCATION WITH ANALYTICAL DATA; [GRO/DRO/BENZENE] (mg/kg)
	DEPTH TO FIRST ENCOUNTERED GROUNDWATER
	DEPTH TO STATIC GROUNDWATER (12/21/10) WITH GROUNDWATER SAMPLE LOCATION WITH ANALYTICAL DATA; [GRO/DRO/MTBE] (µg/L)
	WELL SCREEN
(12/8/10)	DATE ADVANCED
	PAVEMENT
	ARTIFICIAL BACKFILL
	CLAYEY SAND
	SILTS AND CLAYS
	SANDS
	SHALE BEDROCK
	APPROXIMATE STRATIGRAPHIC BOUNDARY

NOTES:
GRO = GASOLINE RANGE ORGANICS
DRO = DIESEL RANGE ORGANICS
MTBE = METHYL TERTIARY BUTYL ETHER
mg/kg = MILLIGRAMS PER KILOGRAM
µg/L = MICROGRAMS PER LITER
* = WELL ELEVATION BASED ON DIFFERENCE IN TOP OF BOX (TOB) ELEVATION FROM FORMER WELL MW-3. ELEVATION WAS CALCULATED BY ADDING THIS DIFFERENCE TO TOB ELEVATION OF CURRENT WELL MW-1. ELEVATION IS APPROXIMATE.

STRATIGRAPHY BETWEEN BORINGS IS INTERPRETIVE.

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0 10
SCALE IN FEET
10

FIGURE 3
GEOLOGICAL CROSS SECTION
A – A' AND B – B'
76 STATION NO. 1028
5300 BROADWAY
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
140251028	NaP	JH
DATE	REVIEWED BY	FILE NAME
2/17/11	LH	1028-Site

anteagroup

ATTACHMENT 6