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Sacramento, California 95818

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1:23 pm, Aug 02, 2010

Alameda County
Environmental Health

July 30, 2010

Ms. Barbara Jakub
Alameda County Health Agency
1131 Harbor Bay Parkway
Alameda, California 94502

Re: **Assessment Report, Site Conceptual Model Update, and Additional Assessment Workplan**

76 Station no. 5781
3535 Pierson Street
Oakland, CA

Dear Ms. Jakub,

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

If you have any questions or need additional information, please contact me at (916) 558-7612.

Sincerely,

A handwritten signature in black ink that reads "Bill Borgh". The signature is written in a cursive, slightly slanted style.

Bill Borgh
Site Manager – Risk Management and Remediation

Attachment

July 30, 2010

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

RE: **ASSESSMENT REPORT,
SITE CONCEPTUAL MODEL UPDATE, AND
ADDITIONAL ASSESSMENT WORKPLAN**
76 Service Station NO. 5781
3535 Pierson Street
Oakland, California



Dear Ms. Jakub,

On behalf of ConocoPhillips Company (COP), Delta consultants (Delta) has prepared and is submitting this *Assessment Report, Site Conceptual Model Update, and Additional Assessment Workplan* for 76 service station No. 5781 in Oakland, California. This report has been prepared in response to a Alameda County Environmental Health (ACEH) letter dated May 21, 2010.

Please Contact Jan Wagoner at (916) 503-1275 if you have any questions or comments.

Sincerely,

DELTA CONSULTANTS

A handwritten signature in blue ink, appearing to read "Jan Wagoner".

Jan Wagoner
Senior Project Manager

Enclosure:

Cc: Bill Borgh – COP (electronic copy only)
Mr. Keith Matthews, Oakland Fire Department

**ASSESSMENT REPORT,
SITE CONCEPTUAL MODEL UPDATE, AND
ADDITIONAL ASSESSMENT WORKPLAN**

**76 SERVICE STATION NO. 5781
3535 PIERSON STREET
OAKLAND, CALIFORNIA**

July 30, 2010

Prepared for:

**ConocoPhillips Company
76 Broadway
Sacramento, CA 95818**

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

DELTA CONSULTANTS

Alan Buehler on behalf of:

Alan Buehler
Staff Geologist

Caitlin Morgan

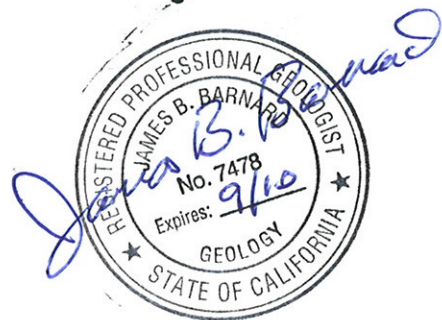
Caitlin Morgan
Staff Scientist

Jan Wagoner

Jan Wagoner
Senior Project Manager

James B. Barnard

James B. Barnard
California Registered Professional Geologist No. 7478



1.0 INTRODUCTION

Delta Consultants, Inc. (Delta), on behalf of ConocoPhillips (COP) has prepared this *Assessment Report, Site Conceptual Model Update, and Additional Assessment Workplan* for 76 Service Station No. 5781, located at 3535 Pierson Street in Oakland, California (site) (**Figure 1**). This report provides a summary of current and historical assessment and a discussion regarding current and future distribution of petroleum hydrocarbons reported in soil and groundwater beneath the site. The activities presented in this report are in response to an Alameda County Environmental Health (ACEH) letter dated May 21, 2010 (Appendix A).

The key elements of this report are:

- Site background and regional hydrogeologic setting
- Previous assessment activities
- Current storm drain and soil and groundwater assessment summary
- Site Conceptual Model – including
 - Nature and extent of the petroleum hydrocarbon source(s)
 - Contaminant fate and transport characteristics
 - Potential exposure pathways
 - Potential receptors
 - Identification of data gaps and recommendations
- Additional Assessment Workplan

2.0 SITE BACKGROUND

2.1 SITE LOCATION

The site (Alameda County Assessor's Parcel No. 48A-7070-70-1) is located on a triangular shaped property formed by the intersection of Pierson Street and Highway 580 freeway off-ramp in Oakland, California.

2.2 SITE DESCRIPTION

The subject site is an active gasoline service station located on the northwest corner of Pierson Street and MacArthur Boulevard in Oakland, California. Current ownership is Mr. DeLong Liu. Station facilities currently include two gasoline underground storage tanks (USTs), a 550-gallon waste oil UST, three dispenser islands under canopies, and a service station building. The product dispensers utilize a balanced vapor recovery system. Site improvements and current monitoring wells are presented on Figure 2.

Historical data indicates that the site has been a service station since 1947. Renovation of the site first occurred in 1967, when the size of the site expanded to its current configuration.

The site is bounded to the west by a church property, to the north by a Highway 580 off-ramp, to the east by MacArthur Boulevard, and to south by Pierson Street. The site is located in a primarily residential area, at an elevation of approximately 150 feet above mean sea level (MSL). The site is located in a small valley with a surface slope to the east. Regional topography slopes to the west-southwest towards San Francisco Bay, located approximately 3 miles to the west.

2.3 REGIONAL GEOLOGIC SETTING

The site is located near the base of the Berkeley Hills. Gettler-Ryan Inc., in their report dated July 14, 2003, provided the following description of the regional geologic setting;

Based on review of regional geologic maps, the site is underlain by undivided Quaternary deposits and is closely adjacent to a mapped geologic contact with the upper member of the Quaternary San Antonio Formation. In addition, the site is situated approximately 1,200 to 2,800 feet southwest of mapped splays of the active Hayward Fault Zone.

2.4 REGIONAL HYDROGEOLOGIC SETTING

The site is located at the eastern edge of the East Bay Plain Groundwater Subbasin (DWR Bulletin 118). The subbasin consists of a narrow area approximately 25 miles long and 2 to 7 miles wide along the eastern shore of San Francisco Bay. The East Bay Plain subbasin aquifer system consists of unconsolidated sediments of Quaternary age. Numerous creeks cross the subbasin capturing runoff from foothills east of the Hayward fault. The groundwater flow direction is east to west, generally reflecting the local topography. Flow direction and velocity are influenced by buried stream channels that are typically oriented in an east-west direction (RWQCB, June 1999). The total depth of domestic wells within the subbasin reportedly ranges from 32 to 525 feet with an average of 206 feet. Total depth of municipal and irrigation wells range from 29 to 630 feet with an average of 191 feet (DWR Bulletin 118). The California Department of Water Resources GeoTracker database, prior to removal of well information, indicated the presence of four active water wells nearby the site. The four active wells are reported to be located in East Bay Regional Park District land, located approximately 2,193 feet northeast of the site.

2.5 HYDROGEOLOGIC CONDITIONS

The site is underlain by fine-grained silt and clay. Historical boring logs are presented in Appendix B. The fine-grained soil contains scattered deposits of

clayey sand and silty sand. The coarsest deposits were encountered in boring MW-2 located north of the fuel USTs. Boring MW-2 encountered two layers of silty gravel and gravel from 7 to 12 feet bgs and from 17.5 to 20.5 feet bgs. A site map with cross sections is shown as Figure 3. Geologic cross-sections A-A' through E-E' are shown as Figures 4 through 8.

During onsite activities, groundwater at the site has been encountered in borings between 15 and 33 feet bgs. Other site borings drilled to similar depths were dry upon completion.

During second quarter 2010 sampling activities on June 16, 2010, depth to groundwater ranged from 11.13 feet below top of casing (TOC) in well MW-4, to 17.85 feet below TOC in well MW-A. Groundwater flow direction based on the three existing wells (MW-A, MW-4, and MW-5) was northwest at a calculated hydraulic gradient of 0.1 feet per foot (ft/ft). This groundwater flow and gradient is suspect when compared to the topography in the vicinity of the site. This discrepancy may be related to different screen intervals for MW-4 and MW-5 (10-20 feet bgs and 15-25 feet bgs, respectively) when compared to previous well MW-A (25-45 feet bgs).

Groundwater flow direction and gradient beneath the site has not been assessed at this time. Perched zones of groundwater atop impermeable clayey soil materials may exist across the site, as indicated by the sporadic encountering of groundwater at depths of approximately 33 feet bgs (MW-A, EB-1, EB-2, SB-1, and SB-5). Groundwater may also be confined or semi-confined as indicated by conditions in well MW-A.

3.0 PREVIOUS ASSESSMENT

Historical sampling locations are shown on Figure 9. Historical soil analytical results are presented on Table 1. Historical grab groundwater analytical results are presented on Table 2. Historical groundwater monitoring and sampling results are included as Appendix C.

Historical and current soil analytical results exceeding Environmental Screening Levels (ESLs) are shown on Figure 10. Historical and current grab groundwater analytical results are shown on attached Figure 11.

3.1 REMOVAL OF FORMER USTS (1989)

Two 10,000-gallon fuel USTs, one 280-gallon waste oil UST, and associated product piping were removed in December 1989. No holes or cracks were observed in the gasoline USTs. The waste oil UST contained one hole of approximately 1.25 square inches in size. A total of seven soil samples were collected from the fuel UST cavity (A1, A2, B1, SW1, and SW2) and the

associated product piping (P1 and P2). One soil sample (WO1) was collected from beneath the waste oil UST.

Total petroleum hydrocarbon as gasoline (TPHg) was reported in sidewall samples from the UST pit at a depth of 10.5 feet below ground surface (bgs) at 15 milligrams per kilogram (mg/kg) and 46 mg/kg. Benzene was reported in one of the two samples at 0.65 mg/kg. TPHg was reported in two of three soil samples from the base of the excavation (12.5 feet bgs) at 3.5 mg/kg and 5.8 mg/kg. Benzene was reported in one of three samples at 0.10 mg/kg. TPHg and benzene were below laboratory reporting limits in the two soil samples from beneath the product piping.

The soil sample from beneath the waste oil tank contained 8,300 mg/kg total petroleum hydrocarbons as diesel (TPHd), 48,000 mg/kg total oil and grease (TOG), 670 mg/kg TPHg, and 5.4 mg/kg benzene. The sample also contained 10 parts per billion (ppb) 1,2-dichlorobenzene, 77 ppb tetrachloroethene, and 15 ppb 1,1,1-trichloroethane. The sample contained 8.3 mg/kg chromium, 340 mg/kg lead, and 70 mg/kg zinc.

3.2 WASTE OIL UST PIT OVER-EXCAVATION (1990)

In February 1990, the waste oil UST pit was over-excavated to 16 feet bgs and 35 feet to the east, 10 feet to the west, 15 feet to the south, and 2 feet to the north. Soil samples were collected from the base of the deepened excavation (W01-16) along with four sidewall samples (SWA through SWD). TOG was reported in samples SWA (adjacent to the site building) at 17,000 mg/kg, sample SWB at 4,100 mg/kg, and in sample SWD at 6,400 mg/kg. TOG was detected in sample WO-16 at 910 mg/kg. The highest concentrations of TPHd, TPHg, and benzene were reported in sample SWA at 1,400 mg/kg, 220 mg/kg, and 2.3 mg/kg, respectively. Further excavation was terminated due to the presence of underground sewer and gas lines to the south and west and the site building to the north side.

3.3 SOIL BORINGS (1990)

Three soil borings (MW-1 through MW-3) were drilled to collect soil samples in April 1990. Boring MW-1 was located adjacent to the former waste oil UST. Borings MW-2 and MW-3 were located adjacent to the gasoline USTs in the eastern portion of the site. Borings were drilled to depths of 50 feet, 39.5 feet, and 40 feet bgs, respectively. The borings had been intended to be converted to groundwater monitoring wells, however groundwater was not encountered and as a result, the boreholes were backfilled with grout. TPHd, TPHg, benzene, toluene, total xylenes, and ethylbenzene (BTEX compounds) were all below the laboratory's indicated reporting limits.

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3535 Pierson St, Oakland, CA

In July 1990, two additional borings (EB1 and EB2) were drilled in the area of the former waste oil UST. Borings were drilled to depths of 34.5 feet and 38 feet bgs. Groundwater was encountered at depths of 33.5 and 36.7 feet bgs. Water samples were collected from each boring. TPHd and TOG were below the laboratory's indicated reporting limits in all soil samples collected. TPHg and benzene were reported in only one sample at concentrations of 1.2 mg/kg and 0.009 mg/kg, respectively. 1,1,1-trichloroethane was reported in the 28.5-foot sample of boring EB1.

The groundwater sample from boring EB1 contained 6.7 micrograms per liter ($\mu\text{g/L}$) TPHd. TPHg and benzene were below laboratory reporting limits. TPHg and TPHd were below the laboratory's indicated reporting limits in the sample from EB2. The sample contained 0.61 $\mu\text{g/L}$ benzene. TOG was below the laboratory's indicated reporting limits in both samples.

3.4 MONITORING WELL INSTALLATION (1990)

On December 11, 1990, one two-inch diameter monitoring well (MW-A) was installed approximately 15 feet south of the former waste oil UST. Groundwater was first encountered at a depth of approximately 33 feet bgs. The well was installed to a depth of 45 feet bgs and screened from 25 feet to 45 feet bgs. Depth to groundwater in the well on December 13, 1990 was 24 feet bgs and 19.40 feet on December 18, 1990. A groundwater sample collected on December 18, 1990 contained 73 $\mu\text{g/L}$ TPHd. TPHg, TOG, and BTEX compounds were below the laboratory's indicated reporting limits.

3.5 BASELINE SITE ASSESSMENT (2003)

A baseline site assessment was performed in October 2003 as part of property transfer. Five borings (SB-1 through SB-5) were drilled adjacent to the site dispensers, fuel USTs, and new waste oil UST. Borings SB-1 through SB-3 were drilled to depths of 44 feet, 54 feet, and 54 feet bgs, respectively. Borings SB-4 and SB-5 were drilled to depths of 24 feet and 29 feet, respectively. Total purgeable petroleum hydrocarbons (TPPH) was only reported in one soil sample (SB-3 @ 45') at 1,100 mg/kg. Boring SB-2 was located adjacent to the southern dispenser island. Benzene and fuel oxygenates were below the laboratory's indicated reporting limits in all soil samples.

Groundwater samples were collected from borings SB-1, SB-4, and SB-5. TPPH, BTEX compounds, and fuel oxygenates were below the laboratory reporting limits in the samples from borings SB-1 and SB-4. The groundwater sample from boring SB-5 located adjacent to the waste oil UST was analyzed for lead and TOG. Lead was reported at 0.18 milligrams per liter (mg/L). TOG was below the laboratory reporting limit.

3.6 REMOVAL OF WASTE OIL UST (2008)

The second generation waste oil tank (WOT) was removed in April 2008. A total of four soil samples were collected from the WOT cavity (WO1 – WO4). One base sample was collected from beneath the WOT at a depth of 9.0 feet bgs, and three sidewall samples were collected at a depth of either 6.5 or 7.0 feet bg. A fourth sidewall sample, from the southeast wall of the pit, was unable to be collected due to proximity of the station building. A composite soil sample (Composite) was also collected from materials stockpiled during removal and sampling activities.

No petroleum hydrocarbons (including TPHd) or fuel oxygenates, total oil and grease, VOCs, SVOCs, or PCBs were reported in any of the four soil samples, or the composite sample. Samples were also analyzed for CAM 17 metals, and each of the five samples contained arsenic at a concentration above the RWQCB ESL of 1.5 mg/kg (commercial). Concentrations ranged from 3.2 mg/kg to 6.2 mg/kg, and appear to represent background conditions at the site. All other reported CAM 17 metal concentrations were below the commercial ESLs set by the RWQCB.

No over-excavation activities were conducted, the WOT was not replaced, and the stockpiled materials were backfilled into the remaining cavity following receipt of laboratory results.

3.7 SOIL BORINGS (2010)

On March 11th and 12th, 2010, Delta oversaw the advancement of three soil borings in the vicinity of former waste oil underground storage tanks near the west corner of the station building (SB-7, SWC-2, SWD-2), and one soil boring to the east of the site's current fuel USTs (SB-6).

TPHg was present at 2,500 µg/L in a grab groundwater sample collected from boring SB-6 indicating residual TPHg in the area southeast of the USTs.

TOG was present in soils samples collected at 10 feet bgs in samples collected from borings SWC-2 and SWD-2 near the former waste oil USTs at concentrations of 7,700 µg/L and 870 µg/L, respectively. However, samples collected from these borings at 15 ft bgs in these two borings were at or below the laboratory's indicated reporting limits. Also, groundwater samples collected from borings SB-7 and SWC-2 reported TOG levels below laboratory indicated reporting limits. The only other petroleum hydrocarbon reported in groundwater above the laboratory's indicated reporting limits was TPHd in borings SWC-2 and SB-7 at 200 µg/L and 65 µg/l, respectively. This indicates that petroleum hydrocarbons are not migrating vertically in soil or laterally in groundwater and no additional assessment is needed in the vicinity of the former waste oil USTs.

4.0 CURRENT ASSESSMENT

4.1 STORM DRAIN ASSESSMENT

On February 16th, 2010, during utility locating activities prior to the March 2010 assessment activities detailed above (section 3.7), Delta and subcontractor personnel identified a hydrocarbon odor emanating from a storm drain manhole, now identified as Manhole #2 (MH-2), southwest of the fuel USTs in the sidewalk along Pierson Street. On March 5th, an Unauthorized Release Report (URR) was submitted by ConocoPhillips to the Alameda County Department of Environmental Health (ACEH). Highest reported Photo-Ionization Detector (PID) readings from MH-2 were recorded at 500 ppm on February 22nd, 2010.

On March 11th through 12th, 2010 Delta oversaw the advancement of four soil borings: SWC-2, SWD-2, SB-6 and SB-7. Details of the investigation were submitted to ACEH in the May 7th, 2010 *Additional Assessment Report, Monitoring Well Installation Work Plan and Storm Sewer Repair Comments*.

On April 8th, 2010, a portion of the sidewall of MH-2 was observed to be leaking liquid into the manhole. On April 28, 2010 Innovative Construction Solutions (ICS) placed a permanent patch on the portion of the storm drain manhole that had been identified to be seeping water into the storm drain. Mr. Mike Fahey of the Oakland Fire Department and representatives from Delta and ConocoPhillips were on-site to observe this repair. Details of this repair were reported in previously noted May 7, 2010 report. Follow-up inspections of the manhole repair indicated the repair was intact and no further water was seeping into the storm drain manhole.

4.1.1 Storm Drain Air Monitoring

As stated above, a PID reading of 500 ppm at MH-2 was recorded in February 2010. This prompted Delta, with the cooperation of the City of Oakland Fire Department, to initiate an air monitoring program in the surrounding storm drain system.

Air monitoring locations have been identified as Drain Inlet #1 (DI-1), MH-2, Manhole #3 (MH-3), Drain Inlet #4 (DI-4), Drain Inlet #5 (DI-4), Drain Inlet #6 (DI-6), and Manhole #7 (MH-7). These locations were initially monitored on March 17th, 2010. Following the repair work to the sidewall in MH-2, the locations were monitored on June 24th, July 13th, and July 26th, 2010. Air was monitored at 2 foot intervals from the surface to total depth of each location, using a PID meter in conjunction with a Lower Explosive Limit (LEL) meter. Locations of the air monitoring points are shown on Figure 2. Air monitoring results are on a table presented in Appendix D..

The most recent air monitoring, performed on July 26th, 2010, reported all PID and LEL readings below the reporting limits of the meters (1 ppm for PID and 1 % LEL).

4.2 ADDITIONAL SOIL BORING AND MONITORING WELL INSTALLATION

Under concurrence granted in a letter from ACEH dated May 21, 2010, Gregg Drilling and Testing, Inc. (Gregg) under oversight from Delta, advanced one soil boring (SB-8) and installed two groundwater monitoring wells (MW-4 and MW-5) southwest of the UST pit at the site. The purpose of these activities was to evaluate subsurface geology and the lateral extent of petroleum hydrocarbon concentrations in the soil and groundwater to the east/southeast of the existing UST pit.

Locations of soil boring and monitoring wells advanced and installed during the June 2010 assessment activities are included on Figure 12. Soil analytical results and groundwater analytical results from the June 2010 assessment activities are presented on Tables 3 and 4, respectively.

4.2.1 Pre-Field Activities

Prior to field activities, Delta produced a Site Health and Safety Plan, which was reviewed daily by field personnel. Prior to drilling, Delta marked all proposed boring locations and contacted Underground Service Alert (USA) to request the locating and marking of all underground utilities at, or adjacent to, the proposed boring locations. Delta also employed a private utility locator (Cruz Brothers) to identify possible private underground utilities in vicinity of the proposed boring locations. Additionally, prior to drilling, all boring locations were cleared, utilizing air-vacuum technologies to depths of 5 feet bgs. The purpose of air-knife clearance was to ensure that no underground utilities were encountered during drilling. Drilling permits for the proposed boring locations were obtained from the Alameda County Public Works Agency (ACPWA), and are included in Appendix E.

4.2.2 Soil Boring Advancement

The soil boring was located just east of the UST tank pit, midway between the southern and northern property boundaries. The boring was advanced to a total depth of 24 feet bgs. Continuous soil samples were collected using a two-inch diameter dual-tube direct push rod equipped with 4-foot, 1.5-inch diameter acetate sampling liners. Soil samples were logged using the Unified Soil Classification System (USCS) for lithologic interpretation and field screened for the presence of volatile organic compounds at five foot intervals using a pre-calibrated PID. Observed groundwater levels, collected soil PID

readings, soil descriptions, and field observations were recorded on the boring logs. The soil boring log for boring SB-8 is presented in Appendix F.

At total depth, the drilling rods were retracted and a temporary polyvinyl chloride (PVC) well casing with a 10 foot screened interval was inserted into the borehole from 24 feet to 14 feet bgs. First encountered groundwater was at a depth of 15 feet bgs. Grab groundwater samples were collected.

Following sample collection, the borehole was backfilled with neat cement grout through a tremie pipe to approximately 20 feet bgs and then backfilled with additional neat cement grout introduced directly into the borehole to approximately one foot bgs. The remainder of the borehole was backfilled with concrete and dyed at the surface to match the existing surface conditions. Backfilling activities were conducted under the oversight of Ms. Victoria Hamlin, ESA, of the ACEH.

4.2.2.1 Soil and Groundwater Sampling

Soil samples were collected and submitted for analysis from 5 foot intervals from just below air-knife clearance to total depth.

Soil and groundwater samples collected were analysis for TPHg, and TPHd by EPA Method 8015M, BTEX, 8 fuel oxygenates [methyl tert butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), 1,2-dichloroethane (1,2-DCA), ethylene dibromide (EDB), and ethanol], and methanol by EPA method 8260B. Samples selected for laboratory analysis were placed in proper containers, properly labeled and placed on ice pending transportation to a California-certified laboratory and accompanied by appropriate chain-of-custody documentation during transportation to the laboratory. Laboratory reports are included in Appendix G.

4.2.3 Monitoring Well Installation

On June 3rd and June 4th, 2010, Gregg, under oversight from Delta, advanced two soil borings which were converted into monitoring wells MW-4 and MW-5. As with the soil boring SB-8, continuous soil samples were collected using a two-inch diameter, dual-tube direct push rod, equipped with 4-foot, 1.5-inch diameter acetate sampling liners. Soil samples were logged using the Unified Soil Classification System (USCS) for lithologic interpretation and field screened for the presence of volatile organic compounds at five foot intervals using a pre calibrated PID. Observed groundwater levels, collected soil PID readings, soil descriptions, and field observations were recorded on the boring logs. Boring logs and well construction details for monitoring wells MW-4 and MW-5 are presented in Appendix F.

Borings MW-4 and MW-5 were advanced to depths of 25 and 20 feet bgs respectively, and were completed as monitoring wells with 10 foot screened intervals. MW-4 was screened from 15 to 25 feet bgs while MW-5 was screened from 10 to 20 feet bgs. Monitoring wells were constructed using 4-inch schedule 40 polyvinyl chloride (PVC) with 0.010-inch slot size. The annular space was backfilled with RMC Lonestar #2/16 sand, from total depth to 2 feet above top of the screened interval. The holes were sealed with 2 feet of bentonite hydrated in place, with neat cement grout to approximately 1 foot below the surface. The wells were completed with a COP approved traffic-rated well box set in concrete dyed to match the surrounding surface conditions.

4.2.3.1 Soil Sampling

Soil samples were collected from 5 foot intervals (from just below air-knife clearance, to total depth), and were submitted for analysis of TPHg and TPHd, by EPA Method 8015M, BTEX, 8 fuel oxygenates [methyl tert butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), 1,2-dichloroethane (1,2-DCA), ethylene dibromide (EDB), and ethanol], and methanol by EPA method 8260B. Samples selected for laboratory analysis were placed in proper containers, properly labeled and placed on ice pending transportation to a California-certified laboratory and accompanied by appropriate chain-of-custody documentation during transportation to the laboratory. Laboratory reports are included in Appendix G.

4.2.3.2 Monitoring Well Development and Sampling

Monitoring wells MW-4 and MW-5 were developed on June 9, 2010, a minimum of 72 hours after completion of the well installations. Approximately three well volumes (estimated 24 gallons) were purged from well MW-4, before the well went dry. Depth to water in MW-4 was 11.6 feet bgs, and the depth to the bottom of the well was measured to be 24.8 feet bgs. Ten well volumes (approximately 54 gallons) were purged from MW-5. Depth to water in MW-5 was 11.9 feet bgs, and the bottom of the well was measured to be 19.9 feet bgs. Well MW-5 did not pump dry during well development activities.

Groundwater was sampled from wells MW-4 and MW-5 on June 16, 2010 by TRC as part of the regularly scheduled Second Quarter 2010 monitoring and sampling program. Analytical results from this event are included as Appendix F.

4.2.3.3 Survey of Monitoring Wells

A survey of the two newly installed monitoring wells, as well as the one existing on-site well (MW-A) was performed on June 9, 2010 by Morrow Surveying. The survey data was successfully submitted to the State of California water Resources Control Board GeoTracker ESI database .

4.2.3.4 Handling of Generated Waste

Drill cuttings and wastewater generated during boring advancement and sampling activities were placed into properly labeled 55-gallon Department of Transportation (DOT) approved steel drums and stored on-site. These waste materials are pending transportation to and disposed of at a ConocoPhillips-approved facility.

4.2.3.5 Monitoring and Sampling Activities

Prior to the second quarter 2010, one groundwater monitoring well, MW-A, existed onsite. The well was sampled annually (beginning in December 1990) for TPHd, TPHg, BTEX compound, and methyl tert butyl ether (MTBE). In February 2003, groundwater samples were also analyzed for ethanol, ethylene dibromide, 1,2-dichloroethane, TOG, bromo-dichloromethane, bromoform, bromomethane, and carbon tetrachloride; and additionally, beginning in February 2004 through March 2009, MW-A was additionally analyzed for chlorobenzene, chloroethane, chloroform, chloromethane, dibromochloromethane, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, dichloro-difluoromethane, 1,1-dichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, and 1,2-dichloropropane. During the first quarter 2010 sampling event, MW-A was only analyzed for TPHd.

Additionally, a grab groundwater sample was collected from MW-4 on June 24th, 2010. Analytical results are included in Table 4

With the addition of MW-4 and MW-5 during the June 2010 assessment activities, a total of three wells now comprise the groundwater monitoring network. Beginning in the second quarter 2010 event, all wells will follow a quarterly sampling schedule until further notice.

5.0 SITE CONCEPTUAL MODEL UPDATE

5.1 PREFERENTIAL PATHWAYS

According to the most recent quarterly monitoring report (June, 2010), depth to groundwater is 11.13 feet below TOC in MW-4, 11.95 feet below TOC in MW-5, and 17.85 feet below TOC in MW-A. Depth to water in MW-A

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3535 Pierson St, Oakland, CA

historically ranges from approximately 12 feet below TOC to approximately 20 feet below TOC.

According to the utility survey performed in June 2010, with the exception of MH-2 and a section of storm drain line between MH-2 and DI#5, all of the storm drain and sewer lines on and adjacent to the site are at depths between approximately 3 feet bgs to approximately 10 feet bgs (above the historically observed groundwater levels) at the site. MH-2 measures approximately 13.5 feet deep. The storm drain line is approximately 12 feet bgs as it exits MH-2, and approximately 13 feet bgs at DI-5; potentially below the intersection with groundwater at the site.

This section of storm drain line between MH-2 and DI-5 is the only currently identified underground utility providing a potential preferential pathway at the site for groundwater migration. Locations and depths of these utilities are included on Figure 2.

During the utility survey performed in June 2010, no sewer line was identified in the sewer easement, noted on the site plan included as Figure 2, in the eastern portion of the service station property. An inspection performed of the sewer manhole located in Pierson Street did not identify an inlet emanating from the station property. A survey using ground penetrating radar (GPR) was also performed on the site, including the area identified as the sewer easement in the eastern portion of the station property. No anomalies were noted during the GPR survey to indicate any subsurface sewer line in this area. Also, a review of City of Oakland utility figures show this possible sewer line with a "dashed" line while other sewer lines identified during the June survey are shown as "solid" lines. Delta cannot speculate the origination of the sewer easement shown on various figures, but reports that no evidence of the sewer line was found during utility survey activities.

A sewer line was identified in the sewer easement noted in the western portion of the service station property and is shown on Figure 2.

Underground utility maps provided by the city of Oakland for the site and the immediate vicinity are presented as Appendix H.

5.2 SOIL MIGRATION PATHWAYS

Soils beneath the site area are generally fine-grained and do not provide pathways for rapid spread of contaminants. Soil analytical data indicates that migration of petroleum hydrocarbons from the former waste oil UST has been limited due to surrounding clay soil. The mass of soil containing residual petroleum hydrocarbons appears limited. In recent borings, (as of March 2010), TPHg has been below laboratory reporting limits except for 99

mg/kg at 24 feet bgs in MW-5, and 2.1 mg/kg and 2.4 mg/kg in SB-8 at 6 and 15 feet bgs, respectively. TPHd has also been below laboratory reporting limits except for 73 mg/kg at 24 feet bgs in MW-5. BTEX and MTBE have been near or below laboratory reporting limits in all recent borings as well, with the exception of 53 mg/kg MTBE at 24 feet bgs in MW-5.

The primary constituent that has shown recent concentrations is TOG. Boring SWC-2 contained 7,700 mg/kg TOG at 10 feet bgs and SWD-2 contained 870 mg/kg TOG at 10 feet bgs.

5.3 HYDROGEOLOGIC PATHWAYS

Migration of dissolved contaminants through generally fine grained soil appears to be limited. Following the June 2010 installation of groundwater monitoring wells MW-4 and MW-5, initial groundwater flow direction and gradient was established; yet appears suspect when compared to the topography in the vicinity of the site. This discrepancy may be related to different screen intervals for MW-4 and MW-5 (15-25 feet bgs and 10-20 feet bgs, respectively) when compared to previous well MW-A (25-45 feet bgs).

5.4 CONTAMINANT MIGRATION MODEL – POTENTIAL FATE AND TRANSPORT

It appears that a release occurred at some undetermined time from the former waste oil USTs removed in 1990 and possibly from the former or current gasoline USTs. Additionally, undocumented releases potentially could have occurred during fuel transfer operations either at the dispenser islands or the USTs. Based on current water depths measured in wells MW-4 and MW-5, the bottom of the UST pit could potentially intersect groundwater beneath the site. Once constituents entered the groundwater, they were dissolved and began migrating with the groundwater.

Differences in groundwater conditions observed in well MW-4 and MW-5 would indicate varied groundwater conditions in the eastern portion of the site. Groundwater flow in the area of MW-4 appears limited due to the slow recharge and the well pumping dry during development and sampling activities while groundwater conditions observed in well MW-5 would indicate higher permeability due to more rapid well recovery and the well not pumping dry during development.

During the advancement of MW-A, the capillary fringe of saturated soils was observed at a depth of approximately 30 feet bgs. At this time it is unclear if groundwater in well MW-A reported at approximately 12-18 feet bgs is confined or semi-confined groundwater from approximately 33 feet bgs or shallower water in an area of low permeability.

Results from the March and June 2010 assessment activities indicate petroleum hydrocarbons in groundwater beneath the site have not been assessed. Additional assessment is proposed surrounding the current USTs and dispenser islands. Additional assessment is also proposed in the vicinity of the storm drain line along the southern portion of the property between the USTs and DI#5 along Pierson Street, which at this time is a potential migration pathway for shallow groundwater at the site.

Results from this additional assessment will be used to provide additional data to evaluate potential contaminant fate and transport in the vicinity of the site.

5.5 CONCENTRATION TRENDS

Historically, petroleum hydrocarbons were only sporadically reported in groundwater of monitoring well MW-A. In June 2010, two additional wells, MW-4 and MW-5, were installed and incorporated into the second quarter 2010 sampling event.

Analytical groundwater results from the Second Quarter 2010 event are discussed below. All wells (MW-A, MW-4 and MW-5) were analyzed for TPHd, TPHg, and Methanol by Method 8015 as well as BTEX and Fuel Oxygenates including MTBE, Ethanol, EDB, and 1,2-DCA by Method 8260B.

TPHd: TPHd was reported in one well (MW-5) at a concentration of 3,000 µg/L. During the previous annual sampling of well MW-A (03/23/10) TPHd was below the laboratory's indicated reporting limit.

TPHg: TPHg was reported in two wells MW-4 and MW-5 at concentrations of 58 µg/L and 29,000 µg/L, respectively. During the previous annual sampling event of well MW-A (03/23/10), TPHg was not analyzed, however the constituent had historically been below laboratory indicated reporting limits in well MW-A since the first quarter of 2002.

Benzene: Benzene was reported in one well MW-5 at a concentration of 580 µg/L. During the previous annual sampling event of well MW-A (03/23/10), Benzene was not analyzed, however the constituent had historically been below laboratory indicated reporting limits in well MW-A since the first quarter of 2002.

MTBE: MTBE was reported in one well MW-4 at a concentration of 5.4 µg/L. During the previous annual sampling event of well MW-A (03/23/10) MTBE was not analyzed, however the constituent had historically been below the laboratory's indicated reporting limits in well MW-A since the first quarter of 2002, with the exception of 0.54 µg/L, reported during the first quarter of 2006.

Historic groundwater monitoring data is contained in Appendix C.

5.6 SITE REMEDIATION

In February 1990, the waste oil UST pit was over-excavated to 16 feet bgs and 35 feet to the east, 10 feet to the west, 15 feet to the south, and 2 feet to the north. Approximately 50 cubic yards of impacted soil were removed. Further soil excavation could not be performed due to underground utilities and the site building.

5.7 POTENTIAL SENSITIVE RECEPTORS

The following sections evaluate the various potential impacts to sensitive receptors from petroleum hydrocarbons detected in soil and groundwater.

5.7.1 Environmental Screening Levels

Historical soil and grab groundwater analytical results are included as Table 1 and Table 2.

The RWQCB has published Environmental Screening Levels (ESLs) for chemicals commonly found in soil and groundwater at sites where releases of chemicals have occurred. The RWQCB notes "The ESLs are considered to be conservative." The tables below compare site specific soil and groundwater concentrations for TPHg, TPHd, benzene, and tetrachloroethene (PCE) with ESLs for various potential sensitive receptors. The ESL tables for various sensitive receptors as found in the November 2007 publication are referenced.

	ESL Table	TPHg (mg/kg)	TPHd (mg/kg)	Benzene (mg/kg)	PCE (mg/kg)
Maximum Concentration Detected in Soil Sample		220 (SWA @9')	1,400 (SWA @ 9')	2.3 (SWA @9')	160 (SWA @ 9')
Groundwater Protection (shallow soils <3 meters)*	A	83	83	0.044	0.34
Groundwater Protection (deep soils >3 meters)*	C	83	83	0.044	0.70
Direct Exposure - Residential	K-1	110	110	0.12	0.34
Direct Exposure - Commercial	K-2	450	150	0.27	0.85
Direct Exposure - Construction/Trench Workers	K-3	4,200	150	12	22

* Ingestion. Groundwater considered a current or potential source of drinking water.

76 Service Station No. 5781
3535 Pierson St, Oakland, CA

	ESL Table	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	MTBE (µg/L)
Concentration Groundwater; MW-A, MW-4, and MW-5		29,000	3,000	580	5.4
Potential Vapor Intrusion - Residential	E-1	NA	NA	540	24,000
Potential Vapor Intrusion - Commercial	E-1	NA	NA	1,800	80,000
California Maximum Contaminant Level (MCL)	F-3	210*	210*	1.0	13

* No MCL; determined as non-carcinogenic effects

The maximum soil concentrations for TPHg, TPHd, benzene, and PCE exceed the ESLs for leaching to groundwater considered as a current or potential source of drinking water and for direct exposure. The site is underlain by silt and clay that may impede contaminant leaching to groundwater.

Since March 2010, TPHg and TPHd in collected groundwater samples have been below ESL levels, except for 3,000 µg/L TPHd in MW-5, 29,000 µg/L TPHg in MW-5, and 2,500 µg/L TPHg in SB-6. During this time, benzene in collected groundwater samples has been below ESL levels in all borings and wells except SB-6 (160 µg/L) and MW-5 (580 µg/L). MTBE in collected groundwater samples has been below ESL levels in all borings and wells except SB-8 (53 µg/L).

The maximum groundwater concentrations for TPHg, TPHd, and benzene reported in well MW-5 and SB-6 exceed the ESLs for California MCL. The maximum groundwater concentrations for benzene also exceed the ESL for Potential Vapor Intrusion for both residential and commercial standards. The maximum MTBE concentration reported in SB-8 exceeds the ESL for California MCL.

Metals were detected in soil sample W01 from the initial base of the waste oil UST excavation (6 feet bgs). The following metals were detected: chromium at 8.3 mg/kg, lead at 340 mg/kg, and zinc at 70 mg/kg. The corresponding ESLs for soils at a depth of less than 10 feet overlying useable groundwater and residential land use are 750 mg/kg for chromium III, 8 mg/kg for chromium VI, 200 mg/kg for lead, and 600 mg/kg for zinc. The ESL is exceeded for lead, however, the excavation was later deepened to 16 feet bgs. Migration of residual lead would be limited by the clay soil underlying the area.

