PLATINUM ENERGY

November 8, 2010

Mr. Paresh C. Khatri
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Re: **Soil Vapor Sampling Report and Request for Case Closure**
76 Service Station Facility No. 2611270
3255 Mecartney Road
Alameda, California

Dear Mr. Khatri:

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 call Ms. Lia Holden at (408) 826-1863.

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Sincerely,
PLATINUM ENERGY

SHANE NOLAN
Customer Service Representative

November 8, 2010

Mr. Paresh C. Khatri
Hazardous Materials Specialist
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Subject: **Soil Vapor Sampling Report and Request for Case Closure**
76 Service Station No. 11270
3255 Mecartney Road
Alameda, California
Fuel Leak Case No. RO0000511

DELTA

Dear Mr. Khatri,

Delta Consultants (Delta) has prepared this *Soil Vapor Sampling Report and Request for Case Closure* for the site at 3255 Mecartney Road in Alameda, California (**Figure 1**). The report summarizes and evaluates historical site soil, groundwater, and soil vapor data, and presents details and results of a recent soil vapor sampling event. The report also evaluates the risk posed to potential receptors by residual petroleum hydrocarbons. Delta had originally submitted a *Request for Case Closure* on July 7th, 2010 to the Alameda County Environmental Health Department (ACEH). The following closure request and soil vapor report has been prepared in response to a letter from the ACEH dated July 22, 2010 (**Attachment A**), which requested an additional soil vapor sampling event prior to consideration for case closure.

SITE DESCRIPTION:

The site is an operational 76 service station located within a shopping center located on the northwest corner of the intersection of Mecartney Road and Island Drive in Alameda, California. The site is located in a mixed commercial and residential neighborhood (**Figure 1**).

Site features include three gasoline underground storage tanks (USTs), two fuel dispenser islands, and a station building with a service bay containing two hoists. The capacity of the three

fiberglass fuel USTs are 12,000-gallon, 10,000-gallon, and 6,000-gallons. Currently, there are two onsite (MW-5, MW-6) and four offsite active groundwater monitoring wells (MW-7, XW-1 through XW-3), and five onsite soil vapor monitoring wells (SV-1 through SV-5). Pertinent site features are shown on **Figure 2**.

BACKGROUND

Sampling and boring/well locations are shown on **Figure 3**.

May 1990 - During a routine dispenser modification, hydrocarbon contaminated soils were reported in samples P-1 and P-2 from a depth of 4.5 feet below ground surface (bgs). The dispenser area, including sample locations, was subsequently over-excavated to 4.5 feet bgs and confirmation soil samples SW1 through SW9 were collected at sample points shown on **Figure 3**. Total petroleum hydrocarbons as gasoline (TPH-G) and benzene were reported at maximum concentrations in sidewall samples SW1 and SW3 at concentrations of 2,000 milligrams per kilogram (mg/kg) and 18 mg/kg in SW1, and 860 mg/kg and 5 mg/kg in SW3, respectively at a depth of 8 feet bgs. SW3 could not be over-excavated to the southwest due to proximity to fuel USTs (KEI 1990). Additional excavation to 8.5 feet bgs was reported to have taken place to the south of SW-1, but it appears that additional excavation to the north of the sample was not conducted. Soil south of SW1 was excavated to 8.5 feet bgs, and soil to the north was excavated to 4.5 feet bgs, the same depth as SW1. Approximately 195 cubic yards of soil were excavated and disposed of at Class I and Class III facilities (KEI 1990). Historical soil analytical results are presented in **Attachment B**. Soil sample locations and excavation limits are shown on **Figure 3**.

August 1992 - A preliminary site assessment was conducted at the site including the sampling of two pre-existing Mobil groundwater monitoring wells MW-2 and MW-4 (**Figure 3**). Groundwater flow direction was reportedly to the west. Groundwater samples could not be collected from monitoring wells MW-1 and MW-3 due to insufficient recharge. Product sheen was observed in the purge water from all of the monitoring wells. TPH-G, benzene and total petroleum hydrocarbons as diesel (TPH-D) were reported at maximum concentrations of 2,600 micrograms per liter (µg/l) and 250 µg/l in MW-4 and 3,900 µg/l in MW-2 (Hydro 1993). Locations of monitoring wells are shown on **Figures 2 and 3**, historic groundwater data and elevation is presented in **Attachment C**.

May 4, 1993 – In a correspondence letter from the BP Oil Company, the recent installation of three monitoring wells (XW-1 through XW-3) surrounding the site on Harbor Bay Landing shopping center property was acknowledged. No information to the wells installation,

ownership or purpose was known. The wells were included into the site's quarterly monitoring program in June of 1993 (BP 1993). Well locations are shown on **Figures 2** and **3**.

June 1993 - One 4-inch diameter groundwater monitoring well, MW-5, was installed in the western corner of the property to a depth of 15 feet bgs (**Figure 2, 3**). TPH-D was reported at a concentration of 11,000 mg/kg at a depth of five feet bgs (Hydro 1995). Borings logs are presented as **Attachment D**. The first groundwater sample collected from the well was reported to only contain TPH-D above the laboratory reporting limit (LRL), at a concentration of 100 ppb.

October 1994 - Two exploratory borings (TB-1 and TB-2) were advanced to a depth of 11.5 feet bgs (**Figure 3**) as part of a baseline property assessment. No analytes were reported above their respective laboratory reporting limits (LRLs) in any soil samples. Groundwater samples collected from borings, TB-1 and TB-2, contained 1,500 µg/l and 310 µg/l TPH-G, respectively. Historical soil and groundwater analytical results from the soil borings are summarized in **Attachment B**.

January 1995 - Monitoring wells, MW-1 through MW-4, were destroyed. EMCON stated that these wells appeared to be used as tank basin observation wells (EMCON 1994). Historic documentation does not explicitly state the reason for the destruction of MW-1 through MW-4; however, it is presumed that the wells were destroyed due to poor groundwater recharge in these wells and because of their unknown construction details. It was noted by Hydro Environmental Technologies, Inc. that "neither well seals nor bottom well plugs were observed in any of the four wells at the time of destruction."

During the same phase of work, one 4-inch diameter monitoring well, MW-6, was installed on-site and one 2-inch diameter monitoring well, MW-7, was installed approximately five feet to the northwest of the site (**Figures 2 and 3**). Monitoring well MW-6 was constructed to a depth of 15 feet bgs and MW-7 was constructed to a depth of 16.5 feet bgs. TPH-D, TPH-G, ethylbenzene, xylenes and toluene were reported in the soil sample from MW-6 at a depth of 5 feet bgs at concentrations of 480mg/kg, 89mg/kg, 0.63 mg/kg, 4.8 mg/kg and 0.21 mg/kg, respectively. In a soil sample from MW-7 from a depth of five feet, TPH-D was reported at a concentration of 110 mg/kg. Groundwater was encountered in the monitoring wells at depths ranging from 5 to 7.5 feet bgs (Hydro 1995). Borings logs are presented as **Attachment D**. Soil sample data is included in **Attachment B**.

November 1996 - The oil/water separator located in the floor of the vehicle service bay on the west side of the service station building was removed. Two soil samples (OWS-1, 0.5' and OWS-1, 2') were collected from beneath the former oil/water separator (**Figure 3**). Total recoverable petroleum hydrocarbons (TRPH) were present in the both soil samples with a maximum concentration of 49 mg/kg. All other analytes were below LRLs (EMCON 1998). Soil analytical data is included in **Attachment B**. Details regarding the sampling event were obtained through EMCON's Baseline Assessment Report dated July 28, 1998.

August 1997 - Samples of pea gravel base material (S-1, through S-4) were collected from below each fuel dispenser. Only toluene and xylenes were reported above the LRLs in the samples. The original report for the sampling could not be located. Details regarding the sampling event were obtained through URS's Case Closure Summary dated October 27, 2004. Soil analytical data is included in **Attachment B**.

July 9, 1998 - One 1,000-gallon single-walled fiberglass used-oil UST was removed from the site. The UST was noted to be intact with no visible holes or cracks. One native soil sample (S-6-T1E) was collected from the eastern sidewall of the UST cavity at a depth of approximately 7 feet bgs (**Figure 3**). No analytes were detected above the LRL in the soil sample (ERI 1998). Soil analytical data is included in **Attachment B**.

August 2000 - Site fuel dispensers and product lines were removed and replaced. A total of four pea gravel samples (PD-1-2', PD-2-1.5', PD-3-1.5', and PD-4-1.5') were collected from beneath each of the four fuel dispensers, and four pea gravel samples (PL-3-1.5', PL-4-1.5', PL-6-1.5', and PL-7-1.5') were collected from beneath the product lines. Three pea gravel samples were also collected at each of the ends of the fuel USTs (F-1-4', F-2-4', and F-5-3'). No analytes were reported above LRLs in any of the samples submitted for laboratory analysis (SECOR 2000). Historical soil analytical results are summarized in **Attachment B.** Soil sample locations are shown on **Figure 3**.

October 31, 2001: The Alameda County Environmental Health (ACEH) Department issued a letter of intent to make a determination that no further action (NFA) would be required, or to issue a closure letter for the site's environmental case (ACEH 2001). In a letter dated November 7, 2001, BP Oil notified the ACEH that monitoring and sampling of the site's monitoring wells would cease pending case closure/ the issue of an NFA (BP 2001).

October 21, 2004: URS submitted a Case Closure Summary (URS 2004).

August 21, 2008: The ACEH denied URS case closure. The ACEH stated that it was unclear whether sample SW1 was over-excavated. The sample was collected from a depth of 4.5

feet bgs, and appeared to be a sidewall sample for the 8 foot deep excavation to the south. The ACEH then stated that concentrations reported in SW1 would require additional investigation (ACEH 2008).

February 2009: Broadbent & Associates, Inc (BAI) attempted to advance soil boring B-4 to assess the presence of residual petroleum hydrocarbon-impacted soil onsite in the vicinity of the UST complex and the pump islands. Field activities were stopped in accordance with BP's safety protocol after encountering. According to the manager who has operated the facility for 24 years, during original construction, a large area of the subsurface soil was excavated from the site and backfilled with pea gravel (BAI 2009). The approximate extent of the pea gravel is shown on **Figure 2**. BAI also conducted a preferential pathway study, but stated that results of the study were inconclusive. BAI recommended case closure based on historically low hydrocarbon concentrations.

May 8, 2009: The ACEH denied BAI's closure request and stated that investigation had not been performed to confirm or repudiate concentrations in SW1. Further, the ACEH stated that since pea gravel covers much of the subsurface at the site, that vapor intrusion should be investigated.

December 10, 2009: Delta installed five soil vapor wells at the site at locations shown on **Figures 2 and 3**. One soil sample was collected from 4.5 feet bgs in each well, and soil vapor samples were collected on January 10, 2010. TPH-D and methyl tertiary butyl ether (MTBE) were reported in soil sample SV-5 at concentrations of 50.9 mg/kg and 0.022 mg/kg, respectively. TPH-G was reported in soil vapor samples from wells SV-2, SV-4 and SV-5 at concentrations of 1,400 micrograms per cubic meter (µg/m^3), 35,000 µg/m^3 and 16,000 µg/m^3, respectively. MTBE was reported in the same wells at concentrations of 60 µg/m^3, 92 µg/m^3 and 4,700 µg/m^3 respectively. Benzene was reported in vapor samples from all wells at concentrations ranging from 9.9 µg/m^3 in well SV-1 to 33 µg/m^3 in well SV-2 (Delta 2010). Soil vapor analytical data is included in **Attachment B**. Based on the distance from the station building and the soil vapor TPH-G concentrations in wells SV-1 (<920 µg/m^3) and SV-2 (1,400 µg/m^3) adjacent to the station building, Delta concluded that intrusion of soil vapor into the service station building is not a concern at the site, and that the site is capped with asphalt and concrete, impeding the upward movement of soil vapor towards potential receptors. Therefore, Delta recommended suspension of additional soil vapor sampling events.

SITE GEOLOGY AND HYDROGEOLOGY

The site is situated approximately 4,500 feet south of San Leandro Bay, and approximately 3,500 feet northeast of the present shoreline of San Francisco Bay, and approximately 600 feet south of a channel. Sediments beneath the site have been classified as Holocene beach sands and dune deposits (Brabb et al. 2006). Sediments encountered at the site generally consisted of silty to gravelly sand and sandy gravel to the maximum explored depth of 16.5 feet bgs. Lean clay was encountered in boring MW-5 from 13 to 15 feet bgs, and gravelly clay (possibly fill) from 3.5 to 5 feet bgs in boring MW-7.

Approximate Scale (miles)

Source:R.W. Graymer, B.C. Moring, G.J. Saucedo, C.M. Wentworth, E.E. Brabb, and K.L. Knudsen (U. S. Geological Survey),Geologic Map of the San Francisco Bay Region, 2006

The site overlies the Alameda East Plain Subbasin, which is part of the larger Santa Clara Valley Groundwater Basin. Deposits that makeup the East Bay Plain Subbasin consist of Pliocene through Holocene age tidal deposits including bay mud, sand and gravel beach deposits, and silts and clays from channel and swamp deposits. The East Bay Plain

Subbasin is estimated to be 1,000 feet thick, with depth to water varying from sea level to 140 feet below mean seal level. Since 2000, water in the East Bay Plain Aquifer has been at sea level (RWQCB 1999). Groundwater was encountered during drilling at a depths ranging from 5 to 7.5 feet bgs (Hydro 1995), and historically groundwater in site wells has ranged in elevation from 1.26 feet below sea level (MW-7 10/12/1995) to 2.25 feet above mean sea level (XW-1 on 4/19/1998). Groundwater at the site has typically been directed to the northwest, with north and northeast horizontal components and an average hydraulic gradient of 0.029 feet per foot. Historic groundwater elevation data including a groundwater flow rose diagram are presented in **Attachment C**.

On May 30, 2000, BP submitted a letter to the ACEH documenting total dissolved solids (TDS) readings in groundwater samples from site wells which exceeded the 3,000 mg/L ceiling limit for groundwater as potential drinking resource (BP 2000). TDS is not currently analyzed as part of the sites monitoring and sampling program, but high TDS readings are believed to be due to salinity caused by sea water intrusion into the subsurface. Based on this, groundwater beneath the site should not be assessed in terms of a potential drinking water resource.

SENSITIVE RECEPTORS

November 1992 - A sensitive receptor survey and existing well search were conducted. No public water supply wells were identified within approximately 2,500 feet of the site. No private water supply wells were identified within 1,000 feet of the site. Additionally, no subways, basements, and schools were identified within 1,000 feet of the site.

The one-page checklist survey identified a surface water body located approximately 500 feet from the site, but did not name it (Hydro 1993). As observed during a site visit by URS, this surface water body is a channel excavated as part of a residential development. The channel appears to connect to the San Francisco Bay which is located, at its closest, approximately 600 feet to the north of the site (URS 2004).

Delta has identified one (circa 1910) irrigation well located approximately 2000 feet west of the site. The well was reported by the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) to be less than 100 feet deep, and was allegedly abandoned in the 1930s when development of Sierra Nevada reservoirs provided an alternate water supply. Four additional irrigation wells deeper than 100 feet were identified within a mile to the north and northeast of the site in the same report (RWQCB 1999). Specifically, the approximate distances of these wells from the site are as follows: 2000 feet north, 2400

feet northeast, 3800 feet northeast, and 4400 feet to the east. Maps showing irrigation well locations and the 1992 sensitive receptor survey are included in **Attachment E**.

2010 SOIL VAPOR SAMPLING EVENTS:

The five soil vapor wells that were installed in December of 2009 had initially been sampled in January of 2010. On September 9th, 2010, Delta returned to the site to resample the wells at the request of the ACEH, for consideration of case closure. In their letter (**Attachment A**), the ACEH requested that soil vapor samples be collected over two seasons, and at different times of day. The first event had previously taken place in the winter (January) between the times of 8:30 and 11:30 AM. Soil vapor samples during the summer (September) investigation were collected between the times of approximately 9:00 to 2:00. Well sampling times were constricted by daily business patterns at the station and sampling progress at each well. As a result, some wells were sampled at similar times to the January sampling event.

Soil Vapor Sampling

Prior to sampling, each well was purged of three casing and annular space volumes, calculated to be approximately 680 cubic centimeters (ccs). Purging was conducted using a 60 cc syringe connected to the well head using luer lock fittings (threaded polyurethane fittings). After each purge volume of 180 ccs, the percent lower explosive level (% LEL), % oxygen gas (O2), hydrogen sulfide (H2S) concentration in ppm, and carbon monoxide concentration in ppm were measured using a four-gas meter. Field data sheets with purge data are included in **Attachment F**.

To obtain a sample, a pre-assembled manifold was connected to quarter inch Teflon® well tubing and used to collect the vapor sample from each boring into a designated Summa canister. The manifold consisted of a Swagelok® tee that connected the tubing from the boring to the designated canister and a pressure gauge.

To ensure the integrity of the sampling seals, a helium-filled shroud was used to cover the well and tubing. All tubing and unions (the manifold) underwent a pressure integrity test prior to sample collection: a five minute pressure test was conducted on the manifold to ensure that all fittings were properly tightened and no leaks existed. The pressure test was conducted by closing the valve on the collection side of the manifold, opening the canister to create a vacuum, closing the canister, and reading the pressure gage attached to the sampling tube over a five-minute period. If no vacuum loss occurred over the five-minute

period, the integrity of the manifold was established and a sample was collected. If any loss of vacuum was observed on the pressure gauge, all fittings were retightened, and the test repeated.

After the manifold pressure test proved its integrity, the canister was opened and the vapor sample was collected. The collection time of each sample ranged from approximately 20 to 30 minutes to fill each canister depending on soil types exposed. Once complete, each canister valve was closed, clearly labeled, and transported to Test America Laboratory, Inc. (Test America), a California state-certified analytical laboratory.

Additional quality control testing was performed using a controlled helium environment surrounding the top of the well tubing and tee manifold. The test was conducted by applying a rigid plastic shroud to cover the sampling manifold and wellhead. A 1/4-inch tube connected to the helium tank and the probe of a Mark 9821 Helium Detector were also placed within the shroud. The ground-casing interface was sealed with granular bentonite, hydrated in place. Additionally, the shroud/ground-surface interface was sealed around the rim of the shroud with granular bentonite (hydrated in place) to ensure that an enriched helium environment of approximately 100% was maintained throughout sample collection. Using the helium detector, helium levels were recorded until sample collection was complete. Soil gas survey field data are included in **Attachment F**.

Soil Vapor Sample Results

A total of six (6) soil vapor samples (one from each well and a duplicate sample from SV-2) were collected and analyzed for TPH-G, benzene, toluene, ethylbenzene and xylenes (BTEX compounds), naphthalene, fuel oxygenates— 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 using EPA Methods TO-15. EDB was analyzed separately in order to report concentrations with the lowest possible reporting limit. In addition, vapor samples were analyzed for helium, carbon dioxide, carbon monoxide, methane, oxygen and nitrogen by ASTM D1946. **Table 1** contains a summary of soil vapor results and reporting limits. A copy of the laboratory analytical report is presented in **Attachment G**.

The highest concentrations of hydrocarbons were reported in SV-4, located southeast of the fuel dispensers and fuel USTs, and in SV-5 located between the fuel dispensers. Below is a summary of detected analytes compared to 2008 RWQCB Environmental Screening Levels

(ESLs) for commercial land use. Results of the duplicate sample are not discussed below, but results were comparable to SV-2, the original sample. Refer to **Table 1** for a complete summary of results and reporting limits.

- TPH-G was reported in three of the five wells. It was reported below the ESL of 29,000 µg/m^3 in SV-2 at a concentration of 7,500 µg/m^3, and above the commercial ESL in wells SV-4 and SV-5 at concentrations of 92,000 µg/m^3 and 31,000 µg/m^3.
- Benzene was reported in SV-2 and SV-5 at concentrations of 26 µg/m^3 and 12 µg/m^3, respectively. All benzene concentrations were reported below the ESL of 280 µg/m^3.
- Toluene was reported in all wells except SV-1, at concentrations ranging from 7.7 µg/m^3 in SV-3 to a maximum of 23 µg/m^3 in SV-2. All reported toluene concentrations were below the ESL of 63,000 µg/m^3.
- Xylenes were reported in wells SV-2 and SV-4 at concentrations of 16 µg/m^3 and 22 µg/m^3, respectively. All reported concentrations of Xylenes were below the ESL of 58,000 µg/m^3.
- MTBE was reported in SV-2, SV-4 and SV-5 at concentrations ranging from 85 in SV-2, to 6,300 µg/m^3 in SV-5. All reported concentrations of MTBE were below the ESL of 31,000 µg/m^3.
- TBA was reported only in SV-5 at a concentration of 37 µg/m^3. Currently there is not an ESL for TBA in soil vapor.

No other analytes were reported above the LRLs during this sampling event. In addition, the leak tracer, helium, was not reported above the LRL of 0.0039 to 0.0043%.

Fixed Gases:

- Carbon Dioxide was reported in all samples at concentrations ranging from 6.1% v/v in SV-1 to 16% v/v in the duplicate sample from SV-2.
- Methane was reported in samples from SV-2, SV-4 and SV-5 at concentrations of 67%, 2.3% and 36% v/v, respectively.
- Oxygen was reported in all samples, at concentrations ranging from 0.66% v/v) in the duplicate from SV-2, to 15% reported in SV-1.
- Nitrogen was reported in all samples, ranging in concentration from 18% v/v) in SV-2 to 82% in SV-4.

Fixed gas analysis (for oxygen, methane, carbon dioxide) of the soil vapor samples provides insight into the general subsurface environment of the sample locations. Much like oxidation-reduction potential (ORP) measurements in groundwater can support conclusions as to the approximate anaerobic and aerobic conditions in groundwater; fixed gas analyses provide similar anaerobic verses aerobic spatial determinations in the soil vadose zones.

An increased methane concentration, as compared with concentrations in SV-1, (which may be considered background) can indicate a reducing environment (anaerobic conditions) or can indicate that the in-situ microbial population is producing methane (an anaerobic process known as methanogenesis), which utilizes carbon dioxide as the terminal electron acceptor in the degradation of not only hydrocarbons, but the breakdown of any organic matter. Therefore, elevated methane may also be the product of a breach in sanitary sewer lines, or the decomposition of plant material. In SV-2, SV-4 and SV-5, the anaerobic methanogenesis hypothesis is supported by the elevated percent volumes in methane reported in these locations. However, in these same four wells decreased oxygen and an increased carbon dioxide percent volumes are also observed, which is not entirely indicative of anaerobic conditions. An increase in carbon dioxide and decrease in oxygen (as compared to background levels) can indicate aerobic conditions. The data shows that aerobic and anaerobic processes are simultaneously at work beneath the site.

Each soil vapor sample was also analyzed for the presence of carbon monoxide.

Reported results show that carbon monoxide was not detected above the LRL. As this is the case, carbon monoxide is not a constituent of concern in these three areas and would pose little to no risk of intrusion. No correlation with the carbon monoxide data can be made when considering the anaerobic verses aerobic site environment.

Quality Assurance / Quality Control (QA / QC)

Delta performed a QA/QC data validation check on the Test America laboratory analytical results for the September 9th, 2010 soil vapor sampling event. The following data qualifiers were noted on the laboratory report:

- Laboratory Data Qualifier “GR”: EPA Flag –Internal standard recovery is outside method recovery limit. This data qualifier was noted on EDB analysis in SV-3.
- Laboratory Data Qualifier “AZ”: Surr. recovery outside of acceptance limits due to matrix interference. This data qualifier was noted in surrogates for samples SV-1 and the SV-2 duplicate.

No laboratory data qualifiers were noted in the lab report that consider the reported data value to be invalid. Delta completed a laboratory validation document for the lab report, which is provided in **Attachment G** with the chain-of-custody and laboratory analytical report.

PREFERENTIAL PATHWAYS

BAI conducted a preferential pathway study at the site in 2009. Depth to water at the site generally varies between 5 and 9 feet bgs, and typical utility trenching at the site was determined to vary from 2 feet bgs to 7 feet bgs. BAI stated that since trenching was generally higher than the depth of shallowest groundwater, it was unlikely that utility trenches could be used as preferential pathways. BAI went on to state that it was inconclusive whether sewer and storm drain utilities on and offsite could be used as preferential pathways for contaminant migration (BAI 2009). Analyte concentrations at the site are below RWQCB ESLs for groundwater as a potential drinking water resource. Based on this, Delta does not believe that contaminants will be transported from the site through preferential pathways now or in the future.

In their May 2009 letter, the ACEH expressed concern regarding the pea gravel layer which extends over much of the site as shown in **Figure 3** as a potential vapor pathway. During Delta's January 2010 soil vapor investigation, the pea gravel layer was encountered in borings for wells SV-1, SV-2 and SV-5, and was reportedly 3-inches thick (boring logs are presented in **Attachment D**) at a depth of approximately 1 foot bgs. This pea gravel layer is thin, and laterally limited at the site, indicating that it is not a risk as a preferential pathway for soil vapors. Additionally, concentrations of analytes in soil vapor are relatively low, with only the ESL for TPH-G exceeded in wells SV-4 and SV-5 at concentrations of 92,000 µg/m^3 and 31,000 µg/m^3, respectively.

CONTAMINANTS OF CONCERN (COCs)

Contaminants of concern (COCs) at the site are TPH-G, BTEX compounds and MTBE. The following sections provide an analysis of historical COC concentrations and trends in soil, groundwater and soil vapor data. Historic soil and soil vapor analytical data, as well as grab groundwater samples from soil borings are presented in **Attachment B**. Historic groundwater data is presented in **Attachment C**.

COCs in Soil

Highest reported concentrations of TPH-G and BTEX compounds have been reported in the

area of the fuel USTs and dispensers. The highest concentrations of TPH-G and benzene were reported in samples P1 (6,900 mg/kg and 70 mg/kg) and SW1 (2,000 mg/kg and 18 mg/kg) located below the westernmost fuel dispenser. These soil sample locations were subsequently over-excavated, and a confirmation soil sample (P1 @ 8') was reported to contain TPH-G and benzene at concentrations of 7.0 mg/kg and 1.0, respectively.

Soil sample SW3 collected near the eastern side of the fuel UST pit, and on the western edge of the dispenser excavation was reported to contain TPH-G and benzene at concentrations of 860 mg/kg and 5 mg/kg, respectively at a depth of 8 feet. Reported concentrations in SW3 exceed RWQCB ESLs for leaching of 83 mg/kg and 0.044 mg/kg, respectively. Sample SW3 could not be over excavated due to proximity of the fuel USTs to the southwest and the presence of groundwater at 8 feet bgs. Since sample SW3 was collected within groundwater, and thus high concentrations probably reflect elevated concentrations in groundwater during the time of the excavation. No other confirmation soil samples in the excavation were collected from 8 feet bgs. Soil samples SW6 and SW4 located to the south and east of SW3 were reported to contain TPH-G concentrations of 1.0 and 1.5 mg/kg TPH-G. The extent of remaining impacted soil at the site appears to be limited to the area of SW3.

Concentrations of TPH-D were reported above the ESL of 83 mg/kg in soil samples from MW-6 and MW-7 at a depth of 5 feet bgs at concentrations of 480 mg/kg and 110 mg/kg, respectively. In the soil sample from MW-6, TPH-G was reported at a concentration of 89 mg/kg, which is slightly above the ESL of 83 mg/kg. Since wells MW-6 and MW-7 are screened from approximately 3 feet bgs to 15 feet bgs, groundwater samples from the wells are a direct reflection of the potential for hydrocarbon leaching from the five-foot samples. In the most recent sampling event, no analytes were reported above the laboratory reporting limits (with the exception of MTBE below ESLs) in MW-6 or MW-7, indicating that sorbed phase hydrocarbons are not leaching to groundwater.

COCs in Groundwater

The site has been on a groundwater monitoring program since October 1992. The program was suspended from November 2001 to September 2008 pending a response to a case closure request. TPH-G, benzene and MTBE reached maximum concentrations in well MW-6 of 47,000 µg/l, 350 µg/l and 38,000 µg/l, respectively on January 27, 1998. Since these detections, concentrations in all site wells have consistently decreased.