5.7.2 Indoor Air Inhalation from Impacted Soil

ESLs have not been established for protection of indoor air from impacted soil. The RWQCB recommends direct measurement of soil gas concentrations

in soil. Impacted soil exceeding the TPHd and TPHg ESLs for indoor soil vapor inhalation may remain under the western portion of the site building. The upward migration of any petroleum hydrocarbons remaining in soil will be limited due to the silt/clay nature of site soils. Delta proposes to evaluate the potential for vapor intrusion after the additional assessment activities proposed later in this report are completed and current identified data gaps have been eliminated.

5.7.3 Impact to Drinking Water Supply Wells

The California Department of Water Resources GeoTracker database indicates the presence of four active water wells nearby the site. The four active wells are reported to be located in East Bay Regional Park District land, located approximately 2,193 feet northeast of the site.

5.8 CONCLUSIONS

Site soils are generally fine-grained consisting of silt and clay. Deposits of silty sand and silty gravel are scattered within the finer grained soil. It appears that the shallow groundwater encountered on-site represents a perched zone, or possibly confined conditions. Groundwater was typically first encountered in some site borings at a depth of approximately 33 feet bgs. Stabilized levels in the single monitoring well have risen from a depth of approximately 20 feet below top of casing initially to approximately 13 feet below TOC in March 2008. The well screen has been drowned since installation by at least 5 feet.

A release of chemicals from the site waste oil UST appears to have occurred prior to 1990. The UST was removed in December 1989. Soils in the excavation sidewalls contained TPHd (1,400 mg/kg), TOG (17,000 mg/kg), PCE (160 mg/kg), and 1,1,1-TCA (5.8 mg/kg). Approximately 50 cubic yards were removed from the excavation. A confirmation soil sample from the base of the excavation contained only 74 mg/kg TPHd, 910 mg/kg TOG. PCE and 1,1,1-TCA were not detected in the sample. Further soil excavation in the area of former waste oil UST could not be performed due to underground utilities to the south and the site building to the north.

A comparison of TPHg, TPHd, benzene, and PCE concentrations in site soil in 1990 indicates that a limited amount of soil in 1990 exceeded the RWQCB ESLs for groundwater protection and direct contact. Soil with TPHg, TPHd, benzene, and PCE may exist under the western portion of the site building. Current soil concentrations are unknown.

An area of residual impacted soil appears to exist in the immediate area beyond the excavation limits for the former waste oil UST. Impact to groundwater in the area of the former waste oil UST has been minimal.

Groundwater samples from well MW-A, located within approximately 25 feet of the former waste oil UST, have only contained TPHd at concentrations generally below 100 µg/L. TPHg, BTEX compounds, fuel oxygenates, and volatile organic compounds have consistently been below the laboratory detection limit.

A release of petroleum hydrocarbons from the second generation fuel USTs appears to have occurred since installation in 1990, and prior to 2003. A soil sample collected in October 2003 from boring SB3, located immediately adjacent and east of the fuel USTs, contained 1,100 mg/kg of TPHg at a depth of 15 feet bgs. The extent of impacted soil in this area is undefined. Groundwater was not encountered in boring SB3. A grab groundwater sample collected in 2003 from boring SB5, located adjacent to the second generation WOT, contained 180 µg/L TOG.

No soil impacts were observed during removal of the second generation WOT in April 2008.

The Site Conceptual Model dated November 20, 2008 proposed confirmation sampling, by advancing a total of four boreholes that would: (1) evaluate the mass of residual impacted soils in vicinity of the former waste oil tank/over excavation limits, (2) evaluate the detection of total oil and grease (TOG) in groundwater from boring SB-5, and (3) evaluate the detection of TPHg in soil boring SB-3. Without agency response, Delta then submitted the September 24, 2009 Workplan for Additional Assessment, in order to obtain confirmation samples before making a formal Case Closure Request.

In March 2010 additional assessment confirmed that residual petroleum hydrocarbon concentrations remain on-site. TPHg was reported at 2,500 µg/L in a grab groundwater sample collected from boring SB-6 (near recently installed monitoring well MW-5) indicating the presence of petroleum hydrocarbons in the area southeast of the USTs. TOG was reported in soil samples collected at 10 feet bgs in borings SWC-2 and SWD-2 near the former waste oil USTs at concentrations of 7,700 µg/L and 870 µg/L, respectively. It was noted that samples collected from these borings at 15 feet were at or below the laboratory indicated reporting limits. Also, groundwater samples collected from borings SB-7 and SWC-2 reported TOG levels below laboratory indicated reporting limits.

The identification of petroleum hydrocarbon odors emanating from a storm drain manhole along Pierson Street, combined with the need to further assess the area southwest of the gasoline USTs led to the June 2010 field activities, which included the installation of groundwater monitoring wells MW-4 and MW-5, and advancement of soil boring SB-8. A utility survey was performed to identify the location and depth of utilities in the vicinity of the service station.

June 2010 assessment, and subsequent groundwater monitoring events report residual petroleum hydrocarbons remain at 29,000 µg/L TPHg, 580 µg/L benzene, and 3,000 µg/L TPHd in monitoring well MW-5.

The addition of the two groundwater monitoring wells also allows for the first established gradient and flow direction for the site. Continued M&S events, and the potential installation of additional monitoring wells, will allow for the development of a Groundwater Flow (Rose) Diagram and will also allow for the interpretation of historical groundwater flow across the site.

5.9 RECOMMENDATIONS

Based on the above detailed assessment and conclusions, Delta feels that there is a data gap in groundwater flow direction and gradient. This is based on the differing screened intervals of MW-4 and MW-5 as compared with MW-A, which provide a steep gradient and flow direction perpendicular to surface contour.

Also, based on the reported petroleum hydrocarbon concentrations in boring SB-6 and well MW-5, additional assessment is recommended along the northern, western and southern boundaries of the gasoline USTs and dispenser islands to assess the potential for petroleum hydrocarbon migration from these possible petroleum hydrocarbon sources.

Delta recommends the installation of three additional shallow groundwater monitoring wells surrounding the tank pit and dispenser islands as well as an additional groundwater monitoring well in the vicinity of DI-5. These wells will provide greater assessment of potential hydrocarbons in these areas and allow for more data to determine groundwater flow direction and gradient in the 11-25 feet zone beneath the site. The locations of these proposed wells are included in Figure 13.

Delta has also identified a data gap in the evaluation of potential vapor intrusion from impacted soil in along the southern end of the station building and between the pump islands and the station building. Delta proposes to evaluate the potential for vapor intrusion once the proposed additional assessment activities are performed. Once these activities have concluded, Delta can use the data collected to better assess the potential for vapor intrusion in this area.

Delta also recommends continued air monitoring of the storm drain system surrounding the site on a periodic basis until further notice.

6.0 ADDITIONAL ASSESSMENT WORKPLAN – MONITORING WELL INSTALLATION

6.1 PERMITTING, UTILITY NOTIFICATION, AND BOREHOLE CLEARANCE

Before commencing field activities Delta will prepare a Health and Safety Plan in accordance with state and federal requirements for use during on-site assessment activities. Drilling permits will be obtained for the groundwater monitoring wells from ACPWA. Prior to drilling, Delta will review available as-built drawings, notify Underground Service Alert (USA) and contract a private utility locator as required to clear the proposed drilling locations for underground utilities. Prior to drilling, air or water vacuum clearance will be completed to 5 feet bgs to minimize potential impact to underground utilities.

6.2 PROPOSED SCOPE OF WORK

Delta proposes to advance four monitoring wells using a truck mounted drill rig equipped with 8-inch hollow stem augers adjacent to the existing UST pit in the southeast corner of the station property. The borings, MW-6, MW-7, MW-8, and MW-9 will be advanced to depth of approximately 20 feet bgs, and completed as monitoring wells screened from 10 to 20 feet bgs, though these parameters may be adjusted based on field observations.

The monitoring wells will be constructed using 2-inch schedule 40 polyvinyl chloride (PVC) with 0.010-inch slot size. The annular space will be backfilled with RMC Lonestar #2/16 sand, or equivalent, from total depth to 1 foot above top of the screened interval (approximately 20 feet bgs to approximately 9 feet bgs). The holes will be sealed with 2 feet of bentonite placed from approximately 9 feet bgs to approximately 7 feet bgs and hydrated in place, with neat cement grout from approximately 7 feet bgs to approximately 1 foot below the surface. The wells will be completed with a COP approved traffic-rated well box set in concrete dyed to match the surrounding surface conditions. Proposed specifications may vary slightly based on field observations. A well construction diagram is included as Figure 6.

6.3 SOIL SAMPLING

Soils encountered in the boring will be classified in accordance with the Unified Soil Classification System (USCS). Soil samples will be collected at 5-foot intervals from just below air-vacuum clearance to total depth (at approximately 5 feet, 10 feet, 15 feet, and 20 feet bgs), using a split-spoon sampler loaded with 2-inch stainless steel or brass liners. Samples will be pre-screened for hydrocarbons using a pre-calibrated Photo-Ionization Detector (PID). Collected soil samples will be capped with Teflon sheeting

and tight-fitting plastic end caps, labeled with an identification number, and placed on ice pending delivery to a California-certified analytical laboratory along with proper chain of custody documentation.

Samples exhibiting the highest PID readings will be selected for laboratory analysis for the following analytes: TPHg and TPHd by EPA Method 8015M, BTEX, MTBE, DIPE, ETBE, TAME, TBA, EDB, EDC and Ethanol by EPA Method 8260B.

6.4 WELL DEVELOPMENT, MONITORING, AND SAMPLING

The proposed wells will be developed a minimum of 72 hours after construction. A minimum of 10 casing volumes of groundwater will be removed from the monitoring wells during development.

Subsequent to installation and development of the monitoring wells, they will be incorporated into the existing monitoring and sampling program for this site, and will be monitored and sampled quarterly for at least one hydro-geologic cycle. Initial monitoring and sampling will be done a minimum of 48 hours after development.

Groundwater samples will be analyzed for TPHg by EPA Method 8015M, BTEX, MTBE, DIPE, ETBE, TAME, TBA, EDB, EDC and Ethanol by EPA Method 8260B, and TPHd with silica gel cleanup and Methanol by EPA Method 8015M.

6.5 WELL HEAD SURVEY

Following completion of the new monitoring wells, a California licensed surveyor will survey the northing and easting of the three on-site monitoring wells using positioning datum NAD83. The monitoring well elevations will be surveyed relative to elevation datum NAVD88. A global positioning system (GPS) will also be used to survey in the latitude and longitude of the wells to be uploaded into California's GeoTracker database system. The survey of the well locations will be to sub-meter accuracy.

DISPOSAL OF DRILL CUTTINGS AND WASTEWATER

Drill cuttings and any wastewater generated during field activities will be placed into properly labeled 55-gallon Department of Transportation (DOT)-approved steel drums and stored on the service station site. Representative samples of the drill cuttings and wastewater will be collected and submitted to a California-certified laboratory where they will be analyzed for TPHg and TPHd by EPA Method 8015M, BTEX and MTBE by EPA Test Method 8260B. Soil cuttings will also be analyzed for total California Title-22 (CAM 17) metals. Pending laboratory analytical results, the drummed drill cuttings and wastewater will be profiled, transported, and disposed at a COP-approved

facility. If available at the time of report submittal, a copy of the waste disposal manifest(s) will be included in the investigation report.

6.6 REPORT

Delta will prepare and submit a report summarizing the additional site characterization findings once all field activities have been completed and all laboratory results have been received. The report will contain a description of the activities performed, and will include a site plan showing the boring locations, copies of the boring logs, laboratory analytical reports, waste manifests, and recommendations for future activities at the site.

7.0 LIMITATIONS

The recommendations contained in this report represent Delta's professional opinions based upon the currently available information and are arrived at in accordance with currently acceptable professional standards. This report is based upon a specific scope of work requested by the client. The Contract between Delta and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Delta's Client and anyone else specifically listed on this report. Delta will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Delta makes no express or implied warranty as to the contents of this report.

Consultant: **DELTA CONSULTANTS**

FIGURES

- Figure 1 – Site Locator
- Figure 2 – Site Map with Current Site Configuration and Monitoring Wells
- Figure 3 – Site Map with Cross Sections
- Figure 4 – Geologic Cross Section A-A'
- Figure 5 – Geologic Cross Section B-B'
- Figure 6 – Geologic Cross Section C-C'
- Figure 7 – Geologic Cross Section D-D'
- Figure 8 – Geologic Cross Section E-E'
- Figure 9 – Site Map with Historical Sampling Locations
- Figure 10 – Site Map with Historical and Current Soil Analytical Results Exceeding ESLs
- Figure 11 – Site Map with Historical and Current Groundwater Analytical Results Exceeding ESLs
- Figure 12 – Current Assessment Sampling Locations
- Figure 13 – Site Map with Proposed Monitoring Well Locations

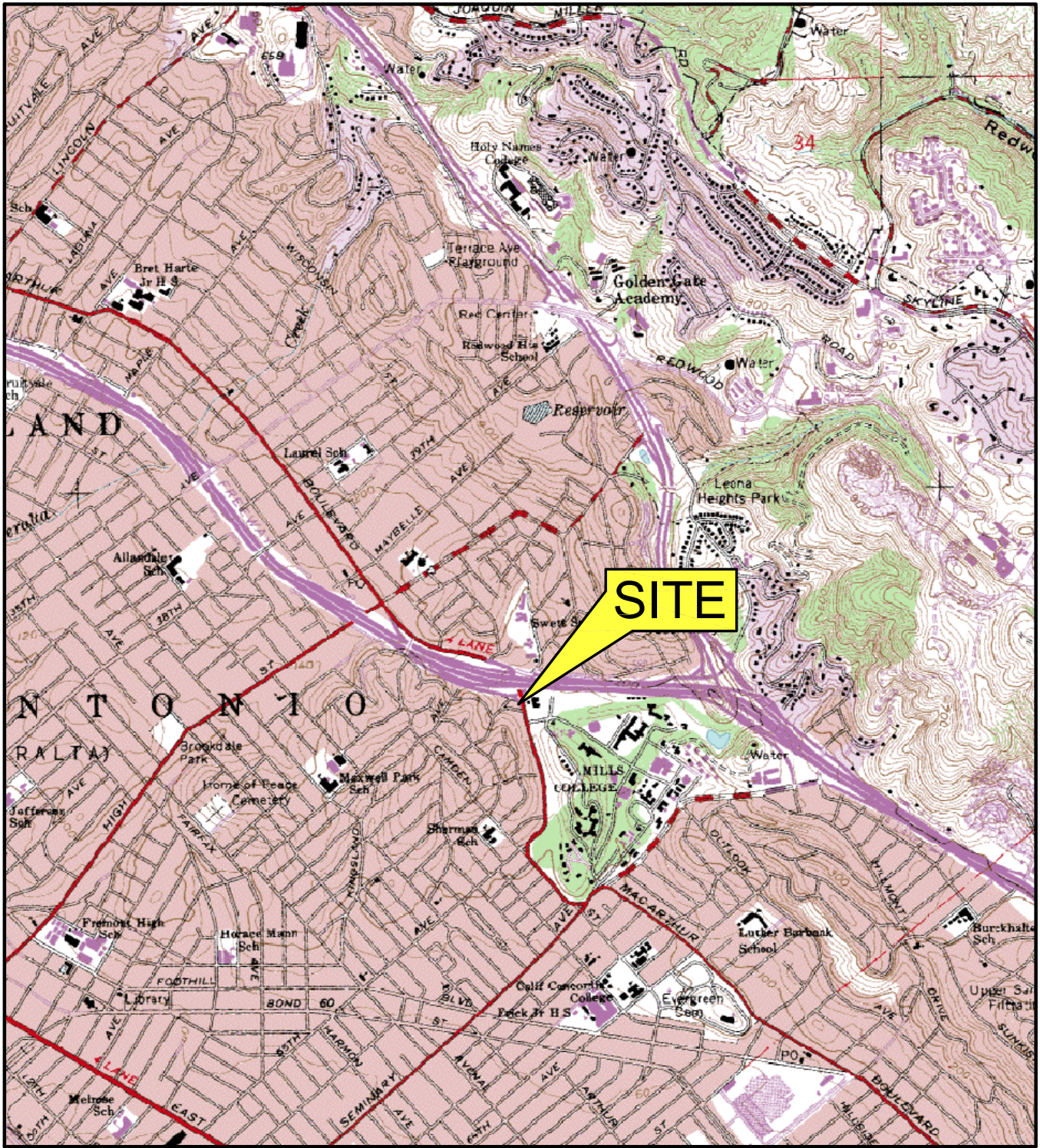
TABLES

- Table 1 – Historical Soil Analytical Results
- Table 2 – Historical Grab Groundwater Analytical Results
- Table 3 – Current Soil Analytical Results
- Table 4 – Current Groundwater Analytical Results

APPENDICES

- Appendix A – ACEH Letter Dated May 21, 2010
- Appendix B – Historical Boring Logs
- Appendix C – Historical Groundwater Monitoring and Sampling Results
- Appendix D – Air Monitoring Results
- Appendix E – ACPWA Drilling Permits
- Appendix F – Current Boring Logs
- Appendix G – Certified Laboratory Analytical Reports
- Appendix H – City of Oakland Utility Maps

FIGURES



OAKLAND EAST QUADRANGLE
CALIFORNIA
7.5 MINUTE SERIES (TOPOGRAPHIC)



QUADRANGLE LOCATION

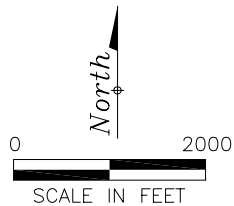


FIGURE 1
SITE LOCATION MAP
CONOCOPHILLIPS SITE NO. 5781
3535 PIERSON STREET
OAKLAND, CALIFORNIA

PROJECT NO. C105781	PREPARED BY DB	DRAWN BY DD
DATE 11/18/08	REVIEWED BY	FILE NAME 5781-SL



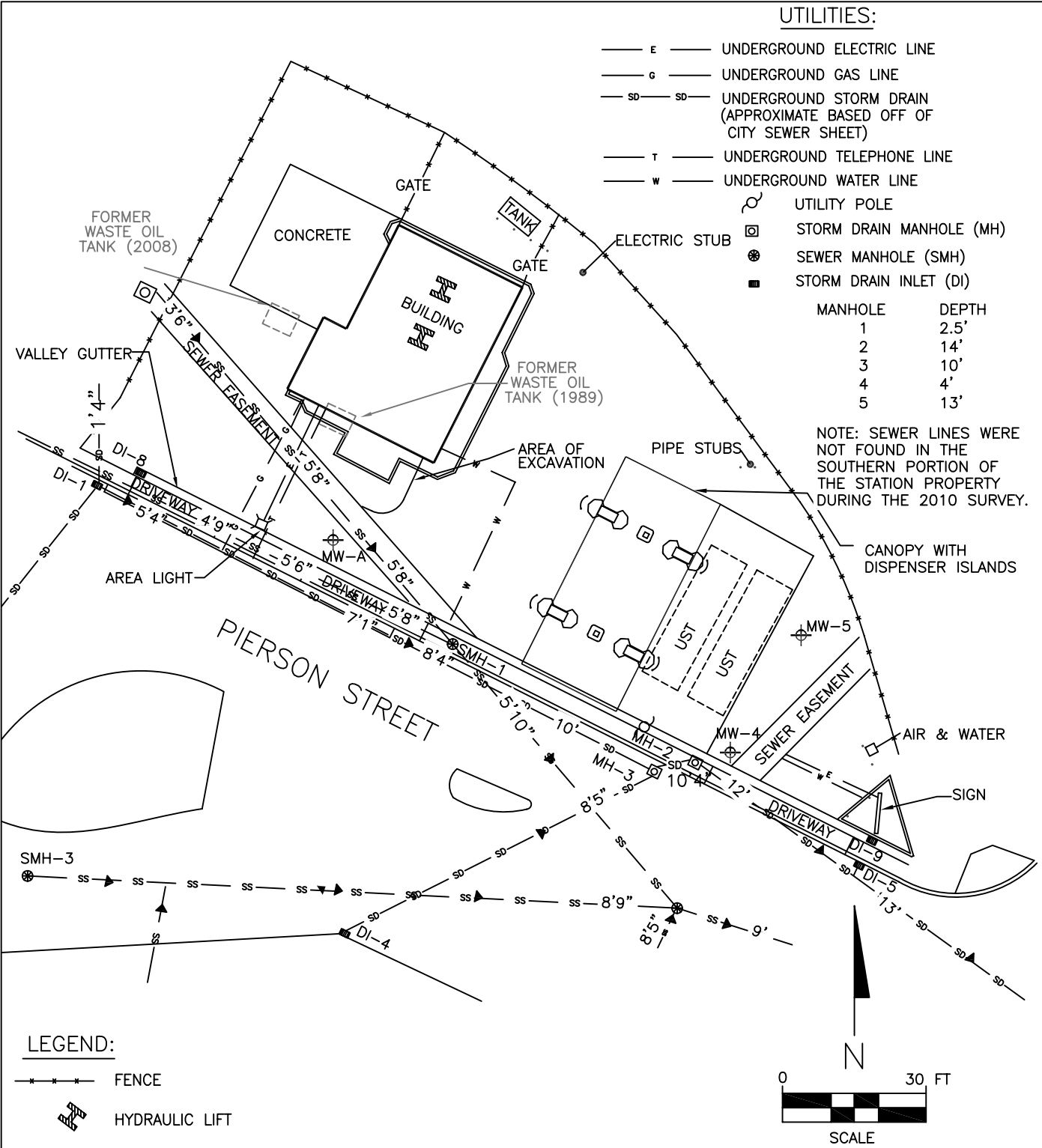
UTILITIES:

- E — UNDERGROUND ELECTRIC LINE
- G — UNDERGROUND GAS LINE
- SD — SD — UNDERGROUND STORM DRAIN (APPROXIMATE BASED OFF OF CITY SEWER SHEET)
- T — UNDERGROUND TELEPHONE LINE
- W — UNDERGROUND WATER LINE

- ⊙ UTILITY POLE
- ⊠ STORM DRAIN MANHOLE (MH)
- ⊗ SEWER MANHOLE (SMH)
- STORM DRAIN INLET (DI)

MANHOLE	DEPTH
1	2.5'
2	14'
3	10'
4	4'
5	13'

NOTE: SEWER LINES WERE NOT FOUND IN THE SOUTHERN PORTION OF THE STATION PROPERTY DURING THE 2010 SURVEY.



SITE MAP ADAPTED FROM A MORROW SURVEY DATED 07/10.

FIGURE 2
SITE MAP WITH CURRENT SITE CONFIGURATION AND MONITORING WELLS
CONOCOPHILLIPS STATION NO. 5781
3535 PIERSON STREET
OAKLAND, CALIFORNIA

PROJECT NO. C105781	PREPARED BY CM	DRAWN BY JH	
DATE 07/15/10	REVIEWED BY JW	FILE NAME 5781-SiteS	

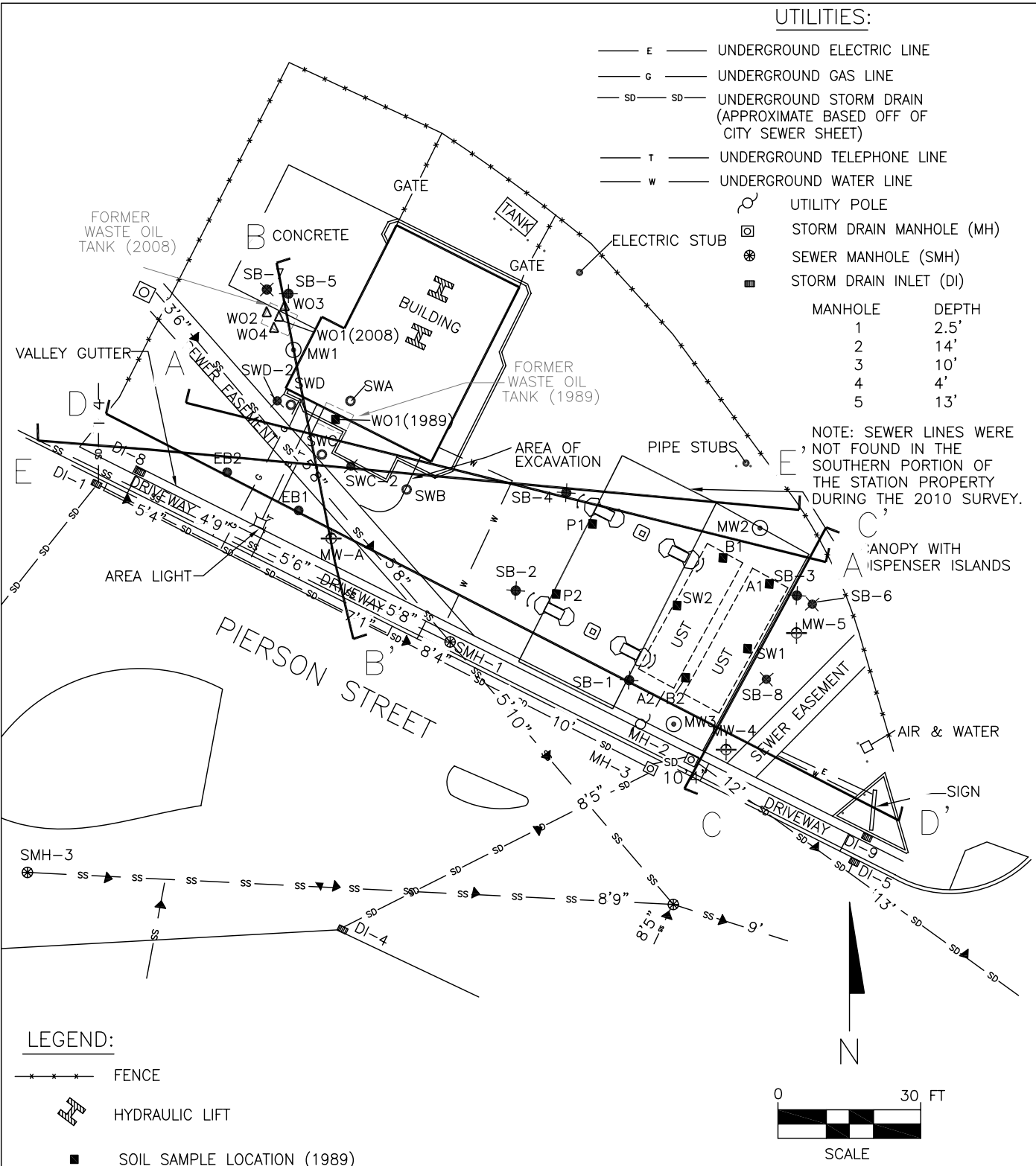
UTILITIES:

- E — UNDERGROUND ELECTRIC LINE
- G — UNDERGROUND GAS LINE
- SD — SD — UNDERGROUND STORM DRAIN (APPROXIMATE BASED OFF OF CITY SEWER SHEET)
- T — UNDERGROUND TELEPHONE LINE
- W — UNDERGROUND WATER LINE

- ⊙ UTILITY POLE
- ⊠ STORM DRAIN MANHOLE (MH)
- ⊗ SEWER MANHOLE (SMH)
- STORM DRAIN INLET (DI)

MANHOLE	DEPTH
1	2.5'
2	14'
3	10'
4	4'
5	13'

NOTE: SEWER LINES WERE NOT FOUND IN THE SOUTHERN PORTION OF THE STATION PROPERTY DURING THE 2010 SURVEY.




LEGEND:

- * * * — FENCE
- ⊠ HYDRAULIC LIFT
- SOIL SAMPLE LOCATION (1989)
- SOIL SAMPLE LOCATION (FEBRUARY 1990)
- ⊙ EXPLORATORY BORING (APRIL 1990) (NOT CONVERTED TO MONITORING WELL)
- EXPLORATORY BORING (JULY 1990)
- ⊕ SOIL BORING (OCTOBER 2003)
- △ SOIL SAMPLE LOCATION (2008)
- ⊗ SOIL BORING (MARCH/JUNE 2010)
- ⊕ CURRENT MONITORING WELL

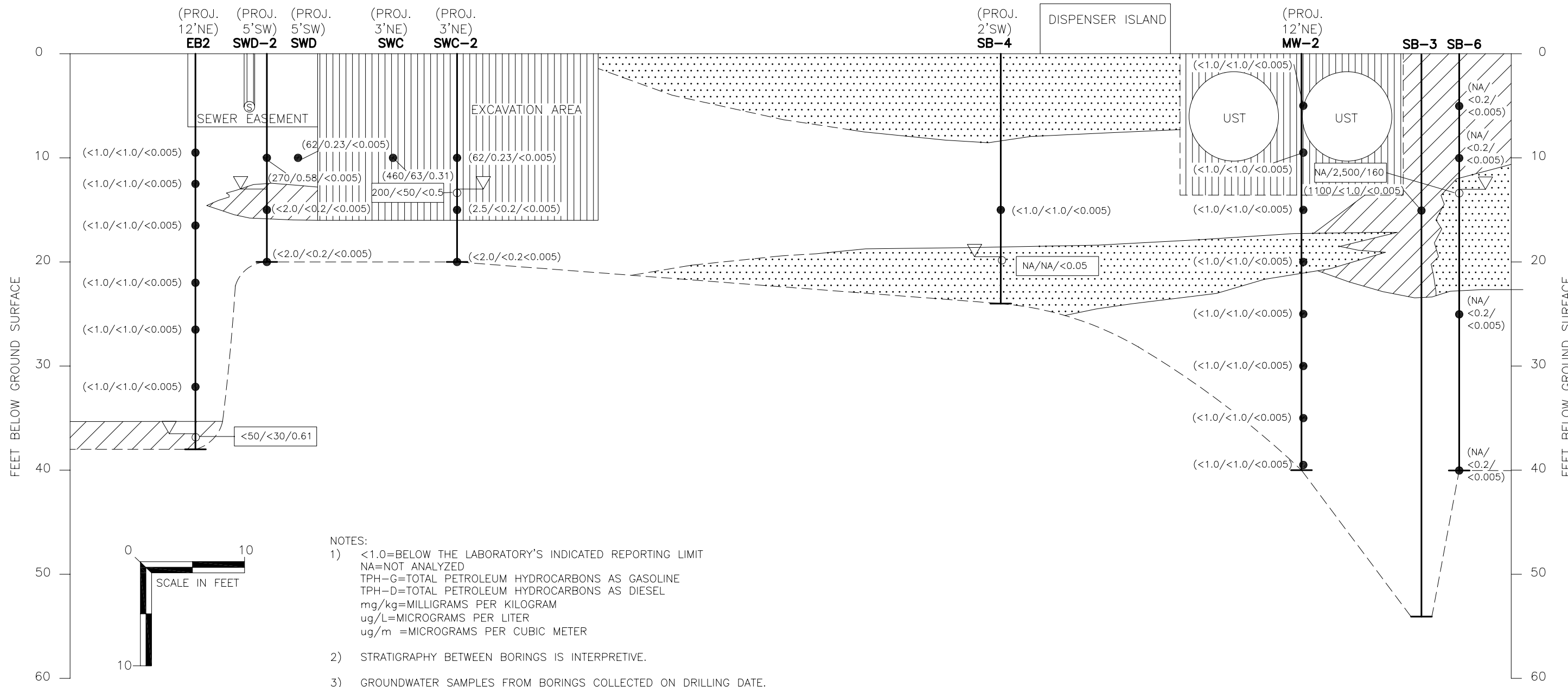
FIGURE 3
SITE MAP WITH CROSS SECTIONS
CONOCOPHILLIPS STATION NO. 5781
3535 PIERSON STREET
OAKLAND, CALIFORNIA

PROJECT NO. C105781	PREPARED BY CM	DRAWN BY JH
DATE 07/29/10	REVIEWED BY JW	FILE NAME 5781-SiteS



NORTHWEST A

SOUTHEAST A'



- NOTES:
- 1) <1.0=BELOW THE LABORATORY'S INDICATED REPORTING LIMIT
 NA=NOT ANALYZED
 TPH-G=TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 TPH-D=TOTAL PETROLEUM HYDROCARBONS AS DIESEL
 mg/kg=MILLIGRAMS PER KILOGRAM
 ug/L=MICROGRAMS PER LITER
 ug/m =MICROGRAMS PER CUBIC METER
 - 2) STRATIGRAPHY BETWEEN BORINGS IS INTERPRETIVE.
 - 3) GROUNDWATER SAMPLES FROM BORINGS COLLECTED ON DRILLING DATE.

LEGEND

- MW-A BORING/MONITORING WELL NAME
- SOIL SAMPLE LOCATION WITH ANALYTICAL DATA: TPH-D, TPH-G, BENZENE (mg/kg)
- DEPTH TO STATIC GROUNDWATER
- GROUNDWATER SAMPLE LOCATION WITH ANALYTICAL DATA: TPH-D, TPH-G, BENZENE (ug/L) (SAMPLED ON 3/27/09)
- WELL SCREEN
- DEPTH TO FIRST ENCOUNTERED GROUNDWATER DURING DRILLING
- LOW PERMEABILITY (CLAY, SILT)
- MEDIUM PERMEABILITY (SAND, GRAVEL W/ CLAY, SILT)
- HIGH PERMEABILITY
- ARTIFICIAL FILL
- APPROXIMATE STRATIGRAPHIC BOUNDARY
- SANITARY SEWER LINE (~5 ft bgs)

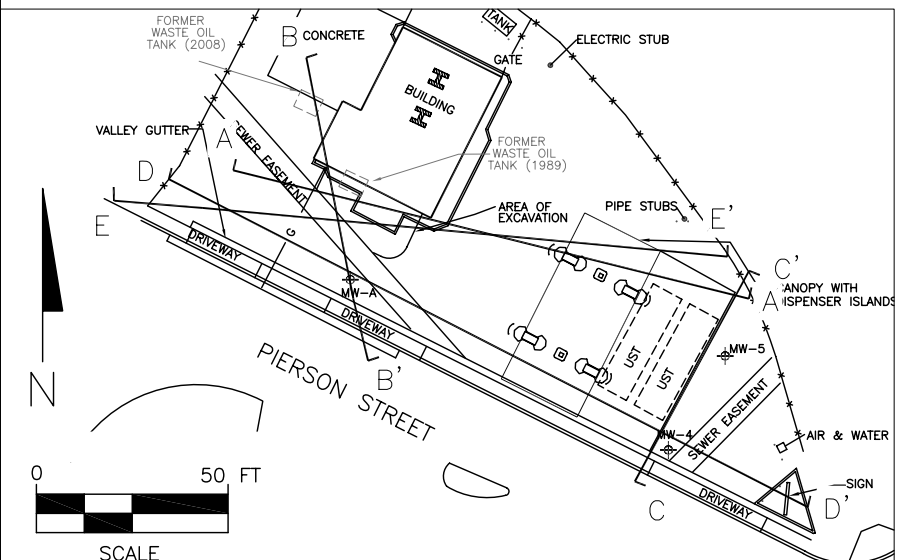


FIGURE 4
 GEOLOGIC CROSS SECTION A-A'
 CONOCOPHILLIPS STATION NO. 5781
 3535 PIERSON STREET
 OAKLAND, CALIFORNIA

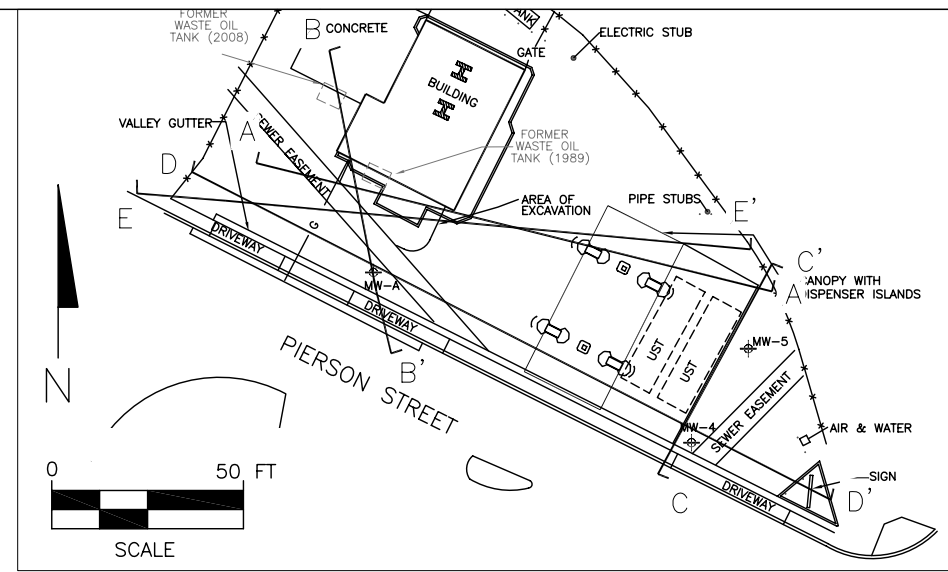
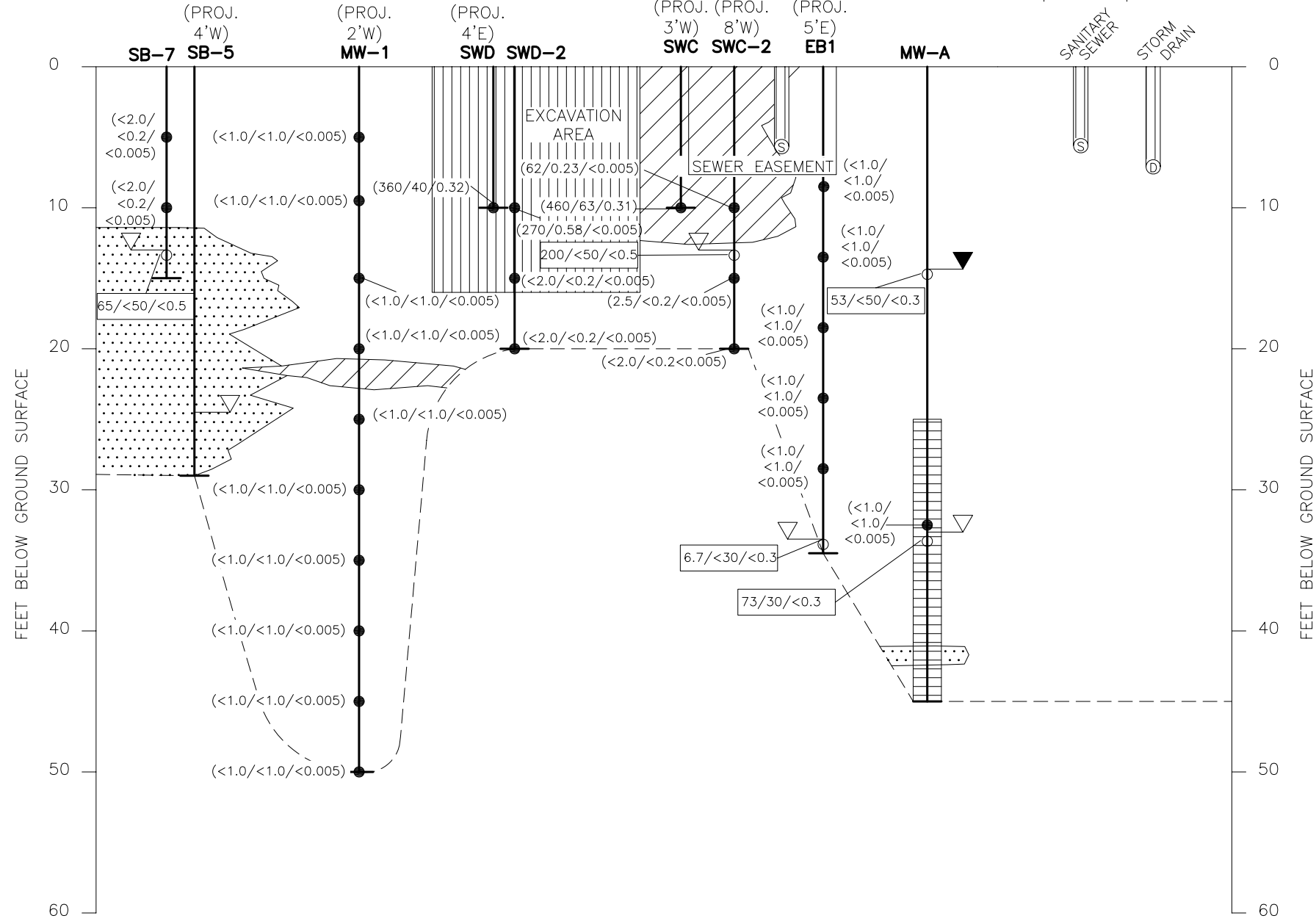
PROJECT NO. C105781	PREPARED BY CM	DRAWN BY JH	
DATE 07/29/10	REVIEWED BY JW	FILE NAME 5781-SiteS	

NORTH B

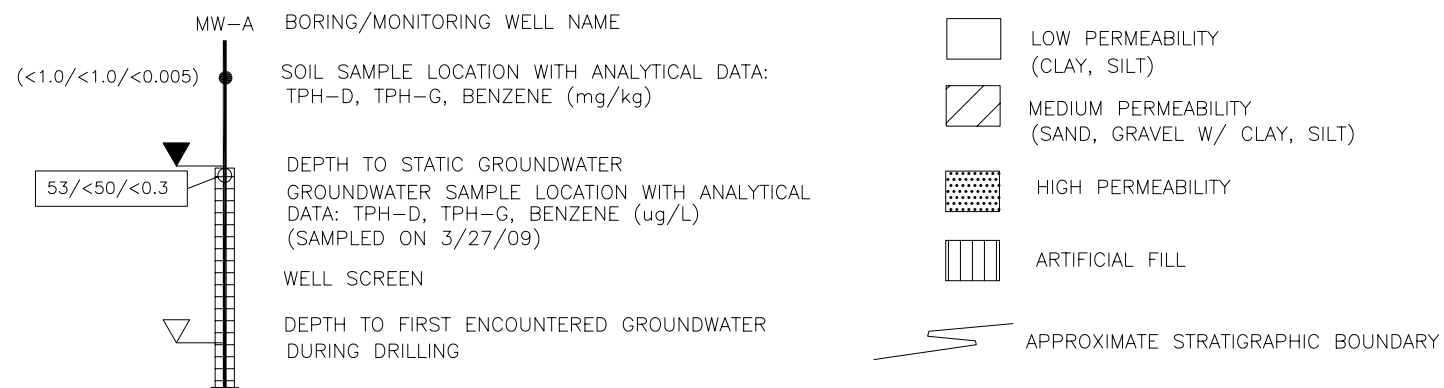
SOUTH B'

76 STATION

DRIVEWAY | PIERSON



LEGEND



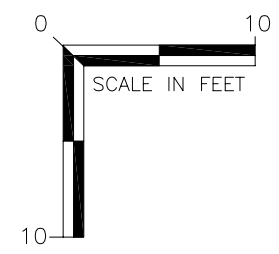
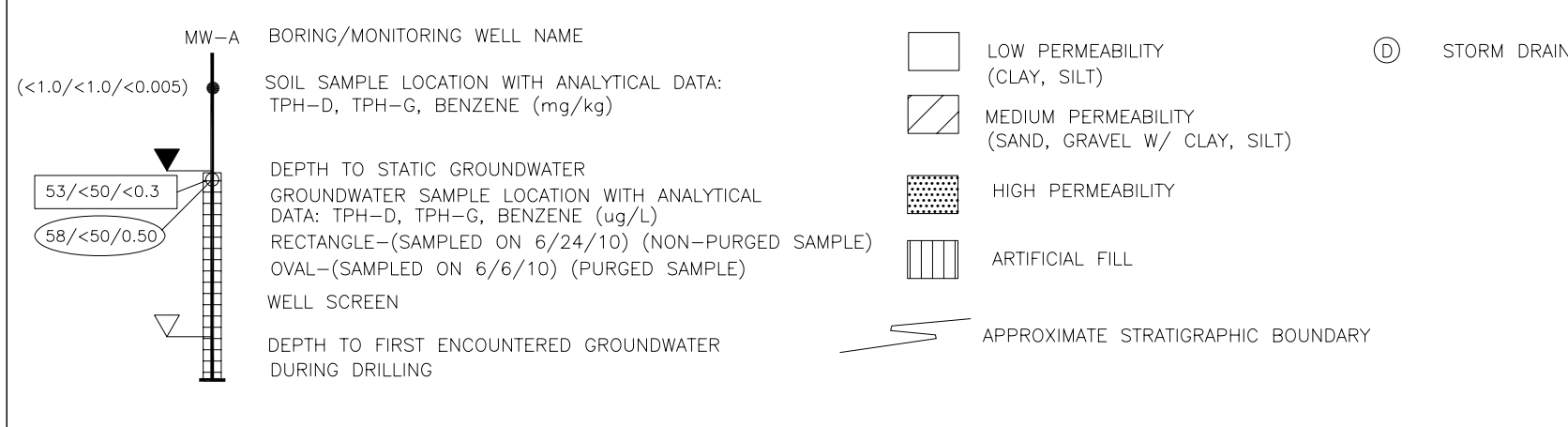
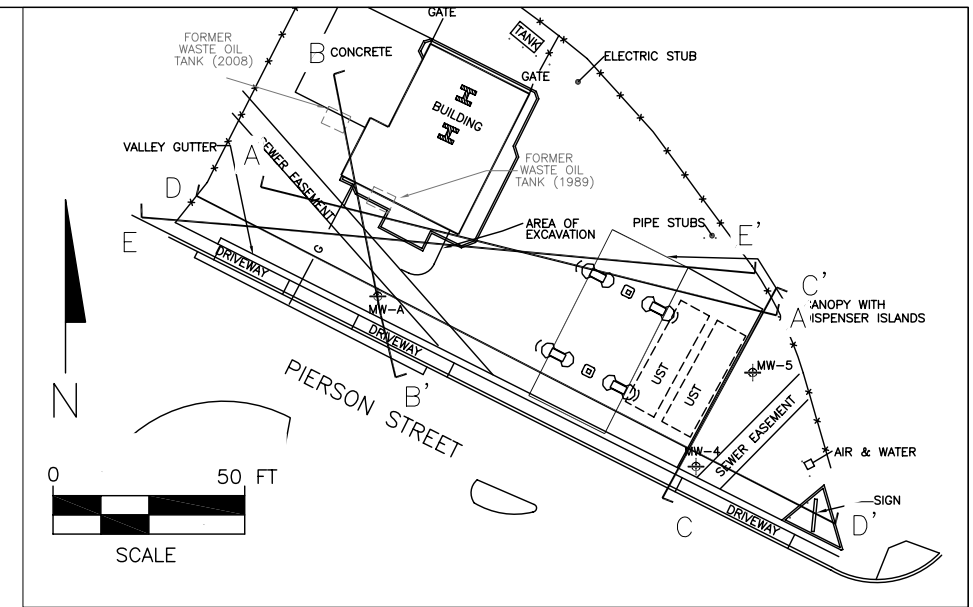
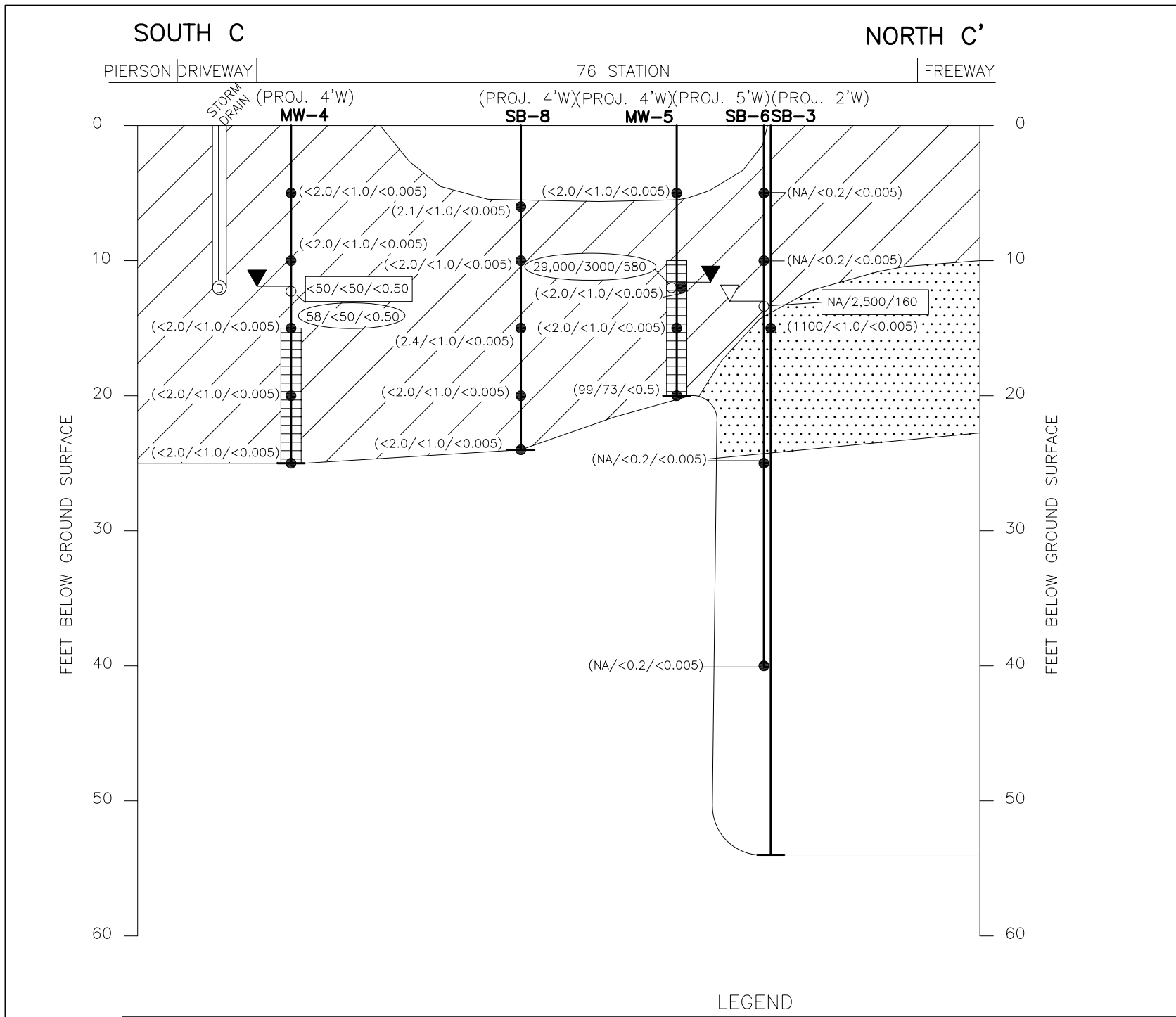
NOTES:

- <1.0=BELOW THE LABORATORY'S INDICATED REPORTING LIMIT
 NA=NOT ANALYZED
 TPH-G=TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 TPH-D=TOTAL PETROLEUM HYDROCARBONS AS DIESEL
 mg/kg=MILLIGRAMS PER KILOGRAM
 ug/L=MICROGRAMS PER LITER
 ug/m =MICROGRAMS PER CUBIC METER
- STRATIGRAPHY BETWEEN BORINGS IS INTERPRETIVE.
- GROUNDWATER SAMPLES FROM BORINGS COLLECTED ON DRILLING DATE.

FIGURE 5
GEOLOGIC CROSS SECTION B-B'

CONOCOPHILLIPS STATION NO. 5781
3535 PIERSON STREET
OAKLAND, CALIFORNIA

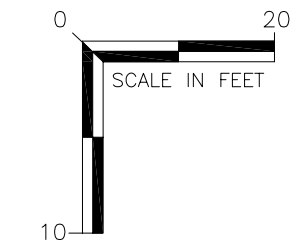
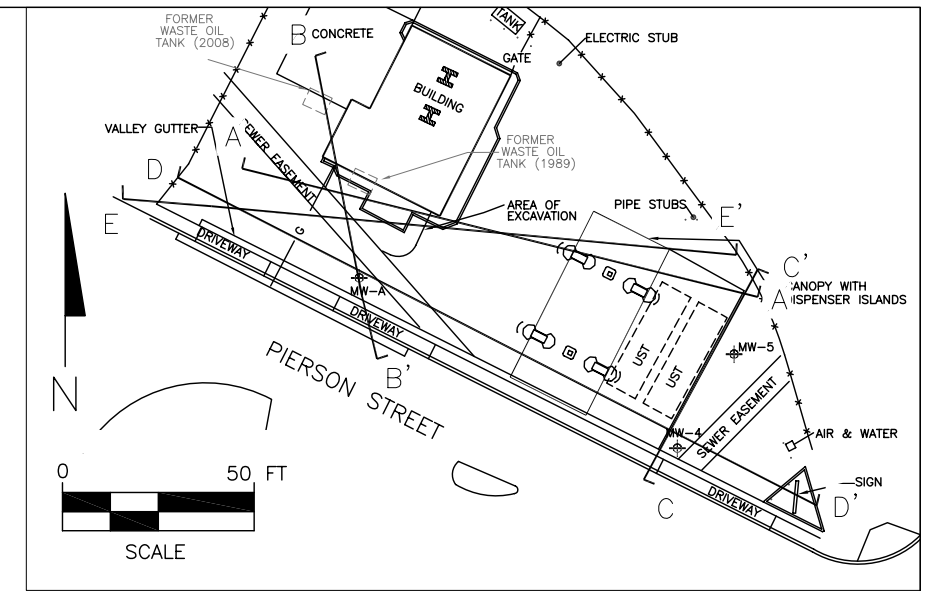
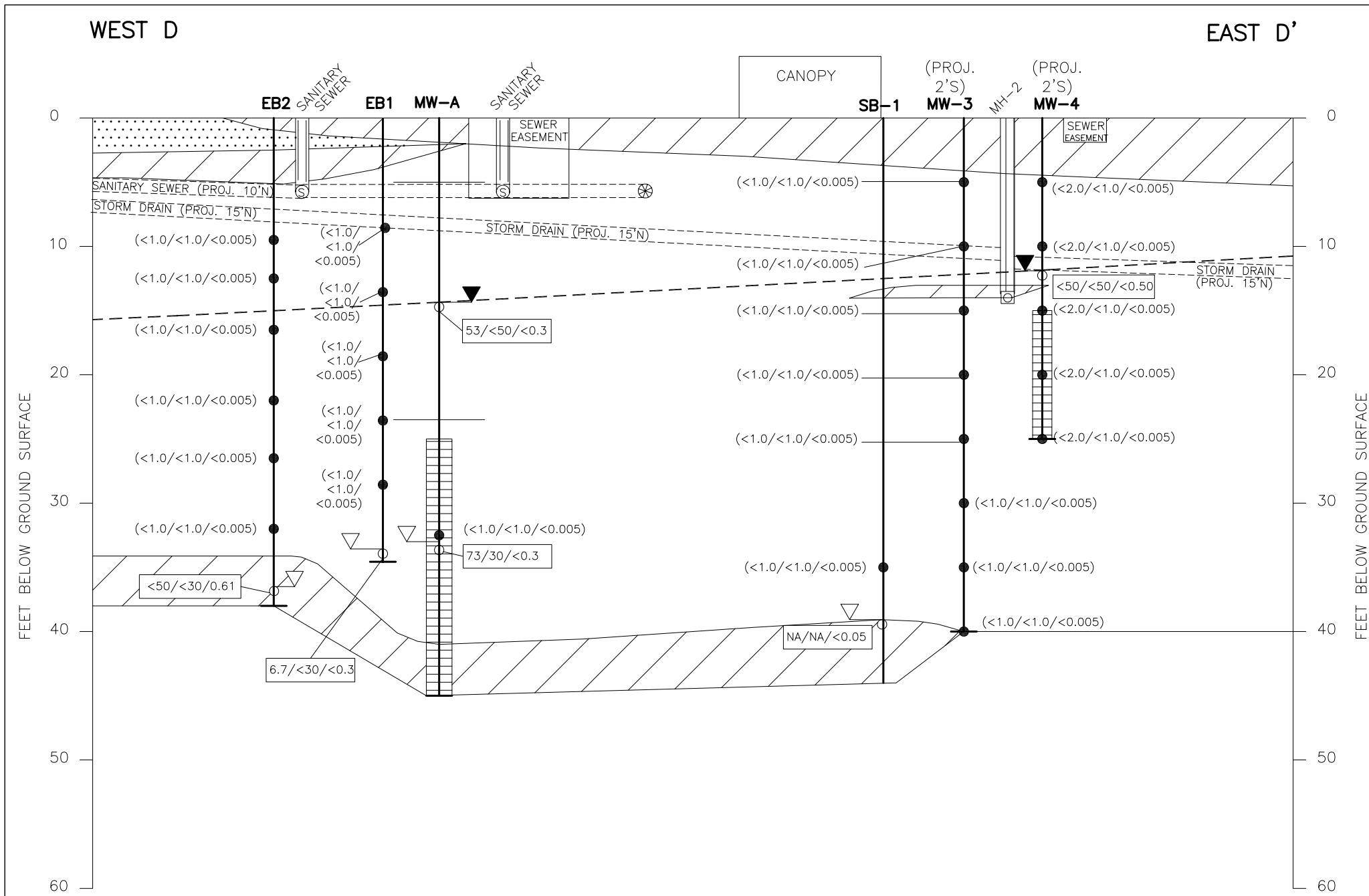
PROJECT NO. C105781	PREPARED BY CM	DRAWN BY JH	
DATE 07/29/10	REVIEWED BY JW	FILE NAME 5781-SiteS	



- NOTES:
- 1) <1.0=BELOW THE LABORATORY'S INDICATED REPORTING LIMIT
 NA=NOT ANALYZED
 TPH-G=TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 TPH-D=TOTAL PETROLEUM HYDROCARBONS AS DIESEL
 mg/kg=MILLIGRAMS PER KILOGRAM
 ug/L=MICROGRAMS PER LITER
 ug/m =MICROGRAMS PER CUBIC METER
 - 2) STRATIGRAPHY BETWEEN BORINGS IS INTERPRETIVE.
 - 3) GROUNDWATER SAMPLES FROM BORINGS COLLECTED ON DRILLING DATE.

FIGURE 6
GEOLOGIC CROSS SECTION C-C'
CONOCOPHILLIPS STATION NO. 5781
3535 PIERSON STREET
OAKLAND, CALIFORNIA

PROJECT NO. C105781	PREPARED BY CM	DRAWN BY JH	
DATE 07/29/10	REVIEWED BY JW	FILE NAME 5781-SiteS	



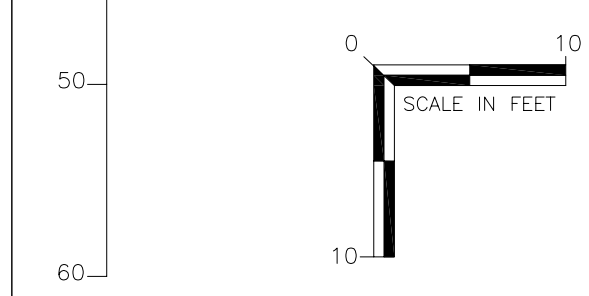
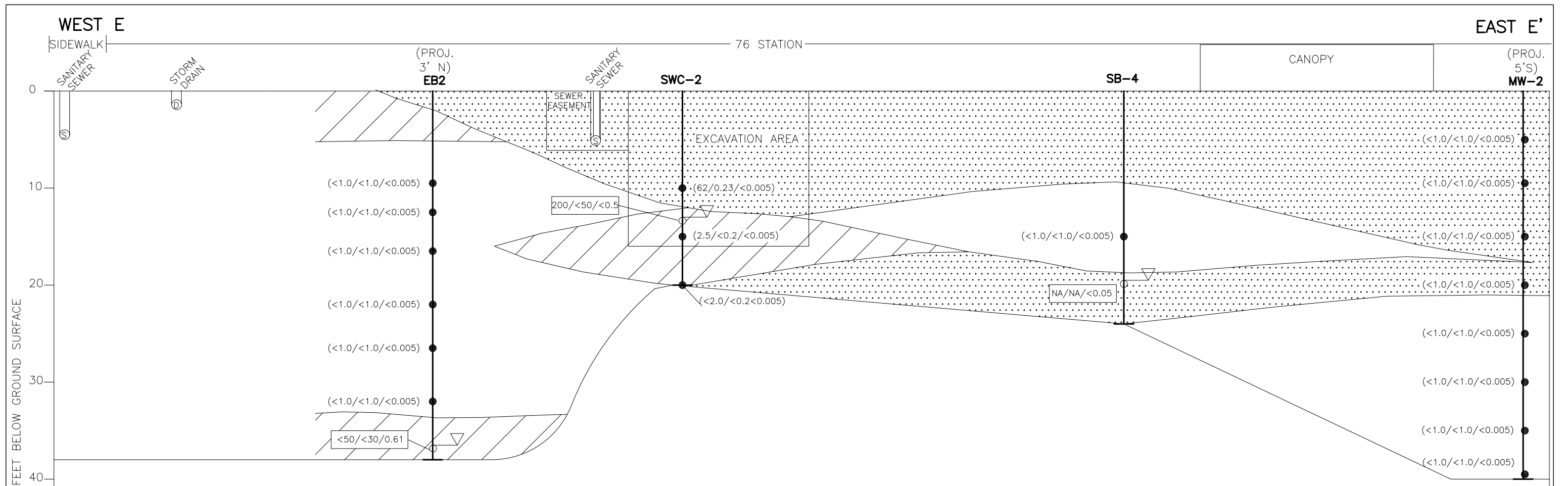
LEGEND

- MW-A BORING/MONITORING WELL NAME
- (<1.0/<1.0/<0.005) SOIL SAMPLE LOCATION WITH ANALYTICAL DATA: TPH-D, TPH-G, BENZENE (mg/kg)
- 53/<50/<0.3 DEPTH TO STATIC GROUNDWATER
- 58/<50/<0.50 GROUNDWATER SAMPLE LOCATION WITH ANALYTICAL DATA: TPH-D, TPH-G, BENZENE (ug/L)
- RECTANGLE-(SAMPLED ON 6/24/10) (NON-PURGED SAMPLE)
- OVAL-(SAMPLED ON 6/6/10) (PURGED SAMPLE)
- WELL SCREEN
- DEPTH TO FIRST ENCOUNTERED GROUNDWATER DURING DRILLING
- LOW PERMEABILITY (CLAY, SILT)
- MEDIUM PERMEABILITY (SAND, GRAVEL W/ CLAY, SILT)
- HIGH PERMEABILITY
- ARTIFICIAL FILL
- APPROXIMATE STRATIGRAPHIC BOUNDARY
- GROUNDWATER ELEVATION LINE (JUNE 2010)
- - - - PROJECTED UTILITY LINE
- Ⓢ SANITARY SEWER LINE (5.75 ft bgs)
- Ⓜ STORM DRAIN (PROEJECT 10 ft N)
- ⊗ SEWER MANHOLE (PROJECT 10 ft N)

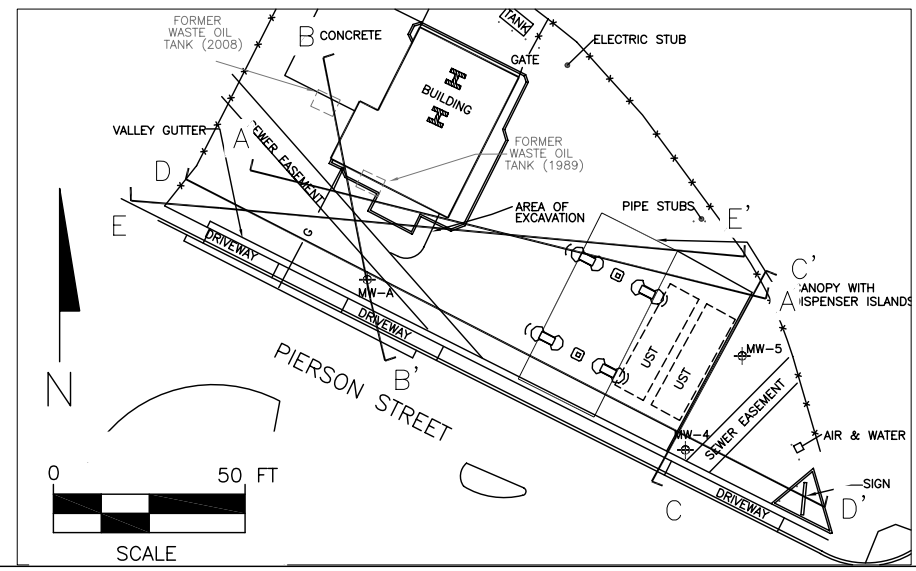
- NOTES:
- <1.0=BELOW THE LABORATORY'S INDICATED REPORTING LIMIT
 NA=NOT ANALYZED
 TPH-G=TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 TPH-D=TOTAL PETROLEUM HYDROCARBONS AS DIESEL
 mg/kg=MILLIGRAMS PER KILOGRAM
 ug/L=MICROGRAMS PER LITER
 ug/m =MICROGRAMS PER CUBIC METER
 - STRATIGRAPHY BETWEEN BORINGS IS INTERPRETIVE.
 - GROUNDWATER SAMPLES FROM BORINGS COLLECTED ON DRILLING DATE.

FIGURE 7
GEOLOGIC CROSS SECTION D-D'
CONOCOPHILLIPS STATION NO. 5781
3535 PIERSON STREET
OAKLAND, CALIFORNIA

PROJECT NO. C105781	PREPARED BY CM	DRAWN BY JH	
DATE 07/29/10	REVIEWED BY JW	FILE NAME 5781-SiteS	



- NOTES:
- 1) <1.0=BELOW THE LABORATORY'S INDICATED REPORTING LIMIT
 NA=NOT ANALYZED
 TPH-G=TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 TPH-D=TOTAL PETROLEUM HYDROCARBONS AS DIESEL
 mg/kg=MILLIGRAMS PER KILOGRAM
 ug/L=MICROGRAMS PER LITER
 ug/m =MICROGRAMS PER CUBIC METER
 - 2) STRATIGRAPHY BETWEEN BORINGS IS INTERPRETIVE.
 - 3) GROUNDWATER SAMPLES FROM BORINGS COLLECTED ON DRILLING DATE.



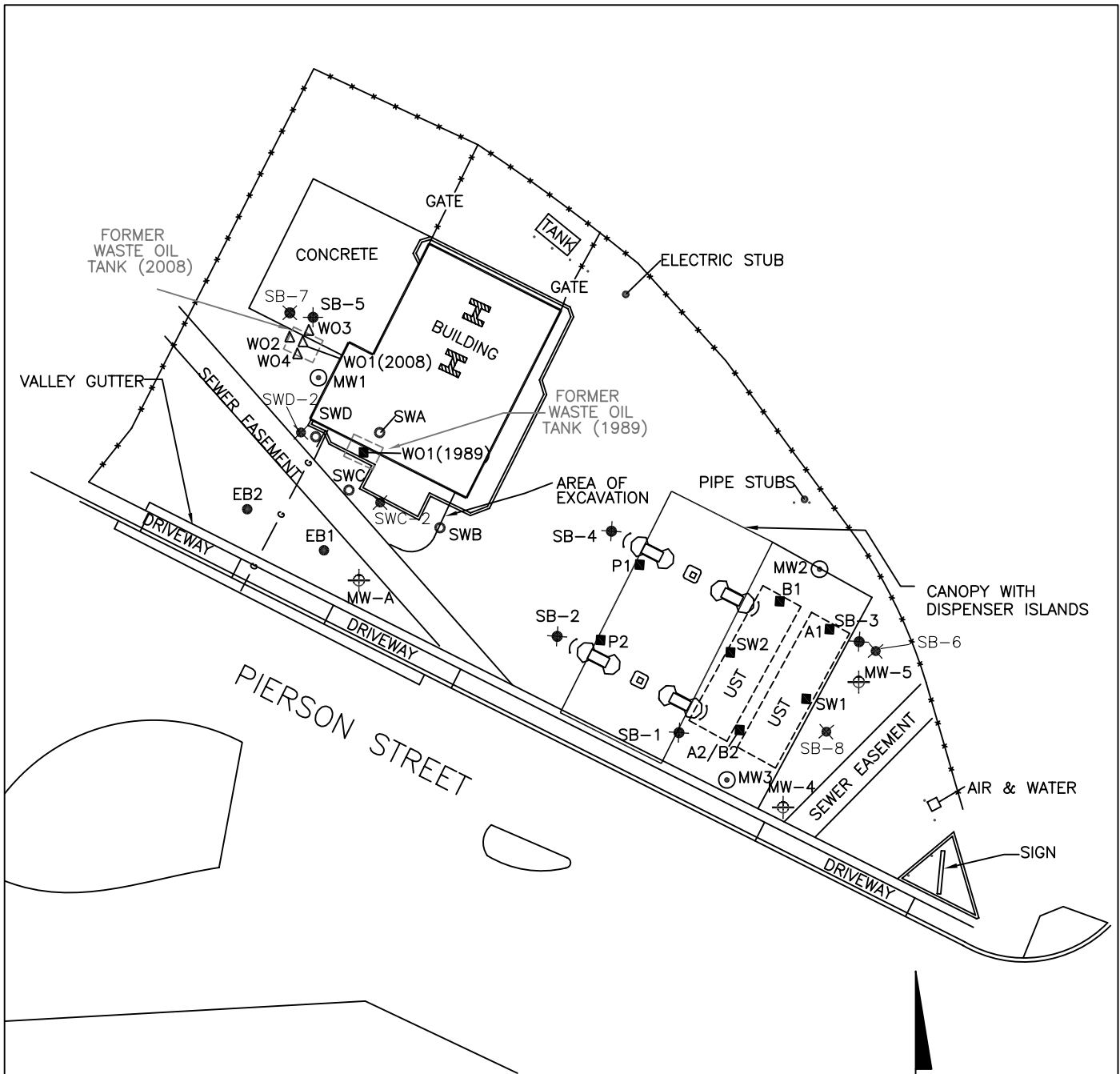
LEGEND

- MW-A BORING/MONITORING WELL NAME
- SOIL SAMPLE LOCATION WITH ANALYTICAL DATA: TPH-D, TPH-G, BENZENE (mg/kg)
- DEPTH TO STATIC GROUNDWATER
- GROUNDWATER SAMPLE LOCATION WITH ANALYTICAL DATA: TPH-D, TPH-G, BENZENE (ug/L) (SAMPLED ON 3/27/09)
- WELL SCREEN
- DEPTH TO FIRST ENCOUNTERED GROUNDWATER DURING DRILLING
- LOW PERMEABILITY (CLAY, SILT)
- MEDIUM PERMEABILITY (SAND, GRAVEL W/ CLAY, SILT)
- HIGH PERMEABILITY
- ARTIFICIAL FILL
- APPROXIMATE STRATIGRAPHIC BOUNDARY

- Ⓢ SANITARY SEWER LINE (4.5 ft bgs)
- Ⓣ STORM DRAIN LINE (1.3 ft bgs)

FIGURE 8
 GEOLOGIC CROSS SECTION E-E'
 CONOCOPHILLIPS STATION NO. 5781
 3535 PIERSON STREET
 OAKLAND, CALIFORNIA

PROJECT NO. C105781	PREPARED BY CM	DRAWN BY JH
DATE 07/29/10	REVIEWED BY JW	FILE NAME 5781-SiteS



LEGEND:

- FENCE
- HYDRAULIC LIFT
- SOIL SAMPLE LOCATION (1989)
- SOIL SAMPLE LOCATION (FEBRUARY 1990)
- ⊙ EXPLORATORY BORING (APRIL 1990)
(NOT CONVERTED TO MONITORING WELL)
- EXPLORATORY BORING (JULY 1990)
- ⊕ SOIL BORING (OCTOBER 2003)
- △ SOIL SAMPLE LOCATION (2008)
- ⊗ SOIL BORING (MARCH/JUNE 2010)
- ⊕ CURRENT MONITORING WELL

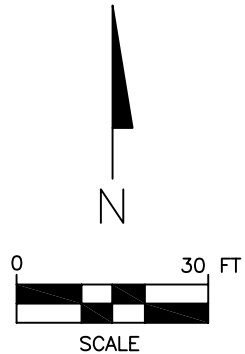


FIGURE 9
SITE MAP WITH HISTORICAL SAMPLING LOCATIONS

CONOCOPHILLIPS STATION NO. 5781
3535 PIERSON STREET
OAKLAND, CALIFORNIA

PROJECT NO. C105781	PREPARED BY CM	DRAWN BY JH
DATE 07/27/10	REVIEWED BY JW	FILE NAME 5781-SiteS



SWD (2/22/90)				
DEPTH	TPH-D	TPH-G	BENZENE	MTBE
9	360	40	0.32	NA

SWA (2/22/90)				
DEPTH	TPH-D	TPH-G	BENZENE	MTBE
9	1,400	220	2.3	NA

WO1 (12/14/89)				
DEPTH	TPH-D	TPH-G	BENZENE	MTBE
6	8,300	670	5.4	NA

SWC (2/22/90)				
DEPTH	TPH-D	TPH-G	BENZENE	MTBE
10	460	63	0.31	NA

SWD-2 (3/12/10)				
DEPTH	TPH-D	TPH-G	BENZENE	MTBE
10	270	0.58	<0.005	<0.005
15	<2.0	<0.2	<0.005	<0.005
20	<2.0	<0.2	<0.005	<0.005

SB-3 (10/30/03)				
DEPTH	TPH-D	TPH-G	BENZENE	MTBE
15	1,100	<1.0	<0.005	NA
45	<1.0	<1.0	<0.005	NA

SB-6 (3/12/10)				
DEPTH	TPH-D	TPH-G	BENZENE	MTBE
5	NA	<0.2	<0.005	<0.005
10	NA	<0.2	<0.005	<0.005
25	NA	<0.2	<0.005	0.02
40	NA	<0.2	<0.005	<0.005

MW-5 (6/3/10)				
DEPTH	TPH-D	TPH-G	BENZENE	MTBE
5	<1.0	<2.0	<0.005	<0.005
12	<1.0	<2.0	<0.005	<0.005
15	<1.0	<2.0	<0.005	<0.005
20	<1.0	<2.0	<0.005	<0.005
24	73	99	<0.5	53

A2/B2 (12/14/89)				
DEPTH	TPH-D	TPH-G	BENZENE	MTBE
5'	NA	5.8	0.1	NA

SW2 (12/14/89)				
DEPTH	TPH-D	TPH-G	BENZENE	MTBE
10.5	NA	46	0.65	NA

LEGEND:

- FENCE
- ▧ HYDRAULIC LIFT
- SOIL SAMPLE LOCATION (1989)
- SOIL SAMPLE LOCATION (FEBRUARY 1990)
- ⊙ EXPLORATORY BORING (APRIL 1990) (NOT CONVERTED TO MONITORING WELL)
- EXPLORATORY BORING (JULY 1990)
- SOIL BORING (OCTOBER 2003)
- △ SOIL SAMPLE LOCATION (2008)
- ✕ SOIL BORING (MARCH/JUNE 2010)
- ⊕ CURRENT MONITORING WELL

NOTES:
 TPH-D = TOTAL PETROLEUM HYDROCARBONS AS DIESEL
 TPH-G = TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 MTBE = METHYL TERTIARY BUTYL ETHER
 NA = NOT ANALYZED
 <1.0 = LESS THAN LABORATORY INDICATED REPORTING LIMIT
 MW (DATE) = INDICATES SAMPLE NAME AND DATE SAMPLED

- (1) DEPTHS IN FEET BELOW GROUND SURFACE.
- (2) CONCENTRATIONS IN MILLIGRAMS PER KILOGRAM (mg/kg).
- (3) BOLD INDICATES CONCENTRATIONS ARE ABOVE ENVIRONMENTAL SCREENING LEVELS (TPH=83 mg/kg, BENZENE=0.044 mg/kg, MTBE=0.023 mg/kg).