TPH-G was reported above the ESL of 100 µg/l in two grab groundwater samples collected from borings TB-1 and TB-2, at concentrations of 1,500 µg/l and 310 µg/l, respectively in October 1994. The groundwater concentrations reported in the TB-1 and TB-2 were consistent with concentrations in monitoring wells in 1994. These borings were advanced north of the fuel dispensers, and near the southwest corner of the fuel UST pit.

On the July 6th, 2010 sampling event, TPH-G and BTEX compounds were not reported above LRLs. MTBE was detected in wells MW-6, MW-7 and XW-3 at concentrations of 1.0 µg/l, 0.75 µg/l and 0.92 µg/l, respectively. All reported MTBE concentrations are below the ESL of 5.0 µg/l.

COCs in Soil Vapor

At the request of the ACEH, Delta performed a soil vapor study at the site in January of 2010. Reported concentrations of BTEX compounds and MTBE were all below ESLs. TPH-G was reported in three of the five soil vapor wells, with a maximum concentration of 35,000 µg/m^3 in well SV-4, which exceeds the commercial ESL for vapor intrusion of 29,000 µg/m^3. SV-4 is located southwest of the fuel USTs. All analyte concentrations were below ESLs in SV-1 and SV-2 located at the northwest side of the station building, on the end closest the fuel UST complex.

The soil vapor sample from well SV-5, located approximately 20 feet northeast of soil samples SW1 and SW3, was not reported to contain hydrocarbon concentrations above ESLs.

In accordance with a request from the ACEH, Delta resampled the wells on September 9th, 2010. Results of the soil vapor sampling compared with residential and commercial land use ELSs are shown below.

Sample ID	Date	TPH-G (µg/m^3)	MTBE (µg/m^3)	Benzene (µg/m^3)
SV-1	9/9/2010	<2000	<7.2	<9.6
SV-2	9/9/2010	**7,500**	**85**	**26**
SV-3	9/9/2010	<2000	<7.2	<9.6
SV-4	9/9/2010	**92,000**	**140**	<9.6
SV-5	9/9/2010	**31,000**	**6,300**	**12**
SV-2 Duplicate	9/9/2010	**6,700**	<7.2	**23**
ESL (residential)	--	10,000	9,400	84
ESL (commercial)	--	29,000	31,000	280

Soil vapor samples collected from SV-1, SV-2 and SV-3 did not contain analytes above the residential or commercial ESL for any analyte. MTBE and benzene detections in all samples were below their residential and commercial ESLs. The commercial ESL for TPH-G was exceeded only in samples SV-4 and SV-5.

These results are generally consistent with January 2010 data, which also reported maximum concentrations of TPH-G in wells SV-4 and SV-5. Wells SV-1 and SV-2 are located at the entrance to the station building, and at the entrance to the mechanics bays. No residential or commercial ESLs with the exception of TPH-G were exceeded in these wells in either of the two sampling events, indicating that vapors beneath the site do not pose a risk to workers within the station building. Wells SV-4 and SV-5 are approximately 30 and 50 feet from the station building, respectively.

Further, the beneath the station building and the overlying rest of the station property is a concrete/asphalt slab which acts as a physical vapor barrier. As such, Delta does not believe that soil vapor beneath the site poses a threat to human health.

SUMMARY AND CONCLUSIONS

Delta provides the following conclusions:

- Groundwater at the site varies between 9.15 feet below top of casing (btoc) (MW-5 on 10/12/1995) to 5.24 feet btoc (XW-1 on 4/19/1998), and generally flows to the northwest.
- Shallow groundwater beneath the site is not a drinking water resource due high salinity from saltwater intrusion.
- Wells MW-5, MW-6 and MW-7 were installed to a maximum depth of 16.5 feet bgs, and are screened from 5 to 15 feet in MW-5, and from 3 feet btoc to total depth in MW-6 and MW-7.
- Soils beneath the site consist primarily of sand and gravels with some silt and clay layers. A thin layer of pea gravel exists under the pavement across most of the site.
- Residual hydrocarbons may remain in soils in the northwest portion of the site near the fuel dispensers and USTs. Soils in the southern and eastern portions of the site do not appear to be impacted.

- Only MTBE was reported in groundwater in the in the most recent sampling event (third quarter of 2010) at a maximum concentration of 1 µg/L in MW-6, which is below the ESL of 5.0 µg/L.
- Data from the two soil vapor sampling events conducted in January and September of 2010 shows that soil vapor intrusion does not pose a health risk to station employees or patrons.

REQUEST FOR CASE CLOSURE

Delta requests that this site be considered for regulatory case closure based upon the following:

1. **The leak has been stopped and ongoing sources, including free product, removed or remediated.**
    - A release of hydrocarbons occurred at the site, probably in the vicinity of the fuel dispensers sometime prior to the discovery of hydrocarbon impacted soil and groundwater in the fuel dispenser vicinity in May of 1990. Subsequent to its discovery, approximately 195 cubic yards of soil were excavated below the dispensers and disposed of offsite. Only a small amount of impacted soil is believed to remain in the dispenser vicinity, which could not be removed due to proximity to the fuel USTs.
    - Free product has not been reported at the site.
    - The impacted soil in the western dispenser area does not appear to be a source of significant leaching to groundwater. Impacted soils were reported within the capillary fringe, and are regularly submerged beneath groundwater. Recent groundwater data shows that analyte concentrations are below ESLs for a potential drinking water resource, indicating that leaching from impacted soils is minimal.
2. **The extent of soil and groundwater impact has been defined.**
    - During the recent soil vapor installations, soil from 4.5 feet bgs was not reported to contain petroleum hydrocarbons or constituents above ESLs for leaching to a potential drinking water resource.
    - Only MTBE is currently reported in concentrations above LRLs in wells MW-6, MW-7, and XW-3, at concentrations below the ESL of 5.0 µg/L.

3. The dissolved hydrocarbon plume is not migrating.

- Since 2000, concentrations of TPH-G and MTBE in downgradient well MW-7 have remained below 100 µg/l and BTEX compounds and oxygenates have not been reported above the LRLs. If the plume were migrating, concentrations in MW-7 would be expected to rise as the core of the plume moved downgradient. It appears that the limited hydrocarbon plume onsite is stable and decreasing.

4. No water wells, deeper drinking water aquifers, surface water, or other sensitive receptors are likely to be impacted.

- Groundwater beneath the site is not a drinking water resource due to high total dissolved solids (salts).
- Dissolved phase analyte concentrations downgradient of the site in wells MW-7 and XW-3 are below ESLs for a potential drinking water resource. The identified irrigation wells in the area are cross gradient of the site, and considering the low analyte concentrations, distance to the wells and groundwater flow direction, there appears to be no threat of contamination to supplied water. A channel exists approximately 600 feet to the north of the site, and approximately 1000 feet to the northwest (downgradient) of the site. Due to concentrations in downgradient well MW-7 below ESLs, contamination sourced from the site does not appear to be a potential threat to ecology in the channel.

5. The site conditions do not present a significant risk to human health.

- Soil vapor from the vicinity of hydrocarbon impacted area was reported to contain analytes with the exception of TPH-G below ESLs. TPH-G was reported above the commercial ESL of 29,000 µg/m^3 in SV-4 and SV-5, located southwest of the fuel USTs and to the northeast of the fuel dispensers, but TPH-G was not reported above the commercial ESL in SV-1, SV-2 and SV-3 located at the northwestern side of the station building and to the northeast of the fuel dispensers. This indicates that soil contamination in the northeast portion of the property does not pose a risk to human health inside the station building.
- Data shows that only one analyte (TPH-G) in two of five locations (SV-4 and SV-5) exceeded the commercial ESL. Further, the station is paved with at least six-

inches of asphalt or concrete, which acts as a physical vapor barrier and vapor concentrations are expected to decrease over time.

- The thin pea gravel layer beneath much of the site is not a preferential pathway. Concerns regarding the layer were brought up in a May 2009 letter from the ACEH, at which time thickness of the layer was unknown. During Delta's 2010 soil vapor study, three-inch pea gravel layers were reported in three soil vapor well borings. Two of the three wells did not contain analyte concentrations above ESLs, the third well only contained TPH-G at a concentration just above the commercial ESL.

REMARKS

The descriptions, conclusions, and 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. For any reports cited that were not generated by Delta, the data from those reports is used "as is" and is assumed to be accurate. Delta does not guarantee the accuracy of this data for the referenced work performed nor the inferences or conclusions stated in these reports. 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 conducted. 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.

If you have any questions regarding this work plan or need and additional information about this Site, please do not hesitate to contact the undersigned at (408) 826-1863.

Sincerely,
DELTA CONSULTANTS

Nadine Periat
Senior Staff Geologist

Lia Holden, PG #8584
Geologist – Project Manager

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

Figures:

Figure 1: Site Vicinity Map

Figure 2: Site Map

Figure 3: Site Map with Historic Sample Locations and Excavations

Attachments:

Attachment A	Agency Correspondence
Attachment B	Historic Soil, Grab Groundwater, and Soil Vapor Data
Attachment C	Historic Groundwater Data and Rose Diagram
Attachment D	Soil Boring Logs
Attachment E	Sensitive Receptor Documents
Attachment F	Soil Vapor Sampling Field Data Sheets
Attachment G	Laboratory Analytical Report

CONSULTANT: Delta Consultants

REFERENCES CITED

Kapreallian Engineering Inc., *Stockpiled Soil Sampling for BP Service Station 3255 McCartney Road, Alameda, California,* July 13, 1990.

Kapreallian Engineering Inc., *Soil Sampling Report, BP Service Station 3255 McCartney Road, Alameda, California,* July 16, 1990.

Hydro-Environmental Technologies, Inc., *Preliminary Site Assessment Report, BP Oil Company, U.S.A., BP Oil Service Station No. 11270, 3255 McCartney Road, Alameda, California,* January 7, 1993.

BP Oil Company, RE: BP OIL # 11270, 3255 McMartney Road, Alameda, May 4, 1993.

Emcon, *Baseline Assessment Report, Site Number 11270, 3255 Mecartney Road, Alameda, California*, December 27, 1994.

Hydro-Environmental Technologies, Inc., *Subsurface Investigation Report, BP Service Station No. 11270, 3255 Mecartney Road, Alameda, California,* March 22, 1995.

Emcon, *Addendum to the Baseline Assessment Report, Site Number 11270, 3255 Mecartney Road, Alameda, California*, July 28, 1998.

Brabb, E.E., Graymer, R.W., Jones, D.L. Geology of the Onshore Part of SanMateo County, California: A Digital Database, OF98-137. 1998.

RWQCB San Francisco Bay Region Groundwater Committee, East Bay Plain Groundwater Basin Beneficial Use Evaluation Report, Alameda and Contra Costa Counties, Califorina, June 1999.

Environmental Resolutions Inc., *Underground Storage Tank Removal at Tosco BP Service Station 11270, 3255 Mecartney Road, Alameda, California*, October 23, 1998.

BP Oil Company, Correspondence Letter: *Former BP Oil Site No. 11207, 3255 Mecartney Road, Alameda, CA*, May 30, 2000.

SECOR International Incorporated, *Removal and Replacement of Product Lines and Dispensers, Tosco (Former BP) Service Station #11270, 3255 Mecartney Road, Alameda, California*, September 5, 2000.

Alameda County Health Care Services Agency, Correspondence Letter: *Subject: Intent to Make a Determination That No Further Action is Required OR Issue a Closure Letter for 3255 Mecartney Rd., Alameda, CA, 94501,* October 31, 2001.

BP Oil Company, Correspondence Letter*: Former BP Oil Site No. 11207, 3255 Mecartney Road, Alameda, CA*, November 7, 2001.

URS, *Case Closure Summary, Case #RO0000511, Former BP Service Station #11270, 3255 Mecartney Road, Alameda, California*, October 27, 2004.

California Regional Quality Control Board, San Francisco Bay Region. *Screening for Environmental Concerns at Site with Contaminated Soil and Groundwater,* March 2008.

Broadbent & Associates, Inc., *On-Site Soil Investigation with Preferential Pathway Evaluation Report, Former BP Service Station #11270, 3255 Mecartney Road, Alameda, California*, April 30, 2009.

Alameda County Health Care Services Agency, Correspondence Letter: *Subject: Fuel Leak Case No. RO0000511 and GeoTracker Global ID T0600101198, BP #11270, 3255 Mecartney Rd., Alameda, CA, 94501,* May 8, 2009.

Delta Consultants, *Site Assessment Report, 76 Service Station No. 11270, 3255 Mecartney Road, Alameda, California,* February 16, 2010.

Alameda County Health Care Services Agency, Correspondence Letter: *Subject: Additional Soil Vapor Sampling Event for Fuel Leak Case No. RO0000511 and GeoTracker Global ID T0600101198, BP #11270, 3255 Mecartney Rd., Alameda, CA, 94501,* July 22nd, 2010.