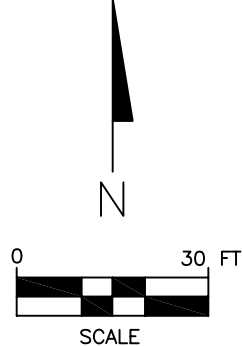


FIGURE 10
 SITE MAP WITH HISTORICAL AND CURRENT
 SOIL ANALYTICAL RESULTS EXCEEDING ESLs
 CONOCOPHILLIPS STATION NO. 5781
 3535 PIERSON STREET
 OAKLAND, CALIFORNIA

PROJECT NO. C105781	PREPARED BY CM	DRAWN BY JH	
DATE 07/29/10	REVIEWED BY JW	FILE NAME 5781-SiteS	

LEGEND:

- FENCE
- HYDRAULIC LIFT
- SOIL SAMPLE LOCATION (1989)
- SOIL SAMPLE LOCATION (FEBRUARY 1990)
- EXPLORATORY BORING (APRIL 1990)
(NOT CONVERTED TO MONITORING WELL)
- EXPLORATORY BORING (JULY 1990)
- SOIL BORING (OCTOBER 2003)
- SOIL SAMPLE LOCATION (2008)
- SOIL BORING (MARCH/JUNE 2010)
- CURRENT MONITORING WELL

- NOTES:
 TPH-D = TOTAL PETROLEUM HYDROCARBONS AS DIESEL
 TPH-G = TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 MTBE = METHYL TERTIARY BUTYL ETHER
 NA = NOT ANALYZED
 <1.0 = LESS THAN LABORATORY INDICATED REPORTING LIMIT
 MW (DATE) = INDICATES SAMPLE NAME AND DATE SAMPLED
- (1) DEPTHS IN FEET BELOW GROUND SURFACE.
 - (2) CONCENTRATIONS IN MICROGRAMS PER LITER (ug/L).
 - (3) BOLD INDICATES CONCENTRATIONS ARE ABOVE ENVIRONMENTAL SCREENING LEVELS (TPH=100 ug/L, BENZENE=1 ug/L, MTBE=1 ug/L).

SWC-2 (3/12/10)			
GRAB			
TPH-D	TPH-G	BENZENE	MTBE
200	<50	<0.5	<0.5

SB-6 (3/12/10)			
GRAB			
TPH-D	TPH-G	BENZENE	MTBE
NA	2,500	160	<2.5

MW-5 (6/16/10)			
PURGED			
TPH-D	TPH-G	BENZENE	MTBE
3,000	29,000	580	<50.0

MW-4 (6/16/10)			
PURGED			
TPH-D	TPH-G	BENZENE	MTBE
<50	58	<0.50	5.4

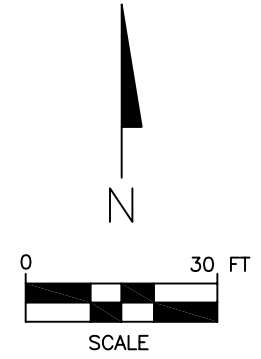
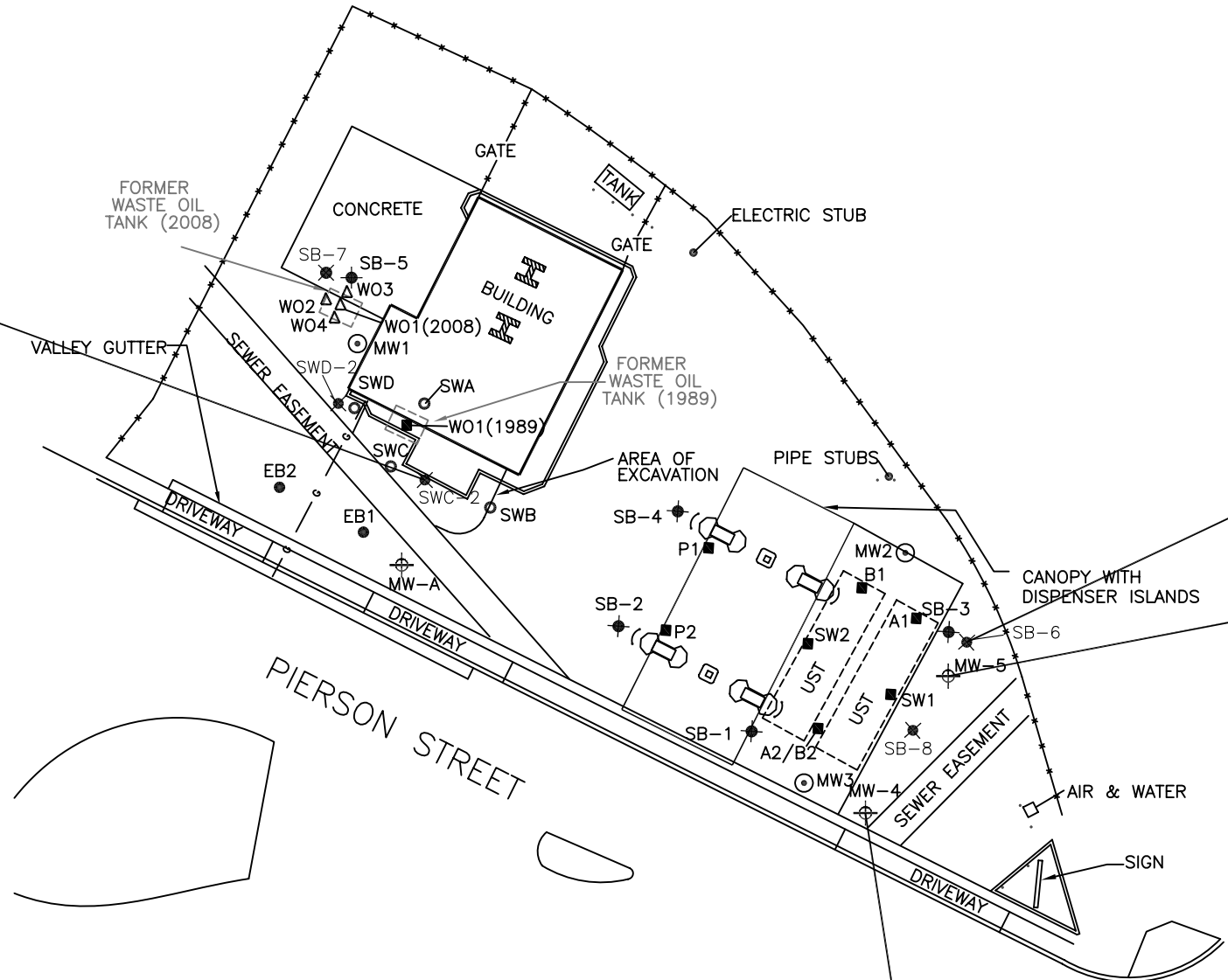
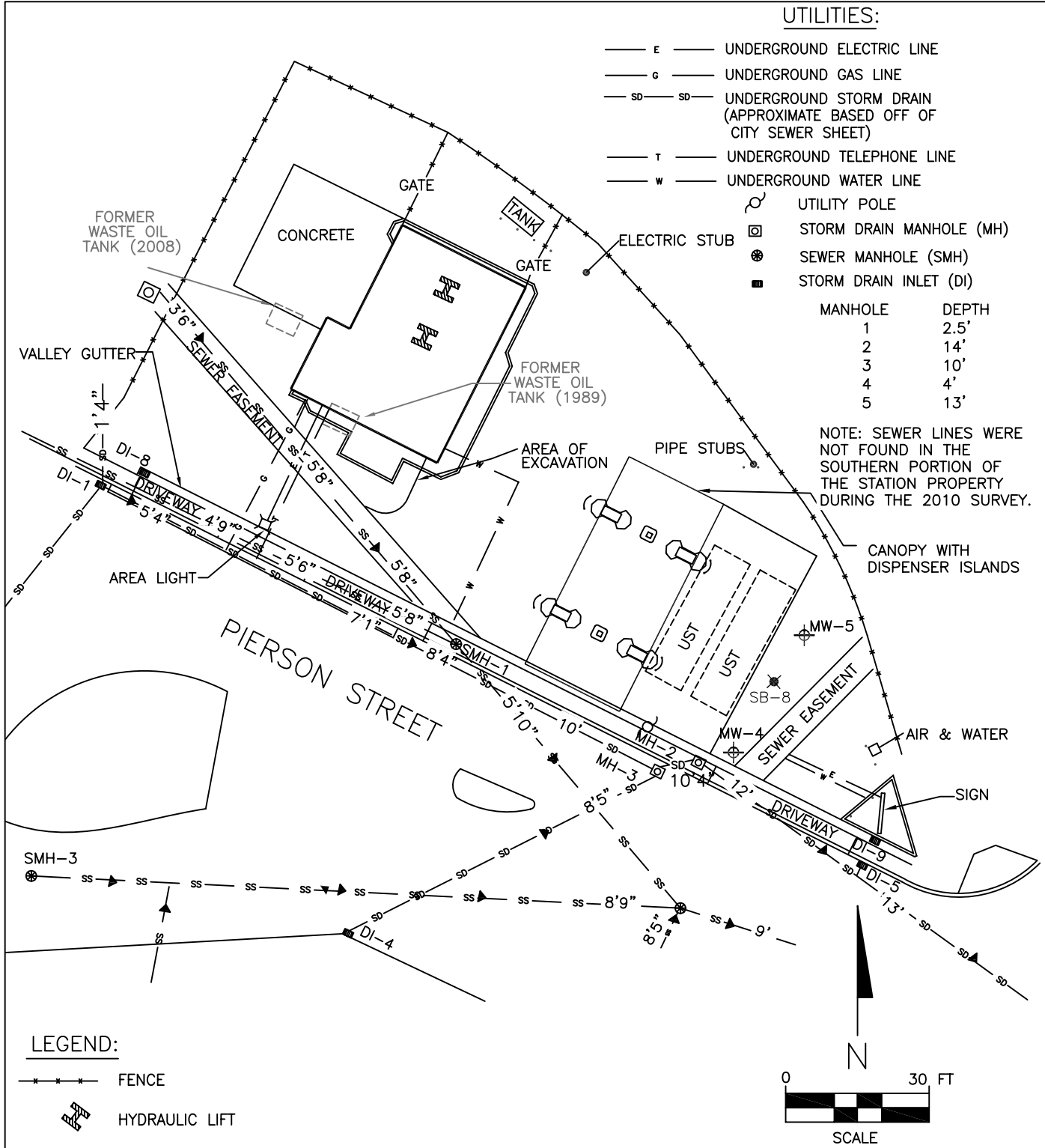


FIGURE 11
 SITE MAP WITH CURRENT AND HISTORICAL
 GROUNDWATER ANALYTICAL RESULTS EXCEEDING ESLS
 CONOCOPHILLIPS STATION NO. 5781
 3535 PIERSON STREET
 OAKLAND, CALIFORNIA

PROJECT NO. C105781	PREPARED BY CM	DRAWN BY JH	
DATE 07/29/10	REVIEWED BY JW	FILE NAME 5781-SiteS	



UTILITIES:

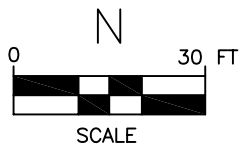
- E — UNDERGROUND ELECTRIC LINE
- G — UNDERGROUND GAS LINE
- SD — SD — UNDERGROUND STORM DRAIN (APPROXIMATE BASED OFF OF CITY SEWER SHEET)
- T — UNDERGROUND TELEPHONE LINE
- W — UNDERGROUND WATER LINE
- ⊙ UTILITY POLE
- ⊠ STORM DRAIN MANHOLE (MH)
- ⊗ SEWER MANHOLE (SMH)
- STORM DRAIN INLET (DI)

MANHOLE	DEPTH
1	2.5'
2	14'
3	10'
4	4'
5	13'

NOTE: SEWER LINES WERE NOT FOUND IN THE SOUTHERN PORTION OF THE STATION PROPERTY DURING THE 2010 SURVEY.

LEGEND:

- * * * — FENCE
- ⊕ HYDRAULIC LIFT
- ⊕ CURRENT MONITORING WELL
- ⊗ SOIL BORING



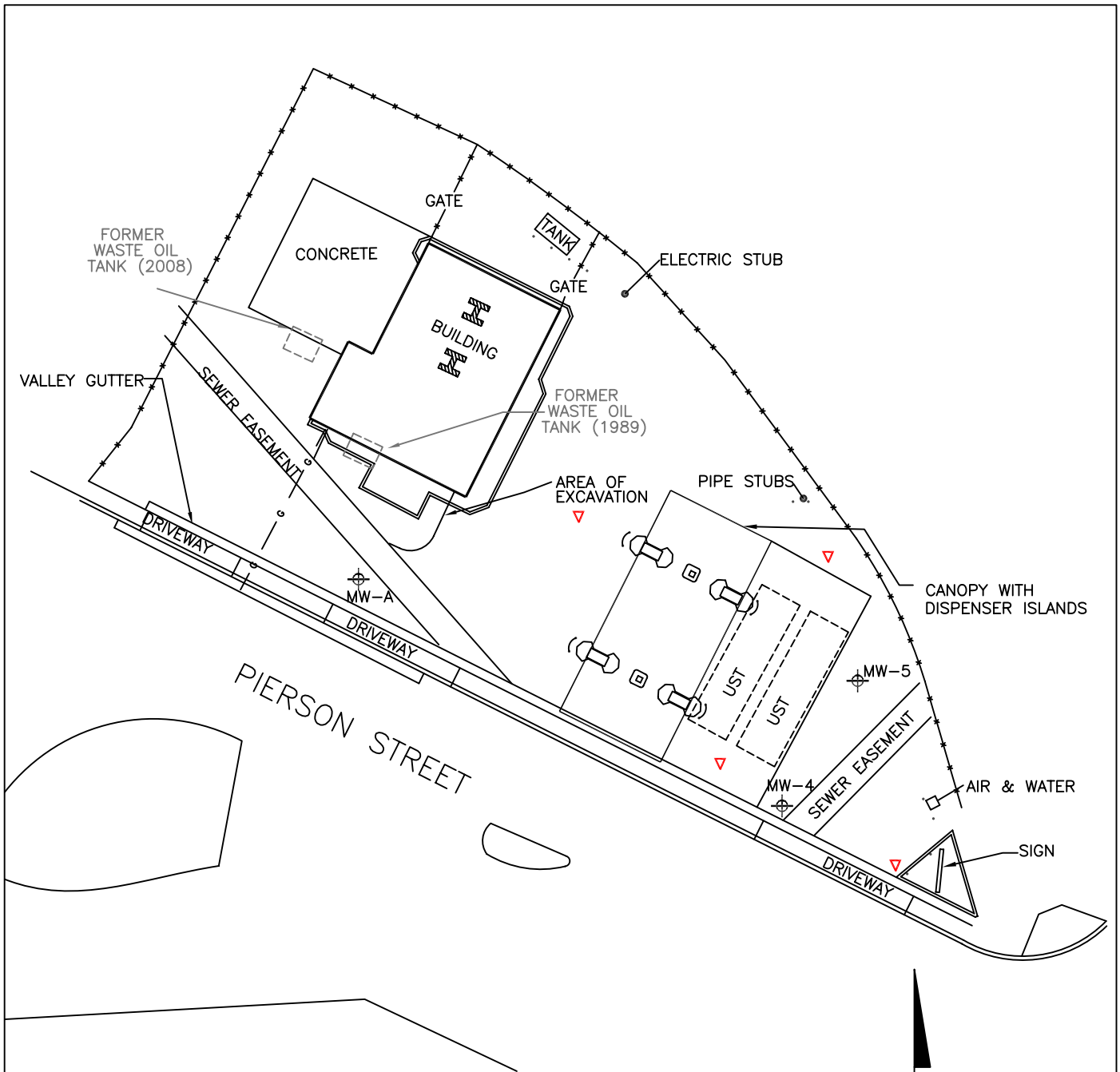
SITE MAP ADAPTED FROM A MORROW SURVEY DATED 07/10.

FIGURE 12
CURRENT ASSESSMENT SAMPLING LOCATIONS




CONOCOPHILLIPS STATION NO. 5781
3535 PIERSON STREET
OAKLAND, CALIFORNIA

PROJECT NO. C105781	PREPARED BY CM	DRAWN BY JH
DATE 07/29/10	REVIEWED BY JW	FILE NAME 5781-SiteS





LEGEND:

- * * * — FENCE
-  HYDRAULIC LIFT
-  CURRENT MONITORING WELL
-  PROPOSED MONITORING WELL LOCATION

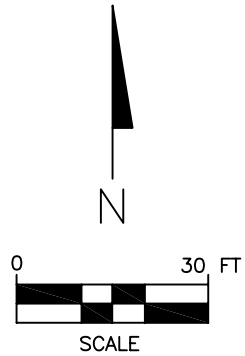


FIGURE 13
 SITE MAP WITH PROPOSED
 MONITORING WELL LOCATIONS
 CONOCOPHILLIPS STATION NO. 5781
 3535 PIERSON STREET
 OAKLAND, CALIFORNIA

PROJECT NO. C105781	PREPARED BY CM	DRAWN BY JH
DATE 07/29/10	REVIEWED BY JW	FILE NAME 5781-SiteS



TABLES

**TABLE 1
HISTORICAL SOIL ANALYTICAL DATA**

ConocoPhillips Station No. 5781
3535 Pierson Street, Oakland, CA

Sample ID	Date	Sample Depth (feet)	TPH-D (mg/kg)	TPH-G (mg/kg)	TOG (mg/kg)	BENZENE (mg/kg)	TOLUENE (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	Oxygenates (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)	ETHANOL (mg/kg)	OTHER (mg/kg)
UST and Product Piping Samples															
A1	12/14/1989	12.5	NA	3.5	NA	<0.05	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	
B1	12/14/1989	12.5	NA	<1.0	NA	<0.05	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	
A2/B2	12/14/1989	12.5	NA	5.8	NA	0.1	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	
SW1	12/14/1989	10.5	NA	15	NA	<0.05	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	
SW2	12/14/1989	10.5	NA	46	NA	0.65	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	
P1	12/14/1989	5.5	NA	<1.0	NA	<0.05	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	
P2	12/14/1989	6	NA	<1.0	NA	<0.05	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	
WO1	12/14/1989	6	8,300	670	48,000	5.4	15	2.3	17		NA	NA	NA	NA	(Overexcavated) 1,2-DCB (10), PCE (77), 1,1,1-TCA (15), Cr (8.3), Pb (340), Zn (70)
Over-Excavation Samples															
WO (16)	2/22/1990	16	74	15	910	0.06	<0.10	0.10	2	NA	NA	NA	NA	NA	(Post Overexcavation) All HVOCs below detection limit
SWA	2/22/1990	9	1,400	220	17,000	2.3	2.1	7.3	23	NA	NA	NA	NA	NA	PCE (160)
SWB	2/22/1990	10	<1	2	<50	<0.05	<0.10	<0.10	0.1	NA	NA	NA	NA	NA	PCE (56): 1,1,-TCA (5.8)
SWC	2/22/1990	10	460	63	4,100	0.31	0.33	1.3	2.2	NA	NA	NA	NA	NA	PCE (56)
SWD	2/22/1990	10	360	40	6,400	0.32	<0.10	0.49	4	NA	NA	NA	NA	NA	PCE (40), 1,1,1-TCA (5.8)
Northwest Waste Oil Tank Pit															
WO1	4/23/2008	9	NA	<0.25	NA	<0.005	<0.005	<0.005	<0.0099	<0.005	See Note	<0.005	<0.005	<1.2	All Oxys below reporting limits
WO2	4/23/2008	7	NA	<0.24	NA	<.0048	<0.0048	<0.0048	<0.0096	<0.0048	See Note	<0.0048	<0.0048	<1.2	All Oxys below reporting limits
WO3	4/23/2008	6.5	NA	<0.24	NA	<.0048	<0.0048	<0.0048	<.0095	<0.0048	See Note	<0.0048	<0.0048	<1.2	All Oxys below reporting limits
WO4	4/23/2008	6.5	NA	<0.24	NA	<.0048	<0.0048	<0.0048	<.0096	<0.0048	See Note	<0.0048	<0.0048	<1.2	All Oxys below reporting limits
Soil Borings															
MW1	4/9/1990	5	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	All HVOCs below detection limit
MW1	4/9/1990	9.5	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	All HVOCs below detection limit
MW1	4/9/1990	15	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	All HVOCs below detection limit
MW1	4/9/1990	20	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	All HVOCs below detection limit
MW1	4/9/1990	25	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	All HVOCs below detection limit
MW1	4/9/1990	30	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	All HVOCs below detection limit
MW1	4/9/1990	35	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	All HVOCs below detection limit
MW1	4/9/1990	40	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	All HVOCs below detection limit
MW1	4/9/1990	45	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	All HVOCs below detection limit
MW1	4/9/1990	50	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	All HVOCs below detection limit
MW2	4/9/1990	5	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	
MW2	4/9/1990	9.5	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	
MW2	4/9/1990	15	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	
MW2	4/9/1990	20	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	
MW2	4/9/1990	25	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	
MW2	4/9/1990	30	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	
MW2	4/9/1990	35	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	
MW2	4/9/1990	39.5	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	
MW3	4/10/1990	5	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	
MW3	4/10/1990	10	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	
MW3	4/10/1990	15	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	
MW3	4/10/1990	20	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	
MW3	4/10/1990	25	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	
MW3	4/10/1990	30	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	
MW3	4/10/1990	35	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	
MW3	4/10/1990	40	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	

**TABLE 1
HISTORICAL SOIL ANALYTICAL DATA**

ConocoPhillips Station No. 5781
3535 Pierson Street, Oakland, CA

Sample ID	Date	Sample Depth (feet)	TPH-D (mg/kg)	TPH-G (mg/kg)	TOG (mg/kg)	BENZENE (mg/kg)	TOLUENE (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	Oxygenates (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)	ETHANOL (mg/kg)	OTHER (mg/kg)
EB1	7/5/1990	8.5	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	All HVOCs below detection limit
EB1	7/5/1990	13.5	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	All HVOCs below detection limit
EB1	7/5/1990	18.5	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	All HVOCs below detection limit
EB1	7/5/1990	23.5	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	All HVOCs below detection limit
EB1	7/5/1990	28.5	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	1,1,1-TCA (6.2)
EB2	7/6/1990	9.5	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	All HVOCs below detection limit
EB2	7/6/1990	12.5	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	All HVOCs below detection limit
EB2	7/6/1990	16.5	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	All HVOCs below detection limit
EB2	7/6/1990	22	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	All HVOCs below detection limit
EB2	7/6/1990	26.5	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	All HVOCs below detection limit
EB2	7/6/1990	32.0	<1.0	<1.0	ND	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	All HVOCs below detection limit
MW-A	12/11/1990	32.5	<1.0	<1.0	36	<0.005	<0.005	<0.005	<0.005	NA	NA	NA	NA	NA	All HVOCs below detection limit
SB-1	10/30/2003	35.0	<1.0	<1.0	NA	<0.005	<0.005	<0.005	<0.005	NA	ND	<0.005	<0.005	<0.1	
SB-2	10/30/2003	15.0	<1.0	<1.0	NA	<0.005	<0.005	<0.005	<0.005	NA	ND	<0.005	<0.005	<0.1	
SB-2	10/30/2003	50.0	<1.0	<1.0	NA	<0.005	<0.005	<0.005	<0.005	NA	ND	<0.005	<0.005	<0.1	
SB-3	10/30/2003	15.0	1,100	<1.0	NA	<0.005	<0.005	16	50	NA	ND	<0.005	<0.005	<0.1	
SB-3	10/30/2003	45.0	<1.0	<1.0	NA	<0.005	<0.005	<0.005	<0.005	NA	ND	<0.005	<0.005	<0.1	
SB-4	10/30/2003	15.0	<1.0	<1.0	NA	<0.005	<0.005	<0.005	<0.005	NA	ND	<0.005	<0.005	<0.1	
SB-5	10/30/2003	20.0	NA	NA	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SWC-2	3/12/10	10.0	62	0.23	7700	<0.005	<0.005	<0.005	0.025	<0.005	See Note	NA	NA	NA	All Oxy's below reporting limit
SWC-2	3/12/10	15.0	2.5	<0.2	<50	<0.005	<0.005	<0.005	<0.01	<0.005	See Note	NA	NA	NA	All Oxy's below reporting limit
SWC-2	3/12/10	20.0	<2.0	<0.2	<50	<0.005	<0.005	<0.005	<0.01	<0.005	See Note	NA	NA	NA	All Oxy's below reporting limit
SWD-2	3/12/10	10.0	270	0.58	870	<0.005	<0.005	<0.005	<0.01	<0.005	See Note	NA	NA	NA	All Oxy's below reporting limit
SWD-2	3/12/10	15.0	<2.0	<0.2	<50	<0.005	<0.005	<0.005	<0.01	<0.005	See Note	NA	NA	NA	All Oxy's below reporting limit
SWD-2	3/12/10	20.0	<2.0	<0.2	<50	<0.005	<0.005	<0.005	<0.01	<0.005	See Note	NA	NA	NA	All Oxy's below reporting limit
SB-6	3/12/10	5.0	NA	<0.2	NA	<0.005	<0.005	<0.005	<0.01	<0.005	See Note	<0.005	<0.005	<1	All Oxy's below reporting limit
SB-6	3/12/10	10.0	NA	<0.2	NA	<0.005	<0.005	<0.005	<0.01	<0.005	See Note	<0.005	<0.005	<1	All Oxy's below reporting limit
SB-6	3/12/10	25.0	NA	<0.2	NA	<0.005	<0.005	<0.005	<0.01	0.02	See Note	<0.005	<0.005	<1	All Oxy's, with exception of MTBE below reporting limit
SB-6	3/12/10	40.0	NA	<0.2	NA	<0.005	<0.005	<0.005	<0.01	<0.005	See Note	<0.005	<0.005	<1	All Oxy's below reporting limit
SB-7	3/12/10	5.0	<2.0	<0.2	<50	<0.005	<0.005	<0.005	<0.01	<0.005	See Note	NA	NA	NA	All Oxy's below reporting limit
SB-7	3/12/10	10.0	<2.0	<0.2	<50	<0.005	<0.005	<0.005	<0.01	<0.005	See Note	NA	NA	NA	All Oxy's below reporting limit
MW-4@5'	6/4/2010	5.0	<1.0	<2.0	NA	<0.010	<0.010	<0.010	<0.020	<0.010	See Note	<0.010	<0.010	<2.0	TBA; ETBE; TAME; DIPE all below reporting limit. Methanol also below reporting limit.
MW4@10'	6/4/2010	10.0	<1.0	<2.0	NA	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	See Note	<0.0050	<0.0050	<1.0	TBA; ETBE; TAME; DIPE all below reporting limit. Methanol also below reporting limit.
MW-4@15'	6/4/2010	15.0	<1.0	<2.0	NA	<0.0050	<0.0050	<0.0050	<0.010	0.0051	See Note	<0.0050	<0.0050	<1.0	TBA; ETBE; TAME; DIPE all below reporting limit. Methanol also below reporting limit.
MW-4@20'	6/4/2010	20.0	<1.0	<2.0	NA	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	See Note	<0.0050	<0.0050	<1.0	TBA; ETBE; TAME; DIPE all below reporting limit. Methanol also below reporting limit.
MW-4@25'	6/4/2010	25.0	<1.0	<2.0	NA	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	See Note	<0.0050	<0.0050	<1.0	TBA; ETBE; TAME; DIPE all below reporting limit. Methanol also below reporting limit.

**TABLE 1
HISTORICAL SOIL ANALYTICAL DATA**

ConocoPhillips Station No. 5781
3535 Pierson Street, Oakland, CA

Sample ID	Date	Sample Depth (feet)	TPH-D (mg/kg)	TPH-G (mg/kg)	TOG (mg/kg)	BENZENE (mg/kg)	TOLUENE (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	Oxygenates (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)	ETHANOL (mg/kg)	OTHER (mg/kg)
MW-5@5'	6/3/2010	5.0	<1.0	<2.0	NA	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	See Note	<0.0050	<0.0050	<1.0	TBA; ETBE; TAME; DIPE all below reporting limit. Methanol also below reporting limit.
MW5@12'	6/3/2010	12.0	<1.0	<2.0	NA	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	See Note	<0.0050	<0.0050	<1.0	TBA; ETBE; TAME; DIPE all below reporting limit. Methanol also below reporting limit.
MW-5@15'	6/3/2010	15.0	<1.0	<2.0	NA	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	See Note	<0.0050	<0.0050	<1.0	TBA; ETBE; TAME; DIPE all below reporting limit. Methanol also below reporting limit.
MW-5@20'	6/3/2010	20.0	<1.0	<2.0	NA	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	See Note	<0.0050	<0.0050	<1.0	TBA; ETBE; TAME; DIPE all below reporting limit. Methanol also below reporting limit.
MW-5@24'	6/3/2010	24.0	73	99	NA	<0.50	<0.50	<0.50	<1.0	53	See Note	0.50	0<0.50	<250	TBA; ETBE; TAME; DIPE all below reporting limit. Methanol also below reporting limit.
SB-8@6'	6/3/2010	6.0	<1.0	2.1	NA	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	See Note	<0.0050	<0.0050	<1.0	TBA; ETBE; TAME; DIPE all below reporting limit. Methanol also below reporting limit.
SB-8@10'	6/3/2010	10.0	<1.0	<2.0	NA	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	See Note	<0.0050	<0.0050	<1.0	TBA; ETBE; TAME; DIPE all below reporting limit. Methanol also below reporting limit.
SB-8@15'	6/3/2010	15.0	<1.0	2.4	NA	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	See Note	<0.0050	<0.0050	<1.0	TBA; ETBE; TAME; DIPE all below reporting limit. Methanol also below reporting limit.
SB-8@20'	6/3/2010	20.0	<1.0	<2.0	NA	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	See Note	<0.0050	<0.0050	<1.0	TBA; ETBE; TAME; DIPE all below reporting limit. Methanol also below reporting limit.
SB-8@24'	6/3/2010	24.0	<1.0	<2.0	NA	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	See Note	<0.0050	<0.0050	<1.0	TBA; ETBE; TAME; DIPE all below reporting limit. Methanol also below reporting limit.

TPH-G= Total petroleum hydrocarbons as Gasoline Range Organics-C6-C12
 TPH-D = Total petroleum hydrocarbons as Diesel Range Organics
 TOG= Total oil and grease
 BTEX = Benzene, toluene, ethylbenzene, total xylenes by EPA Method 8260B
 MTBE = Methyl tertiary butyl ether by EPA Method 8260B
 TBA = Tertiary butyl alcohol by EPA Method 8260B
 1,2,4 = 1,2,4- Trimethylbenzene
 DIPE = Di-isopropyl ether by EPA Method 8260B
 TAME = Tertiary amyl methyl ether by EPA Method 8260B
 1,2-DCA = 1,2-dichloroethane (also known as ethylene dichloride) by EPA Method 8260B
 EDB = Ethylene dibromide (also known as 1,2-dibromoethane) by EPA Method 8260B
 1,1 DCB = 1,1-dichlorobromide
 PCE= tetrachloroethene
 1,1,1-TCE= 1,1,1-trichloroethene
 HVOCs= Halogenated volatile organic compounds by EPA Method 8010

NA = Not analyzed
 ND = Not detected (detection limit not given)

**TABLE 2
HISTORICAL GRAB GROUNDWATER ANALYTICAL DATA**

ConocoPhillips Station No. 5781
3535 Pierson Street, Oakland, California

Sample ID	Date	TPPH (µg/L)	TPH-D (µg/L)	TPH-G (µg/L)	TOG (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	Ethyl- Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	ETBE (µg/L)	TAME (µg/L)	DIPE (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	ETHANOL (µg/L)	METHANOL (µg/L)
EB1	7/6/90	NA	6.7	<30	ND	<0.3	1.5	<0.3	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
EB2	7/6/90	NA	<50	<30	ND	0.61	1.5	<0.3	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-A	12/18/90	NA	73	<30	ND	<0.3	<0.3	<0.3	<0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-1	10/30/03	<50	NA	NA	NA	<0.05	<0.05	<0.05	<1.0	<2	<100	<2	<2	<2	<2	<2	<500	NA
SB-4	10/30/03	<50	NA	NA	NA	<0.05	<0.05	<0.05	<1.0	<2	<100	<2	<2	<2	<2	<2	<500	NA
SB-5	10/30/03	<50	NA	NA	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SWC-2	3/12/10	NA	200	<50	<5	<0.5	<0.5	<0.5	<1.0	<0.5	NA	NA	NA	NA	NA	NA	NA	NA
SB-6	3/12/10	NA	NA	2,500	NA	160	310	110	690	<2.5	<50	<2.5	<2.5	<2.5	<2.5	<2.5	<1200	NA
SB-7	3/12/10	NA	65	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA
SB-8	6/3/10	NA	99	73	NA	<0.50	<0.050	<0.050	<1.0	53	<10	<0.50	<0.50	<0.50	0.5	<0.50	<250	<100
MW-4	6/24/10	NA	<50	<50	NA	<0.50	<0.50	<0.50	<1.0	4.7	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	<100

TPPH = Total purgeable petroleum hydrocarbons	ug/l = micrograms per liter
TPH-D = Total petroleum hydrocarbons as Diesel Range Organics	ND = not detected above the laboratory detection limit
TPH-G = Total petroleum hydrocarbons as Gasoline Range Organics-C6-C12	NA = not applicable / not analyzed
TOG = Total oil and grease by method 1664	Bold = detected compound concentration
BTEX = Benzene, toluene, ethylbenzene, total xylenes by EPA Method 8260B	EPA = Environmental Protection Agency
MTBE = Methyl tertiary butyl ether by EPA Method 8260B	
TBA = Tertiary butyl alcohol by EPA Method 8260B	
DIPE = Di-isopropyl ether by EPA Method 8260B	
TAME = Tertiary amyl methyl ether by EPA Method 8260B	
1,2-DCA : 1,2-dichloroethane (also known as ethylene dichloride) by EPA Method 8260B	
EDB = Ethylene dibromide (also known as 1,2-dibromoethane) by EPA Method 8260B	
Ethanol analyzed by EPA Method 8260B	

TABLE 3
CURRENT SOIL ANALYTICAL RESULTS
 ConocoPhillips Station No. 5781
 Oakland, California

Sample ID	Date	Time	Sample Depth (feet)	TPH-G (mg/kg)	TPH-D (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	DIPE (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)	Ethanol (mg/kg)	Methanol (mg/kg)
Soil																		
MW-4@5'	6/4/10	12:28	5	<1.0	<2.0	<0.010	<0.010	<0.010	<0.020	<0.010	<0.10	<0.010	<0.010	<0.010	<0.010	<0.010	<2.0	<0.51
MW-4@10'	6/4/10	12:32	10	<1.0	<2.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.49
MW-4@15'	6/4/10	12:39	15	<1.0	<2.0	<0.0050	<0.0050	<0.0050	<0.010	0.0051	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.50
MW-4@20'	6/4/10	12:44	20	<1.0	<2.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.49
MW-4@25'	6/4/10	12:53	25	<1.0	<2.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.50
MW-5@5'	6/3/10	11:55	5	<1.0	<2.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.50
MW-5@12'	6/3/10	12:01	12	<1.0	<2.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.50
MW-5@15'	6/3/10	12:03	15	<1.0	<2.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.51
MW-5@20'	6/3/10	12:08	20	<1.0	<2.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.51
SB-8@24'	6/3/10	4:10	24	73	99	<0.50	<0.50	<0.50	<1.0	53	<10	<0.50	<0.50	<0.50	0.50	<0.50	<250	<0.50
SB-8@6'	6/3/10	3:48	6	<1.0	2.1	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.51
SB-8@10'	6/3/10	3:50	10	<1.0	<2.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.48
SB-8@15'	6/3/10	3:56	15	<1.0	2.4	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.50
SB-8@20'	6/3/10	4:00	20	<1.0	<2.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.50
SB-8@24'	6/3/10	4:03	24	<1.0	<2.0	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.49
TPPH = total purgeable petroleum hydrocarbons by EPA Method 8260B BTEX = benzene, toluene, ethylbenzene, total xylenes by EPA Method 8260B MTBE = methyl tertiary butyl ether by EPA Method 8260B TBA = tertiary butyl alcohol by EPA Method 8260B ETBE = ethyl tertiary butyl ether by EPA Method 8260B TAME = tertiary amyl methyl ether by EPA Method 8260B DIPE = di-isopropyl ether by EPA Method 8260B										1,2-DCA = 1,2-Dichloroethane (also known as ethylene dichloride) by EPA Method 8260B EDB = ethylene dibromide (also known as 1,2-Dibromoethane) by EPA method 8260B Ethanol was analyzed by EPA Method 8260B mg/kg = milligrams per kilogram ND = not detected above the laboratory detection limit Bold = detected compound concentration EPA = US Environmental Protection Agency								

TABLE 4
CURRENT GROUNDWATER SAMPLE ANALYTICAL DATA
 ConocoPhillips Station No. 5781
 Oakland, California

Sample Location	Date	TPH-D (mg/kg)	TPH-G (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl- benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	DIPE (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)	Ethanol (mg/kg)	Methanol (mg/kg)
Groundwater																
MW-4*	6/24/10	<50	<50	<0.50	<0.50	<0.50	<1.0	4.7	<10	<0.50	<0.50	<.50	<0.50	<0.50	<250	<100
MW-4**	6/16/10	<50	58	<0.50	9.7	1	16	5.4	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	<100
MW-5**	6/16/10	3000	29000	580	6800	850	7200	<50	<25000	<50	<50	<50	<50	<50	<50	<100
SB-8*	6/3/10	99	73	<0.50	<0.050	<0.050	<1.0	53	<10	<0.50	<0.50	<0.50	0.50	<0.50	<250	<100
TPPH = total purgeable petroleum hydrocarbons by EPA Method 8260B BTEX = benzene, toluene, ethylbenzene, total xylenes by EPA Method 8260B MTBE = methyl tertiary butyl ether by EPA Method 8260B TBA = tertiary butyl alcohol by EPA Method 8260B ETBE = ethyl tertiary butyl ether by EPA Method 8260B TAME = tertiary amyl methyl ether by EPA Method 8260B DIPE = di-isopropyl ether by EPA Method 8260B * Grab Groundwater Sample								1,2-DCA = 1,2-Dichloroethane (also known as ethylene dichloride) by EPA Method 8260B EDB = ethylene dibromide (also known as 1,2-Dibromoethane) by EPA method 8260B Ethanol was analyzed by EPA Method 8260B mg/kg = milligrams per kilogram ND = not detected above the laboratory detection limit Bold = detected compound concentration EPA = US Environmental Protection Agency ** Purge Groundwater Sample								

APPENDIX A

ACEH Letter Dated May 21, 2010



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

May 21, 2010

Terry Grayson (sent via e-mail to Terry.L.Grayson@contractor.conocophillips.com)
ConocoPhillips
76 Broadway
Sacramento, CA 95818

United Brothers Enterprise, Inc.
3535 Pierson St.
Oakland, CA 94619

Subject: ADDITIONAL ASSESSMENT REPORT, MONITORING WELL INSTALLATION WORK PLAN FOR Fuel Leak Case No. RO0000253 and GeoTracker Global ID T0600101467, Unocal #5781, 3535 Pierson St., Oakland, CA 94619

Dear Mr. Grayson. etal:

Thank you for the recently submitted document entitled, *Additional Assessment Report, Monitoring Well Installation Work Plan and Storm Sewer Repair Comments*, dated May 7, 2010, which was prepared by Delta Consultants 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 investigation report/work plan was submitted to ACEH to detail the investigation that occurred on March 10, 2010 and to address contamination present in the storm drain as reported by Delta in their URF dated March 5, 2010 and per the subsequent neighborhood reports of petroleum hydrocarbon odors in the area in April 2010.