Table

Table 1
Summary of Soil Vapor Analytical Results

Service Station No. 11270
3255 Mecartney Road, Alameda, California

			Volatile Organic Compound Concentrations (µg/m³) by GC/MS EPA Method TO-15													
Sample	Sample Date and Time	Purge Volumes (Casing Volumes)	TPH-G	Benzene	Toluene	Ethylbenzene	Xylenes (total)	MTBE	TBA	DIPE	ETBE	TAME	EDB	1,2-DCA	Napthalene	Ethanol
SV-1	9/9/10 10:59	3	<2000	<9.6	<7.5	<8.7	<8.7	<7.2	<45	<8.4	<8.4	<8.4	<3.1	<12	<31	<94
SV-2	9/9/10 12:44	3	**7,500**	**26**	**23**	<8.7	**16**	**85**	<45	<8.4	<8.4	<8.4	<3.1	<12	<31	<94
SV-3	9/9/10 10:11	3	<2000	<9.6	**7.7**	<8.7	<8.7	<7.2	<45	<8.4	<8.4	<8.4	<3.1 GR	<12	<31	<94
SV-4	9/9/10 9:11	3	**92,000**	<9.6	**19**	<8.7	**22**	**140**	<45	<8.4	<8.4	<8.4	<3.1	<12	<31	<94
SV-5	9/9/10 11:54	3	**31,000**	**12**	**16**	<8.7	<8.7	**6,300**	<45	<8.4	<8.4	<8.4	<33	<12	<31	<94
Duplicate (SV-2)	9/9/10 13:18	3	**6,700**	**23**	**19**	<8.7	<8.7	<7.2	<45	<8.4	<8.4	<8.4	<3.1	<12	<31	<94
Residential ESL			10,000	84	63,000	980	21,000	9,400	No ESL	No ESL	No ESL	No ESL	4.1	94	72	No ESL
Commercial ESL			29,000	280	180,000	3,300	58,000	31,000	No ESL	No ESL	No ESL	No ESL	14	310	240	No ESL

	Fixed Gasses (% v/v) by ASTM D1946					
Sample	Carbon Dioxide	Carbon Monoxide	Helium	Methane	Oxygen	Nitrogen
SV-1	**6.1**	<0.0020	<0.040	<0.00040	**15**	**79**
SV-2	**15**	<0.0020	<0.040	**65**	**1.1**	**20**
SV-3	**8.5**	<0.0019	<0.038	<0.00038	**14**	**77**
SV-4	**15**	<0.0019	<0.0039	**2.3**	**1.4**	**82**
SV-5	**14**	<0.0021	<0.043	**36**	**1.1**	**50**
Duplicate (SV-2)	**16**	<0.0019	<0.037	**67**	**0.66**	**18**

Notes

µg/m^3	Micrograms per cubic meter
% v/v	Percent volume
<	Not detected above that laboratory reporting limit
1,2-DCA	1,2-Dichloroethane
DIPE	Diisopropyl ether
EDB	Ethylene dibromide
ETBE	Ethyl tert-butyl ether
MtBE	Methyl tert-butyl ether
TAME	Tert-amyl methyl ether
TBA	Tert-butyl alcohol
TPH-G	Total petroleum hydrocarbons as gasoline
NA	Not applicable, screening level Not available.
ESL	Environmental Screening Level

GR - Laboratory Data Qualifier: Internal standard recovery is outside method recovery limit

Figures

North

0 900 1800 FT

SCALE

FIGURE 1

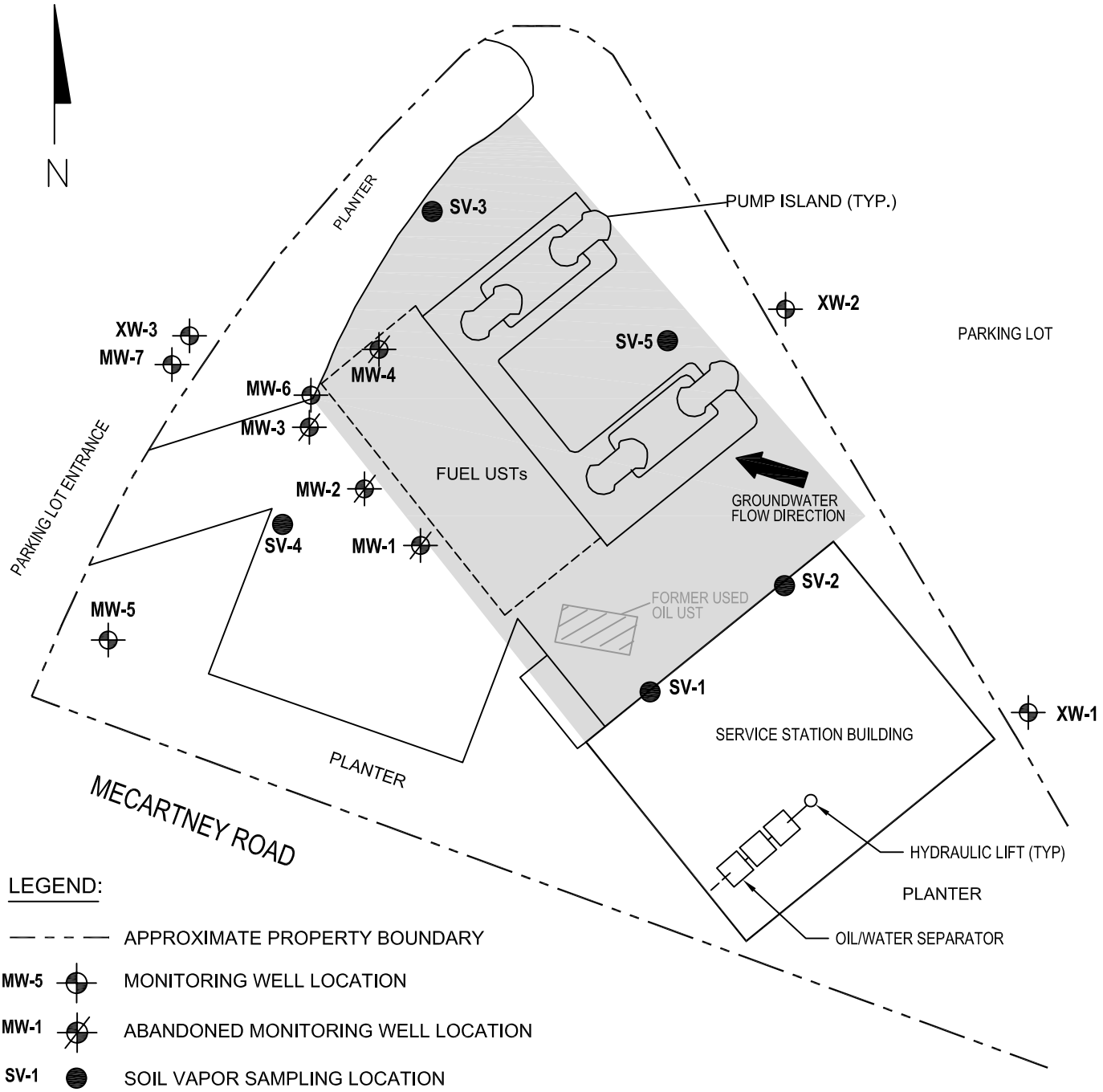
SITE LOCATION MAP

76 STATION NO. 11270
3255 MECARTNEY ROAD
ALAMEDA, CALIFORNIA

PROJECT NO. I42611270	DRAWN BY JH 06/02/09
FILE NO. 11270-SiteLocator	PREPARED BY DD
REVISION NO.	REVIEWED BY

DELTA®

SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, SAN LEANDRO & HUNTERS POINTE QUADRANGLES (1973



LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- MW-5 — MONITORING WELL LOCATION
- MW-1 — ABANDONED MONITORING WELL LOCATION
- SV-1 — SOIL VAPOR SAMPLING LOCATION
- APPROXIMATE AREA FILLED WITH PEA GRAVEL IN THE SHALLOW SUB-SURFACE PER FACILITY OPERATOR

0 20 FT

SCALE

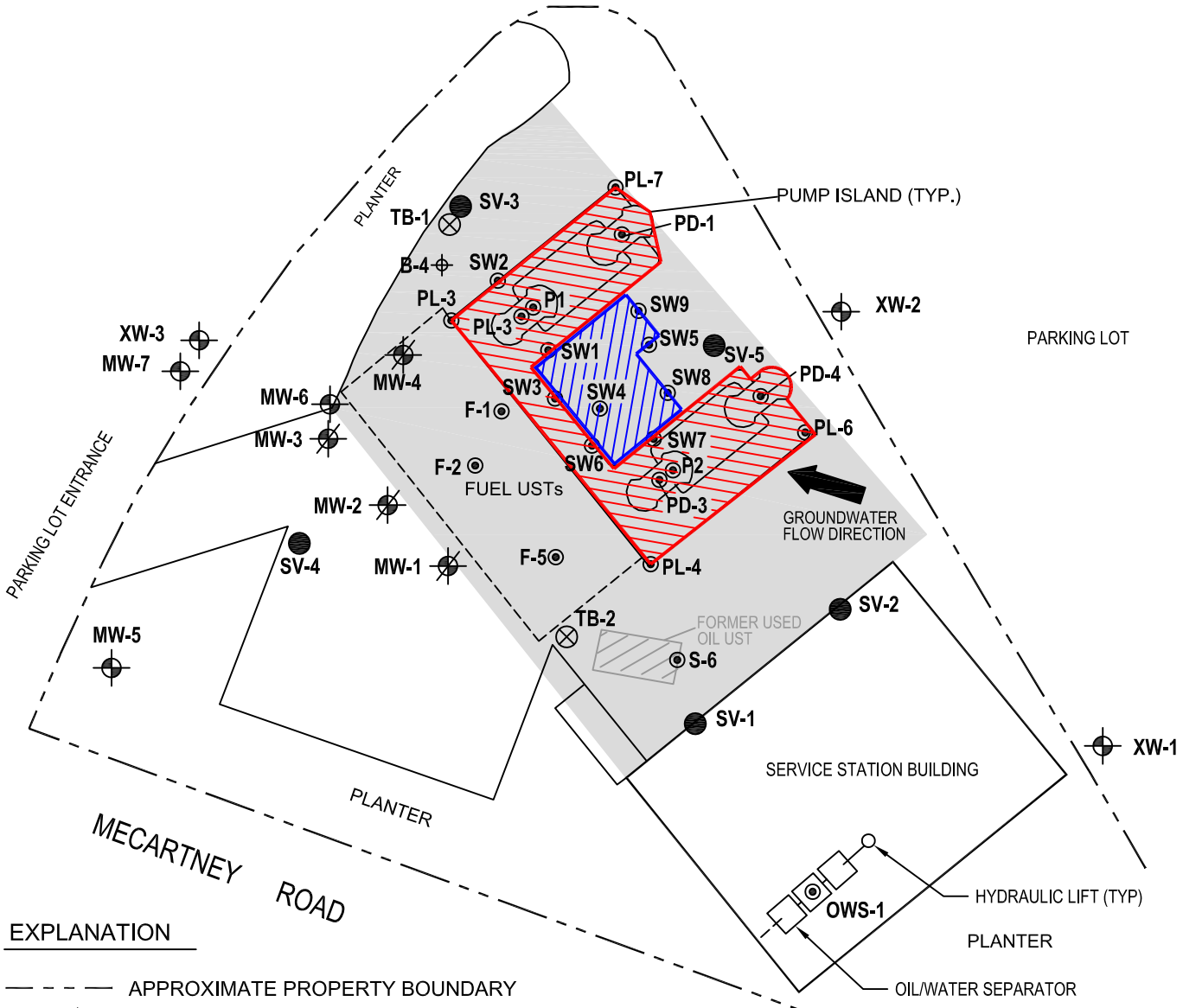
MAP ADAPTED FROM A MAP DATED 10/14/08 BY BROADBENT & ASSOCIATES, INC ENTITLED "SITE MAP".

FIGURE 2
SITE PLAN

BP STATION NO. 11270
3255 MECARTNEY ROAD
ALAMEDA, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142611270	TP	JH
DATE	REVIEWED BY	FILE NAME
02/09/10	DD	11270-Site

DELTA®



EXPLANATION

- APPROXIMATE PROPERTY BOUNDARY
- MW-5 — MONITORING WELL LOCATION
- MW-1 — ABANDONED MONITORING WELL LOCATION
- SV-1 — SOIL VAPOR SAMPLING LOCATION
- APPROXIMATE AREA FILLED WITH PEA GRAVEL IN THE SHALLOW SUB-SURFACE PER FACILITY OPERATOR
- TB-2 — TOSCO BORING LOCATION
- S-6 — SOIL SAMPLE LOCATION
- B-4 — ATTEMPTED SOIL BORING LOCATION (2009)
- EXCAVATION AREA TO 8.5 FT bgs
- EXCAVATION AREA TO 4.5 FT bgs

N

0 20'

SCALE

NOTE:
MAP ADAPTED FROM A MAP DATED 10/14/08 BY BROADBENT & ASSOCIATES, INC ENTITLED "SITE MAP".

FIGURE 3
SITE PLAN WITH HISTORICAL SAMPLE LOCATIONS
BP STATION NO. 11270
3255 MECARTNEY ROAD
ALAMEDA, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142611270	NP	JH/KYM
DATE	REVIEWED BY	FILE NAME
06/14/10	DD	11270-Site

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Attachment A

Agency Correspondence

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Director

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

July 22, 2010

Paul Supple (*Sent via E-mail to: paul.supple@bp.com*)
Atlantic Richfield Company
(A BP Affiliated Company)
P.O. Box 1257
San Ramon, CA 94583

Eric G. Hetrick (*Sent via E-mail to: Eric.G.Hetrick@contractor.conocophillips.com*)
ConocoPhillips
76 Broadway
Sacramento, CA 95818

Ping Liu Chien (*Sent via E-mail to: JamesLiu2000@aol.com*)
Harbor Bay Landing, LLC.
P.O. Box 117610
Burlingame, CA 94011

Subject: Additional Soil Vapor Sampling Event for Fuel Leak Case No. RO0000511 and GeoTracker Global ID T0600101198, BP #11270, 3255 Mecartney Road, Alameda, CA 94501

Dear Messrs. Supple, Grayson, and Chien:

Thank you for the recently submitted document entitled, "Site Assessment Report," dated February 22, 2010 and the "Request for Case Closure," dated July 7, 2010, both prepared by Delta for the subject site. Alameda County Environmental Health (ACEH) staff has reviewed the case file including the above-mentioned reports for the above-referenced site. The above-mentioned reports summarize installation of five soil vapor wells (SV-1 through SV-5) as well as soil and soil vapor sample analytical results. According to Delta, soil vapor sample analytical results were below Regional Water Quality Control Board's Environmental Screening Levels for commercial land-use risk scenario and subsequently requests case closure for the subject site.

ACEH generally concurs with the Delta's case closure recommendation. However, to adequately evaluate potential subsurface contaminant volatilization to indoor air, ACEH requests that you address the following technical comments, perform the proposed work, and send us the technical report described below.

TECHNICAL COMMENTS

1. **Soil Vapor Sampling** – Since the data collected detected petroleum hydrocarbons in soil vapor, and there appears to be a potential for contaminant vapor intrusion at the site, an additional round of soil vapor samples are necessary to adequately evaluate the potential risk

to occupants of the building, prior to case closure consideration. It is recommended that soil vapor samples be collected over two seasonal events at various times of the day so that the samples collected are adequately representative of actual site conditions. Also, please ensure that laboratory detection limits are below the contaminant's corresponding ESL. Please perform the second sampling event and submit a report due by the date specified below.

Case closure evaluation will be considered based on the pending additional soil vapor sampling data.

NOTIFICATION OF FIELDWORK ACTIVITIES

Please schedule and complete the fieldwork activities by the date specified below and provide ACEH with at least three (3) business days notification prior to conducting the fieldwork.

TECHNICAL REPORT REQUEST

Please submit technical reports to ACEH (Attention: Paresh Khatri), according to the following schedule:

- **September 20, 2010** – Soil and Water Investigation Report (Second Soil Vapor Sampling Event)

Thank you for your cooperation. Should you have any questions or concerns regarding this correspondence or your case, please call me at (510) 777-2478 or send me an electronic mail message at paresh.khatri@acgov.org.

Sincerely,

Digitally signed by Paresh Khatri
DN: cn=Paresh Khatri, o=Alameda County Environmental Health, ou=Local Oversight Program, email=Paresh.Khatri@acgov.org, c=US
Date: 2010.07.22 15:27:11 -07'00'

Paresh C. Khatri
Hazardous Materials Specialist

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

cc: Dennis S. Dettloff, Delta, 11050 White Rock Road, Suite 110, Rancho Cordova, CA 95670
Tony Perini, Delta, 11050 White Rock Road, Suite 110, Rancho Cordova, CA 95670
Donna Drogos, ACEH (*Sent via E-mail to: donna.drogos@acgov.org*)
Paresh Khatri, ACEH (*Sent via E-mail to: paresh.khatri@acgov.org*)
GeoTracker
File

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

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

REQUIREMENTS

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

Submission Instructions

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

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

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

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.

Attachment B

Historic Soil, Grab Groundwater
and Soil Vapor Data

HISTORICAL SOIL ANALYTICAL RESULTS
76 Station No.11270
Alameda, California

Sample ID	Date	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)	Total Lead (mg/kg)
SW1	5/22/90	4.5	**2,000**	--	**18**	**56**	**39**	**270**	--	--	--	--	--	--	--	--	**6.5**
SW2	5/22/90	4.5	**8.0**	--	**0.31**	**0.084**	**0.26**	**1.2**	--	--	--	--	--	--	--	--	**1.7**
SW3	5/30/90	8	**860**	--	**5**	**2.8**	**7.5**	**13**	--	--	--	--	--	--	--	--	**5.7**
SW4	5/30/90	4.5	**1.0**	--	**0.009**	**0.017**	**0.0099**	**0.03**	--	--	--	--	--	--	--	--	**0.071**
SW5	5/30/90	4.5	**15**	--	**0.035**	**0.26**	**0.14**	**0.49**	--	--	--	--	--	--	--	--	**2.1**
SW6	5/30/90	4.5	**1.5**	--	**0.0079**	**0.0052**	**0.023**	**0.069**	--	--	--	--	--	--	--	--	**2.9**
SW7	5/30/90	4.5	<1.0	--	**0.034**	**0.0073**	**0.042**	**0.076**	--	--	--	--	--	--	--	--	**36**
SW8	5/30/90	4.5	<1.0	--	**0.01**	**0.0098**	**0.016**	**0.035**	--	--	--	--	--	--	--	--	**5.8**
SW9	5/30/90	4.5	<1.0	--	**0.024**	<0.005	**0.02**	**0.026**	--	--	--	--	--	--	--	--	**11**
P1	5/22/90	4.5	**6,900**	--	**70**	**260**	**120**	**700**	--	--	--	--	--	--	--	--	**0.91**
P1(8)	5/22/90	8	**7.0**	--	**1**	**0.025**	**0.19**	**0.47**	--	--	--	--	--	--	--	--	**1.7**
P2	5/22/90	4.5	<1.0	--	**0.0058**	**0.005**	**0.01**	**0.023**	--	--	--	--	--	--	--	--	**1.6**
TB1-S, 2.5-3	10/26/94	2.5-3	<0.1	<1	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--
TB1-S, 5.5-6	10/26/94	5.5-6	<0.1	<1	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--
TB2-S, 2.5-3	10/26/94	2.5-3	<0.1	<1	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--
TB2-S, 6.5-7	10/26/94	6.5-7	<0.1	<1	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--
MW-5-5	6/17/93	5	<1	**11**	<.0050	<.0050	<.0050	<.0050	--	--	--	--	--	--	--	--	--
MW-6-5	1/19/95	5	**89**	**480**	<.050	**0.21**	**0.63**	**4.8**	--	--	--	--	--	--	--	--	--
MW-7-5	1/18/95	5	<0.050	**110**	<0.0005	<0.0005	<0.0005	<.0010	--	--	--	--	--	--	--	--	--
OWS-1-0.5	12/12/96	0.5	ND*	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
OWS-1-2	12/12/96	2	ND**	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
S-1	8/15/97	0.5-1	<0.1	--	<0.001	**0.085**	<0.002	**0.0047**	<0.1	--	--	--	--	--	--	--	--
S-2	8/15/97	0.5-1	<0.1	--	<0.001	**0.047**	<0.002	<0.002	<0.1	--	--	--	--	--	--	--	--
S-3	8/15/97	0.5-1	<0.1	--	<0.001	**0.058**	<0.002	<0.002	<0.1	--	--	--	--	--	--	--	--
S-4	8/15/97	0.5-1	<0.1	--	<0.001	**0.049**	<0.002	<0.002	<0.1	--	--	--	--	--	--	--	--
S-6-T1E	7/9/98	6	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	ND
PD-1-2	8/7/00	2	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<10
PD-2-1.5	8/7/00	1.5	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<10
PD-3-1.5	8/7/00	1.5	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<10
PD-4-1.5	8/7/00	1.5	<1.0	--	<0.005	<0.005	<0.005	<0.005	**0.0582**	--	--	--	--	--	--	--	<10
PL-3-1.5	8/7/00	1.5	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<10
PL-6-.15	8/7/00	1.5	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<10
PL-7-1.5	8/7/00	1.5	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<10
F-1-4	8/7/00	4	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<10
F-2-4	8/7/00	4	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<10
F-5-3	8/7/00	4	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	<10
SV-1	12/10/09	4.5	<0.23	<5.9	<0.0027	<0.0027	<0.0027	<0.0055	<0.0027	<0.014	<0.0027	<0.0027	<0.0027	<0.0027	<0.0027	<0.37	--
SV-2	12/10/09	4.5	<0.22	<5.8	<0.0027	<0.0027	<0.0027	<0.0054	<0.0027	<0.013	<0.0027	<0.0027	<0.0027	<0.0027	<0.0027	<0.36	--
SV-3	12/10/09	4.5	<0.23	<5.8	<0.0028	<0.0028	<0.0028	<0.0055	<0.0028	<0.014	<0.0028	<0.0028	<0.0028	<0.0028	<0.0028	<0.37	--
SV-4	12/10/09	4.5	<0.24	<6.0	<0.0028	<0.0028	<0.0028	<0.0056	<0.0028	<0.014	<0.0028	<0.0028	<0.0028	<0.0028	<0.0028	<0.38	--
SV-5	12/10/09	4.5	<0.24	51	<0.0029	<0.0029	<0.0029	<0.0058	0.022	0.032	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	<0.38	--
COMP ABCD	12/11/09	--	<0.25	<5.9	<0.003	<0.003	<0.003	<0.0059	<0.003	<0.015	<0.003	<0.003	<0.003	<0.003	<0.003	<0.39	9.9

TPH-G = total purgeable petroleum hydrocarbons as gasoline by EPA Method 8260B
TPH-D = total purgeable petroleum hydrocarbons as diesel by EPA Method 8015
TPH-O = total purgeable petroleum hydrocarbons as oil by EPA Method 8015
BTEX = benzene, toluene, ethylbenzene, total xylenes by EPA Method 8020 or 8260B
MTBE = methyl tertiary butyl ether by EPA Method 8020 or 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
* TRPH reported in sample at 49 mg/kg
**= TRPH reported in sample at 13 mg/kg
Soil sample overexcavated

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 (reporting limit unkown)
-- = not analyzed
Bold = detected compound concentration
EPA = US Environmental Protection Agency

HISTORICAL GRAB GROUNDWATER ANALYTICAL RESULTS
76 Station No. 1270
Alameda, California

Sample ID	Date	Sample Depth (feet)	TPH-G (µg/L)	TPH-D (µg/L)	TPH-O (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)
TB-1-W-11.5	10/26/94	11.5	**1,500**	<1	<1	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--
TB-2-W-11.5	10/26/94	11.5	**310**	<1	<1	<0.5	1.0	<0.5	1.0	--	--	--	--	--	--	--	--

TPH-G = total purgeable petroleum hydrocarbons as gasoline by EPA Method 8260B
TPH-D = total purgeable petroleum hydrocarbons as diesel by EPA Method 8015
TPH-O = total purgeable petroleum hydrocarbons as oil by EPA Method 8015
BTEX = benzene, toluene, ethylbenzene, total xylenes by EPA Method 8020 or 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 (no reporting limit available)
-- = not analyzed
Bold = detected compound concentration
EPA = US Environmental Protection Agency

Soil Analytical Results (Fuel Oxygenates)
76 Service Station No.11270
3255 Mecartney Road, Alameda, CA

Sample ID	Date	TAME (mg/kg)	TBA (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)	DIPE (mg/kg)	Ethanol (mg/kg)	ETBE (mg/kg)
SV-1 @4.5 feet	**12/10/2010**	<0.0027	<0.014	<0.0027	<0.0027	<0.0027	<0.37	<0.0027
SV-2 @4.5 feet	**12/10/2010**	<0.0027	<0.013	<0.0027	<0.0027	<0.0027	<0.36	<0.0027
SV-3 @4.5 feet	**12/11/2010**	<0.0028	<0.014	<0.0028	<0.0028	<0.0028	<0.37	<0.0028
SV-4 @4.5 feet	**12/11/2010**	<0.0028	<0.014	<0.0028	<0.0028	<0.0028	<0.38	<0.0028
SV-5 @4.5 feet	**12/10/2010**	<0.0029	**0.032**	<0.0029	<0.0029	<0.0029	<0.38	<0.0029
comp ABCD	**12/11/2010**	<0.0030	<0.015	<0.0030	<0.0030	<0.0030	<0.39	<0.0030

Notes
TBA: Tertiary butyl alcohol
ETBE: Ethyl tertiary butyl ether
TAME: Tertiary amyl methyl ether
DIPE: Di-isopropyl ether
ETBE: Ethyl tertiary butyl ether

EDB: 1,2-Dibromoethane
1,2-DCA: 1,2-dichloroethane

mg/Kg: milligrams per kilogram
<: Below the laboratory indicated

Soil Gas Analytical Results (TPH-G, BTEX, MTBE, Fuel Oxygenates)
76 Service Station No.11270
3255 Mecartney Road, Alameda, CA

Sample ID	Date	TPH-G ($\mu g/m^3$)	MTBE ($\mu g/m^3$)	Benzene ($\mu g/m^3$)	Toluene ($\mu g/m^3$)	Ethyl-benzene ($\mu g/m^3$)	M,P-Xylenes ($\mu g/m^3$)	O-Xylenes ($\mu g/m^3$)	1,2-DCA ($\mu g/m^3$)	EDB ($\mu g/m^3$)	Ethanol ($\mu g/m^3$)	TAME ($\mu g/m^3$)
SV-1	**1/8/2010**	<920	<8.1	**9.9**	**40**	<9.7	<9.7	<9.7	<9.0	<17	<21	<47
SV-2	**1/8/2010**	**1,400**	**60**	**33**	**60**	<8.7	<8.7	**10**	<8.1	<16	<19	<42
SV-3	**1/8/2010**	<770	<6.7	**12**	**49**	<8.0	<8.0	**11**	<7.5	<14	<18	<39
SV-4	**1/8/2010**	**35,000**	**92**	**13**	**54**	<7.7	**8.2**	**12**	<7.2	<14	<17	<38
SV-5	**1/8/2010**	**16000**	**4,700**	**14**	**45**	<8.5	<8.5	**13**	<7.9	<15	<19	<42

notes:
<: below the laboratory reporting limit
$\mu g/m^3$: micrograms per cubic meter

MTBE: Methyl tertiary butyl ether
1,2-DCA: 1,2-dichloroethane
EDB: 1,2-dibromoethane
TAME: tertiary amyl methyl ether
TPH-G: total petroleum hydrocarbons as gasoline

Soil Gas Analytical Results (Expanded List & Fixed Gases)
76 Service Station No. 11270
3255 Mecartney Road, Alameda, CA

Sample ID	Date	Iso-propanol ($\mu g/m^3$)	t-butanol ($\mu g/m^3$)	Isopropyl ether ($\mu g/m^3$)	TBEE ($\mu g/m^3$)	Oxygen/ Argon (% v/v)	Nitrogen (% v/v)	Methane (% v/v)	CO_2 (% v/v)	CO (% v/v)
SV-1	**1/8/2010**	**1,200**	<34	<47	<47	**16**	**82**	<0.0022	**4.0**	<0.0022
SV-2	**1/8/2010**	**60**	<30	<42	<42	**1.6**	**35**	**55**	**10**	<0.0020
SV-3	**1/8/2010**	<22	<28	<39	<39	**12**	**78**	<0.0019	**8.6**	<0.0019
SV-4	**1/8/2010**	**6,200**	<27	<38	<38	**2.9**	**87**	**0.89**	**9.3**	<0.0018
SV-5	**1/8/2010**	**3,800**	<30	<42	<42	**5.1**	**76**	**10**	**9.0**	<0.0020

notes:
<: below the laboratory reporting limit
$\mu g/m^3$: micrograms per cubic meter
MTBE: Methyl tertiary butyl ether
1,2-DCA: 1,2-dichloroethane
(%) v/v: percent volume of gas per volume of air
TBEE: tertiary butyl ethyl ether
CO_2: Carbon Dioxide
CO: Carbon Monoxide