ACEH is not opposed to the well installation. However, the site has not been adequately characterized and installing monitoring wells is premature considering the available site data. Therefore ACEH requests that you address the following technical comments and send us the technical documents requested below.

TECHNICAL COMMENTS

1. **Contaminant Source Area Characterization** – ConocoPhillips has proposed installation of two monitoring wells. As mentioned above, ACEH is not opposed to the well installation. However, ACEH requests that you prepare a scope of work to characterize the source area by performing an expedited site assessment using methods such as CPT, MIP or other continuous logging method to evaluate the extent of petroleum hydrocarbons both on- and off-site. We request that borings be advanced along transect(s). Once the source area has been adequately defined, appropriate locations for the monitoring wells can be determined.

2. **Site Conceptual Model** – At this juncture, it may be advantageous to develop a site conceptual model (SCM), which synthesizes all the analytical data and evaluates all potential exposure pathways and potential receptors that may exist at the site, including identifying or developing site cleanup objectives and goals. At a minimum, the SCM should include:
- a) Local and regional plan view maps that illustrate the location of sources (former facilities, piping, tanks, etc.) extent of contamination, direction and rate of groundwater flow, potential preferential pathways, and locations of receptors;
 - b) Geologic cross section maps that illustrate subsurface features, man-made conduits, and lateral and vertical extent of contamination;
 - c) Summary tables of chemical concentrations in different media (i.e. soil, groundwater, and soil vapor); and
 - d) Well logs, boring logs, and well survey maps;
 - e) Discussion of likely contaminant fate and transport.

If data gaps (i.e. potential contaminant volatilization to indoor air or contaminant migration along preferential pathways, etc.) are identified in the SCM, please include a proposed scope of work to address those data gaps in the work plan due by the date specified below. Please note that the work plan must address all data gaps identified in the SCM.

As part of your SCM, please complete a preferential pathway evaluation. There are two sewer easements on your map but there is no indication of whether a sewer line exists from your map and the depth of the sewer or if any other utilities are present. The purpose of the preferential pathway study is to locate potential migration pathways and conduits and determine the probability of the NAPL and/or plume encountering preferential pathways and conduits that could spread contamination. We request that you perform a preferential pathway study that details the potential migration pathways and potential conduits (wells, utilities, pipelines, etc.) for vertical and lateral migration that may be present in the vicinity of the site.

Discuss your analysis and interpretation of the results of the preferential pathway study and report your results in the work plan requested below. The results of your study shall contain all information required by California Code of Regulations, Title 23, Division 3, Chapter 16, §2654(b).

An evaluation of all utility lines and trenches (including sewers, storm drains, pipelines, trench backfill, etc.) within and near the site and plume area(s) is required as part of your study. Please include maps and add the utility locations to the previously submitted cross-sections illustrating the location and depth of all utility lines and trenches within and near the site as part of your study.

Mr. Grayson, etal
RO0000253
May 21, 2010, Page 3

TECHNICAL REPORT REQUEST

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

- **June 30, 2010** – SCM with preferential pathway evaluation and work plan to address data gaps.

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

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

cc: Jan Wagoner, Delta Consultants, 11050 White Rock Road, 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
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)	ISSUE DATE: July 5, 2005
	REVISION DATE: March 27, 2009
	PREVIOUS REVISIONS: December 16, 2005, October 31, 2005
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

- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection**. (Please do not submit reports as attachments to electronic mail.)
- 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)

Additional Recommendations

- A separate copy of the tables in the document should be submitted by e-mail to your Caseworker in **Excel** format. These are for use by assigned Caseworker only.

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
 - Or
 - ii) Send a fax on company letterhead to (510) 337-9335, to the attention of My Le Huynh.
 - 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 and Firefox browsers will not open the FTP site.
 - b) Click on File, then on Login As.
 - 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
Historical Boring Logs

B O R I N G L O G

Project No. KEI-P89-1204	Boring & Casing Diameter 9" 2"	Logged By D.L. <i>D.L. Braun</i>
Project Name Unocal Oakland - Pierson	Well Head Elevation N/A	Date Drilled 4/9/90
Boring No. MW1	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
		0		A. C. Pavement. Sand and Gravel
	N O T E N C O U N T E R E D D U R I N G D R I L L I N G		CL/ CH	Clay with silt, 5-10% sand, soft, moist, olive brown.
2/2/3		5	ML/ MH	Clayey silt, 30% clay, 5-10% coarse-grained sand, soft to firm, moist, very dark grayish brown.
5/7/8		10	CL/ CH	Clay, 5-10% sand, trace silt, stiff, moist, dark brown. Clay, as above, except with gravel to 1/2" diameter, 10-15% sand.
12/16/21				Clay, 5-10% sand, very stiff, slightly moist, dark brown, minor organic material
8/16/20		15		
10/17/22				
7/14/22		20		

B O R I N G L O G

Project No. KEI-P89-1204	Boring & Casing Diameter 9" 2"	Logged By D.L. <i>Don Brown</i>
Project Name Unocal Oakland - Pierson	Well Head Elevation N/A	Date Drilled 4/9/90
Boring No. MW1	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
			CL/CH	Clay, trace silt, dark yellowish brown.
10/16/21			GC	Clayey gravel, 5-10% sand, gravel to 3/8" diameter, dense, moist, dark yellowish brown.
9/12/18		25	CL/ CH	Clay, trace silt and sand, stiff, moist, olive brown, trace organic matter.
9/12/19				
12/16/21		30		Clay, as above, trace to 5% sand, trace silt, olive brown to dark brown
7/11/18				Clay with silt, 15-20% silt, 5% sand, stiff, moist, dark yellowish brown.
7/14/16		35		
9/12/17				Silty clay, 5-10% sand, stiff to very stiff, slightly moist, dark yellowish brown.
9/15/23		40		

B O R I N G L O G

Project No. KEI-P89-1204	Boring & Casing Diameter 9" 2"	Logged By D.L. <i>And Braun</i>
Project Name Unocal Oakland - Pierson	Well Head Elevation N/A	Date Drilled 4/9/90
Boring No. MW1	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
				Silty clay, as above.
9/16/26			CL/ CH	Sandy clay, 10-15% silt, 30% sand, sand is coarse to fine grained, very stiff, slightly moist, dark yellowish brown.
8/11/16		45		
12/16/18				Clay, with silt, trace sand, very stiff, slightly moist, dark brown, stiffness increasing with depth.
11/18/32		50		
		55		
		60		
				TOTAL DEPTH: 50'

B O R I N G L O G

Project No. KEI-P89-1204	Boring & Casing Diameter 9" 2"	Logged By D.L. <i>D.L. Brown</i>
Project Name Unocal Oakland - Pierson	Well Head Elevation N/A	Date Drilled 4/10/90
Boring No. MW2	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Stratigraphy USCS	Description
		0		A. C. Pavement and base rock.
2/2/4	N O T E N C O U N T E R E D D U R I N G D R I L L I N G	5	SC	Clayey sand, 20-30% clay, 10-20% silt, sand is coarse-to fine-grained, medium dense, moist, yellowish brown to dark yellowish brown.
			CL/ CH	Sandy clay, 5-10% silt, firm, moist, strong brown, pocketed with clayey sand and other soil, possible fill.
			GC	Clayey gravel with sand, gravel 1 1/2" to 4" diameter, gap graded, 10-15% sand, medium dense, moist, dark yellowish brown.
5/2/2		10	GM	Silty gravel with sand, trace clay, 15% silt, loose, moist, dark yellowish brown, voids in sample. base of fill?
2/2/5			MH	Clayey silt, 10-15% coarse sand, firm, moist, black.
3/4/9		15	CL/ CH	Sandy clay, 5-10% gravel to 1/2" diameter, stiff, moist, dark olive gray, very dark grayish brown below 15.5 feet.
			GW- GM	Well graded gravel with silt and sand, trace to 5% clay, medium dense, moist, dark yellowish brown.
5/7/10		20	GP	Poorly graded gravel below 19.5 feet. Clay below 20.3 feet - See page 2.

B O R I N G L O G

Project No. KEI-P89-1204	Boring & Casing Diameter 9" 2"	Logged By D.L. <i>Dr. R. Brown</i>
Project Name Unocal Oakland - Pierson	Well Head Elevation N/A	Date Drilled 4/10/90
Boring No. MW2	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
			CL/ CH	Silty clay to clay with silt, 5-15% sand, very stiff, moist, dark yellowish brown to olive brown.
7/10/18		25		Clay, trace silt and sand, very stiff, moist, olive brown, trace organic matter.
9/16/23		30		Sandy clay, 5-10% gravel to 1/2" diameter, hard, moist, dark yellowish brown.
			CL/ CH	
9/13/19		35		Sandy clay, trace gravel, less sand than above, moist, dark yellowish brown.
8/12/14		40		TOTAL DEPTH: 40'

B O R I N G L O G

Project No. KEI-P89-1204	Boring & Casing Diameter 9" 2"	Logged By W.W. <i>D. R. Braun</i>
Project Name Unocal Oakland - Pierson	Well Head Elevation N/A	Date Drilled 4/10/90
Boring No. MW3	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description	
		0		A. C. Pavement Clay, sand and gravel fill.	
	N O T E N C O U N T E R E D D U R I N G D R I L L I N G		SC	Clayey sand, yellowish brown to olive brown, loose to very loose, moist.	
2/2/3		5	CL/ CH	Silty clay, soft to firm, moist, yellowish brown.	
2/2/2		10	MH	Clayey silt, 5-10% sand, trace to 5% gravel, soft to firm, moist, black.	
			SC	Clayey sand, trace gravel to 1/4" diameter, medium dense, moist, dark yellowish brown.	
4/8/13		15	CL/ CH	Sandy clay, 30-35% sand, very stiff, moist, dark yellowish brown.	
		20		Trace of gravel to 5/8" diameter at 19 feet. Clay, trace sand and silt, stiff, moist, olive brown.	

B O R I N G L O G

Project No. KEI-P89-1204	Boring & Casing Diameter 9" 2"	Logged By W.W. <i>D. Braun</i>
Project Name Unocal Oakland - Pierson	Well Head Elevation N/A	Date Drilled 4/10/90
Boring No. MW3	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
4/7/12		25	CL/ CH	Clay and silty clay, dark yellowish brown, very stiff, moist.
8/10/12		30		Clay, trace silt, very stiff, moist, olive brown, homogeneous.
9/12/17		35		Clay, trace of fine well rounded gravel and trace of silt, moist, olive brown, very stiff.
10/17/23		40		Sandy clay, trace to 5% fine gravel, trace to 5% sand, hard, moist, olive brown.
				TOTAL DEPTH: 40'

B O R I N G L O G

Project No. KEI-P89-1204	Boring Diameter 9"	Logged By W.W. <i>DRB</i>
Project Name Unocal Oakland - 3535 Pierson	Well Head Elevation N/A	Date Drilled 7/5/90
Boring No. EB1	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Stratigraphy USCS	Description
		0		A.C. Pavement over sand and gravel base.
			CL/ CH	Clay with silt, 5-10% sand, 10% fine gravel to 3/8" dia., firm, moist, olive brown.
3/5/6		5	ML/ MH	Clayey silt, 30% clay, 10% coarse-grained sand, trace to 5% fine gravel to 3/8" dia., moist, olive gray. Clayey silt, trace fine gravel, 5% sand, moist, brown.
5/6/8		10	CL/ CH	Clay, trace silt and sand, trace organic matter, moist, stiff, orangish brown. Clay, 10-15% sand, trace silt, trace to 5% gravel to 1/2" dia., moist, stiff, dark brown.
8/13/18		15		Clay, minor organic material, slightly moist, very stiff, dark yellowish brown.
9/12/17		20		Clay, as above, with light gray mottling.

B O R I N G L O G

Project No. KEI-P89-1204	Boring Diameter 9"	Logged By W.W. <i>DRB</i>
Project Name Unocal Oakland - 3535 Pierson	Well Head Elevation N/A	Date Drilled 7/5/90
Boring No. EB1	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
7/13/18		25	CL/ CH	Clay, minor organic material, trace fine-grained sand, trace silt, slightly moist, very stiff to hard, light orangish brown with light gray, mottling.
8/15/21		30		
9/18/36	▼	35		
		40		TOTAL DEPTH: 34.5'

B O R I N G L O G

Project No. KEI-P89-1204	Boring Diameter 9"	Logged By W.W. <i>DRB</i>
Project Name Unocal Oakland - 3535 Pierson	Well Head Elevation N/A	Date Drilled 7/6/90
Boring No. EB2	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
		0		A.C. Pavement over sand and gravel.
			GC	Clayey gravel 15% silt, 10% sand, gravel to 1/2" dia., moist, medium dense, olive brown.
4/4/5			CL	Sandy clay with gravel, 15% sand, gravel to 1/4" dia., trace organic matter, moist to wet, firm, dark yellowish brown.
		5		Clay, 10% silt, 10% coarse-grained sand, trace fine gravel to 1/4" dia., moist, firm to stiff, olive brown.
4/5/8			CL/ CH	Clay, trace rootlets, stiff, slightly moist, dark yellowish brown with trace light gray mottling.
		10		
7/14/18				Clay, as above, trace to 5% silt, hard, slightly moist, dark yellowish brown with light gray mottling.
		15		
8/15/19				Clay, as above, trace to 15% silt, moist, hard, yellowish brown with light gray mottling.
		20		

BORING LOG

Project No. KEI-P89-1204	Boring Diameter 9"	Logged By W.W. <i>PRB</i>
Project Name Unocal Oakland - 3535 Pierson	Well Head Elevation N/A	Date Drilled 7/6/90
Boring No. EB2	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
8/12/22		22	CL/ CH	Clay, trace organic matter, trace silt hard, moist, dark yellowish brown with light gray mottling, slight orangish brown, mottling.
7/8/12		25		Clay with silt, trace to 5% organic matter, moist, very stiff, beige with light gray mottling.
8/14/20		30	ML/ MH	Clayey silt with fine-grained sand, up to 20% sand, hard, moist, light olive brown, trace light gray mottling.
13/15/28	▼	35	SC	Clayey sand with silt, silt to 15%, very moist to wet, dense, light olive brown to beige.
		40		TOTAL DEPTH: 38'

BORING LOG

Project No. KEI-P89-1204	Boring & Casing Diameter 9" 2"	Logged By W.W. <i>DEB</i>
Project Name Unocal 3535 Pierson St. Oakl	Well Head Elevation N/A	Date Drilled 12/11/90
Boring No. MWA	Drilling Method Hollow-stem Auger	Drilling Company Woodward Drilling Co.

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
		0		Asphalt pavement over sand and gravel.
			CL/ CH	Clay with gravel, gravel to 2-1/2" diameter, 5% sand, moist, yellowish brown. Base of fill.
			ML/ MH	Clayey silt, trace sand, trace fine gravel to 3/8" diameter, moist, firm to stiff, olive brown to olive gray.
4/4/6		5	CL/ CH	Clay, with silt, fine- to medium-grained sand, moist, stiff, brown.
4/9/15		10		Clay, trace subangular gravel to 3/8" diameter, trace sand, moist, very stiff, olive brown.
7/13/21		15		Silty clay, trace organic matter, moist, hard, dark yellowish brown.
9/15		20	CL/ CH to ML/ MH	Silty clay to clayey silt, trace organic matter, moist, hard, light yellowish brown.

B O R I N G L O G

Project No. KEI-P89-1204		Boring & Casing Diameter 9" 2"	Logged By W.W. <i>W.W.</i>
Project Name Unocal 3535 Pierson St. Oakl		Well Head Elevation N/A	Date Drilled 12/11/90
Boring No. MWA		Drilling Method Hollow-stem Auger	Drilling Company Woodward Drilling Co.

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati- graphy USCS	Description
/27			CL/ CH to ML/ MH	Silty clay to clayey silt, trace organic matter, moist, hard, light yellowish brown.
11/18/29		25	ML/ MH	Silt, with clay, trace organic matter, very moist, hard, light yellowish brown.
6/12/20		30		Silt with clay, trace organic matter, moist, very stiff to hard, light olive brown mottled with light yellowish brown.
11/24/28				Free water encountered at 33'.
15/25/38		35		Silt, with clay, trace organic matter, trace fine- to medium-grained sand, moist to very moist, hard, light yellowish brown mottled with yellowish brown.
9/		40		

B O R I N G L O G

Project No. KEI-P89-1204		Boring & Casing Diameter 9" 2"		Logged By W.W. <i>DRB</i>
Project Name Unocal 3535 Pierson St. Oakl		Well Head Elevation N/A		Date Drilled 12/11/90
Boring No. MWA		Drilling Method Hollow-stem Auger	Drilling Company Woodward Drilling Co.	
Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
18/26			ML	Silt with clay, as above.
			SW	Sand, well graded, trace silt, saturated, dense, yellowish brown.
15/24/30			ML/ MH	Silt with clay, trace organic matter, moist, hard, brown mottled with light yellowish brown.
		45		
		50		
		55		
		60		
				TOTAL DEPTH: 45'

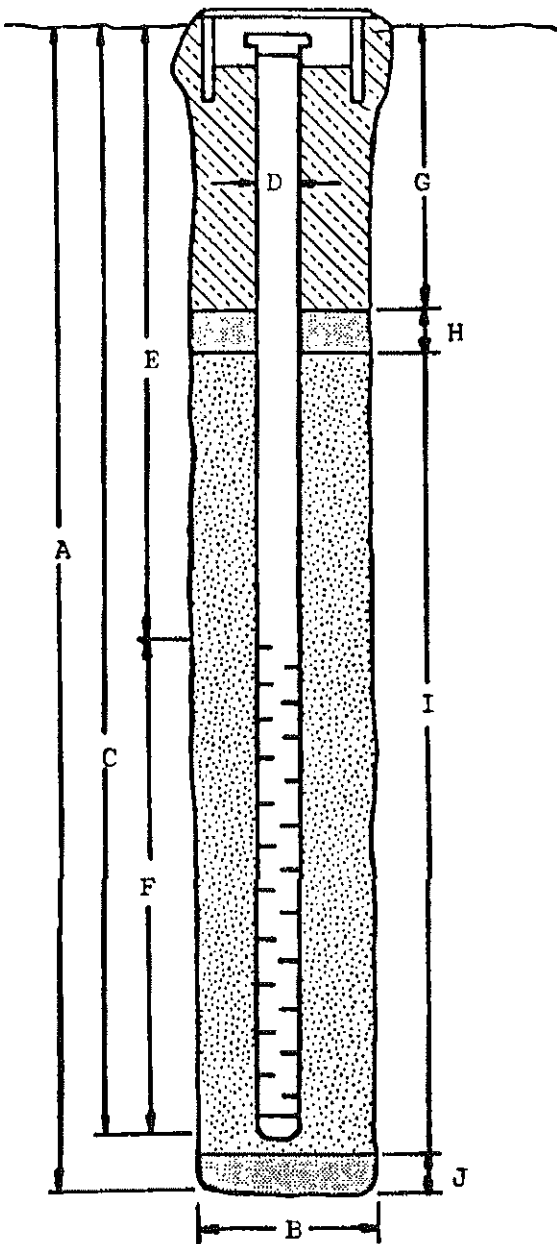
W E L L C O M P L E T I O N D I A G R A M

PROJECT NAME: Unocal 3535 Pierson St. Oakland BORING/WELL NO. MWA

PROJECT NUMBER: KEI-P89-1204

WELL PERMIT NO.: _____

Flush-mounted Well Cover



- A. Total Depth: 45'
- B. Boring Diameter*: 9"
- Drilling Method: Hollow Stem Auger
- C. Casing Length: 45'
- Material: Schedule 40 PVC
- D. Casing Diameter: OD = 2.375"
ID = 2.067"
- E. Depth to Perforations: 25'
- F. Perforated Length: 20'
- Perforation Type: Machined Slot
- Perforation Size: 0.010"
- G. Surface Seal: 21'
- Seal Material: Concrete
- H. Seal: 2'
- Seal Material: Bentonite
- I. Gravel Pack: 22'
- Pack Material: RMC Lonestar Sand
- Size: #2/16
- J. Bottom Seal: None
- Seal Material: N/A

*Boring diameter can vary from 8-1/4" to 9" depending on bit wear.

PROJECT NO.: 42-0102-01

CLIENT: ConocoPhillips

LOCATION: 76 Service Station #5781

3535 Pierson Street, Oakland, California

DATE DRILLED: 10/30/03

LOGGED BY: P. Kelleher

APPROVED BY: B.A. Moed, RG

DRILLING CO.: Cascade Drilling

PID/FID (ppm)	BLOWS PER 6 INCHES	RECOVERY	SAMPLE	DEPTH (feet below grade)	DRILLING METHOD: 8-inch Hollow-Stem Auger	USCS	LITHOLOGY	BORING BACKFILL DETAIL	
					SAMPLER TYPE: 2-inch Split Spoon			TOTAL DEPTH: 44.0 feet	DEPTH TO WATER: 39.0 feet
0	7 7 13	1.0/ 1.5		0	Hand augered to 5'. CLAY (CL): Very dark gray (10YR 3/1), 90 % clay, 10% gravel, soft, damp.	CL			Grout
0	17 20 22	1.5/ 1.5		5					
0	20 22 27	1.5/ 1.5		10	- @ 14': color change to brownish yellow (10YR 5/8), 90 % clay, 10% sand, trace gravel, soft, damp.				
0	21 23 20	1.5/ 1.5		15	- @ 20': no sand.				
0	21 23 25	1.0/ 1.5		20					
0	24 25 27	1.5/ 1.5		25					
0	23 26 24	1.5/ 1.5		30	- @ 34': increased sand.				
0	20 18 22	1.0/ 1.5		35	SILTY SAND (SM): Yellowish brown (10YR 6/8), 10 % silt, 10 % clay, 80% sand, dense, wet.				



LOG OF EXPLORATORY BORING

PROJECT NO.: 42-0102-01
 CLIENT: ConocoPhillips
 LOCATION: 76 Service Station #5781
 3535 Pierson Street, Oakland, California

DATE DRILLED: 10/30/03
 LOGGED BY: P. Kelleher
 APPROVED BY: B.A. Moed, RG
 DRILLING CO.: Cascade Drilling

PID/FID (ppm)	BLOWS PER 6 INCHES	RECOVERY	SAMPLE	DEPTH (feet below grade)	DRILLING METHOD: 8-inch Hollow-Stem Auger	USCS	LITHOLOGY	BORING BACKFILL DETAIL
					SAMPLER TYPE: 2-inch Split Spoon			
					TOTAL DEPTH: 44.0 feet			
					DEPTH TO WATER: 39.0 feet			
					DESCRIPTION			
				40	SAND (SM) (continued).	SM		
				45				
				50				
				55				
				60				
				65				
				70				
				75				
				80				



LOG OF EXPLORATORY BORING

PROJECT NO.: 42-0102-01

CLIENT: ConocoPhillips

LOCATION: 76 Service Station #5781

3535 Pierson Street, Oakland, California

DATE DRILLED: 10/30/03

LOGGED BY: P. Kelleher

APPROVED BY: B.A. Moed, RG

DRILLING CO.: Cascade Drilling

DRILLING METHOD: 8-inch Hollow-Stem Auger

SAMPLER TYPE: 2-inch Split Spoon

TOTAL DEPTH: 54.0 feet

DEPTH TO WATER: Not applicable

USCS

LITHOLOGY

BORING BACKFILL DETAIL

PID/FID (ppm)

BLOWS PER 6 INCHES

RECOVERY

SAMPLE

DEPTH (feet below grade)

DESCRIPTION

CL

SW

CL

SM

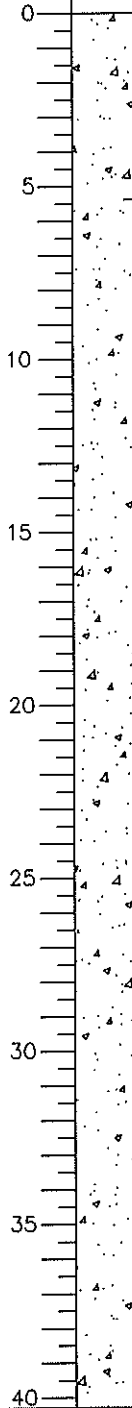
Hand augered to 5'.
CLAY (CL): Brownish yellow (10YR 5/4) with black mottles, 95% clay, 5% gravel, soft, damp.

- @ 9': color change to black (10YR 2/1), 95 % clay, 5% sand, very soft.

GRAVELLY SAND (SW): Brownish yellow (10YR 5/6), 10 % clay, 60% sand, 30% gravel, soft, damp.

CLAY WITH SAND (CL): Yellowish brown (10YR 4/4), 80 % clay, 15% sand, 5% gravel, soft, damp.

SILTY SAND (SM): Yellowish brown (10YR 6/3), 20 % silt, 10% clay, 70% sand, hard, damp.



LOG OF EXPLORATORY BORING

PROJECT NO.: 42-0102-01

CLIENT: ConocoPhillips

LOCATION: 76 Service Station #5781

3535 Pierson Street, Oakland, California

DATE DRILLED: 10/30/03

LOGGED BY: P. Kelleher

APPROVED BY: B.A. Moed, RG

DRILLING CO.: Cascade Drilling

PID/FID (ppm)	BLOWS PER 6 INCHES	RECOVERY	SAMPLE	DEPTH (feet below grade)	DRILLING METHOD: 8-inch Hollow-Stem Auger	USCS	LITHOLOGY	BORING BACKFILL DETAIL
					SAMPLER TYPE: 2-inch Split Spoon			
0	25 22 27	1.5/ 1.5		40 45	SAND (SM) (continued).	SM		
0	19 23 27	1.0/ 1.5		50	SILTY SAND WITH GRAVEL (SM): Yellowish brown (10YR 5/6), 20% silt, 5% clay, 60% sand, 15% gravel, hard, damp.			
				55 60 65 70 75 80				



LOG OF EXPLORATORY BORING

PROJECT NO.: 42-0102-01
 CLIENT: ConocoPhillips
 LOCATION: 76 Service Station #5781
 3535 Pierson Street, Oakland, California

DATE DRILLED: 10/31/03
 LOGGED BY: P. Kelleher
 APPROVED BY: B.A. Moed, RG
 DRILLING CO.: Cascade Drilling

PID/FID (ppm)	BLOWS PER 6 INCHES	RECOVERY	SAMPLE	DEPTH (feet below grade)	DRILLING METHOD: 8-inch Hollow-Stem Auger	USCS	LITHOLOGY	BORING BACKFILL DETAIL
					SAMPLER TYPE: 2-inch Split Spoon			
0	10 12 16	1.0/ 1.5		0	Hand augered to 5'. SILTY SAND (SM): Yellowish brown (10YR 5/4), 20 % silt, 70 % sand, 10% gravel, soft, dry.	SM		0
0	7 11 16	1.5/ 1.5		5				5
0	7 11 16	1.5/ 1.5		10				10
1.7	13 15 15	1.0/ 1.5		15	SANDY GRAVEL WITH SILT (GM): Greenish gray (GLE Y1 4/5G), 20% silt, 30% sand, 50% gravel, soft, moist.	GM		15
0	11 14 16	0.5/ 1.5		20	SILTY SAND WITH GRAVEL (SM): Greenish gray (GLE Y1 4/5G), 20% silt, 60% sand, 20% gravel, soft, damp.	SM		20
0	14 16 27	1.5/ 1.5		25	SILT (ML): Yellowish brown (10YR 5/4), 90 % silt, 10% clay, hard, damp.			25
0	12 12 15	1.5/ 1.5		30	SANDY SILT (ML): Yellowish brown (10YR 5/6), 60 % silt, 30% sand, 10% gravel, hard, damp.	ML		30
0	15 16 19	1.5/ 1.5		35	SILT WITH SAND (ML): Yellowish brown (10YR 5/4), 80 % silt, 20% sand.			35
0	16 17 20	1.5/ 1.5		40				40



LOG OF EXPLORATORY BORING

PROJECT NO.: 42-0102-01

CLIENT: ConocoPhillips

LOCATION: 76 Service Station #5781

3535 Pierson Street, Oakland, California

DATE DRILLED: 10/31/03

LOGGED BY: P. Kelleher

APPROVED BY: B.A. Moed, RG

DRILLING CO.: Cascade Drilling

PID/FID (ppm)	BLOWS PER 6 INCHES	RECOVERY	SAMPLE	DEPTH (feet below grade)	DRILLING METHOD: 8-inch Hollow-Stem Auger	USCS	LITHOLOGY	BORING BACKFILL DETAIL
					SAMPLER TYPE: 2-inch Split Spoon			
DESCRIPTION								
0	20 14 23	1.5/ 1.5		40	SILT WITH SAND (ML) (continued).	ML		
0	17 19 22	1.5/ 1.5		50	SILT (ML): Yellowish brown (10YR 6/4), 100 % silt.			



LOG OF EXPLORATORY BORING

PROJECT NO.: 42-0102-01

CLIENT: ConocoPhillips

LOCATION: 76 Service Station #5781

3535 Pierson Street, Oakland, California

DATE DRILLED: 10/31/03

LOGGED BY: P. Kelleher

APPROVED BY: B.A. Moed, RG

DRILLING CO.: Cascade Drilling

PID/FID (ppm)	BLOWS PER 6 INCHES	RECOVERY	SAMPLE	DEPTH (feet below grade)	DRILLING METHOD: 8-inch Hollow-Stem Auger	USCS	LITHOLOGY	BORING BACKFILL DETAIL
					SAMPLER TYPE: 2-inch Split Spoon			
0	12 12 15	1.0/ 1.5		0 5	Hand augered to 5'. SAND (SP): Yellowish brown (10YR 5/6), 90 % sand, 10 % gravel, soft, damp.	SP		0 5 Grout
0	5 4 9	1.0/ 1.5		10	CLAY (CL): Black (10YR 2/1), 90 % clay, 10% sand, soft, moist.	CL		10
0	14 16 19	1.5/ 1.5		15	SILT WITH CLAY (ML): Yellowish brown (10YR 4/3), 70 % silt, 20% clay, 10% gravel, soft, moist.	ML		15
0	14 16 21	1.0/ 1.5		20	SAND WITH GRAVEL (SW): Yellowish brown (10YR 4/4), 10% silt, 50% sand, 40% gravel, soft, moist.	SW		20
				25				25
				30				30
				35				35
				40				40



LOG OF EXPLORATORY BORING

SB-4

PAGE 1 OF 1

PROJECT NO.: 42-0102-01

CLIENT: ConocoPhillips

LOCATION: 76 Service Station #5781

3535 Pierson Street, Oakland, California

DATE DRILLED: 10/31/03

LOGGED BY: P. Kelleher

APPROVED BY: B.A. Moed, RG

DRILLING CO.: Cascade Drilling

PID/FID (ppm)	BLOWS PER 6 INCHES	RECOVERY	SAMPLE	DEPTH (feet below grade)	DRILLING METHOD: 8-inch Hollow-Stem Auger SAMPLER TYPE: 2-inch Split Spoon TOTAL DEPTH: 29.0 feet DEPTH TO WATER: 24.6 feet		USCS	LITHOLOGY	BORING BACKFILL DETAIL	
					DESCRIPTION					
0	11 11 13	1.5/ 1.5		0 5	Hand augered to 5'. CLAY (CL): Very dark gray (10YR 2/1), 90 % clay, 10% gravel, soft, damp.		CL	[Hatched pattern]	0 5 Grout	
0	13 14 17	1.5/ 1.5		10	- @ 9': color change to dark gray (10YR 4/1), 95 % clay, 5% gravel.					
0	12 16 17	1.5/ 1.5		15	SAND (SP): Yellowish brown (10YR 5/6), 10 % silt, 90% sand, soft, moist.		SP	[Dotted pattern]	15 20	
0	15 15 19	1.5/ 1.5		20						
0	14 16 19	0.5/ 1.5		25					25 30 35 40	



LOG OF EXPLORATORY BORING

Delta

Consultants

Project No: c105781031

Client: ConocoPhillips

Well/ Boring ID: SB-6

Logged By: Nadine Periat

Location: 3535 Pierson Street, Oakland, CA

Page 1 of 2

Driller: Gregg Drilling and Testing

Date Drilled: March 12, 2010

Location Map

Drilling Method: Hollow Stem Auger

Hole Diameter: 6"

See Site Map

Sampling Method: Split Spoon

Hole Depth: 40 feet

Casing Type: NA

Well Diameter: NA

Slot Size: NA

Well Depth: NA

Gravel Pack: NA

Casing Stickup: NA

▽ :First encountered water

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
					1		SC	Clayey Sand , tan, 15-20% clay, low plasticity, sand is medium to coarse
					2			
					3			
					4			As above with fractured granitic cobbles approximately 4" in diameter. Red oxidation present in fracture planes.
					5		SC	Clayey Sand with Gravel , tan, 15-20% clay, 15-20% gravel, low plasticity. Sand is well graded, gravel is angular and medium sized, loose.
					6			
					7			
					8			
					9		SC	Clayey Sand , tan, 35% clay, low plasticity, sand is well graded, very loose.
					10			
					11			
					12			
					13			
					14		GP	Poorly Graded Gravel , tan/green, no plasticity, <5% fines. Rock fragments are green quartzite, approximately 3 inches in diameter, loose. Rocks stuck in sampler, poor recovery.
					15			
					16			
					17			
					18			
					19			No Recovery, loose density
					20			
					21			
					22			

Delta

Consultants

Project No: c105781031	Client: ConocoPhillips	Well/ Boring ID: SB-6
Logged By: Nadine Periat	Location: 3535 Pierson Street, Oakland, CA	Page 2 of 2
Driller: Gregg Drilling and Testing	Date Drilled: March 12, 2010	Location Map See Site Map
Drilling Method: Hollow Stem Auger	Hole Diameter: 6"	
Sampling Method: Split Spoon	Hole Depth: 40 feet	
Casing Type: NA	Well Diameter: NA	
Slot Size: NA	Well Depth: NA	
Gravel Pack: NA	Casing Stickup: NA	

Elevation	Northing	Easting
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Well Completion Backfill Casing	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6')	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
		Wet	1.6	7 8 17	23 24 25	↑ ↓		Sandy Lean Clay , tan, 30% well graded sand, low plasticity, very tough, some gray root holes with roots, very stiff
		Wet	0.9	9 12 18	29 30	↑ ↓		Lean Clay with Sand , tan, 20% fine sand, low plasticity, trace black organic matter in ~1mm spheres, very stiff.
		Wet	0.9	11 13 16	34 35	↑ ↓		As above, trace fine gravel
		Wet	2.1	8 10 10	39 40	↑ ↓		Lean Clay , tan, 10% fine sand, trace fine gravel, low plasticity, very stiff.
					40			Bottom of Boring at 40 Feet
					41			
					42			
					43			
					44			

Delta

Consultants

Project No: c105781031

Client: ConocoPhillips

Well/ Boring ID: SB-7

Logged By: Nadine Periat

Location: 3535 Pierson Street, Oakland, CA

Page 1 of 1

Driller: Gregg Drilling and Testing

Date Drilled: March 12, 2010

Location Map

Drilling Method: Hollow Stem Auger

Hole Diameter: 6"

See Site Map

Sampling Method: Split Spoon

Hole Depth: 15 feet

Casing Type: NA

Well Diameter: NA

▽ : First encountered water

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 Interval	Soil Type	LITHOLOGY / DESCRIPTION
				Air Knife to 5 feet	1		CL	Sandy Lean Clay , mottled tan and orange, low plasticity, 45% fine to medium sand.
					2			
					3			
					4			
		Moist	0.4		5			As above
					6		CL	Lean Clay with sand , brown, 20-25% fine to coarse sand, medium plasticity.
					7			
					8			
					9		CL	Lean Clay , gray, 10-15% well graded sand, low plasticity, inch long chunks of fractured quartzite.
		Moist	0.5		10			
					11			
					12			
	▽				13			
		Wet	0.4		14		SP-SC	Poorly Graded Sand with Clay , tan, no plasticity, sand is medium.
					15			Bottom of boring at 15 feet
					16			
					17			
					18			
					19			
					20			
					21			
					22			

Delta

Consultants

Project No: c105781031

Client: ConocoPhillips

Well/ Boring ID:SWC-2

Logged By: Nadine Periat

Location: 3535 Pierson Street, Oakland, CA

Page 1 of 1

Driller: Gregg Drilling and Testing

Date Drilled: March 12, 2010

Location Map

See Site Map

Drilling Method: Hollow Stem Auger

Hole Diameter: 6"