Attachment C

Historic Groundwater Data and
Rose Diagram

HISTORICAL GROUND WATER GAUGING AND ANALYTICAL DATA
COP ELT 2611270
3255 MCCARTNEY RD
ALAMEDA, CALIFORNIA

Well I.D.	Date	GROUND WATER GAUGING DATA				GROUND WATER ANALYTICAL DATA																
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	Total Purgeable Hydrocarbons (ug/L)	TPH-g (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	TBA (ug/L)	Ethanol (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)	Diesel Range Organics (ug/L)	Oxygen, Dissolved (mg/L)
MW-1	10/29/1992	7.49	7.28	NP	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/21/1993	7.49	5.40	NP	2.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/5/1994	7.49	5.64	NP	1.85	--	1700	20	1.1	3.9	7.6	--	--	--	--	--	--	--	--	--	--	--
	7/28/1994	7.49	6.22	NP	1.27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/26/1994	7.49	6.40	NP	1.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/5/1995	7.49	NG	NG	NG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	10/29/1992	7.07	6.84	NP	0.23	--	2500	140	<10	65	22	--	--	--	--	--	--	--	--	--	3900	--
	6/21/1993	7.07	5.49	NP	1.58	--	720	12	1.5	11	12	--	--	--	--	--	--	--	--	--	770	--
	4/5/1994	7.07	5.40	NP	1.67	--	420	<0.50	<0.50	<0.50	4	4500	4500	--	--	--	--	--	--	--	1300	1.8
	7/28/1994	7.07	5.97	NP	1.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/26/1994	7.07	6.10	NP	0.97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/2/1995	7.07	NG	NG	NG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	10/29/1992	7.08	7.14	NP	-0.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/21/1993	7.08	5.84	NP	1.24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/5/1994	7.08	5.83	NP	1.25	--	990	3.2	<0.50	<0.50	1.3	790	790	--	--	--	--	--	--	--	4300	--
	7/28/1994	7.08	6.32	NP	0.76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/26/1994	7.08	6.42	NP	0.66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/2/1995	7.08	NG	NG	NG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	10/29/1992	7.13	6.90	NP	0.23	--	2600	250	2.5	74	6.6	--	--	--	--	--	--	--	--	--	--	--
	6/21/1993	7.13	5.54	NP	1.59	--	1400	24	2.9	2.6	7.9	--	--	--	--	--	--	--	--	--	1100	--
	4/5/1994	7.13	5.46	NP	1.67	--	930	33	0.8	<0.50	2.8	8700	8700	--	--	--	--	--	--	--	940	2.7
	7/28/1994	7.13	6.02	NP	1.11	--	2400	19	1.8	0.5	8	--	--	--	--	--	--	--	--	--	1400	6.7
	10/26/1994	7.13	6.13	NP	1.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/5/1995	7.13	NG	NG	NG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	6/21/1993	8.36	7.44	NP	0.92	--	<50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	--	--	--	100	--
	4/5/1994	8.36	7.42	NP	0.94	--	<50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	--	--	--	100	2.5
	7/28/1994	8.36	7.88	NP	0.48	--	<50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	--	--	--	<50	7.4
	10/26/1994	8.36	7.92	NP	0.44	--	<50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	--	--	--	160	5.5
	2/5/1995	8.36	7.83	NP	0.53	--	<50	<0.25	<0.25	<0.25	<0.50	--	--	--	--	--	--	--	--	--	<500	--
	5/5/1995	8.36	9.00	NP	-0.64	--	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--	--	--	3.1
	7/19/1995	8.36	9.03	NP	-0.67	--	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--	--	--	4.6
	10/12/1995	8.36	9.15	NP	-0.79	--	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5.0	--	--	--	--	--	--	--	--	4.3
	1/8/1996	8.36	9.04	NP	-0.68	--	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5.0	--	--	--	--	--	--	--	--	4.9
	9/11/1997	8.36	8.90	NP	-0.54	--	<50	<0.50	<1.0	<1.0	<1.0	<10	<10	--	--	--	--	--	--	--	--	4
	1/27/1998	8.36	8.27	NP	0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/19/1998	8.36	8.60	NP	-0.24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/27/2000	8.36	8.68	NP	-0.32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/21/2001	8.36	8.13	NP	0.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/18/2001	8.36	NG	NG	NG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/19/2008	8.36	8.93	NP	-0.57	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<300	<0.50	<0.50	<0.50	<0.50	<0.50	--	--
	7/22/2009	8.36	8.85	NP	-0.49	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<300	<0.50	<0.50	<0.50	<0.50	<0.50	--	--
	7/6/2010	8.36	8.35	NP	0.01	--	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	<5.0	<250	<0.50	<0.50	<0.50	<1.0	<1.0	--	1.7
MW-6	2/5/1995	6.88	6.39	NP	0.49	--	1000	7.6	19	9.1	96	--	--	--	--	--	--	--	--	--	1000	5
	5/5/1995	6.88	6.85	NP	0.03	--	2300	49	9	130	46	--	--	--	--	--	--	--	--	--	--	3.3
	7/19/1995	6.88	7.13	NP	-0.25	--	1500	84	3.3	28	24	--	--	--	--	--	--	--	--	--	--	3.7
	10/12/1995	6.88	7.35	NP	-0.47	--	1800	38	13	38	86	2500	2500	--	--	--	--	--	--	--	--	4.1
	1/8/1996	6.88	7.04	NP	-0.16	--	1300	31	4.7	60	53	170	170	--	--	--	--	--	--	--	--	4.2
	9/11/1997	6.88	7.29	NP	-0.41	--	<250	8.5	<5.0	11	6	1400	1400	--	--	--	--	--	--	--	--	3.5
	1/27/1998	6.88	6.20	NP	0.68	--	47000	350	150	360	690	38000	38000	--	--	--	--	--	--	--	--	4.6
	4/19/1998	6.88	6.64	NP	0.24	--	36000	40	510	140	10500	660	660	--	--	--	--	--	--	--	--	4
	9/27/2000	6.88	6.99	NP	-0.11	--	1400	6.9	19	110	53	33	33	--	--	--	--	--	--	--	--	--
	3/21/2001	6.88	6.36	NP	0.52	--	330	2.2	1.42	50.4	10.2	56.3	56.3	--	--	--	--	--	--	--	--	--
	9/18/2001	6.88	7.11	NP	-0.23	--	290	0.957	<5.0	11.2	6.83	50.7	50.7	--	--	--	--	--	--	--	--	--
	9/19/2008	6.88	7.31	NP	-0.43	--	83	<0.50	4.1	2	17	3.4	3.4	<10	<300	<0.50	<0.50	<0.50	<0.50	<0.50	--	--
	7/22/2009	6.88	7.27	NP	-0.39	<50	--	<0.50	<0.50	<0.50	<1.0	2.6	2.6	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--
	7/6/2010	6.88	6.81	NP	0.07	--	<50.0	<0.50	<0.50	<0.50	<1.5	--	1	<5.0	<250	<0.50	<0.50	<0.50	<1.0	<1.0	--	1.58
MW-7	2/5/1995	6.62	7.62	NP	-1.00	--	280	<0.25	<0.25	<0.25	<0.50	--	--	--	--	--	--	--	--	--	<500	5.1
	5/5/1995	6.62	7.64	NP	-1.02	--	290	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--	--	--	3.6
	7/19/1995	6.62	7.70	NP	-1.08	--	150	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--	--	--	4.6
	10/12/1995	6.62	7.88	NP	-1.26	--	110	<0.50	<0.50	<0.50	<1.0	390	390	--	--	--	--	--	--	--	--	4.7

HISTORICAL GROUND WATER GAUGING AND ANALYTICAL DATA
COP ELT 2611270
3255 MCCARTNEY RD
ALAMEDA, CALIFORNIA

Well I.D.	Date	GROUND WATER GAUGING DATA				GROUND WATER ANALYTICAL DATA																
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	Total Purgeable Hydrocarbons (ug/L)	TPH-g (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	TBA (ug/L)	Ethanol (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)	Diesel Range Organics (ug/L)	Oxygen, Dissolved (mg/L)
MW-7	1/8/1996	6.62	7.66	NP	-1.04	--	9	<0.50	<0.50	<0.50	<1.0	300	300	--	--	--	--	--	--	--	--	4.9
	9/11/1997	6.62	7.78	NP	-1.16	--	<50	<2.5	<5.0	<5.0	<5.0	63	63	--	--	--	--	--	--	--	--	3.8
	1/27/1998	6.62	7.30	NP	-0.68	--	1400	7.7	<1.0	<1.0	<1.0	920	920	--	--	--	--	--	--	--	--	4.4
	4/19/1998	6.62	7.52	NP	-0.90	--	3500	15	7.7	11	19.3	3600	3600	--	--	--	--	--	--	--	--	4.7
	9/27/2000	6.62	7.71	NP	-1.09	--	<50	<0.50	<0.50	<0.50	<0.50	71	71	--	--	--	--	--	--	--	--	--
	3/21/2001	6.62	7.62	NP	-1.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/29/2001	6.62	7.57	NP	-0.95	--	80	<0.50	<0.50	<0.50	<1.5	88.2	88.2	--	--	--	--	--	--	--	--	--
	9/18/2001	6.62	7.74	NP	-1.12	--	<250	<2.5	<2.5	<2.5	<7.5	36.6	36.6	--	--	--	--	--	--	--	--	--
	9/19/2008	6.62	7.81	NP	-1.19	--	<50	<0.50	<0.50	<0.50	<0.50	1.6	1.6	<10	<300	<0.50	<0.50	<0.50	<0.50	<0.50	--	--
	7/22/2009	6.62	7.70	NP	-1.08	<50	--	<0.50	<0.50	<0.50	<1.0	1.2	1.2	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--
	7/6/2010	6.62	7.71	NP	-1.09	--	<50.0	<0.50	<0.50	<0.50	<1.5	--	0.75	<5.0	<250	<0.50	<0.50	<0.50	<1.0	<1.0	--	0.98
XW-1	6/21/1993	NSVD	NG	NG	NG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/5/1994	NSVD	5.36	NP	NSVD	--	<50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	--	--	--	70	3
	7/28/1994	NSVD	5.92	NP	NSVD	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/26/1994	NSVD	6.05	NP	NSVD	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/5/1995	7.49	5.82	NP	1.67	--	<50	<0.25	<0.25	<0.25	<0.50	--	--	--	--	--	--	--	--	--	<500	4.9
	5/5/1995	7.49	5.57	NP	1.92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/19/1995	7.49	6.12	NP	1.37	--	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--	--	--	4.3
	10/12/1995	7.49	6.82	NP	0.67	--	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5.0	--	--	--	--	--	--	--	--	3.8
	1/8/1996	7.49	6.11	NP	1.38	--	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5.0	--	--	--	--	--	--	--	--	4.7
	9/11/1997	7.49	6.57	NP	0.92	--	<50	<0.50	<1.0	<1.0	<1.0	<10	<10	--	--	--	--	--	--	--	--	3.3
	1/27/1998	7.49	5.27	NP	2.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/19/1998	7.49	5.24	NP	2.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/27/2000	7.49	6.13	NP	1.36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/21/2001	7.49	5.97	NP	1.52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/18/2001	7.49	6.59	NP	0.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/19/2008	7.49	6.76	NP	0.73	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<300	<0.50	<0.50	<0.50	<0.50	<0.50	--	--
	7/22/2009	7.49	6.65	NP	0.84	<50	--	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--
	7/6/2010	7.49	5.71	NP	1.78	--	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	<5.0	<250	<0.50	<0.50	<0.50	<1.0	<1.0	--	0.72
XW-2	6/21/1993	7.48	5.89	NP	1.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/5/1994	7.48	5.77	NP	1.71	--	<50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	--	--	--	160	3
	7/28/1994	7.48	6.25	NP	1.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/26/1994	7.48	6.39	NP	1.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/5/1995	7.48	5.62	NP	1.86	--	<50	<0.25	0.38	<0.25	<0.50	--	--	--	--	--	--	--	--	--	<500	5.2
	5/5/1995	7.48	5.66	NP	1.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/19/1995	7.48	6.80	NP	0.68	--	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--	--	--	3.9
	10/12/1995	7.48	7.21	NP	0.27	--	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5.0	--	--	--	--	--	--	--	--	4.3
	1/8/1996	7.48	6.79	NP	0.69	--	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5.0	--	--	--	--	--	--	--	--	4.2
	9/11/1997	7.48	6.86	NP	0.62	--	<50	<0.50	<1.0	<1.0	<1.0	<10	<10	--	--	--	--	--	--	--	--	3.6
	1/27/1998	7.48	5.88	NP	1.60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/19/1998	7.48	5.42	NP	2.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/27/2000	7.48	6.86	NP	0.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/21/2001	7.48	6.60	NP	0.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/18/2001	7.48	7.15	NP	0.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/19/2008	7.48	7.39	NP	0.09	--	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<300	<0.50	<0.50	<0.50	<0.50	<0.50	--	--
	7/22/2009	7.48	7.23	NP	0.25	<50	--	1.5	11	1.9	12	<0.50	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--
	7/6/2010	7.48	6.54	NP	0.94	--	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	<5.0	<250	<0.50	<0.50	<0.50	<1.0	<1.0	--	1.51
XW-3	6/21/1993	6.84	5.85	NP	0.99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/5/1994	6.84	5.85	NP	0.99	--	<50	<0.50	0.7	<0.50	<0.50	--	--	--	--	--	--	--	--	--	150	3.1
	7/28/1994	6.84	6.28	NP	0.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/26/1994	6.84	6.40	NP	0.44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/5/1995	6.84	7.23	NP	-0.39	--	280	<0.50	<0.50	0.63	<1.0	--	--	--	--	--	--	--	--	--	<500	4.9
	5/5/1995	6.84	7.43	NP	-0.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/19/1995	6.84	7.60	NP	-0.76	--	400	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--	--	--	43
	10/12/1995	6.84	7.74	NP	-0.90	--	130	<0.50	<0.50	<0.50	<1.0	480	480	--	--	--	--	--	--	--	--	4.7
	1/8/1996	6.84	7.58	NP	-0.74	--	320	<2.5	<2.5	<2.5	<5.0	1100	1100	--	--	--	--	--	--	--	--	4.4
	1/27/1998	6.84	7.01	NP	-0.17	--	1200	2.8	<1.0	<1.0	<1.0	990	990	--	--	--	--	--	--	--	--	4.3
	4/19/1998	6.84	7.28	NP	-0.44	--	4500	<2.5	<5.0	<5.0	<5.0	4800	4800	--	--	--	--	--	--	--	--	4.3
	9/27/2000	6.84	7.59	NP	-0.75	--	<50	<0.50	<0.50	<0.50	<0.50	35	35	--	--	--	--	--	--	--	--	--
	3/21/2001	6.84	7.35	NP	-0.51	--	<250	<2.5	<2.5	<2.5	<7.5	61.7	61.7	--	--	--	--	--	--	--	--	--

HISTORICAL GROUND WATER GAUGING AND ANALYTICAL DATA
COP ELT 2611270
3255 MCCARTNEY RD
ALAMEDA, CALIFORNIA

Well I.D.	Date	GROUND WATER GAUGING DATA				GROUND WATER ANALYTICAL DATA															
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	Total Purgeable Hydrocarbons (ug/L)	TPH-g (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	TBA (ug/L)	Ethanol (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)	Diesel Range Organics (ug/L)	Oxygen, Dissolved (mg/L)
XW-3	9/18/2001	6.84	7.70	NP	-0.86	--	<250	<2.5	<2.5	<2.5	<7.5	23.4	23.4	--	--	--	--	--	--	--	--	--
	9/19/2008	6.84	7.90	NP	-1.06	--	<50	<0.50	<0.50	<0.50	<0.50	1.3	1.3	<10	<300	<0.50	<0.50	<0.50	<0.50	<0.50	--	--
	7/22/2009	6.84	7.70	NP	-0.86	<50	--	<0.50	<0.50	<0.50	<1.0	1.4	1.4	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	--	--
	7/6/2010	6.84	7.43	NP	-0.59	--	<50.0	<0.50	<0.50	<0.50	<1.5	--	0.92	<5.0	<250	<0.50	<0.50	<0.50	<1.0	<1.0	--	1.24
QC-1	4/5/1994	NSVD	NG	NG	NG	--	<50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	--	--	--	--	--
	7/28/1994	NSVD	NG	NG	NG	--	2300	19	1.7	0.5	7.4	--	--	--	--	--	--	--	--	--	--	--
	10/26/1994	NSVD	NG	NG	NG	--	<50	<0.50	0.5	<0.50	<0.50	--	--	--	--	--	--	--	--	--	--	--
	2/5/1995	NSVD	NG	NG	NG	--	<50	<0.25	<0.25	<0.25	<0.50	--	--	--	--	--	--	--	--	--	--	--
	5/5/1995	NSVD	NG	NG	NG	--	2400	49	9.2	140	48	--	--	--	--	--	--	--	--	--	--	--
	7/19/1995	NSVD	NG	NG	NG	--	1500	89	3.8	30	26	--	--	--	--	--	--	--	--	--	--	--
	10/12/1995	NSVD	NG	NG	NG	--	1100	33	7	18	44	2200	2200	--	--	--	--	--	--	--	--	--
	1/8/1996	NSVD	NG	NG	NG	--	1000	27	4	49	44	150	150	--	--	--	--	--	--	--	--	--
	9/11/1997	NSVD	NG	NG	NG	--	210	8.7	<5.0	14	8	1400	1400	--	--	--	--	--	--	--	--	--
	1/27/1998	NSVD	NG	NG	NG	--	51000	190	120	300	580	35000	35000	--	--	--	--	--	--	--	--	--
	4/19/1998	NSVD	NG	NG	NG	--	24000	20	360	81	7100	480	480	--	--	--	--	--	--	--	--	--
QC-2	4/5/1994	NSVD	NG	NG	NG	--	<50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	--	--	--	--	--
	7/28/1994	NSVD	NG	NG	NG	--	<50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	--	--	--	--	--
	10/26/1994	NSVD	NG	NG	NG	--	<50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	--	--	--	--	--
	2/5/1995	NSVD	NG	NG	NG	--	<50	<0.25	<0.25	<0.25	<0.50	--	--	--	--	--	--	--	--	--	--	--
	5/5/1995	NSVD	NG	NG	NG	--	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--	--	--	--
	7/19/1995	NSVD	NG	NG	NG	--	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--	--	--	--
	10/12/1995	NSVD	NG	NG	NG	--	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5.0	--	--	--	--	--	--	--	--	--
	1/8/1996	NSVD	NG	NG	NG	--	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5.0	--	--	--	--	--	--	--	--	--

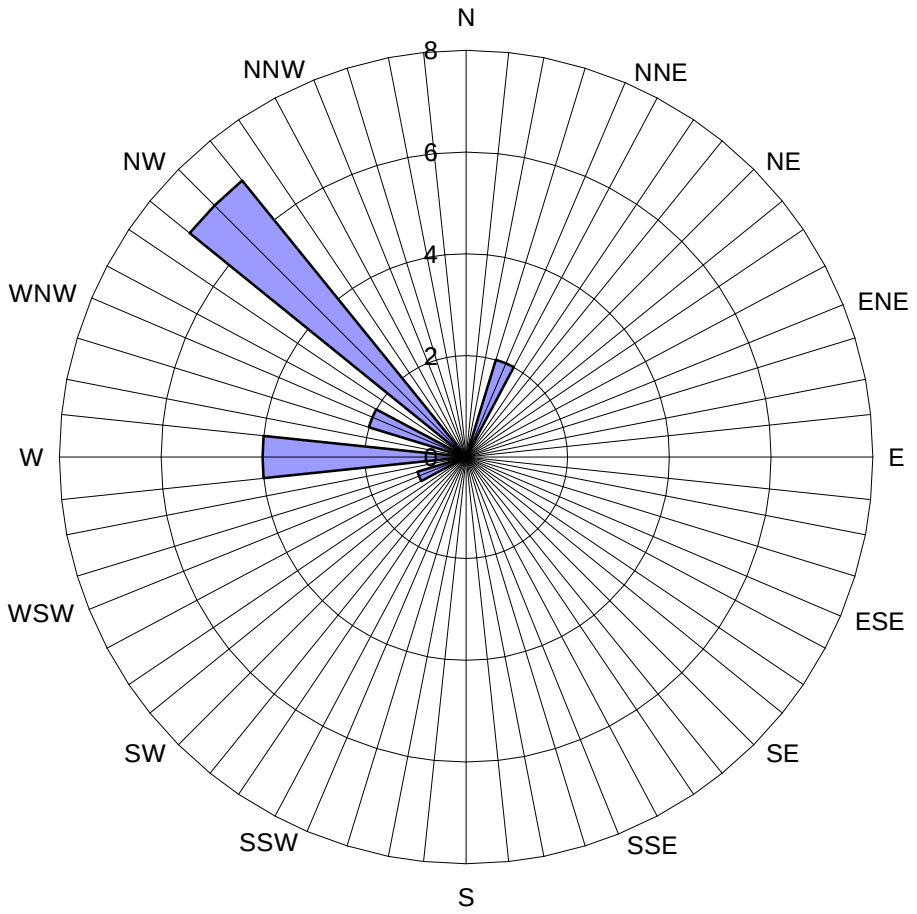
Gauging Notes:

TOC - Top of Casing
ft - Feet
NP - LNAPL not present
LNAPL - Light non-aqueous phase liquid
* - Corrected for LNAPL if present (assumes LNAPL specific gravity = 0.75)
NG - Not gauged
NSVD - Not surveyed
-- - No information available
NGV - No guidance value

Analytical Notes:

-- - No information available
< - Not detected at or above indicated laboratory reporting limit
LPH - Liquid Phase Hydrocarbons
NL - Well Not Located
NO - Natural Obstruction (ice, snow, flooded, etc)
NS - Well not sampled.
UG/L - micrograms/liter
WD - Well Destroyed
WI - Well Inaccessable

Historic Groundwater Flow Directions
BP Station No. 11270
3255 Mecartney Road
Alameda, California



Groundwater Flow Direction

Legend
Groundwater flow directions are based on data from the Fourth Quarter 1994 to the Third Quarter 2010. 16 data points shown.

11270 ROSE DIAGRAM.xls

Groundwater Gradient and Flow Direction

BP Station Number 11270
3255 Mecartney Road
Alameda, California

Site	Monitoring Date	Groundwater Gradient	Groundwater Flow Direction															
		(feet per foot)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
11270	10/26/94	0.03	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0
	02/05/95	0.02	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0
	05/05/95	0.03	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0
	01/08/96	0.02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0
	09/11/97	0.01	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0
	01/27/98	0.02 ; 0.07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0
	04/19/98	0.03	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0
	07/29/99	0.06	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10/18/99	0.06	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	01/12/00	0.07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0
	09/27/00	0.02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0
	03/21/01	0.02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0
	09/18/01	0.01	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0
	09/18/08	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0
	07/22/09	0.013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0
	07/06/10	0.017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0.028 Average	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**4**	**2**	**7**	**0**

Explanation
NA = Not available
Number of Events = 16

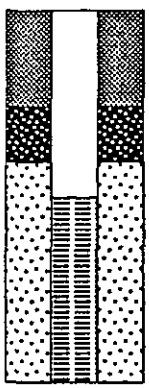
Attachment D

Soil Boring Logs

UNIFIED SOIL CLASSIFICATION SYSTEM - VISUAL CLASSIFICATION OF SOILS
(ASTM D-2488)

MAJOR DIVISIONS		GROUP SYMBOL	GROUP NAME	DESCRIPTION
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	GW	Well-graded gravel Well-graded gravel with sand	Well-graded gravels or gravel-sand mixtures, little or no fines.
		GP	Poorly-graded gravel Poorly-graded gravel with sand	Poorly-graded gravels or gravel sand mixture, little or no fines.
		GM	Silty gravel Silty gravel with sand	Silty gravels, gravel-sand-silt mixtures.
		GC	Clayey gravel Clayey gravel with sand	Clayey gravels, gravel-sand-clay mixtures.
	SAND AND SANDY SOILS	SW	Well-graded sand Well-graded sand with gravel	Well-graded sands or gravelly sands, little or no fines.
		SP	Poorly-graded sand Poorly-graded sand with gravel	Poorly-graded sands or gravelly sands, little or no fines.
		SM	Silty sand Silty sand with gravel	Silty sands, sand-silt mixtures.
		SC	Clayey sand Clayey sand with gravel	Clayey sands, sand-clay mixtures.
FINE GRAINED SOILS	SILTS AND CLAYS	ML	Silt; Silt with sand; Silt with gravel; Sandy silt; Sandy silt with gravel; Gravelly silt; Gravelly silt with sand	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
		CL	Lean clay; Lean clay with sand; Lean clay with gravel Sandy lean clay; Sandy lean clay with gravel Gravelly lean clay; Gravelly lean clay with sand	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
	ELASTIC SILTS AND CLAYS	MH	Elastic silt; Elastic silt with sand; Elastic silt with gravel Sandy elastic silt; Sandy elastic silt with gravel Gravelly elastic silt; Gravelly elastic silt with sand	Inorganic silts, micaceous or diatamaceous fine sandy or silty soils, elastic silts.
		CH	Fat clay; Fat clay with sand; Fat clay with gravel Sandy fat clay; Sandy fat clay with gravel Gravelly fat clay; Gravelly fat clay with sand	Inorganic clays of high plasticity, fat clays.
HIGHLY ORGANIC SOILS		OL/OH	Organic soil; Organic soil with sand; Organic soil with gravel Sandy organic soil; Sandy organic soil with gravel Gravelly organic soil; Gravelly organic soil with sand	Organic silts and organic silt-clays of low plasticity Organic clays of medium to high plasticity.
		Pt	Peat	Peat and other highly organic soils.
BEDROCK		Br	Bedrock	Igneous, metamorphic and sedimentary rocks

WELL CONSTRUCTION DETAILS



= Cement

= Bentonite

= Filter pack

= PVC Blank

= PVC Screen

Approximate first encountered water level

Approximate stabilized water level

Retained for Analysis { MW-1-7.5' } Sample Interval

NOTE: Blow count represents the number of blows of a 140-lb hammer falling 30 inches per blow required to drive a sampler through the last 12 inches of an 18-inch penetration.

No warranty is provided as to the continuity of soil strata between borings. Logs represent the soil section observed at the boring location on the date of drilling only.

S = Sampler sank into medium under the weight of the hammer (no blow count)
P = Sampler was pushed into medium by drilling rig (no blow count)
NR = No Recovery
S-3 = Denotes that sample was sent for laboratory analysis.

SANDS & GRAVELS	BLOWS/FT
VERY LOOSE	0 - 5
LOOSE	5 - 12
MED. DENSE	12 - 37
DENSE	37 - 62
VERY DENSE	OVER 62

SILTS & CLAYS	BLOWS/FT
SOFT	0 - 5
FIRM	5 - 10
STIFF	10 - 20
VERY STIFF	20 - 40
HARD	OVER 40

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

SOIL BORING AND WELL CONSTRUCTION LOG LEGEND

APPENDIX C

PLATE C-1

SITE/LOCATION	BEGUN	BORING DIAMETER	E/BEARING	BORING NO
3255 Mecartney Road, Alameda, C[redacted]	6/17/93	10 Inches	9[redacted] Degrees	MW-5
DRILLING CONTRACTOR	COMPLETED	FIRST ENCOUNTERED WATER DEPTH		BOTTOM OF BORING
Bayland Drilling	6/17/93	7.5 Feet		15 Feet
OPERATOR	LOGGED BY	STATIC WATER DEPTH/DATE		WELL NO.
Adam Higuaro	Tony Ramirez	7.0 Feet		MW-5
DRILL MAKE & MODEL	SAMPLING METHOD			BOTTOM OF WELL
CME 75	California modified split spoon			15 Feet
WELL MATERIAL	SLOT SIZE	FILTER PACK	WELL SEAL	PLANNED USE
4" SCH 40 PVC	0.010"	#2/16	Neat cement over hydrated bentonite pellets	Monitoring

BLOWS/FOOT	PID FIELD HEADSPACE (ppm)	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
		1					PEAT(Pt); dark brown; covered with tanbark; moist.
		2					Poorly graded SAND with Gravel (SP); tan; fine angular to sub-rounded sand; 35% fine to coarse, sub-angular to sub-rounded gravel; trace fines; damp.
		3					
	14.0	4					Poorly graded SAND with Gravel (SP); medium brown; fine angular to sub-rounded sand; 25% fine, sub-angular to sub-rounded gravel; trace fines; damp.
12		5					
		6					Silty SAND (SM); grey- brown; fine to coarse sub-angular to sub-rounded sand; 20% silt; moist.
		7					
		8					
		9					Same as above, but wet.
		10					
		11					Poorly graded GRAVEL with Sand (GP); grey-brown; fine to coarse sub-angular to sub-rounded gravel; 35% fine to coarse, angular to sub-rounded sand; wet.
		12					
		13					Lean CLAY with Sand; grey-brown; fine sub-angular to sub-rounded sand; 40% clay; wet.
		14					
		15					

HYDR-ENVIRONMENTAL TECHNOLOGIES, INC.