Sampling Method: Split Spoon

Hole Depth: 20 feet

Casing Type: NA

Well Diameter: NA

Slot Size: NA

Well Depth: NA

Gravel Pack: NA

Casing Stickup: NA

▽ : First encountered water

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
		Moist		↑ Air Knife/ Hand Auger to 10 feet ↓	1		SC	Clayey Sand with Gravel , brown, 15-20% clay, 50% well graded sand, 30% fine to medium gravel, No plasticity, gravel is subrounded. Suspected artificial fill.
					2			
					3			
					4			
					5			
					6			
					7			
					8			
					9			
					10			
		Wet			11			As above
	▽	Wet	0.5		12			
		Wet	0.4		14		CL	Lean Clay with Sand and Gravel , mottled brown/tan, 20% well graded sand, 15% fine gravel, low plasticity.
					15			
					16			
					17			
					18			
		Wet	0.1		19			As above, fracture planes present when clay core is broken open. Black oxidation on fracture planes.
					20			
					21			
					22			

Delta

Consultants

Project No: c105781031

Client: ConocoPhillips

Well/ Boring ID:SWD-2

Logged By: Nadine Periat

Location: 3535 Pierson Street, Oakland, CA

Page 1 of 1

Driller: Gregg Drilling and Testing

Date Drilled: March 12, 2010

Location Map

Drilling Method: Hollow Stem Auger

Hole Diameter: 6"

See Site Map

Sampling Method: Split Spoon

Hole Depth: 20 feet

Casing Type: NA

Well Diameter: NA

▽ : First encountered water

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 Interval	Soil Type	LITHOLOGY / DESCRIPTION
		Moist			1		CL	Lean Clay, tan, 15% fine sand, low plasticity.
					2			
					3			
					4			
					5			
					6			
		Wet	17.7		7			As above, dark brown, 10-15% fine sand, medium plasticity, trace gravel, soil is saturated
					8			
					9			As above, light tan, not saturated, no gravel.
		Moist			10			
					11			As above, trace fine gravel, gray root holes.
		Moist	2.4		12			
	▽				13			
		Damp	0.2	9 12 17	14		SC	Clayey Sand, tan, 20-25% clay, slight plasticity, very fine sand, flecks of black organic material, veins of orange oxidation.
					15			
					16			
					17			
					18			
		Damp	0.1	8 12 16	19			As above, 35% clay, sand is well graded, low plasticity
					20			
					21			
					22			

APPENDIX C

Historical Groundwater Monitoring and Sampling Results

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
December 1990 Through June 2010
76 Station 5781

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-D (µg/l)	TPH-G 8015 (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-4			(Screen Interval in feet: 15-25)											
6/16/2010	153.48	11.13	0.00	142.35	--	ND<50	58	ND<0.50	9.7	1.3	16	--	5.4	
MW-5			(Screen Interval in feet: 10-20)											
6/16/2010	153.66	11.95	0.00	141.71	--	3000	29000	580	6800	850	7200	--	ND<50	
MW-A			(Screen Interval in feet: --)											
12/18/1990	--	--	--	--	--	73	ND	ND	ND	ND	ND	--	--	
5/3/1991	--	--	--	--	--	ND	ND	ND	ND	ND	ND	--	--	
8/7/1991	--	--	--	--	--	ND	ND	ND	ND	ND	ND	--	--	
11/8/1991	--	--	--	--	--	ND	ND	ND	ND	ND	ND	--	--	
2/6/1992	151.80	19.88	0.00	131.92	--	ND	ND	ND	ND	ND	ND	--	--	
8/4/1992	151.80	18.95	0.00	132.85	0.93	ND	ND	ND	ND	ND	0.51	--	--	
2/10/1993	151.80	17.71	0.00	134.09	1.24	ND	ND	ND	ND	ND	ND	--	--	
2/10/1994	151.80	15.25	0.00	136.55	2.46	ND	ND	ND	0.52	ND	0.92	--	--	
2/9/1995	151.80	15.68	0.00	136.12	-0.43	ND	ND	ND	ND	ND	ND	--	--	
2/6/1996	151.80	12.52	0.00	139.28	3.16	120	ND	ND	ND	ND	2.1	--	--	
2/5/1997	151.80	13.01	0.00	138.79	-0.49	61	ND	ND	ND	ND	ND	--	ND	
2/2/1998	151.80	11.91	0.00	139.89	1.10	ND	ND	ND	ND	ND	ND	--	ND	
2/22/1999	151.80	11.24	0.00	140.56	0.67	ND	ND	ND	ND	ND	ND	--	ND	
2/26/2000	151.80	12.16	0.00	139.64	-0.92	ND	ND	ND	1.01	ND	ND	--	ND	
3/7/2001	151.80	11.91	0.00	139.89	0.25	131	ND	ND	ND	ND	ND	ND	ND	
2/22/2002	151.80	14.08	0.00	137.72	-2.17	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<5.0	
2/22/2003	151.80	14.41	0.00	137.39	-0.33	93	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.0	ND<2.0	
2/3/2004	151.80	14.32	0.00	137.48	0.09	60	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	ND<2.0	



Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS
December 1990 Through June 2010
76 Station 5781

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)									Comments
						TPH-D (µg/l)	TPH-G 8015 (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	
MW-A continued														
2/18/2005	151.80	14.21	0.00	137.59	0.11	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	ND<0.50	
3/29/2006	151.80	12.72	0.00	139.08	1.49	ND<200	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	0.54	
3/28/2007	151.80	13.98	0.00	137.82	-1.26	92	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	ND<0.50	
3/22/2008	151.80	12.68	0.00	139.12	1.30	ND<50	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	ND<0.50	
3/27/2009	151.80	14.35	0.00	137.45	-1.67	53	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	ND<0.50	
3/23/2010	151.80	19.55	0.00	132.25	-5.20	ND<58	--	--	--	--	--	--	--	
6/16/2010	154.79	17.85	0.00	136.94	4.69	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 5781

Date Sampled	TPH-G (GC/MS) (µg/l)	TBA (µg/l)	Ethanol (8260B) (µg/l)	Ethylene- dibromide (EDB) (µg/l)	1,2-DCA (EDC) (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	Methanol (µg/l)	Total Oil and Grease (mg/l)	TRPH (mg/l)	Bromo- dichloro- methane (µg/l)
MW-4												
6/16/2010	--	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	--	--	--
MW-5												
6/16/2010	--	ND<1000	ND<25000	ND<50	ND<50	ND<50	ND<50	ND<50	ND<100	--	--	--
MW-A												
2/6/1996	--	--	--	--	--	--	--	--	--	--	--	--
2/5/1997	--	--	--	--	--	--	--	--	--	--	--	--
3/7/2001	--	ND	ND	ND	ND	ND	ND	ND	--	--	--	--
2/22/2003	--	ND<100	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	--	--	--	--
2/3/2004	--	ND<100	ND<500	ND<2.0	ND<0.50	ND<2.0	ND<2.0	ND<2.0	--	--	ND<1.0	ND<0.50
2/18/2005	--	ND<5.0	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<2.0	--	ND<0.50
3/29/2006	--	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	--	--	ND<0.50
3/28/2007	--	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<5.0	--	ND<0.50
3/22/2008	--	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<5.0	--	ND<0.50
3/27/2009	--	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<5.0	--	ND<0.50
6/16/2010	--	ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100	--	--	--

Table 2 b
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 5781

Date Sampled	Bromo- form (µg/l)	Bromo- methane (µg/l)	Carbon Tetra- chloride (µg/l)	Chloro- benzene (µg/l)	Chloro- ethane (µg/l)	2- Chloroethyl vinyl ether (µg/l)	Chloroform (µg/l)	Chloro- methane (µg/l)	Dibromo- chloro- methane (µg/l)	1,2- Dichloro- benzene (µg/l)	1,3- Dichloro- benzene (µg/l)	1,4- Dichloro- benzene (µg/l)
MW-A												
2/3/2004	ND<2.0	ND<1.0	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<2.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50
2/18/2005	ND<2.0	ND<1.0	ND<0.50	ND<0.50	ND<1.0	--	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50
3/29/2006	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
3/28/2007	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
3/22/2008	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
3/27/2009	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

Table 2 c
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 5781

Date Sampled	Dichloro-difluoro-methane (µg/l)	1,1-DCA (µg/l)	1,1-DCE (µg/l)	cis-1,2-DCE (µg/l)	trans-1,2-DCE (µg/l)	1,2-Dichloro-propane (µg/l)	cis-1,3-Dichloro-propene (µg/l)	trans-1,3-Dichloro-propene (µg/l)	Methylene chloride (µg/l)	1,1,2,2-Tetrachloro-ethane (µg/l)	Tetrachloro-ethene (PCE) (µg/l)	Trichloro-trifluoro-ethane (µg/l)
MW-A												
2/3/2004	ND<1.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	ND<0.50	ND<0.50	ND<0.50
2/18/2005	ND<1.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	ND<0.50	ND<0.50	ND<0.50
3/29/2006	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50
3/28/2007	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50
3/22/2008	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50
3/27/2009	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50

Table 2 d
ADDITIONAL HISTORIC ANALYTICAL RESULTS
76 Station 5781

Date Sampled	1,1,1- Trichloro- ethane (µg/l)	1,1,2- Trichloro- ethane (µg/l)	Trichloro- ethene (TCE) (µg/l)	Trichloro- fluoro- methane (µg/l)	Vinyl chloride (µg/l)
MW-A					
2/3/2004	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50
2/18/2005	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50
3/29/2006	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
3/28/2007	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
3/22/2008	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
3/27/2009	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

APPENDIX D
Air Monitoring Results

Storm Drain PID Summary

SS# 5781 - 3535 Pierson Street, Oakland, CA

	Date	Time	Sample Point	Depth Below Surface	PID Reading (PPM)	LEL Reading (%LEL)
Manhole #2	2/22/2010		MH-2	Surface	500	0
	3/11/2010	12:45	MH-2	Surface	150	0
	3/17/2010	12:14	MH-2	Surface	85	0
	3/17/2010	12:17	MH-2	2	73.5	0
	3/17/2010	12:19	MH-2	4	170	0
	3/17/2010	12:21	MH-2	6	173	0
	3/17/2010	12:24	MH-2	8	165	0
	3/17/2010	12:26	MH-2	10	165	0
	3/17/2010	12:28	MH-2	12	187	0
	5/5/2010	--	MH-2	Surface	120-150	--
	5/12/2010	--	MH-2	Surface	18	--
	6/3/2010	9:12	MH-2	Surface	25.2	--
	6/9/2010	Morning	MH-2	Surface	21	--
	6/9/2010	Afternoon	MH-2	Surface	6.6	--
	6/9/2010	Afternoon	MH-2	5	6.1	--
	6/24/2010	Morning	MH-2	Surface	0	--
	6/24/2010	Morning	MH-2	2	0	--
	6/24/2010	Morning	MH-2	4	0	--
	6/24/2010	Morning	MH-2	6	0	--
	6/24/2010	Morning	MH-2	8	0	--
	6/24/2010	Morning	MH-2	10	0	--
	6/24/2010	Morning	MH-2	12	0	--
	7/13/2010	Morning	MH-2	Surface	0	0
	7/13/2010	Morning	MH-2	2	0	0
	7/13/2010	Morning	MH-2	4	2	0
	7/13/2010	Morning	MH-2	6	2	0
	7/13/2010	Morning	MH-2	8	2	0
	7/13/2010	Morning	MH-2	10	0	0
	7/13/2010	Morning	MH-2	12	2	0
	7/13/2010	Morning	MH-2	13	0	0
	7/26/2010	9:00	MH-2	Surface	0	0
	7/26/2010	9:00	MH-2	2	0	0
7/26/2010	9:00	MH-2	4	0	0	
7/26/2010	9:00	MH-2	6	0	0	
7/26/2010	9:00	MH-2	8	0	0	
7/26/2010	9:00	MH-2	10	0	0	
7/26/2010	9:00	MH-2	12	0	0	
7/26/2010	9:00	MH-2	13	0	0	

	Date	Time	Sample Point	Depth Below Surface	PID Reading (PPM)	LEL Reading (%LEL)
Manhole #3	3/11/2010	12:47	MH-3	Surface	82.1	--
	3/17/2010	12:39	MH-3	Surface	92.5	0
	3/17/2010	12:43	MH-3	2	135	0
	3/17/2010	12:45	MH-3	4	242	0
	3/17/2010	12:47	MH-3	6	240	0
	3/17/2010	12:49	MH-3	8	220	0
	3/17/2010	12:51	MH-3	10	282	0
	5/12/2010	--	MH-3	Below MH	16.9	--
	6/3/2010	9:15	MH-3	Surface	0	--
	6/24/2010	Morning	MH-3	Surface	0	--
	6/24/2010	Morning	MH-3	2	0	--
	6/24/2010	Morning	MH-3	4	0	--
	6/24/2010	Morning	MH-3	6	0	--
	6/24/2010	Morning	MH-3	8	0	--
	6/24/2010	Morning	MH-3	10	0	--
7/13/2010	Morning	MH-3		Unable to sample - car parked over manhole	Unable to sample - car parked over manhole	
7/13/2010	Morning	MH-3		Unable to sample - car parked over manhole	Unable to sample - car parked over manhole	
Manhole #7	7/13/2010	Morning	MH-7	Surface	0	0
	7/13/2010	Morning	MH-7	1.5	0	0
	7/26/2010	9:30	MH-7	Surface	0	0
	7/26/2010	9:30	MH-7	1.5	0	0
Drain Inlet #1	3/11/2010	12:43	DI-1	Surface	84.3	--
	3/17/2010	1:24	DI-1	Surface	15	0
	3/17/2010	1:27	DI-1	1	175	0
	3/17/2010	1:30	DI-1	2.5	146	0
	6/3/2010	10:46	DI-1	Surface	22.6	--
	6/4/2010	12:12	DI-1	Surface	88.1	--
	6/9/2010	Morning	DI-1	Surface	4.5	--
	6/24/2010	Morning	DI-1	Surface	0	--
	6/24/2010	Morning	DI-1	2	0	--
	7/13/2010	Morning	DI-1	Surface	2	0
	7/13/2010	Morning	DI-1	2	6	0
	7/26/2010	8:55	DI-1	Surface	0	0
	7/26/2010	8:55	DI-1	2	0	0

	Date	Time	Sample Point	Depth Below Surface	PID Reading (PPM)	LEL Reading (%LEL)
Drain Inlet #4	3/11/2010	12:51	DI-4	Surface	258	--
	3/17/2010	1:14	DI-4	Surface	38.5	0
	3/17/2010	1:16	DI-4	2	43.6	0
	3/17/2010	1:18	DI-4	4	50	0
	5/12/2010	--	DI-4	Surface	36.9	--
	6/4/2010	--	DI-4	Surface	1.1	--
	6/9/2010	Morning	DI-4	Surface	3.9	--
	6/24/2010	Morning	DI-4	Surface	0	--
	6/24/2010	Morning	DI-4	2	0	--
	6/24/2010	Morning	DI-4	4	0	--
	7/13/2010	Morning	DI-4	Surface	3	0
	7/13/2010	Morning	DI-4	2	2	0
	7/13/2010	Morning	DI-4	4	2	0
	7/26/2010	9:10	DI-4	Surface	0	0
7/26/2010	9:10	DI-4	2	0	0	
7/26/2010	9:10	DI-4	4	0	0	

Drain Inlet #5	3/11/2010	12:51	DI-5	Surface	11	--
	3/17/2010	12:57	DI-5	Surface	118	0
	3/17/2010	12:59	DI-5	2	199	0
	3/17/2010	1:02	DI-5	4	95	0
	3/17/2010	1:04	DI-5	6	95	0
	3/17/2010	1:06	DI-5	8	134	0
	3/17/2010	1:18	DI-5	10	104	0
	3/17/2010	1:10	DI-5	12	224	0
	5/12/2010	--	DI-5	Surface	0	--
	6/3/2010	9:07	DI-5	Surface	0.1	--
	6/9/2010	Morning	DI-5	Surface	0	--
	6/9/2010	Afternoon	DI-5	5	1.9	--
	6/24/2010	Morning	DI-5	Surface	0	--
	6/24/2010	Morning	DI-5	2	0	--
	6/24/2010	Morning	DI-5	4	0	--
	6/24/2010	Morning	DI-5	6	0	--
	6/24/2010	Morning	DI-5	8	0	--
	6/24/2010	Morning	DI-5	10	0	--
	6/24/2010	Morning	DI-5	12	0	--
	7/13/2010	Morning	DI-5	Surface	0	0
	7/13/2010	Morning	DI-5	2	0	0
	7/13/2010	Morning	DI-5	4	0	0
	7/13/2010	Morning	DI-5	6	0	0
	7/13/2010	Morning	DI-5	8	0	0
	7/13/2010	Morning	DI-5	10	0	0
	7/13/2010	Morning	DI-5	12	0	0
	7/26/2010	9:05	DI-5	Surface	0	0
	7/26/2010	9:05	DI-5	2	0	0
	7/26/2010	9:05	DI-5	4	0	0
	7/26/2010	9:05	DI-5	6	0	0
7/26/2010	9:05	DI-5	8	0	0	
7/26/2010	9:05	DI-5	10	0	0	
7/26/2010	9:05	DI-5	12	0	0	

	Date	Time	Sample Point	Depth Below Surface	PID Reading (PPM)	LEL Reading (%LEL)
Drain Inlet #6	7/13/2010	Morning	DI-6	Surface	0	0
	7/13/2010	Morning	DI-6	2	0	0
	7/13/2010	Morning	DI-6	3	0	0
	7/26/2010	9:20	DI-6	Surface	0	0
	7/26/2010	9:20	DI-6	2	0	0
	7/26/2010	9:20	DI-6	3.5	0	0

Manhole MH-2 repaired on April 28, 2010

Precipitation As Reported by Accuweather.com for Oakland, CA

5/9/2010	Trace
5/10/2010	0.14
5/17/2010	0.11
5/18/2010	0.06
5/19/2010	Trace
5/24/2010	Trace
5/25/2010	0.29
5/26/2010	0.03
5/27/2010	0.53
5/31/2010	Trace
6/24/2010	Trace
6/25/2010	Trace
7/9/2010	Trace

APPENDIX E
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: 05/19/2010 By jamesy

Permit Numbers: W2010-0351 to W2010-0352
Permits Valid from 06/03/2010 to 06/08/2010

Application Id: 1274291500488 **City of Project Site:**Oakland
Site Location: 3535 Pierson St, Oakland, CA, 94619 (76 Service Station #5781)
Project Start Date: 06/03/2010 **Completion Date:**06/08/2010
Assigned Inspector: Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org

Applicant: Delta - Jan Wagoner **Phone:** 916-503-1275
 11050 White Rock Rd, Ste 110, Rancho Cordova, CA 95670
Property Owner: United Bros. Enterprises **Phone:** 510-533-2439
 3535 Pierson St., Oakland, CA 94619
Client: Conoco Phillips c/o Terry Grayson **Phone:** 916-558-7666
 76 Broadway, Sacramento, CA 95818

	Total Due:	\$794.00
Receipt Number: WR2010-0176	Total Amount Paid:	\$794.00
Payer Name : Delta	Paid By: CHECK	PAID IN FULL

Works Requesting Permits:

Well Construction-Monitoring-Monitoring - 2 Wells
 Driller: Gregg Drilling - Lic #: 57932633 - Method: hstem

Work Total: \$794.00

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2010-0351	05/19/2010	09/01/2010	MW4	8.00 in.	4.00 in.	5.00 ft	25.00 ft
W2010-0352	05/19/2010	09/01/2010	MW5	8.00 in.	4.00 in.	5.00 ft	25.00 ft

Specific Work Permit Conditions

1. 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.

2. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an 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.

4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755

Alameda County Public Works Agency - Water Resources Well Permit

(Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.

5. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.
 6. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org 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.
 7. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.
 8. Minimum surface seal thickness is two inches of cement grout placed by tremie
 9. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.
 10. 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.
-

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: 06/02/2010 By jamesy

Permit Numbers: W2010-0362
Permits Valid from 06/03/2010 to 06/08/2010

Application Id: 1274911304097
Site Location: 3535 Pierson St, Oakland, CA

City of Project Site:Oakland

(76 Service Station #5781)

Project Start Date: 06/03/2010

Completion Date:06/08/2010

Assigned Inspector: Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org

Applicant: Delta - Jan Wagoner
11050 White Rock Rd., Ste 110, Rancho Cordova, CA 95670

Phone: 916-503-1275

Property Owner: United Bros. Enterprises
3535 Pierson St, Oakland, CA 94619

Phone: 510-533-2439

Client: Conoco Phillips, Terry Grayson
76 Broadway, Sacramento, CA 95818

Phone: 916-558-7666

Receipt Number: WR2010-0181 Total Due: \$265.00
Total Amount Paid: \$265.00
Payer Name : Delta Paid By: CHECK PAID IN FULL

Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitorinig Study - 1 Boreholes

Driller: Gregg - Lic #: 7932633 - Method: other

Work Total: \$265.00

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2010-0362	06/02/2010	09/01/2010	1	6.00 in.	25.00 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 Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org 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.

Alameda County Public Works Agency - Water Resources Well Permit

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 F
Current Boring Logs

Delta

Consultants

Project No: c105781051
 Logged By: Caitlin Morgan
 Driller: Gregg Drilling and Testing
 Drilling Method: Directpush
 Sampling Method: Geoprobe
 Casing Type: NA
 Slot Size: NA
 Gravel Pack: NA

Client: ConocoPhillips
 Location: 3535 Pierson Street, Oakland, CA
 Date Drilled: June 3, 2010
 Hole Diameter:
 Hole Depth:
 Well Diameter: NA
 Well Depth: NA
 Casing Stickup: NA

Well/ Boring ID: SB-8
 Page 1 of 1

Location Map
 See Site Map

▽ : First encountered water

Elevation Northing Easting

Boring Completion	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION	
Neat Cement					1		CL	Lean Clay, dark brown to brown, some sands.	
					2				
					3				
					4				
			Moist	0	Air Knife to 5 feet	5			As above.
						6		CL	Lean Clay with sand, light brown, 20-25% fine to coarse sand, medium plasticity.
						7			As above, with increased clay at the 7 foot depth.
			Moist			8		CL	Lean Clay with sand, 35-40% fine to coarse sand.
						9			Lean Clay with sand and gravel, dark brown with orange and tan smearing.
			Moist	0.1	SB-8 @ 10 3:50	10			
						11			
						12			As above with increasing moisture at 12 feet bgs and increasing clay at 13 feet bgs.
						13			As above with sandy gravels.
			Wet	0	SB-8 @ 15 3:56	14			Lean clay with sand, gray with tan mottling, slight odor.
						15			As above, clay became increasingly firm.
						16			
						17			
						18			
						19			
						20			Same as above.
						21			
						22			

Delta Consultants

Project No: c105781051
 Logged By: Caitlin Morgan
 Driller: **Gregg Drilling**
 Drilling Method: Directpush
 Sampling Method: Geoprobe
 Casing Type: NA
 Slot Size: NA
 Gravel Pack: NA

Client: **ConocoPhillips**
 Location: 3535 Pierson Street, Oakland, CA
 Hole Diameter:
 Hole Depth:
 First Water Depth: NA
 Static Water Depth: NA
 Well Depth: NA

Boring No: SB-8
 Date Drilled: 06/03/10
 Page 2 of 2

▽ = First Water

▼ = Static Groundwater

Elevation Northing Easting

Boring Completion	Static Water Level	Moisture Content	PID Reading (ppm)	Sample Identification	Depth (feet)	Recovery	Analyzed	Soil Type	LITHOLOGY / DESCRIPTION
					23				Lean clay with sand, gray with tan mottling, very firm.
					24				
		Moist	0	SB-8 @ 24 4:03	24				Boring terminated at 24 feet bgs.
					25				
					26				
					27				
					28				
					29				
					30				
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				

Delta

Consultants

Project No: C105781051
 Logged By: Caitlin Morgan
 Driller: Gregg Drilling and Testing
 Drilling Method: Geoprobe
 Sampling Method: Direct push
 Casing Type: 4"
 Slot Size: 0.010
 Gravel Pack: #30 mesh

Client: ConocoPhillips
 Location: 3535 Pierson Street, Oakland, CA
 Date Drilled: June 4, 2010
 Hole Diameter: 8"
 Hole Depth: 25 feet
 Well Diameter: 4"
 Well Depth: NA
 Casing Stickup: NA

Well/ Boring ID: MW-4
 Page 1 of 1

Location Map
 See Site Map

▽ : First encountered water

Well Completion		Static Water Level	Elevation			Northing			Easting			LITHOLOGY / DESCRIPTION										
Backfill	Casing		Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Interval	Soil Type													
Grout				1.3	MW-4 @ 5 12:28	1						Six inches of asphalt removed. <i>Variance approved to place well within 5' of water and electrical utility as well as storm sewer drain. Original location uncovered a 3.5' X 9" diameter concrete beam, the location was cleared at a greater width to allow for full clearance around the area of the beam.</i>										
						2																
						3																
						4																
						5																
						6																
						7																
						8																
						9																
						10																
						11																
						12																
						13																
						14																
						15																
						16																
						17																
						18																
						19																
						20																
						21																
						22																
Bentnite				5	MW-4 @ 10 12:32	5						Clayey sand (tan) in the first 3 feet, Clay (brown with olive green mottling; some angular to sub angular gravel present, as well as small brick. Same as above in the 3 to 5 foot depths.										
						6																
						7																
						8																
						9																
						10																
						11																
						12																
						13																
						14																
						15																
						16																
						17																
						18																
						19																
						20																
						21																
						22																
						Sand								2.4	MW-4 @ 15 12:39	5						Clayey sand; brown and black, medium to firm; moist, no odor.
																6						
																7						
																8						
9																						
10																						
11																						
12																						
13																						
14																						
15																						
16																						
17																						
18																						
19																						
20																						
21																						
22																						
				1.9	MW-4 @ 20 12:44				5									As above. More gravel. At 12.5' bgs becomes black clay with sand, medium firm to soft.				
									6													
									7													
									8													
						9																
						10																
						11																
						12																
						13																
						14																
						15																
						16																
						17																
						18																
						19																
						20																
						21																
						22																
										2.4	MW-4 @ 15 12:39		5									As above, with increased clay and firmness.
													6									
													7									
													8									
9																						
10																						
11																						
12																						
13																						
14																						
15																						
16																						
17																						
18																						
19																						
20																						
21																						
22																						
				1.9	MW-4 @ 20 12:44							5						Clayey sand with gravel; brown to tan; moist.				
												6										
												7										
												8										
						9																
						10																
						11																
						12																
						13																
						14																
						15																
						16																
						17																
						18																
						19																
						20																
						21																
						22																
										1.9	MW-4 @ 20 12:44	5										As above with increased sands; red and orange mottling. Sands have increased coarseness.
												6										
												7										
												8										
9																						
10																						
11																						
12																						
13																						
14																						
15																						
16																						
17																						
18																						
19																						
20																						
21																						
22																						
				1.9	MW-4 @ 20 12:44							5						Clayey Sand; back, moist- very moist.				
												6										
												7										
												8										
						9																
						10																
						11																
						12																
						13																
						14																
						15																
						16																
						17																
						18																
						19																
						20																
						21																
						22																

Delta Consultants

Project No: c105781051
 Logged By: Caitlin Morgan
 Driller: Gregg Drilling and Testing
 Drilling Method: geoprobe
 Sampling Method: direct push
 Casing Type:
 Slot Size:
 Gravel Pack:


Client: **ConocoPhillips**
 Location: **3535 Pierson Street, Oakla**
 Hole Diameter:
 Hole Depth:
 Well Diameter:
 Well Depth:
 First Water Depth:

Well No: MW-4
 Date Drilled:
 Page 2 of 2

▽ = First Water

▼ = Static Groundwater

Elevation Northing Easting

Well Completion		Static Water Level	Moisture Content	PID Reading (ppm)	Sample Identification	Depth (feet)	Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing								
Sand						23			As above.
						24			
			Moist	1.7	MW-4 @ 25 12:53	25			Boring terminated at 25 feet bgs. No groundwater encountered.
						26			
						27			
						28			
						29			
						30			
						31			
						32			
						33			
						34			
						35			
						36			
						37			
						38			
						39			
						40			
						41			
						42			
						43			
						44			

Delta

Consultants

Project No: c105781051
 Logged By: Alan Buehler
 Driller: Gregg Drilling and Testing
 Drilling Method: Geoprobe
 Sampling Method: Direct Push
 Casing Type: 4"
 Slot Size: 0.010
 Gravel Pack: #30 Mesh

Client: ConocoPhillips
 Location: 3535 Pierson Street, Oakland, CA
 Date Drilled: June 4, 2010
 Hole Diameter: 8"
 Hole Depth: 25 feet
 Well Diameter: 4"
 Well Depth: NA
 Casing Stickup: NA

Well/ Boring ID: MW-5
 Page 1 of 1

Location Map
 See Site Map

▽ : First encountered water

Well Completion		Static Water Level	Elevation			Northing			Easting			LITHOLOGY / DESCRIPTION
Backfill	Casing		Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type				
Grout			1.9	MW-5 @ 5 11:55	Air Knife to 5 feet	1				Clay; dark brown to brown; some silt and gravel present, with trace roots at approximately 4.5' bgs.		
						2						
						3						
						4						
						5						
Bentonite			1.0	MW-5 @ 12 12:01		6				Sandy clay; brown; 15% sand, damp, no odor.		
						7						
						8						
Sand		▽	4.5	MW-5 @ 15 12:03		9				Same as above.		
						10						
						11						
						12						
						13						
						14						
						15						
						16						
						17						
						18						
			3.1	MW-5 @ 20 12:08		20				Clay; black; damp; no odor.		
						21				Boring terminated at 20 feet bgs.		
						22						

APPENDIX G
Certified Laboratory Analytical Reports



Date of Report: 06/25/2010

Jan Wagoner

Delta Environmental Consultants, Inc.

11050 White Rock Rd, Suite 110

Rancho Cordova, CA 95670

RE: 5781

BC Work Order: 1007798

Invoice ID: B082508

Enclosed are the results of analyses for samples received by the laboratory on 6/8/2010. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



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BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

ConocoPhillips Chain Of Custody Record

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

ConocoPhillips Site Manager: **Shelby Lathrop**
INVOICE REMITTANCE ADDRESS:
RUSH
CONOCOPHILLIPS
Attn: Dee Hutchinson
3611 South Harbor, Suite 200
Santa Ana, CA. 92704

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

SAMPLING COMPANY: Delta Consultants		Valid Value ID:	CONOCOPHILLIPS SITE NUMBER: SS# 5781	GLOBAL ID NO.:
ADDRESS: 11050 White Rock Road #110, Rancho Cordova, CA 95670		SITE ADDRESS (Street and City): 900 Highway 1, Bodega Bay, CA		CONOCOPHILLIPS SITE MANAGER: Terry Grayson
PROJECT CONTACT (Hardcopy or PDF Report to): Jan Wagoner		EFP DELIVERABLE TO (RP or Designee): Jan Wagoner (Delta)		PHONE NO.: 916-503-1275
TELEPHONE: (916) 503-1275	FAX: (916) 638-8385	E-MAIL: wagoner@deltaenv.com	C-MAIL: wagoner@deltaenv.com	LAB USE ONLY 10-07798
SAMPLER NAME(S) (Print): Caitlin Morgan		CONSULTANT PROJECT NUMBER: C105697201		REQUESTED ANALYSES

TURNAROUND TIME (CALENDAR DAYS):
 14 DAYS 7 DAYS 72 HOURS 48 HOURS 24 HOURS LESS THAN 24 HOURS
 **8 Day turn around time

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDDIS NEEDED
 H2O 8260B BTEX/Oxys - VOAs with blue caps
 H2O 8260B Methanol - VOAs with gray caps
 * Field Point name only required if different from Sample ID

LAB USE ONLY	Sample Identification/Field Point Name*	SAMPLING		MATRIX	NO. OF CONT.	8015M - TPHg, TPHd	8260B - BTEX, 8 Oxys	8260B - Methanol												TEMPERATURE ON RECEIPT °C	
		DATE	TIME																		
1	MW-4@5	6/4/10	12:28p	soil	1	X	X	X													Various Preservatives Not Field Filtered
2	MW-4@10	6/4/10	12:32p	soil	1	X	X	X													Various Preservatives Not Field Filtered
3	MW-4@15	6/4/10	12:38p	soil	1	X	X	X													Various Preservatives Not Field Filtered
4	MW-4@20	6/4/10	12:44p	soil	1	X	X	X													Various Preservatives Not Field Filtered
5	MW-4@25	6/4/10	12:53p	soil	1	X	X	X													Various Preservatives Not Field Filtered
6	Comp A	6/4/10	1:58p	soil	1	X	X	X													Various Preservatives Not Field Filtered
7	SB-8	6/3/10	4:10p	H2O	10	X	X	X													

CHK BY: **[Signature]**
 DISTRIBUTION: **[Signature]**
 SUB OUT:

Requested by (Signature): [Signature]	Received by (Signature): [Signature]	Date: 6/8/10	Time: 1020
Requested by (Signature):	Received by (Signature):	Date:	Time:
Requested by (Signature):	Received by (Signature):	Date:	Time:

5/18/03 Revision

All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.
 The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.
 4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com
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BC LABORATORIES INC. SAMPLE RECEIPT FORM Rev. No. 12 06/24/08 Page 1 of 2

Submission #: 10-07798

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 Containers None Comments: _____
 Intact? Yes No Intact? Yes No

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

COC Received YES NO
 Emissivity: .95 Container: Q+Am Thermometer ID: #177 Date/Time 6/8/10 1020
 Temperature: A 3.7 °C / C 3.7 °C Analyst Init BLT

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										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 413.1, 413.2, 418.1										
PT OBOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 505/603/3180										
QT EPA 515.1/8150										
QT EPA 515										
QT EPA 525 TRAVEL BLANK										
100ml EPA 541										
100ml EPA 531.1										
QT EPA 548										
QT EPA 519										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ JAR										
32 OZ JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments: _____
 Sample Numbering Completed By Q+Am Date/Time: 6/8/10 1055
 A = Actual I = Corrected



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

Submission #: 10-07798

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

SHIPPING CONTAINER: Ice Chest Box None Other (Specify) _____

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Intact? Yes No Comments: _____

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

COC Received: YES NO

Emissivity: .95 Container: QAM Thermometer ID: #177 Date/Time: 6/18/10 1020

Temperature: A 3.7 °C / C 3.7 °C Analyst Init: BLT

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										
PIA 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, 50%										
QT EPA 503/603/803										
QT EPA 515.1/815										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 551.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE plastic	A	A	A	A	A	A				
PCB VIAL										
PLASTIC BAG										
FERRIOUS IRON										
ENCORE										

Comments: _____

Sample Numbering Completed By: QAM Date/Time: 6/18/10 1058

A = Actual / C = Corrected



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

Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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1007798-01	COC Number: --- Project Number: 5781 Sampling Location: --- Sampling Point: MW-4@5 Sampled By: DECR	Receive Date: 06/08/2010 10:20 Sampling Date: 06/04/2010 12:28 Sample Depth: --- Sample Matrix: Solids Delivery Work Order: Global ID: Location ID (FieldPoint): MW-4 Matrix: SO Sample QC Type (SACode): CS Cooler ID:
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1007798-02	COC Number: --- Project Number: 5781 Sampling Location: --- Sampling Point: MW-4@10 Sampled By: DECR	Receive Date: 06/08/2010 10:20 Sampling Date: 06/04/2010 12:32 Sample Depth: --- Sample Matrix: Solids Delivery Work Order: Global ID: Location ID (FieldPoint): MW-4 Matrix: SO Sample QC Type (SACode): CS Cooler ID:
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1007798-03	COC Number: --- Project Number: 5781 Sampling Location: --- Sampling Point: MW-4@15 Sampled By: DECR	Receive Date: 06/08/2010 10:20 Sampling Date: 06/04/2010 12:39 Sample Depth: --- Sample Matrix: Solids Delivery Work Order: Global ID: Location ID (FieldPoint): MW-4 Matrix: SO Sample QC Type (SACode): CS Cooler ID:
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1007798-04	COC Number: --- Project Number: 5781 Sampling Location: --- Sampling Point: MW-4@20 Sampled By: DECR	Receive Date: 06/08/2010 10:20 Sampling Date: 06/04/2010 12:44 Sample Depth: --- Sample Matrix: Solids Delivery Work Order: Global ID: Location ID (FieldPoint): MW-4 Matrix: SO Sample QC Type (SACode): CS Cooler ID:
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Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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1007798-05	COC Number: --- Project Number: 5781 Sampling Location: --- Sampling Point: MW-4@25 Sampled By: DECR	Receive Date: 06/08/2010 10:20 Sampling Date: 06/04/2010 12:53 Sample Depth: --- Sample Matrix: Solids Delivery Work Order: Global ID: Location ID (FieldPoint): MW-4 Matrix: SO Sample QC Type (SACode): CS Cooler ID:
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1007798-06	COC Number: --- Project Number: 5781 Sampling Location: --- Sampling Point: Comp A Sampled By: DECR	Receive Date: 06/08/2010 10:20 Sampling Date: 06/04/2010 13:58 Sample Depth: --- Sample Matrix: Solids Delivery Work Order: Global ID: Location ID (FieldPoint): Comp A Matrix: SO Sample QC Type (SACode): CS Cooler ID:
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1007798-07	COC Number: --- Project Number: 5781 Sampling Location: --- Sampling Point: SB-8 Sampled By: DECR	Receive Date: 06/08/2010 10:20 Sampling Date: 06/03/2010 16:10 Sample Depth: --- Sample Matrix: Water Delivery Work Order: Global ID: Location ID (FieldPoint): SB-8 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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1007798-08	COC Number: --- Project Number: 5781 Sampling Location: --- Sampling Point: MW-5@5 Sampled By: DECR	Receive Date: 06/08/2010 10:20 Sampling Date: 06/03/2010 11:55 Sample Depth: --- Sample Matrix: Solids Delivery Work Order: Global ID: Location ID (FieldPoint): MW-5 Matrix: SO Sample QC Type (SACode): CS Cooler ID:
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Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1007798-09	COC Number:	---	Receive Date: 06/08/2010 10:20
	Project Number:	5781	Sampling Date: 06/03/2010 12:01
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MW-5@12	Sample Matrix: Solids
	Sampled By:	DECR	Delivery Work Order:
			Global ID:
			Location ID (FieldPoint): MW-5 Matrix: SO Sample QC Type (SACode): CS Cooler ID:
1007798-10	COC Number:	---	Receive Date: 06/08/2010 10:20
	Project Number:	5781	Sampling Date: 06/03/2010 12:03
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MW-5@15	Sample Matrix: Solids
	Sampled By:	DECR	Delivery Work Order:
			Global ID:
			Location ID (FieldPoint): MW-5 Matrix: SO Sample QC Type (SACode): CS Cooler ID:
1007798-11	COC Number:	---	Receive Date: 06/08/2010 10:20
	Project Number:	5781	Sampling Date: 06/03/2010 12:08
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	MW-5@20	Sample Matrix: Solids
	Sampled By:	DECR	Delivery Work Order:
			Global ID:
			Location ID (FieldPoint): MW-5 Matrix: SO Sample QC Type (SACode): CS Cooler ID:
1007798-12	COC Number:	---	Receive Date: 06/08/2010 10:20
	Project Number:	5781	Sampling Date: 06/03/2010 15:48
	Sampling Location:	---	Sample Depth: ---
	Sampling Point:	SB-8@6	Sample Matrix: Solids
	Sampled By:	DECR	Delivery Work Order:
			Global ID:
			Location ID (FieldPoint): SB-8 Matrix: SO Sample QC Type (SACode): CS Cooler ID:

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Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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1007798-13	COC Number: --- Project Number: 5781 Sampling Location: --- Sampling Point: SB-8@10 Sampled By: DECR	Receive Date: 06/08/2010 10:20 Sampling Date: 06/03/2010 15:50 Sample Depth: --- Sample Matrix: Solids Delivery Work Order: Global ID: Location ID (FieldPoint): SB-8 Matrix: SO Sample QC Type (SACode): CS Cooler ID:
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1007798-14	COC Number: --- Project Number: 5781 Sampling Location: --- Sampling Point: SB-8@15 Sampled By: DECR	Receive Date: 06/08/2010 10:20 Sampling Date: 06/03/2010 15:56 Sample Depth: --- Sample Matrix: Solids Delivery Work Order: Global ID: Location ID (FieldPoint): SB-8 Matrix: SO Sample QC Type (SACode): CS Cooler ID:
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1007798-15	COC Number: --- Project Number: 5781 Sampling Location: --- Sampling Point: SB-8@20 Sampled By: DECR	Receive Date: 06/08/2010 10:20 Sampling Date: 06/03/2010 16:00 Sample Depth: --- Sample Matrix: Solids Delivery Work Order: Global ID: Location ID (FieldPoint): SB-8 Matrix: SO Sample QC Type (SACode): CS Cooler ID:
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1007798-16	COC Number: --- Project Number: 5781 Sampling Location: --- Sampling Point: SB-8@24 Sampled By: DECR	Receive Date: 06/08/2010 10:20 Sampling Date: 06/03/2010 16:03 Sample Depth: --- Sample Matrix: Solids Delivery Work Order: Global ID: Location ID (FieldPoint): SB-8 Matrix: SO Sample QC Type (SACode): CS Cooler ID:
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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

BCL Sample ID: 1007798-01	Client Sample Name: 5781, MW-4@5, 6/4/2010 12:28:00PM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methanol	ND	mg/kg	0.51	EPA-8015B	ND	S05	1
2-Chloroacrylonitrile (Surrogate)	74.9	%	60 - 140 (LCL - UCL)	EPA-8015B		S05,S09	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/22/10	06/22/10 23:37	MWB	GC-12	5.128	BTF1790



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1007798-01	Client Sample Name: 5781, MW-4@5, 6/4/2010 12:28:00PM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	mg/kg	0.010	EPA-8260	ND	A10,Z1a	1
1,2-Dibromoethane	ND	mg/kg	0.010	EPA-8260	ND	A10,Z1a	1
1,2-Dichloroethane	ND	mg/kg	0.010	EPA-8260	ND	A10,Z1a	1
Ethylbenzene	ND	mg/kg	0.010	EPA-8260	ND	A10,Z1a	1
Methyl t-butyl ether	ND	mg/kg	0.010	EPA-8260	ND	A10,Z1a	1
Toluene	ND	mg/kg	0.010	EPA-8260	ND	A10,Z1a	1
Total Xylenes	ND	mg/kg	0.020	EPA-8260	ND	A10,Z1a	1
t-Amyl Methyl ether	ND	mg/kg	0.010	EPA-8260	ND	A10,Z1a	1
t-Butyl alcohol	ND	mg/kg	0.10	EPA-8260	ND	A10,Z1a	1
Diisopropyl ether	ND	mg/kg	0.010	EPA-8260	ND	A10,Z1a	1
Ethanol	ND	mg/kg	2.0	EPA-8260	ND	A10,Z1a	1
Ethyl t-butyl ether	ND	mg/kg	0.010	EPA-8260	ND	A10,Z1a	1
1,2-Dichloroethane-d4 (Surrogate)	105	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.1	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	103	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/14/10	06/14/10 10:50	ZZZ	MS-V2	2	BTF0917

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-01	Client Sample Name: 5781, MW-4@5, 6/4/2010 12:28:00PM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	mg/kg	1.0	Luft	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	81.8	%	70 - 130 (LCL - UCL)	Luft			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft	06/14/10	06/14/10 17:11	JJH	GC-V8	1	BTF1029



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-01	Client Sample Name: 5781, MW-4@5, 6/4/2010 12:28:00PM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	mg/kg	2.0	Luft/TPHd	ND		1
Tetracosane (Surrogate)	88.1	%	34 - 136 (LCL - UCL)	Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/11/10	06/21/10 09:04	MWB	GC-5	0.990	BTF1337



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

BCL Sample ID: 1007798-02	Client Sample Name: 5781, MW-4@10, 6/4/2010 12:32:00PM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methanol	ND	mg/kg	0.49	EPA-8015B	ND	S05	1
2-Chloroacrylonitrile (Surrogate)	62.9	%	60 - 140 (LCL - UCL)	EPA-8015B		S05	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/22/10	06/22/10 23:58	MWB	GC-12	4.878	BTF1790



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1007798-02	Client Sample Name: 5781, MW-4@10, 6/4/2010 12:32:00PM
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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
1,2-Dichloroethane-d4 (Surrogate)	106	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.8	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	95.6	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/13/10	06/14/10 00:15	ZZZ	MS-V2	1	BTF0917

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-02	Client Sample Name: 5781, MW-4@10, 6/4/2010 12:32:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	mg/kg	1.0	Luft	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	93.8	%	70 - 130 (LCL - UCL)	Luft			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft	06/14/10	06/15/10 16:08	JJH	GC-V8	1	BTF1029

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-02	Client Sample Name: 5781, MW-4@10, 6/4/2010 12:32:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	mg/kg	2.0	Luft/TPHd	ND		1
Tetracosane (Surrogate)	79.4	%	34 - 136 (LCL - UCL)	Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/11/10	06/21/10 09:18	MWB	GC-5	0.993	BTF1337



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

BCL Sample ID: 1007798-03	Client Sample Name: 5781, MW-4@15, 6/4/2010 12:39:00PM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methanol	ND	mg/kg	0.50	EPA-8015B	ND	S05	1
2-Chloroacrylonitrile (Surrogate)	74.5	%	60 - 140 (LCL - UCL)	EPA-8015B		S05	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/22/10	06/23/10 00:21	MWB	GC-12	5.025	BTF1790



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1007798-03	Client Sample Name: 5781, MW-4@15, 6/4/2010 12:39:00PM
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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	0.0051	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
1,2-Dichloroethane-d4 (Surrogate)	107	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	101	%	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	06/13/10	06/14/10 00:41	ZZZ	MS-V2	1	BTF0917

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-03	Client Sample Name: 5781, MW-4@15, 6/4/2010 12:39:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	mg/kg	1.0	Luft	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	89.8	%	70 - 130 (LCL - UCL)	Luft			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft	06/14/10	06/14/10 19:44	JJH	GC-V8	1	BTF1029



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-03	Client Sample Name: 5781, MW-4@15, 6/4/2010 12:39:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	mg/kg	2.0	Luft/TPHd	ND		1
Tetracosane (Surrogate)	88.4	%	34 - 136 (LCL - UCL)	Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/11/10	06/21/10 09:32	MWB	GC-5	0.993	BTF1337



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Reported: 06/25/2010 14:31
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Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

BCL Sample ID: 1007798-04	Client Sample Name: 5781, MW-4@20, 6/4/2010 12:44:00PM						
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methanol	ND	mg/kg	0.49	EPA-8015B	ND	S05	1
2-Chloroacrylonitrile (Surrogate)	68.5	%	60 - 140 (LCL - UCL)	EPA-8015B		S05	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/22/10	06/23/10 00:42	MWB	GC-12	4.854	BTF1790



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1007798-04	Client Sample Name: 5781, MW-4@20, 6/4/2010 12:44:00PM
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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
1,2-Dichloroethane-d4 (Surrogate)	104	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.3	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	96.4	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/13/10	06/14/10 01:06	ZZZ	MS-V2	1	BTF0917

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Delta Environmental Consultants, Inc.
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Rancho Cordova, CA 95670

Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-04	Client Sample Name: 5781, MW-4@20, 6/4/2010 12:44:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	mg/kg	1.0	Luft	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	90.0	%	70 - 130 (LCL - UCL)	Luft			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft	06/14/10	06/14/10 20:14	JJH	GC-V8	1	BTF1029

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-04	Client Sample Name: 5781, MW-4@20, 6/4/2010 12:44:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	mg/kg	2.0	Luft/TPHd	ND		1
Tetracosane (Surrogate)	79.7	%	34 - 136 (LCL - UCL)	Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/11/10	06/21/10 09:46	MWB	GC-5	0.997	BTF1337



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

BCL Sample ID: 1007798-05	Client Sample Name: 5781, MW-4@25, 6/4/2010 12:53:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methanol	ND	mg/kg	0.50	EPA-8015B	ND	S05	1
2-Chloroacrylonitrile (Surrogate)	70.9	%	60 - 140 (LCL - UCL)	EPA-8015B		S05	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/22/10	06/23/10 01:05	MWB	GC-12	4.975	BTF1790



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1007798-05	Client Sample Name: 5781, MW-4@25, 6/4/2010 12:53:00PM
----------------------------------	---

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
1,2-Dichloroethane-d4 (Surrogate)	106	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.1	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	92.1	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/13/10	06/14/10 01:32	ZZZ	MS-V2	1	BTF0917

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-05	Client Sample Name: 5781, MW-4@25, 6/4/2010 12:53:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	mg/kg	1.0	Luft	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	92.5	%	70 - 130 (LCL - UCL)	Luft			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft	06/14/10	06/14/10 20:45	JJH	GC-V8	1	BTF1029



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-05	Client Sample Name: 5781, MW-4@25, 6/4/2010 12:53:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	mg/kg	2.0	Luft/TPHd	ND		1
Tetracosane (Surrogate)	86.0	%	34 - 136 (LCL - UCL)	Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/11/10	06/21/10 10:00	MWB	GC-5	0.950	BTF1337



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

BCL Sample ID: 1007798-06	Client Sample Name: 5781, Comp A, 6/4/2010 1:58:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methanol	ND	mg/kg	0.48	EPA-8015B	ND	S05	1
2-Chloroacrylonitrile (Surrogate)	70.9	%	60 - 140 (LCL - UCL)	EPA-8015B		S05	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/22/10	06/23/10 01:26	MWB	GC-12	4.785	BTF1790



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1007798-06	Client Sample Name: 5781, Comp A, 6/4/2010 1:58:00PM
----------------------------------	---

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
1,2-Dichloroethane-d4 (Surrogate)	107	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.0	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	81.5	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/13/10	06/14/10 01:58	ZZZ	MS-V2	1	BTF0917

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-06	Client Sample Name: 5781, Comp A, 6/4/2010 1:58:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	mg/kg	1.0	Luft	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	79.2	%	70 - 130 (LCL - UCL)	Luft			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft	06/14/10	06/14/10 21:15	JJH	GC-V8	1	BTF1029



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-06	Client Sample Name: 5781, Comp A, 6/4/2010 1:58:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	mg/kg	2.0	Luft/TPHd	ND		1
Tetracosane (Surrogate)	87.1	%	34 - 136 (LCL - UCL)	Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/11/10	06/21/10 10:14	MWB	GC-5	0.997	BTF1337

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

BCL Sample ID: 1007798-07	Client Sample Name: 5781, SB-8, 6/3/2010 4:10:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methanol	ND	ug/L	100	EPA-8015B	ND	S05	1
2-Chloroacrylonitrile (Surrogate)	106	%	60 - 140 (LCL - UCL)	EPA-8015B		S05	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/17/10	06/18/10 00:20	MWB	GC-12	1	BTF1325



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1007798-07	Client Sample Name: 5781, SB-8, 6/3/2010 4:10:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	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	0.50	ug/L	0.50	EPA-8260	ND	Z1	1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND	Z1	1
Methyl t-butyl ether	53	ug/L	0.50	EPA-8260	ND	Z1	1
Toluene	ND	ug/L	0.50	EPA-8260	ND	Z1	1
Total Xylenes	ND	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
1,2-Dichloroethane-d4 (Surrogate)	105	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	97.0	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	98.0	%	86 - 115 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/14/10	06/14/10 12:40	KEA	MS-V10	1	BTF0938

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-07	Client Sample Name: 5781, SB-8, 6/3/2010 4:10:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	73	ug/L	50	Luft	ND	A91	1
a,a,a-Trifluorotoluene (FID Surrogate)	82.8	%	70 - 130 (LCL - UCL)	Luft			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft	06/14/10	06/16/10 11:01	jjh	GC-V4	1	BTF0895

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-07	Client Sample Name: 5781, SB-8, 6/3/2010 4:10:00PM						
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	99	ug/L	50	Luft/TPHd	ND		1
Tetracosane (Surrogate)	77.6	%	28 - 139 (LCL - UCL)	Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/11/10	06/16/10 17:43	MWB	GC-5	1	BTF1197



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

BCL Sample ID: 1007798-08	Client Sample Name: 5781, MW-5@5, 6/3/2010 11:55:00AM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methanol	ND	mg/kg	0.50	EPA-8015B	ND	S05	1
2-Chloroacrylonitrile (Surrogate)	68.9	%	60 - 140 (LCL - UCL)	EPA-8015B		S05	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/22/10	06/23/10 02:53	MWB	GC-12	4.975	BTF1790



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1007798-08	Client Sample Name: 5781, MW-5@5, 6/3/2010 11:55:00AM
----------------------------------	--

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
1,2-Dichloroethane-d4 (Surrogate)	103	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	98.4	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	92.7	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/13/10	06/14/10 02:23	ZZZ	MS-V2	1	BTF0917

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-08	Client Sample Name: 5781, MW-5@5, 6/3/2010 11:55:00AM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	mg/kg	1.0	Luft	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	87.8	%	70 - 130 (LCL - UCL)	Luft			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft	06/14/10	06/14/10 21:46	JJH	GC-V8	1	BTF1029



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-08	Client Sample Name: 5781, MW-5@5, 6/3/2010 11:55:00AM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	mg/kg	2.0	Luft/TPHd	ND		1
Tetracosane (Surrogate)	88.9	%	34 - 136 (LCL - UCL)	Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/11/10	06/21/10 10:56	MWB	GC-5	0.947	BTF1337



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

BCL Sample ID: 1007798-09	Client Sample Name: 5781, MW-5@12, 6/3/2010 12:01:00PM						
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methanol	ND	mg/kg	0.50	EPA-8015B	ND	S05	1
2-Chloroacrylonitrile (Surrogate)	63.5	%	60 - 140 (LCL - UCL)	EPA-8015B		S05	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/22/10	06/23/10 03:14	MWB	GC-12	4.950	BTF1790



Delta Environmental Consultants, Inc.
11050 White Rock Rd, Suite 110
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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1007798-09	Client Sample Name: 5781, MW-5@12, 6/3/2010 12:01:00PM
----------------------------------	---

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
1,2-Dichloroethane-d4 (Surrogate)	105	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.8	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	98.5	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/13/10	06/14/10 02:49	ZZZ	MS-V2	1	BTF0917

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

Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-09	Client Sample Name: 5781, MW-5@12, 6/3/2010 12:01:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	mg/kg	1.0	Luft	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	89.0	%	70 - 130 (LCL - UCL)	Luft			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft	06/14/10	06/14/10 22:17	JJH	GC-V8	1	BTF1029

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-09	Client Sample Name: 5781, MW-5@12, 6/3/2010 12:01:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	mg/kg	2.0	Luft/TPHd	ND		1
Tetracosane (Surrogate)	89.0	%	34 - 136 (LCL - UCL)	Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/11/10	06/21/10 11:10	MWB	GC-5	0.960	BTF1337



Delta Environmental Consultants, Inc.
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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

BCL Sample ID: 1007798-10	Client Sample Name: 5781, MW-5@15, 6/3/2010 12:03:00PM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methanol	ND	mg/kg	0.51	EPA-8015B	ND	S05	1
2-Chloroacrylonitrile (Surrogate)	86.0	%	60 - 140 (LCL - UCL)	EPA-8015B		S05	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/22/10	06/23/10 03:35	MWB	GC-12	5.102	BTF1790



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1007798-10	Client Sample Name: 5781, MW-5@15, 6/3/2010 12:03:00PM
----------------------------------	---

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
1,2-Dichloroethane-d4 (Surrogate)	102	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	100	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	95.7	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/13/10	06/14/10 03:15	ZZZ	MS-V2	1	BTF0917

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-10	Client Sample Name: 5781, MW-5@15, 6/3/2010 12:03:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	mg/kg	1.0	Luft	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	94.0	%	70 - 130 (LCL - UCL)	Luft			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft	06/14/10	06/15/10 16:38	JJH	GC-V8	1	BTF1029



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-10	Client Sample Name: 5781, MW-5@15, 6/3/2010 12:03:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	mg/kg	2.0	Luft/TPHd	ND		1
Tetracosane (Surrogate)	80.9	%	34 - 136 (LCL - UCL)	Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/11/10	06/21/10 11:23	MWB	GC-5	0.984	BTF1337



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

BCL Sample ID: 1007798-11	Client Sample Name: 5781, MW-5@20, 6/3/2010 12:08:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methanol	ND	mg/kg	0.51	EPA-8015B	ND	S05	1
2-Chloroacrylonitrile (Surrogate)	85.7	%	60 - 140 (LCL - UCL)	EPA-8015B		S05	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/22/10	06/23/10 03:56	MWB	GC-12	5.076	BTF1790



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1007798-11	Client Sample Name: 5781, MW-5@20, 6/3/2010 12:08:00PM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	mg/kg	0.050	EPA-8260	ND	A10,Z1a	1
1,2-Dibromoethane	ND	mg/kg	0.050	EPA-8260	ND	A10,Z1a	1
1,2-Dichloroethane	ND	mg/kg	0.050	EPA-8260	ND	A10,Z1a	1
Ethylbenzene	ND	mg/kg	0.050	EPA-8260	ND	A10,Z1a	1
Methyl t-butyl ether	ND	mg/kg	0.050	EPA-8260	ND	A10,Z1a	1
Toluene	ND	mg/kg	0.050	EPA-8260	ND	A10,Z1a	1
Total Xylenes	ND	mg/kg	0.10	EPA-8260	ND	A10,Z1a	1
t-Amyl Methyl ether	ND	mg/kg	0.050	EPA-8260	ND	A10,Z1a	1
t-Butyl alcohol	ND	mg/kg	0.50	EPA-8260	ND	A10,Z1a	1
Diisopropyl ether	ND	mg/kg	0.050	EPA-8260	ND	A10,Z1a	1
Ethanol	ND	mg/kg	10	EPA-8260	ND	A10,Z1a	1
Ethyl t-butyl ether	ND	mg/kg	0.050	EPA-8260	ND	A10,Z1a	1
1,2-Dichloroethane-d4 (Surrogate)	101	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.3	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	96.4	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/14/10	06/14/10 13:49	ZZZ	MS-V2	10	BTF0917

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-11	Client Sample Name: 5781, MW-5@20, 6/3/2010 12:08:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	mg/kg	1.0	Luft	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	85.0	%	70 - 130 (LCL - UCL)	Luft			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft	06/14/10	06/14/10 23:18	JJH	GC-V8	1	BTF1029



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-11	Client Sample Name: 5781, MW-5@20, 6/3/2010 12:08:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	mg/kg	2.0	Luft/TPHd	ND		1
Tetracosane (Surrogate)	88.1	%	34 - 136 (LCL - UCL)	Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/11/10	06/21/10 11:37	MWB	GC-5	0.974	BTF1337



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

BCL Sample ID: 1007798-12	Client Sample Name: 5781, SB-8@6, 6/3/2010 3:48:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methanol	ND	mg/kg	0.51	EPA-8015B	ND	S05	1
2-Chloroacrylonitrile (Surrogate)	73.3	%	60 - 140 (LCL - UCL)	EPA-8015B		S05	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/22/10	06/23/10 04:17	MWB	GC-12	5.102	BTF1790



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11050 White Rock Rd, Suite 110
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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1007798-12	Client Sample Name: 5781, SB-8@6, 6/3/2010 3:48:00PM
----------------------------------	---

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
1,2-Dichloroethane-d4 (Surrogate)	109	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.2	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	93.6	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/13/10	06/14/10 04:07	ZZZ	MS-V2	1	BTF0917

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-12	Client Sample Name: 5781, SB-8@6, 6/3/2010 3:48:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	mg/kg	1.0	Luft	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	85.8	%	70 - 130 (LCL - UCL)	Luft			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft	06/14/10	06/14/10 23:49	JJH	GC-V8	1	BTF1029



Delta Environmental Consultants, Inc.
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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-12	Client Sample Name: 5781, SB-8@6, 6/3/2010 3:48:00PM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	2.1	mg/kg	2.0	Luft/TPHd	ND		1
Tetracosane (Surrogate)	98.1	%	34 - 136 (LCL - UCL)	Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/11/10	06/21/10 12:32	MWB	GC-5	0.938	BTF1337

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

BCL Sample ID: 1007798-13	Client Sample Name: 5781, SB-8@10, 6/3/2010 3:50:00PM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methanol	ND	mg/kg	0.48	EPA-8015B	ND	S05	1
2-Chloroacrylonitrile (Surrogate)	61.6	%	60 - 140 (LCL - UCL)	EPA-8015B		S05	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/22/10	06/23/10 04:38	MWB	GC-12	4.831	BTF1790

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1007798-13	Client Sample Name: 5781, SB-8@10, 6/3/2010 3:50:00PM
----------------------------------	--

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
1,2-Dichloroethane-d4 (Surrogate)	106	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	98.7	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	96.4	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/13/10	06/14/10 04:33	ZZZ	MS-V2	1	BTF0917

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-13	Client Sample Name: 5781, SB-8@10, 6/3/2010 3:50:00PM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	mg/kg	1.0	Luft	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	90.8	%	70 - 130 (LCL - UCL)	Luft			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft	06/14/10	06/15/10 01:51	JJH	GC-V8	1	BTF1029

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-13	Client Sample Name: 5781, SB-8@10, 6/3/2010 3:50:00PM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	mg/kg	2.0	Luft/TPHd	ND		1
Tetracosane (Surrogate)	91.1	%	34 - 136 (LCL - UCL)	Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/11/10	06/21/10 12:18	MWB	GC-5	0.990	BTF1337



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Rancho Cordova, CA 95670

Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

BCL Sample ID: 1007798-14	Client Sample Name: 5781, SB-8@15, 6/3/2010 3:56:00PM						
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methanol	ND	mg/kg	0.50	EPA-8015B	ND	S05	1
2-Chloroacrylonitrile (Surrogate)	67.6	%	60 - 140 (LCL - UCL)	EPA-8015B		S05	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/22/10	06/23/10 04:59	MWB	GC-12	5	BTF1790



Delta Environmental Consultants, Inc.
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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1007798-14 **Client Sample Name:** 5781, SB-8@15, 6/3/2010 3:56:00PM

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
1,2-Dichloroethane-d4 (Surrogate)	108	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.3	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	97.4	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/13/10	06/14/10 04:58	ZZZ	MS-V2	1	BTF0917

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11050 White Rock Rd, Suite 110
Rancho Cordova, CA 95670

Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-14	Client Sample Name: 5781, SB-8@15, 6/3/2010 3:56:00PM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	mg/kg	1.0	Luft	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	79.5	%	70 - 130 (LCL - UCL)	Luft			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft	06/14/10	06/15/10 02:22	JJH	GC-V8	1	BTF1029



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-14	Client Sample Name: 5781, SB-8@15, 6/3/2010 3:56:00PM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	2.4	mg/kg	2.0	Luft/TPHd	ND		1
Tetracosane (Surrogate)	95.1	%	34 - 136 (LCL - UCL)	Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/11/10	06/21/10 12:46	MWB	GC-5	0.997	BTF1337

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

BCL Sample ID: 1007798-15	Client Sample Name: 5781, SB-8@20, 6/3/2010 4:00:00PM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methanol	ND	mg/kg	0.50	EPA-8015B	ND	S05	1
2-Chloroacrylonitrile (Surrogate)	73.9	%	60 - 140 (LCL - UCL)	EPA-8015B		S05	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/22/10	06/23/10 05:19	MWB	GC-12	4.950	BTF1790



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1007798-15 **Client Sample Name:** 5781, SB-8@20, 6/3/2010 4:00:00PM

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	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
1,2-Dichloroethane-d4 (Surrogate)	105	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	101	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	97.1	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/13/10	06/14/10 05:24	ZZZ	MS-V2	1	BTF0917

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-15	Client Sample Name: 5781, SB-8@20, 6/3/2010 4:00:00PM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	mg/kg	1.0	Luft	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	88.5	%	70 - 130 (LCL - UCL)	Luft			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft	06/14/10	06/15/10 02:53	JJH	GC-V8	1	BTF1029

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-15	Client Sample Name: 5781, SB-8@20, 6/3/2010 4:00:00PM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	mg/kg	2.0	Luft/TPHd	ND		1
Tetracosane (Surrogate)	70.1	%	34 - 136 (LCL - UCL)	Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/11/10	06/21/10 11:51	MWB	GC-5	0.977	BTF1337



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

BCL Sample ID: 1007798-16	Client Sample Name: 5781, SB-8@24, 6/3/2010 4:03:00PM						
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methanol	ND	mg/kg	0.49	EPA-8015B	ND	S05	1
2-Chloroacrylonitrile (Surrogate)	83.4	%	60 - 140 (LCL - UCL)	EPA-8015B		S05	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/22/10	06/23/10 05:40	MWB	GC-12	4.902	BTF1790



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1007798-16	Client Sample Name: 5781, SB-8@24, 6/3/2010 4:03:00PM
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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
1,2-Dichloroethane-d4 (Surrogate)	105	%	70 - 121 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.4	%	81 - 117 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	99.5	%	74 - 121 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/13/10	06/14/10 05:50	ZZZ	MS-V2	1	BTF0917

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-16	Client Sample Name: 5781, SB-8@24, 6/3/2010 4:03:00PM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	mg/kg	1.0	Luft	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	86.8	%	70 - 130 (LCL - UCL)	Luft			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft	06/14/10	06/15/10 03:24	JJH	GC-V8	1	BTF1029



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

BCL Sample ID: 1007798-16	Client Sample Name: 5781, SB-8@24, 6/3/2010 4:03:00PM
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Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	mg/kg	2.0	Luft/TPHd	ND		1
Tetracosane (Surrogate)	79.0	%	34 - 136 (LCL - UCL)	Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/11/10	06/21/10 12:05	MWB	GC-5	0.987	BTF1337



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTF1325						
Methanol	BTF1325-BLK1	ND	ug/L	100		
2-Chloroacrylonitrile (Surrogate)	BTF1325-BLK1	102	%	60 - 140 (LCL - UCL)		
QC Batch ID: BTF1790						
Methanol	BTF1790-BLK1	ND	mg/kg	0.50		
2-Chloroacrylonitrile (Surrogate)	BTF1790-BLK1	85.8	%	60 - 140 (LCL - UCL)		S09



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		
								Percent Recovery	RPD	Lab Quals
QC Batch ID: BTF1325										
Methanol	BTF1325-BS1	LCS	2070.0	2000.0	ug/L	104		50 - 150		
2-Chloroacrylonitrile (Surrogate)	BTF1325-BS1	LCS	5349.0	4000.0	ug/L	134		60 - 140		
QC Batch ID: BTF1790										
Methanol	BTF1790-BS1	LCS	9.8750	10.000	mg/kg	98.8		50 - 150		
2-Chloroacrylonitrile (Surrogate)	BTF1790-BS1	LCS	14.690	20.000	mg/kg	73.4		60 - 140		S09



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab
									RPD	Percent Recovery	
QC Batch ID: BTF1325		Used client sample: N									
Methanol	MS	1005654-98	ND	1825.0	2000.0	ug/L		91.2		50 - 150	
	MSD	1005654-98	ND	1941.0	2000.0	ug/L	6.2	97.0	30	50 - 150	
2-Chloroacrylonitrile (Surrogate)	MS	1005654-98	ND	4339.0	4000.0	ug/L		108		60 - 140	
	MSD	1005654-98	ND	5029.0	4000.0	ug/L		126		60 - 140	
QC Batch ID: BTF1790		Used client sample: N									
Methanol	MS	1007897-14	ND	13.010	10.000	mg/kg		130		50 - 150	
	MSD	1007897-14	ND	21.365	10.000	mg/kg	48.6	214	30	50 - 150	Q03
2-Chloroacrylonitrile (Surrogate)	MS	1007897-14	ND	10.100	20.000	mg/kg		50.5		60 - 140	S09
	MSD	1007897-14	ND	9.3150	20.000	mg/kg		46.6		60 - 140	S09

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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

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: BTF0917						
Benzene	BTF0917-BLK1	ND	mg/kg	0.0050		
1,2-Dibromoethane	BTF0917-BLK1	ND	mg/kg	0.0050		
1,2-Dichloroethane	BTF0917-BLK1	ND	mg/kg	0.0050		
Ethylbenzene	BTF0917-BLK1	ND	mg/kg	0.0050		
Methyl t-butyl ether	BTF0917-BLK1	ND	mg/kg	0.0050		
Toluene	BTF0917-BLK1	ND	mg/kg	0.0050		
Total Xylenes	BTF0917-BLK1	ND	mg/kg	0.010		
t-Amyl Methyl ether	BTF0917-BLK1	ND	mg/kg	0.0050		
t-Butyl alcohol	BTF0917-BLK1	ND	mg/kg	0.050		
Diisopropyl ether	BTF0917-BLK1	ND	mg/kg	0.0050		
Ethanol	BTF0917-BLK1	ND	mg/kg	1.0		
Ethyl t-butyl ether	BTF0917-BLK1	ND	mg/kg	0.0050		
1,2-Dichloroethane-d4 (Surrogate)	BTF0917-BLK1	99.3	%	70 - 121 (LCL - UCL)		
Toluene-d8 (Surrogate)	BTF0917-BLK1	99.1	%	81 - 117 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BTF0917-BLK1	98.4	%	74 - 121 (LCL - UCL)		
QC Batch ID: BTF0938						
Benzene	BTF0938-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BTF0938-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BTF0938-BLK1	ND	ug/L	0.50		
Ethylbenzene	BTF0938-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BTF0938-BLK1	ND	ug/L	0.50		
Toluene	BTF0938-BLK1	ND	ug/L	0.50		
Total Xylenes	BTF0938-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BTF0938-BLK1	ND	ug/L	0.50		
t-Butyl alcohol	BTF0938-BLK1	ND	ug/L	10		
Diisopropyl ether	BTF0938-BLK1	ND	ug/L	0.50		
Ethanol	BTF0938-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BTF0938-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane-d4 (Surrogate)	BTF0938-BLK1	103	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BTF0938-BLK1	96.2	%	88 - 110 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BTF0938-BLK1	96.5	%	86 - 115 (LCL - UCL)		



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

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		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: BTF0917										
Benzene	BTF0917-BS1	LCS	0.12822	0.12500	mg/kg	103		70 - 130		
Toluene	BTF0917-BS1	LCS	0.12935	0.12500	mg/kg	103		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BTF0917-BS1	LCS	0.049575	0.050000	mg/kg	99.2		70 - 121		
Toluene-d8 (Surrogate)	BTF0917-BS1	LCS	0.048953	0.050000	mg/kg	97.9		81 - 117		
4-Bromofluorobenzene (Surrogate)	BTF0917-BS1	LCS	0.050124	0.050000	mg/kg	100		74 - 121		
QC Batch ID: BTF0938										
Benzene	BTF0938-BS1	LCS	23.530	25.000	ug/L	94.1		70 - 130		
Toluene	BTF0938-BS1	LCS	23.570	25.000	ug/L	94.3		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BTF0938-BS1	LCS	10.080	10.000	ug/L	101		76 - 114		
Toluene-d8 (Surrogate)	BTF0938-BS1	LCS	9.9700	10.000	ug/L	99.7		88 - 110		
4-Bromofluorobenzene (Surrogate)	BTF0938-BS1	LCS	9.7000	10.000	ug/L	97.0		86 - 115		



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Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

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		Lab Quals
									RPD	Percent Recovery	
QC Batch ID: BTF0917		Used client sample: N									
Benzene	MS	1007897-16	ND	0.12346	0.12500	mg/kg		98.8		70 - 130	
	MSD	1007897-16	ND	0.12915	0.12500	mg/kg	4.5	103	20	70 - 130	
Toluene	MS	1007897-16	ND	0.12854	0.12500	mg/kg		103		70 - 130	
	MSD	1007897-16	ND	0.13283	0.12500	mg/kg	3.3	106	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1007897-16	ND	0.049773	0.050000	mg/kg		99.5		70 - 121	
	MSD	1007897-16	ND	0.050475	0.050000	mg/kg		101		70 - 121	
Toluene-d8 (Surrogate)	MS	1007897-16	ND	0.049861	0.050000	mg/kg		99.7		81 - 117	
	MSD	1007897-16	ND	0.049873	0.050000	mg/kg		99.7		81 - 117	
4-Bromofluorobenzene (Surrogate)	MS	1007897-16	ND	0.051394	0.050000	mg/kg		103		74 - 121	
	MSD	1007897-16	ND	0.051229	0.050000	mg/kg		102		74 - 121	
QC Batch ID: BTF0938		Used client sample: N									
Benzene	MS	1007829-02	ND	26.490	25.000	ug/L		106		70 - 130	
	MSD	1007829-02	ND	26.010	25.000	ug/L	1.8	104	20	70 - 130	
Toluene	MS	1007829-02	ND	25.230	25.000	ug/L		101		70 - 130	
	MSD	1007829-02	ND	25.280	25.000	ug/L	0.2	101	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1007829-02	ND	10.110	10.000	ug/L		101		76 - 114	
	MSD	1007829-02	ND	10.020	10.000	ug/L		100		76 - 114	
Toluene-d8 (Surrogate)	MS	1007829-02	ND	9.6800	10.000	ug/L		96.8		88 - 110	
	MSD	1007829-02	ND	10.060	10.000	ug/L		101		88 - 110	
4-Bromofluorobenzene (Surrogate)	MS	1007829-02	ND	9.8300	10.000	ug/L		98.3		86 - 115	
	MSD	1007829-02	ND	9.8900	10.000	ug/L		98.9		86 - 115	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



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

Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTF0895						
Gasoline Range Organics (C4 - C12)	BTF0895-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	BTF0895-BLK1	78.3	%	70 - 130 (LCL - UCL)		
QC Batch ID: BTF1029						
Gasoline Range Organics (C4 - C12)	BTF1029-BLK1	ND	mg/kg	1.0		
a,a,a-Trifluorotoluene (FID Surrogate)	BTF1029-BLK1	88.5	%	70 - 130 (LCL - UCL)		



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

Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: BTF0895										
Gasoline Range Organics (C4 - C12)	BTF0895-BS1	LCS	1021.3	1000.0	ug/L	102		85 - 115		
a,a,a-Trifluorotoluene (FID Surrogate)	BTF0895-BS1	LCS	34.730	40.000	ug/L	86.8		70 - 130		
QC Batch ID: BTF1029										
Gasoline Range Organics (C4 - C12)	BTF1029-BS1	LCS	4.9698	5.0000	mg/kg	99.4		85 - 115		
a,a,a-Trifluorotoluene (FID Surrogate)	BTF1029-BS1	LCS	0.037200	0.040000	mg/kg	93.0		70 - 130		



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

Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
QC Batch ID: BTF0895		Used client sample: N								
Gasoline Range Organics (C4 - C12)	MS	1005654-95	ND	1068.4	1000.0	ug/L		107		70 - 130
	MSD	1005654-95	ND	1026.8	1000.0	ug/L	4.0	103	20	70 - 130
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1005654-95	ND	34.899	40.000	ug/L		87.2		70 - 130
	MSD	1005654-95	ND	34.732	40.000	ug/L		86.8		70 - 130
QC Batch ID: BTF1029		Used client sample: N								
Gasoline Range Organics (C4 - C12)	MS	1007897-09	ND	5.0340	5.0000	mg/kg		101		70 - 130
	MSD	1007897-09	ND	4.9391	5.0000	mg/kg	1.9	98.8	20	70 - 130
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1007897-09	ND	0.037400	0.040000	mg/kg		93.5		70 - 130
	MSD	1007897-09	ND	0.037400	0.040000	mg/kg		93.5		70 - 130



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

Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTF1197						
Diesel Range Organics (C12 - C24)	BTF1197-BLK1	ND	ug/L	50		
Tetracosane (Surrogate)	BTF1197-BLK1	80.7	%	28 - 139 (LCL - UCL)		
QC Batch ID: BTF1337						
Diesel Range Organics (C12 - C24)	BTF1337-BLK1	ND	mg/kg	2.0		
Tetracosane (Surrogate)	BTF1337-BLK1	92.6	%	34 - 136 (LCL - UCL)		



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

Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: BTF1197										
Diesel Range Organics (C12 - C24)	BTF1197-BS1	LCS	315.76	500.00	ug/L	63.2		48 - 125		
Tetracosane (Surrogate)	BTF1197-BS1	LCS	15.800	20.000	ug/L	79.0		28 - 139		
QC Batch ID: BTF1337										
Diesel Range Organics (C12 - C24)	BTF1337-BS1	LCS	13.329	16.667	mg/kg	80.0		50 - 136		
Tetracosane (Surrogate)	BTF1337-BS1	LCS	0.65740	0.66667	mg/kg	98.6		34 - 136		



Delta Environmental Consultants, Inc.
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Rancho Cordova, CA 95670

Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: BTF1197		Used client sample: N								
Diesel Range Organics (C12 - C24)	MS	1007897-30	ND	382.98	500.00	ug/L		76.6		36 - 130
	MSD	1007897-30	ND	345.21	500.00	ug/L	10.4	69.0	30	36 - 130
Tetracosane (Surrogate)	MS	1007897-30	ND	17.230	20.000	ug/L		86.2		28 - 139
	MSD	1007897-30	ND	15.945	20.000	ug/L		79.7		28 - 139
QC Batch ID: BTF1337		Used client sample: Y - Description: MW-4@5, 06/04/2010 12:28								
Diesel Range Organics (C12 - C24)	MS	1007798-01	0.99472	8.0941	16.667	mg/kg		42.6		40 - 137
	MSD	1007798-01	0.99472	9.9253	16.667	mg/kg	22.8	53.6	30	40 - 137
Tetracosane (Surrogate)	MS	1007798-01	ND	0.57487	0.66667	mg/kg		86.2		34 - 136
	MSD	1007798-01	ND	0.57533	0.66667	mg/kg		86.3		34 - 136



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

Reported: 06/25/2010 14:31
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

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
- A10 PQL's and MDL's were raised due to matrix interference.
- A91 TPH does not exhibit a "gasoline" pattern. TPH is entirely due to MTBE.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.
- S05 The sample holding time was exceeded.
- S09 The surrogate recovery on the sample for this compound was not within the control limits.
- Z1 Combined two VOAs for a complete sample.
- Z1a Sample plugged at 5.0g



Date of Report: 06/30/2010

Jan Wagoner

Delta Environmental Consultants, Inc.

11050 White Rock Rd, Suite 110

Rancho Cordova, CA 95670

RE: 5781

BC Work Order: 1008803

Invoice ID: B082751

Enclosed are the results of analyses for samples received by the laboratory on 6/25/2010. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



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Environmental Testing Laboratory Since 1949

Chain of Custody and Cooler Receipt Form for 1008803 Page 1 of 4

ConocoPhillips Chain Of Custody Record

BC Laboratories, Inc.

4100 Atlas Court
Bakersfield, CA 93308
(661) 327-4911 (661) 327-1918 fax

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

ConocoPhillips SAP Project Number
4513503991
 ConocoPhillips Regulation / Line Number
00001011210-00005

DATE: **062410**
 PAGE: **1 of 1**

SAMPLING COMPANY: Delta Consultants		Valm Value ID:	CONOCOPHILLIPS SITE NUMBER SSW 5781	GLOBAL ID NO.: T0600101467
ADDRESS: 11050 White Rock Road #110, Rancho Cordova, CA 95670			SITE ADDRESS (street and city): 3535 Pierson Street, Oakland, CA	CONOCOPHILLIPS SITE MANAGER: Terry Grayson
PROJECT CONTACT (Hardcopy or PDF Report to): Jan Wagoner			EDF DELIVERABLE TO (RF or Designator): Jan Wagoner (Delta)	PHONE NO.: 916-503-1276
TELEPHONE: (916) 503-1275	FAX: (916) 638-8385	E-MAIL: hwagoner@deltaenv.com		E-MAIL: hwagoner@deltaenv.com
SAMPLER NAME(S) (Print): Jody Demelle-Rice	CONSULTANT PROJECT NUMBER: C105781051			L&S USE ONLY W08803

TURNAROUND TIME (CALENDAR DAYS): <input type="checkbox"/> 24 DAYS <input type="checkbox"/> 7 DAYS <input checked="" type="checkbox"/> 72 HOURS <input type="checkbox"/> 48 HOURS <input type="checkbox"/> 24 HOURS <input type="checkbox"/> LESS THAN 24 HOURS		REQUESTED ANALYSES <table border="1"> <tr> <td>8015M - TPHg</td> <td>0200B - BTEX, 8 Oxyg</td> <td>8015 - Methanol</td> <td>8016 - TPHd</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>				8015M - TPHg	0200B - BTEX, 8 Oxyg	8015 - Methanol	8016 - TPHd						
8015M - TPHg	0200B - BTEX, 8 Oxyg					8015 - Methanol	8016 - TPHd								
SPECIAL INSTRUCTIONS OR NOTES: H2O 8260B BTEX/Oxys - VOAs with blue caps H2O 8260B Methanol - VOAs with gray caps * Field Point name only required if different from Sample ID		FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes TEMPERATURE ON RECEIPT °C													

LAB USE ONLY	Sample Identification/Field Point Name*	SAMPLING		MATRIX	NO. OF CONT.	8015M - TPHg	0200B - BTEX, 8 Oxyg	8015 - Methanol	8016 - TPHd	TEMPERATURE ON RECEIPT °C
		DATE	TIME							
	MW-6	062410	1145	H2O	10	X	X	X	X	3 unreserved VOAs, 6 preserved VOAs & 1 unreserved 1L Amber



Released by (Signature): <i>[Signature]</i>	Received by (Signature): <i>Ross Dickes</i>	Date: 6/25/10	Time: 1220
Released by (Signature): <i>Ross Dickes</i>	Received by (Signature): <i>[Signature]</i>	Date: 6-25-10	Time: 1735
Released by (Signature): <i>R. Grayson</i>	Received by (Signature): <i>[Signature]</i>	Date: 6/25/10	Time: 2050

91003 Revision

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation. 4100 Atlas Court Bakersfield, CA 93308 (661) 327-4911 FAX (661) 327-1918 www.bclabs.com Page 3 of 24



Rev. No. 12 06/24/08 Page 1 of 1

SAMPLE RECEIPT FORM

LABORATORIES INC.
 Mission #: 1008803

SHIPPING INFORMATION
 Rail Express UPS Hand Delivery
 Lab Field Service Other (Specify) _____

SHIPPING CONTAINER
 Ice Chest
 Box None
 Other (Specify) _____

Refrigerant: Ice Blue Ice None Other Comments: _____
Study Seals: Ice Chest Containers None Comments: _____
 Intact? Yes No Intact? Yes No

samples received? Yes No All samples containers intact? Yes No

COC Received
 YES NO

Emissivity: 0.98 Container: PIPE Thermometer ID: EFT
 Temperature: A 3.7 °C / C 3.8 °C Description(s) match COC? Yes No
 Date/Time 10-25-10 Analyst Init JWW

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										
3rd. NITRATE /NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 413.1, 413.2, 418.1										
PT OBOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 500										
QT EPA 508/608/8090										
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										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERRUS IRON										
ENCORE										

Comments: _____ Date/Time: 10/25/10 2:30
 Sample Numbering Completed By: JWW
 * - * - * C = Corrected

J:\DOCS\WP20\LAB_DOC\FORMS\CHREC12\FD1



[Handwritten signature]

Golder Associates CHAIN OF CUSTODY

Page 1 of 1

Quotation No. _____



1008802

PROJECT NO.: 053-7444-10 SITE NAME: Recycling - Hwy R

SAMPLER(S): _____

CONTRACT LABORATORY: BC LABS Container Info: *BOD, S2G, TDS, Cl, SO4, Carb, Bicarb, NH4-N, TP, NH3-N, AS, CO, B*

TURN-AROUND TIME: 5 Standard NO2-N

EDD required?
 Yes No

EDF required?
 Yes No

Sample I.D.	Lab I.D.	Collection		Matrix	Depth	Type/Vol.	Filter	Preserv.	Cont. Qty.	Remarks
		Date	Time			WGA	PE	PE		
G-6	-1	6/25/10	810	Water	-	3	N	HCl	6	
SW-3	-2		1235	Water	-		N	None	1	NO2-N 48 hr hold time
SW-4	-3		1255		-		N	None	1	
SW-5	-4		1305		-		N	None	1	
SW-7	-5		1245		-		N	None	1	

CHK BY: *[Signature]*

DISTR. SYSTEM:

OVER NIGHT:

SUB OUT:

SHORT HOLDING TIME					
Cl ⁻	NO ₂	NO ₃	CP	SS	
DC	CB	BOD	MBAS	COT	

Requested by: *[Signature]* Received by: *[Signature]* Date/Time: 6/25/10 1327

Requested by: *[Signature]* Received by: *[Signature]* Date/Time: 6-25-10 1735

Requested by: *[Signature]* Received by: *[Signature]* Date/Time: 6/25/10 2040

SEND RESULTS TO: *[Signature]*
Attn: *[Signature]*
Golder Associates Inc.
425 Lakeside Drive
Sunnyvale, CA 94085
Phone (408) 220-9223
Fax (408) 220-9224

pink: lab copy yellow: project file 20.50



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

Submission #: 1008802

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 Containers None Comments: _____
 Intact? Yes No Intact? Yes No

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

COC Received
 YES NO

Emissivity: 0.98 Container: pipe Thermometer ID: 177 Date/Time: 6-25-10
 Temperature: A 4.1 °C / C 4.2 °C Analyst Init: JWW

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/GENERAL PHYSICAL										
PT PE UNPRESERVED	B	A	A	A	A					
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS	C									
PT CYANIDE										
PT NITROGEN FORMS	D									
PT TOTAL SULFIDE										
2or. NITRATE /NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PhA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A B									
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/608B										
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										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments: _____
 Sample Numbering Completed By: JWW Date/Time: 6/25/10 2:26
 A = Actual / C = Corrected

(H:\DOCS\WP9\LAB_DOCS\FORMS\ISAMREC2.WPD)



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

Reported: 06/30/2010 14:16
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1008803-01

COC Number: ---
Project Number: 5781
Sampling Location: ---
Sampling Point: MW-4
Sampled By: DECR

Receive Date: 06/25/2010 20:50
Sampling Date: 06/24/2010 11:45
Sample Depth: ---
Sample Matrix: Water
Delivery Work Order:
Global ID: T0600101467
Location ID (FieldPoint): MW-4
Matrix: W
Sample QC Type (SACode): CS
Cooler ID:



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

Reported: 06/30/2010 14:16
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

BCL Sample ID: 1008803-01	Client Sample Name: 5781, MW-4, 6/24/2010 11:45:00AM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methanol	ND	ug/L	100	EPA-8015B	ND		1
2-Chloroacrylonitrile (Surrogate)	114	%	60 - 140 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/28/10	06/29/10 12:37	MWB	GC-12	1	BTF2025



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

Reported: 06/30/2010 14:16
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1008803-01	Client Sample Name: 5781, MW-4, 6/24/2010 11:45:00AM
----------------------------------	---

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	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	4.7	ug/L	0.50	EPA-8260	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	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
1,2-Dichloroethane-d4 (Surrogate)	104	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	101	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	96.9	%	86 - 115 (LCL - UCL)	EPA-8260			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/28/10	06/28/10 11:44	KEA	MS-V12	1	BTF1896



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

Reported: 06/30/2010 14:16
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1008803-01	Client Sample Name: 5781, MW-4, 6/24/2010 11:45:00AM						
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	ND	ug/L	50	Luft	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)	86.6	%	70 - 130 (LCL - UCL)	Luft			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft	06/25/10	06/28/10 12:06	jjh	GC-V4	1	BTF1862

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

Reported: 06/30/2010 14:16
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

BCL Sample ID: 1008803-01	Client Sample Name: 5781, MW-4, 6/24/2010 11:45:00AM
----------------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	ND	ug/L	50	Luft/TPHd	ND		1
Tetracosane (Surrogate)	84.3	%	28 - 139 (LCL - UCL)	Luft/TPHd			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/28/10	06/29/10 09:30	MWB	GC-5	0.969	BTF1974



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

Reported: 06/30/2010 14:16
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTF2025						
Methanol	BTF2025-BLK1	ND	ug/L	100		
2-Chloroacrylonitrile (Surrogate)	BTF2025-BLK1	107	%	60 - 140 (LCL - UCL)		



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Rancho Cordova, CA 95670

Reported: 06/30/2010 14:16
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: BTF2025										
Methanol	BTF2025-BS1	LCS	1733.0	2000.0	ug/L	86.6		50 - 150		
2-Chloroacrylonitrile (Surrogate)	BTF2025-BS1	LCS	4339.0	4000.0	ug/L	108		60 - 140		



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Reported: 06/30/2010 14:16
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
QC Batch ID: BTF2025		Used client sample: N								
Methanol	MS	1007897-40	ND	1571.0	2000.0	ug/L		78.6		50 - 150
	MSD	1007897-40	ND	1742.0	2000.0	ug/L	10.3	87.1	30	50 - 150
2-Chloroacrylonitrile (Surrogate)	MS	1007897-40	ND	4360.0	4000.0	ug/L		109		60 - 140
	MSD	1007897-40	ND	4226.0	4000.0	ug/L		106		60 - 140



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Rancho Cordova, CA 95670

Reported: 06/30/2010 14:16
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

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: BTF1896						
Benzene	BTF1896-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BTF1896-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BTF1896-BLK1	ND	ug/L	0.50		
Ethylbenzene	BTF1896-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BTF1896-BLK1	ND	ug/L	0.50		
Toluene	BTF1896-BLK1	ND	ug/L	0.50		
Total Xylenes	BTF1896-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BTF1896-BLK1	ND	ug/L	0.50		
t-Butyl alcohol	BTF1896-BLK1	ND	ug/L	10		
Diisopropyl ether	BTF1896-BLK1	ND	ug/L	0.50		
Ethanol	BTF1896-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BTF1896-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane-d4 (Surrogate)	BTF1896-BLK1	102	%	76 - 114 (LCL - UCL)		
Toluene-d8 (Surrogate)	BTF1896-BLK1	99.8	%	88 - 110 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BTF1896-BLK1	98.8	%	86 - 115 (LCL - UCL)		



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Project: 5781
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Project Manager: Jan Wagoner

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		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: BTF1896										
Benzene	BTF1896-BS1	LCS	25.600	25.000	ug/L	102		70 - 130		
Toluene	BTF1896-BS1	LCS	26.730	25.000	ug/L	107		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BTF1896-BS1	LCS	10.340	10.000	ug/L	103		76 - 114		
Toluene-d8 (Surrogate)	BTF1896-BS1	LCS	9.9900	10.000	ug/L	99.9		88 - 110		
4-Bromofluorobenzene (Surrogate)	BTF1896-BS1	LCS	10.240	10.000	ug/L	102		86 - 115		



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Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: BTF1896		Used client sample: N								
Benzene	MS	1008762-01	ND	26.070	25.000	ug/L		104		70 - 130
	MSD	1008762-01	ND	26.260	25.000	ug/L	0.7	105	20	70 - 130
Toluene	MS	1008762-01	ND	27.150	25.000	ug/L		109		70 - 130
	MSD	1008762-01	ND	25.890	25.000	ug/L	4.8	104	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1008762-01	ND	10.240	10.000	ug/L		102		76 - 114
	MSD	1008762-01	ND	10.260	10.000	ug/L		103		76 - 114
Toluene-d8 (Surrogate)	MS	1008762-01	ND	9.8100	10.000	ug/L		98.1		88 - 110
	MSD	1008762-01	ND	9.7200	10.000	ug/L		97.2		88 - 110
4-Bromofluorobenzene (Surrogate)	MS	1008762-01	ND	10.190	10.000	ug/L		102		86 - 115
	MSD	1008762-01	ND	10.210	10.000	ug/L		102		86 - 115



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Reported: 06/30/2010 14:16
Project: 5781
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Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTF1862						
Gasoline Range Organics (C4 - C12)	BTF1862-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	BTF1862-BLK1	87.3	%	70 - 130 (LCL - UCL)		



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Reported: 06/30/2010 14:16
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: BTF1862										
Gasoline Range Organics (C4 - C12)	BTF1862-BS1	LCS	1048.1	1000.0	ug/L	105		85 - 115		
a,a,a-Trifluorotoluene (FID Surrogate)	BTF1862-BS1	LCS	37.220	40.000	ug/L	93.0		70 - 130		



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Reported: 06/30/2010 14:16
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
QC Batch ID: BTF1862		Used client sample: N								
Gasoline Range Organics (C4 - C12)	MS	1007897-40	ND	1059.8	1000.0	ug/L		106		70 - 130
	MSD	1007897-40	ND	1028.8	1000.0	ug/L	3.0	103	20	70 - 130
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1007897-40	ND	37.584	40.000	ug/L		94.0		70 - 130
	MSD	1007897-40	ND	37.297	40.000	ug/L		93.2		70 - 130



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Reported: 06/30/2010 14:16
Project: 5781
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Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTF1974						
Diesel Range Organics (C12 - C24)	BTF1974-BLK1	ND	ug/L	50		
Tetracosane (Surrogate)	BTF1974-BLK1	85.6	%	28 - 139 (LCL - UCL)		



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Reported: 06/30/2010 14:16
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: BTF1974										
Diesel Range Organics (C12 - C24)	BTF1974-BS1	LCS	364.47	500.00	ug/L	72.9		48 - 125		
Tetracosane (Surrogate)	BTF1974-BS1	LCS	17.110	20.000	ug/L	85.6		28 - 139		



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Reported: 06/30/2010 14:16
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
QC Batch ID: BTF1974		Used client sample: N								
Diesel Range Organics (C12 - C24)	MS	1007897-40	ND	316.98	500.00	ug/L		63.4		36 - 130
	MSD	1007897-40	ND	396.84	500.00	ug/L	22.4	79.4	30	36 - 130
Tetracosane (Surrogate)	MS	1007897-40	ND	14.573	20.000	ug/L		72.9		28 - 139
	MSD	1007897-40	ND	17.504	20.000	ug/L		87.5		28 - 139



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Reported: 06/30/2010 14:16
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

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



Date of Report: 06/25/2010

Jan Wagoner

Delta Environmental Consultants, Inc.

11050 White Rock Rd, Suite 110

Rancho Cordova, CA 95670

RE: 5781

BC Work Order: 1008215

Invoice ID: B082502

Enclosed are the results of analyses for samples received by the laboratory on 6/14/2010. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



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Total Petroleum Hydrocarbons

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Environmental Testing Laboratory Since 1949

[Handwritten signature]

ConocoPhillips Chain Of Custody Record

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

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

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

SAMPLING COMPANY: Delta Consultants		Valid Value ID: #1008215	CONOCOPHILLIPS SITE NUMBER SS# 5761	GLOBAL ID NO.:
ADDRESS: 11050 White Rock Road #110, Rancho Cordova, CA 95670		SITE ADDRESS (Street and City): 900 Highway 1, Bodega Bay, CA		CONOCOPHILLIPS SITE MANAGER: Terry Grayson
PROJECT CONTACT (Hardcopy or PDF Report to): Jan Wagoner		EDF DELIVERABLE TO (SP or Design): Jan Wagoner (Delta)		PHONE NO.: 916-503-1275
TELEPHONE: (916) 503-1275	FAX: (916) 638-8385	E-MAIL: lwagoner@deltalab.com		E-MAIL: lwagoner@deltalab.com
SAMPLER NAME(S) (Print): Caitlin Morgan		CONSULTANT PROJECT NUMBER: C105697201		LAB USE ONLY 10-08215

REQUESTED ANALYSES

TURNDOWN TIME (CALENDAR DAYS): <input type="checkbox"/> 14 DAYS <input type="checkbox"/> 7 DAYS <input type="checkbox"/> 72 HOURS <input type="checkbox"/> 48 HOURS <input type="checkbox"/> 24 HOURS <input type="checkbox"/> LESS THAN 24 HOURS					FIELD NOTES: Container Preservative or PID Readings or Laboratory Notes TEMPERATURE ON RECEIPT °C Various Preservatives Not Field Filtered Various Preservatives Not Field Filtered Various Preservatives Not Field Filtered Various Preservatives Not Field Filtered Various Preservatives Not Field Filtered Various Preservatives Not Field Filtered Various Preservatives Not Field Filtered							
**8 Day turn around time												
SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDO IS NEEDED <input checked="" type="checkbox"/>												
H2O 8260B BTEX/Oxys - VOAs with blue caps H2O 8260B Methanol - VOAs with gray caps * Field Point name only required if different from Sample ID					8015M - TPHg, TPHg 8260B - BTEX, 8 Oxys 8260B - Methanol 8015 5/16/10							
LAB USE ONLY	Sample Identification/Field Point Name*		SAMPLING		MATRIX	NO. OF CONT.	8015M - TPHg, TPHg	8260B - BTEX, 8 Oxys	8260B - Methanol	8015	5/16/10	TEMPERATURE ON RECEIPT °C
	DATE	TIME	DATE	TIME								
	-1	Camp B	6/14/10	10:30a	H2O	10	X	X	X			Various Preservatives Not Field Filtered

CHK BY: *[Signature]*
DISTRIBUTION
SUB-OUT

Released by (Signature): <i>[Signature]</i>	Received by (Signature): <i>[Signature]</i>	Date: 6/14/10	Time: 1120
Released by (Signature): <i>[Signature]</i>	Received by (Signature): <i>[Signature]</i>	Date: 6-14-10	Time: 1823
Released by (Signature): <i>[Signature]</i>	Received by (Signature): <i>[Signature]</i>	Date: 6-14-10	Time: 2115

91900 Revisor

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



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

Submission #: 1008215

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

SHIPPING CONTAINER: Ice Chest Box None Other (Specify) _____

Refrigerant: Ice Blue Ice None Other Comments: _____

Custody Seals: Ice Chest Containers None Comments: _____

Intact? Yes No Intact? Yes No

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: (VIA) Thermometer ID: #177 Date/Time: 6/14/10 2115

Temperature: A 5.3 °C / C 5.3 °C Analyst Init: [Signature]

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										
PT PHENOLICS										
40ml VOA VIAL TRAVEL BLANK	B (3)									
40ml VOA VIAL	A 10									
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 505/603/800										
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	C									
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										

Comments: _____
 Sample Numbering Completed By: CV Date/Time: 6-15-10 10:33
 A = Actual / C = Corrected
 [H:\DOCS\WP80\LAB_DOCS\FORMS\SARREC2.WPD]



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

Reported: 06/25/2010 14:33
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1008215-01	COC Number: ---	Receive Date: 06/14/2010 21:15
	Project Number: 5781	Sampling Date: 06/09/2010 10:30
	Sampling Location: ---	Sample Depth: ---
	Sampling Point: COMP B	Sample Matrix: Water
	Sampled By: DECR	Delivery Work Order:
		Global ID:
		Location ID (FieldPoint): COMP B
		Matrix: W
	Sample QC Type (SACode): CS	
	Cooler ID:	



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

Reported: 06/25/2010 14:33
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Solvent Scan (EPA Method 8015)

BCL Sample ID: 1008215-01	Client Sample Name: 5781, COMP B, 6/9/2010 10:30:00AM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Methanol	ND	ug/L	100	EPA-8015B	ND		1
2-Chloroacrylonitrile (Surrogate)	92.1	%	60 - 140 (LCL - UCL)	EPA-8015B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B	06/22/10	06/23/10 12:49	CKD	GC-12	1	BTF1791



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

Reported: 06/25/2010 14:33
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1008215-01	Client Sample Name: 5781, COMP B, 6/9/2010 10:30:00AM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene	340	ug/L	2.5	EPA-8260	ND	A01	1
1,2-Dibromoethane	ND	ug/L	2.5	EPA-8260	ND	A01	1
1,2-Dichloroethane	ND	ug/L	2.5	EPA-8260	ND	A01	1
Ethylbenzene	490	ug/L	25	EPA-8260	ND	A01	2
Methyl t-butyl ether	17	ug/L	2.5	EPA-8260	ND	A01	1
Toluene	2700	ug/L	50	EPA-8260	ND	A01	3
Total Xylenes	5200	ug/L	50	EPA-8260	ND	A01	2
t-Amyl Methyl ether	ND	ug/L	2.5	EPA-8260	ND	A01	1
t-Butyl alcohol	ND	ug/L	50	EPA-8260	ND	A01	1
Diisopropyl ether	ND	ug/L	2.5	EPA-8260	ND	A01	1
Ethanol	100000	ug/L	1200	EPA-8260	ND	A01	1
Ethyl t-butyl ether	ND	ug/L	2.5	EPA-8260	ND	A01	1
1,2-Dichloroethane-d4 (Surrogate)	102	%	76 - 114 (LCL - UCL)	EPA-8260			1
1,2-Dichloroethane-d4 (Surrogate)	103	%	76 - 114 (LCL - UCL)	EPA-8260			2
1,2-Dichloroethane-d4 (Surrogate)	98.8	%	76 - 114 (LCL - UCL)	EPA-8260			3
Toluene-d8 (Surrogate)	100	%	88 - 110 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	102	%	88 - 110 (LCL - UCL)	EPA-8260			2
Toluene-d8 (Surrogate)	103	%	88 - 110 (LCL - UCL)	EPA-8260			3
4-Bromofluorobenzene (Surrogate)	174	%	86 - 115 (LCL - UCL)	EPA-8260		S09	1
4-Bromofluorobenzene (Surrogate)	100	%	86 - 115 (LCL - UCL)	EPA-8260			2
4-Bromofluorobenzene (Surrogate)	100	%	86 - 115 (LCL - UCL)	EPA-8260			3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260	06/16/10	06/18/10 00:45	KEA	MS-V12	5	BTF1018
2	EPA-8260	06/16/10	06/18/10 16:13	KEA	MS-V12	50	BTF1018
3	EPA-8260	06/16/10	06/22/10 19:38	KEA	MS-V12	100	BTF1018

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Delta Environmental Consultants, Inc.
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Rancho Cordova, CA 95670

Reported: 06/25/2010 14:33
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID: 1008215-01	Client Sample Name: 5781, COMP B, 6/9/2010 10:30:00AM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organics (C4 - C12)	17000	ug/L	2500	Luft	ND	A01	1
a,a,a-Trifluorotoluene (FID Surrogate)	83.5	%	70 - 130 (LCL - UCL)	Luft			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft	06/14/10	06/16/10 16:43	jjh	GC-V4	50	BTF0895

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Reported: 06/25/2010 14:33
Project: 5781
Project Number: 4513503991
Project Manager: Jan Wagoner

Total Petroleum Hydrocarbons

BCL Sample ID: 1008215-01	Client Sample Name: 5781, COMP B, 6/9/2010 10:30:00AM
----------------------------------	--

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organics (C12 - C24)	1200	ug/L	250	Luft/TPHd	ND		1
Tetracosane (Surrogate)	84.9	%	28 - 139 (LCL - UCL)	Luft/TPHd		V11	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	Luft/TPHd	06/16/10	06/22/10 20:03	MWB	GC-5	5	BTF1338



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Reported: 06/25/2010 14:33
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Solvent Scan (EPA Method 8015)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTF1791						
Methanol	BTF1791-BLK1	ND	ug/L	100		
2-Chloroacrylonitrile (Surrogate)	BTF1791-BLK1	60.9	%	60 - 140 (LCL - UCL)		



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Solvent Scan (EPA Method 8015)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: BTF1791										
Methanol	BTF1791-BS1	LCS	2762.0	2000.0	ug/L	138		50 - 150		
2-Chloroacrylonitrile (Surrogate)	BTF1791-BS1	LCS	1551.0	4000.0	ug/L	38.8		60 - 140		V11



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Solvent Scan (EPA Method 8015)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
QC Batch ID: BTF1791		Used client sample: N								
Methanol	MS	1007897-33	ND	2291.0	2000.0	ug/L		115		50 - 150
	MSD	1007897-33	ND	2869.0	2000.0	ug/L	22.4	143	30	50 - 150
2-Chloroacrylonitrile (Surrogate)	MS	1007897-33	ND	2819.0	4000.0	ug/L		70.5		60 - 140
	MSD	1007897-33	ND	2038.0	4000.0	ug/L		51.0		60 - 140 V11



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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: BTF1018						
Benzene	BTF1018-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BTF1018-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BTF1018-BLK1	ND	ug/L	0.50		
Ethylbenzene	BTF1018-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BTF1018-BLK1	ND	ug/L	0.50		
Toluene	BTF1018-BLK1	ND	ug/L	0.50		
Total Xylenes	BTF1018-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BTF1018-BLK1	ND	ug/L	0.50		
t-Butyl alcohol	BTF1018-BLK1	ND	ug/L	10		
Diisopropyl ether	BTF1018-BLK1	ND	ug/L	0.50		
Ethanol	BTF1018-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BTF1018-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane-d4 (Surrogate)	BTF1018-BLK1	101	%		76 - 114 (LCL - UCL)	
Toluene-d8 (Surrogate)	BTF1018-BLK1	100	%		88 - 110 (LCL - UCL)	
4-Bromofluorobenzene (Surrogate)	BTF1018-BLK1	94.5	%		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		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: BTF1018										
Benzene	BTF1018-BS1	LCS	26.030	25.000	ug/L	104		70 - 130		
Toluene	BTF1018-BS1	LCS	27.490	25.000	ug/L	110		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BTF1018-BS1	LCS	9.9700	10.000	ug/L	99.7		76 - 114		
Toluene-d8 (Surrogate)	BTF1018-BS1	LCS	9.9400	10.000	ug/L	99.4		88 - 110		
4-Bromofluorobenzene (Surrogate)	BTF1018-BS1	LCS	10.130	10.000	ug/L	101		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	Control Limits		Lab
								Percent Recovery	RPD	
QC Batch ID: BTF1018		Used client sample: N								
Benzene	MS	1007897-26	ND	27.370	25.000	ug/L		109		70 - 130
	MSD	1007897-26	ND	23.790	25.000	ug/L	14.0	95.2	20	70 - 130
Toluene	MS	1007897-26	ND	28.680	25.000	ug/L		115		70 - 130
	MSD	1007897-26	ND	25.010	25.000	ug/L	13.7	100	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1007897-26	ND	10.070	10.000	ug/L		101		76 - 114
	MSD	1007897-26	ND	9.8600	10.000	ug/L		98.6		76 - 114
Toluene-d8 (Surrogate)	MS	1007897-26	ND	10.150	10.000	ug/L		102		88 - 110
	MSD	1007897-26	ND	10.120	10.000	ug/L		101		88 - 110
4-Bromofluorobenzene (Surrogate)	MS	1007897-26	ND	10.170	10.000	ug/L		102		86 - 115
	MSD	1007897-26	ND	9.9400	10.000	ug/L		99.4		86 - 115

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



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Reported: 06/25/2010 14:33
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Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTF0895						
Gasoline Range Organics (C4 - C12)	BTF0895-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	BTF0895-BLK1	78.3	%	70 - 130 (LCL - UCL)		



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Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: BTF0895										
Gasoline Range Organics (C4 - C12)	BTF0895-BS1	LCS	1021.3	1000.0	ug/L	102		85 - 115		
a,a,a-Trifluorotoluene (FID Surrogate)	BTF0895-BS1	LCS	34.730	40.000	ug/L	86.8		70 - 130		



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Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
QC Batch ID: BTF0895		Used client sample: N								
Gasoline Range Organics (C4 - C12)	MS	1005654-95	ND	1068.4	1000.0	ug/L		107		70 - 130
	MSD	1005654-95	ND	1026.8	1000.0	ug/L	4.0	103	20	70 - 130
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1005654-95	ND	34.899	40.000	ug/L		87.2		70 - 130
	MSD	1005654-95	ND	34.732	40.000	ug/L		86.8		70 - 130



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Total Petroleum Hydrocarbons

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BTF1338						
Diesel Range Organics (C12 - C24)	BTF1338-BLK1	ND	ug/L	50		
Tetracosane (Surrogate)	BTF1338-BLK1	100	%	28 - 139 (LCL - UCL)		



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Total Petroleum Hydrocarbons

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: BTF1338										
Diesel Range Organics (C12 - C24)	BTF1338-BS1	LCS	406.28	500.00	ug/L	81.3		48 - 125		
Tetracosane (Surrogate)	BTF1338-BS1	LCS	21.892	20.000	ug/L	109		28 - 139		



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Total Petroleum Hydrocarbons

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
QC Batch ID: BTF1338		Used client sample: N								
Diesel Range Organics (C12 - C24)	MS	1005654-99	ND	394.99	500.00	ug/L		79.0		36 - 130
	MSD	1005654-99	ND	331.52	500.00	ug/L	17.5	66.3	30	36 - 130
Tetracosane (Surrogate)	MS	1005654-99	ND	20.718	20.000	ug/L		104		28 - 139
	MSD	1005654-99	ND	18.257	20.000	ug/L		91.3		28 - 139



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Notes And Definitions

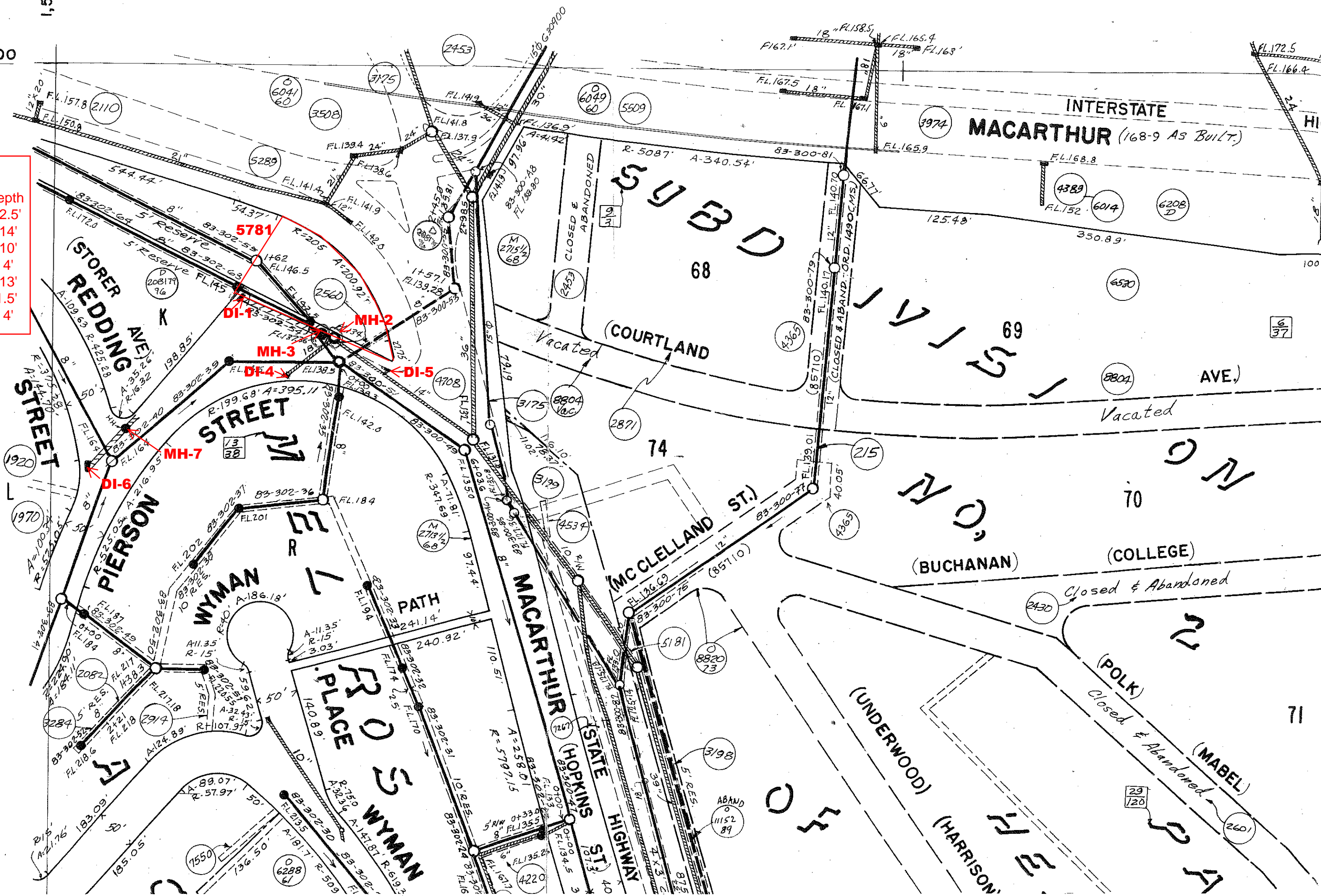
- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- RPD Relative Percent Difference
- A01 PQL's and MDL's are raised due to sample dilution.
- S09 The surrogate recovery on the sample for this compound was not within the control limits.
- V11 The Continuing Calibration Verification (CCV) recovery is not within established control limits.

APPENDIX H
City of Oakland Utility Maps

472,000

51

Manhole	Depth
1	2.5'
2	14'
3	10'
4	4'
5	13'
6	1.5'
7	4'



5781

DI-1

MH-2

MH-3

DI-4

DI-5

MH-7

DI-6

INTERSTATE MACARTHUR (168-9 AS BUILT.)

(STORER REDDING STREET)

PIERSON STREET

WYMAN PLACE

MACARTHUR HIGHWAY

MCCLELLAND ST.

STATE HIGHWAY

(BUCHANAN)

(COLLEGE)

(UNDERWOOD)

(HARRISON)

(POLK)

(MABEL)

(COURTLAND)

(NO. 70)

(COLLEGE)

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COUNCIL DISTRICT 4



SITE

COUNCIL DISTRICT 6

4760

3531

4770

4778

3527

3521

4786

4794

PIERSON ST

REDDING ST

4799

3520

3532

3544

3512

3554

3457

3470

3464

27

24

18

3456

21

14

3444

15

12

4989

3432

3454

3450

MACARTHUR BLVD

RICHARDS RD

WMANI PL

5007

STORM DRAINS & CREEKS