DATE: June 18, 1993

APPROVED BY: Owen C. Ratchye, P.E.

SOIL BORING LOG AND WELL CONSTRUCTION DIAGRAM
MW-5

BP Service Station No. 11270
3255 Mecartney Road
Alameda, CA

PLATE B-2

SHEET 1 OF 1

JOB NO. 9-042.1

SITE/LOCATION	BEGUN	BORING DIAMETER	ANG[illegible] BEARING	BORING NO
3255 Mecartney Road, Alameda, CA	1/19/95	10 Inches	90 [illegible]rees	MW-6
DRILLING CONTRACTOR	**COMPLETED**	**FIRST ENCOUNTERED WATER DEPTH**		**BOTTOM OF BORING**
PC Exploration, Inc.	1/19/95	5.0 Feet		15.0 Feet
DRILL MAKE & MODEL	**OPERATOR**	**LOGGED BY**	**STATIC WATER DEPTH/DATE**	**WELL NO.**
CME 75	Frank Bartolovi	Frances Maroni	5.76 Feet (1/28/95)	MW-6
WELL MATERIAL	**SLOT SIZE**	**SAMPLING METHOD**		**BOTTOM OF WELL**
PVC SCH 40	0.010"	California modified split spoon		15.0 Feet
FILTER PACK	**WELL SEAL**			**PLANNED USE**
#2/12 SAND	Neat cement over hydrated bentonite pellets			Monitoring

BLOWS/FOOT	PID FIELD HEADSPACE (ppm)	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
		1					Asphalt, Baserock
		2					SAND (SW); Brown with yellow mottling and iron oxide mottling, well graded, fine grained, subrounded to rounded, moist.
		3					
		4					
5	2.6	5		▽			As above; Dark gray, wet.
		6		▼			
		7					
		8					
		9					
29		10					Silty SAND (SM); Dark gray with black mottling,well graded, fine-grained, subrounded to rounded, some silt, wet.
		11					
		12					
		13					
		14					
		15					As above; Greenish-gray-blue, wet.
		16					
		17					
		18					
		19					
		20					

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

DATE: February 10, 1995

APPROVED BY: Gary Pischke C.E.G.

SOIL BORING LOG AND WELL CONSTRUCTION DIAGRAM
MW-6

BP Service Station No. 11270
3255 Mecartney Road
Alameda, CA

PLATE
B-3

SHEET 1 OF 1

JOB NO.
9-042.2

SITE/LOCATION	BEGUN	BORING DIAMETER	AN[redacted] BEARING	BORING NO
3255 Mecartney Road, Alameda, CA	1/18/95	10 Inches	90 Degrees	MW-7
DRILLING CONTRACTOR	COMPLETED	FIRST ENCOUNTERED WATER DEPTH		BOTTOM OF BORING
PC Exploration, Inc.	1/19/95	5.0 Feet		16.5 Feet
DRILL MAKE & MODEL	OPERATOR	LOGGED BY	STATIC WATER DEPTH/DATE	WELL NO.
CME 75	Frank Bartolovi	Frances Maroni	7.54 Feet	MW-7
WELL MATERIAL	SLOT SIZE	SAMPLING METHOD		BOTTOM OF WELL
PVC SCH 40	0.010"	California modified split spoon		15.0 Feet
FILTER PACK	WELL SEAL			PLANNED USE
#2/12 SAND	Neat cement over hydrated bentonite pellets			Monitoring

BLOWS/FOOT	PID FIELD HEADSPACE (ppm)	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
		1					Asphalt, Baserock
		2					SAND (SP); Gray brown, poorly-graded, fine grained, rounded, medium dense, dry.
		3					
		4					
5	2.6	5		▼			Gravely Clay (CH); Dark reddish brown, high plasticity, some coarse to fine grained angular to subangular gravel, medium stiff, moist.
		6					
		7		▽			Silty SAND (SM); Dark brown with black organic mottling, well-graded, fine grained, occasional coarse to fine grained, angular to subangular gravel, some silt, moist to wet.
		8					
		9					
32		10					As above; Dark gray, some gravel, wet.
		11					Silty SAND (SM); Dark gray with yellow green mottling, well graded, fine-grained, subrounded to rounded, some silt, occasional subangular cobble, wet.
		12					
		13					
		14					
46		15					
		16					SAND (SW); Yellowish orange, well-graded fine-grained, subrounded, wet.
		17					Heaving sands 14.5-16.5 feet bgs.
		18					
		19					
		20					

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

DATE: February 10, 1995

APPROVED BY: Gary Pischke C.E.G.

SOIL BORING LOG AND WELL CONSTRUCTION DIAGRAM
MW-7

BP Service Station No. 11270
3255 Mecartney Road
Alameda, CA

PLATE
B-4

SHEET 1 OF 1

JOB NO.
9-042.2

Delta

Consultants, Inc.

Project No:	I42611270	Client:	ELT	Well No: SV-1
Logged By:	Joe Dumas	Location:	3255 Mecartney Rd, Alameda, CA	Page 1 of 1
Driller:	Gregg Drilling	Date Drilled:	12/10/2009	Location Map - See Site Map for Location
Drilling Method:	Hand Auger	Hole Diameter:	3"	
Sampling Method:	Hand Auger	Hole Depth:	5' 2"	
Casing Type:	1/4"OD, 0.17"ID Nylaflow	Well Diameter:	1/4"	
Slot Size:	Vapor Tip	Well Depth:	5'	
Gravel Pack:	-	Casing Stickup:	-	
Elevation		Northing		Easting

Well Completion: Backfill	Well Completion: Casing	Well Completion: Backfill	Well Details	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample: Recovery	Sample: Interval	Soil Type	LITHOLOGY / DESCRIPTION
			7" diam vault									Concrete
			grout					1				Pea Gravel
			1/4"Nylaflow tubing					2			CL	**Lean Clay with Sand:** brown, 20% fine sand, medium plastic, medium stiff, moist
			bentonite					3				
			sand					4				
			vapor tip		MOIST	0.1						As above: becoming dark brown in color
								5				Boring terminated at 5 feet 2 inches below ground surface.
								6				
								7				
								8				
								9				
								10				
								11				
								12				
								13				
								14				
								15				
								16				
								17				
								18				
								19				
								20				
								21				
								22				
								23				
								24				
								25				

Delta

Consultants, Inc.

Project No:	I42611270	Client:	ELT	Well No: SV-2
Logged By:	Joe Dumas	Location:	3255 Mecartney Rd, Alameda, CA	Page 1 of 1
Driller:	Gregg Drilling	Date Drilled:	12/10/2009	Location Map - See Site Map for Location
Drilling Method:	Hand Auger	Hole Diameter:	3"	
Sampling Method:	Hand Auger	Hole Depth:	5' 2"	
Casing Type:	1/4"OD, 0.17"ID Nylaflow	Well Diameter:	1/4"	
Slot Size:	Vapor Tip	Well Depth:	5'	
Gravel Pack:	-	Casing Stickup:	-	
Elevation		Northing		Easting

Well Completion: Backfill	Well Completion: Casing	Well Completion: Backfill	Well Details	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample: Recovery	Sample: Interval	Soil Type	LITHOLOGY / DESCRIPTION
			7" diam vault									9" Concrete
												3" Pea Gravel
			grout					1			CL	**Lean Clay with Sand:** dark brown, 20% fine sand,
			1/4"Nylaflow tubing					2				medium plastic, medium stiff, moist
			bentonite					3				
			sand									
			vapor tip		MOIST	0.4		4			ML	**Silt**: black, 10% fine sand, non-plastic, soft, moist
								5				Boring terminated at 5 feet 2 inches below ground surface.
								6				
								7				
								8				
								9				
								10				
								11				
								12				
								13				
								14				
								15				
								16				
								17				
								18				
								19				
								20				
								21				
								22				
								23				
								24				
								25				

Delta

Consultants, Inc.

Project No:	I42611270	Client:	ELT	Well No: SV-3
Logged By:	Joe Dumas	Location:	3255 Mecartney Rd, Alameda, CA	Page 1 of 1
Driller:	Gregg Drilling	Date Drilled:	12/11/2009	Location Map - See Site Map for Location
Drilling Method:	Hand Auger	Hole Diameter:	3"	
Sampling Method:	Hand Auger	Hole Depth:	5' 2"	
Casing Type:	1/4"OD, 0.17"ID Nylaflow	Well Diameter:	1/4"	
Slot Size:	Vapor Tip	Well Depth:	5'	
Gravel Pack:	-	Casing Stickup:	-	
Elevation		Northing		Easting

Well Completion: Backfill	Well Completion: Casing	Well Completion: Backfill	Well Details	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample: Recovery	Sample: Interval	Soil Type	LITHOLOGY / DESCRIPTION
			7" diam vault								4" Concrete; 2" Pea Gravel
			grout				1			SW-SC	**Well Graded Sand with Clay**: tan with white
			1/4"Nylaflow tubing				2			SW	(trace white substance has the consistency of clay) 10% fines, medium dense
			bentonite				3				**Well Graded Sand:** light brown, <5% fines, loose
			sand				4			SC	**Clayey Sand**: light brown-red with trace gray clay, 25% fines, 10% coarse gravel, dense
			vapor tip	MOIST			5			SM	**Silty Sand:** brown, 20% fines, 10% organic matter, medium dense
											Boring terminated at 5 feet 2 inches below ground surface.
							6				
							7				
							8				
							9				
							10				
							11				
							12				
							13				
							14				
							15				
							16				
							17				
							18				
							19				
							20				
							21				
							22				
							23				
							24				
							25				

Delta

Consultants, Inc.

Project No:	I42611270	Client:	ELT	Well No: SV-4
Logged By:	Joe Dumas	Location:	3255 Mecartney Rd, Alameda, CA	Page 1 of 1
Driller:	Gregg Drilling	Date Drilled:	12/11/2009	Location Map - See Site Map for Location
Drilling Method:	Hand Auger	Hole Diameter:	3"	
Sampling Method:	Hand Auger	Hole Depth:	5' 2"	
Casing Type:	1/4"OD, 0.17"ID Nylaflow	Well Diameter:	1/4"	
Slot Size:	Vapor Tip	Well Depth:	5'	
Gravel Pack:	-	Casing Stickup:	-	
Elevation		Northing		Easting

Well Completion: Backfill	Well Completion: Casing	Well Completion: Backfill	Well Details	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample: Recovery	Sample: Interval	Soil Type	LITHOLOGY / DESCRIPTION
			7" diam vault									Concrete
			grout					1			SW	**Well Graded Sand:** tan, 85% fine sand, 15% medium sand, loose
			1/4"Nylaflow tubing					2			CL	**Lean Clay**: brown, 10% fine sand, medium plastic, moist
			bentonite					3			CL	**Lean Clay with Sand:** brown-red, 15% fine sand, medium plastic, moist
			sand					4			ML	**Silt:** black, 5% fine sand, low plastic, moist
			vapor tip		MOIST			5				Boring terminated at 5 feet 2 inches below ground surface.
								6				
								7				
								8				
								9				
								10				
								11				
								12				
								13				
								14				
								15				
								16				
								17				
								18				
								19				
								20				
								21				
								22				
								23				
								24				
								25				

Delta

Consultants, Inc.

Project No:	I42611270	Client:	ELT
Logged By:	Joe Dumas	Location:	3255 Mecartney Rd, Alameda, CA
Driller:	Gregg Drilling	Date Drilled:	12/10/2009
Drilling Method:	Hand Auger	Hole Diameter:	3"
Sampling Method:	Hand Auger	Hole Depth:	5' 2"
Casing Type:	1/4"OD, 0.17"ID Nylaflow	Well Diameter:	1/4"
Slot Size:	Vapor Tip	Well Depth:	5'
Gravel Pack:	-	Casing Stickup:	-
Elevation		Northing	Easting

Well No: SV-5
Page 1 of 1

Location Map - See Site Map for Location

Well Completion (Backfill / Casing / Backfill)	Well Details	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
	7" diam vault									Concrete
	grout					1				Pea Gravel
	1/4"Nylaflow tubing					2			CL	**Lean Clay:** dark brown, 10% fine gravel, medium plastic, medium stiff, moist, trace sand
	bentonite					3				
	sand					4			ML	**Silt**: black, <5% fine sand, non-plastic, soft, moist
	vapor tip		MOIST	0.4		5				
										Boring terminated at 5 feet 2 inches below ground surface.
						6				
						7				
						8				
						9				
						10				
						11				
						12				
						13				
						14				
						15				
						16				
						17				
						18				
						19				
						20				
						21				
						22				
						23				
						24				
						25				

Attachment E

Sensitive Receptor Documents

SENSITIVE RECEPTORS SURVEY
Site Survey and Literature Research

Store No: 11270
Location: 3255 McCartney Rd.
City/State Alameda, CA

I. Provide answers to the following questions:

a. Is a public water supply well within 2500 ft? (y/(n))
If yes, Distance (ft)_____

b. Is a private water supply well within 1000 ft? (y/(n))
If yes, Distance (ft)_____

c. Is a subway within 1000 ft? (y/(n))
If yes, Distance (ft)_____

d. Is a basement within 1000 ft? (y/(n))
If yes, Distance (ft)_____

e. Is a School within 1000 ft? (y/(n))
If yes, Distance (ft)_____

f. Is a surface body of water within 1000 ft? ((y)/n)
If yes, Distance (ft) 500

II. Describe type of local water supply:

Public
*Supplier's Name East Bay Municipal District 891-0615
*Supplier's Source American/Mokulumne River - Folsom
*Distance to Site 90 mi
Private _____

III. Aquifer Classification, if available:

_____ Class I: Special Ground Waters
Irreplaceable Drinking Water Sources
N/A Ecologically Vital

_____ Class II: Current and Potential Drinking Water

_____ Class III: Not Potential Source of Drinking Water

IV. Describe observation wells, if any:

Number 4
Free Product _____ (y/(n))

V. Signature of Preparer Henry Hurdmans Date 11-4-92

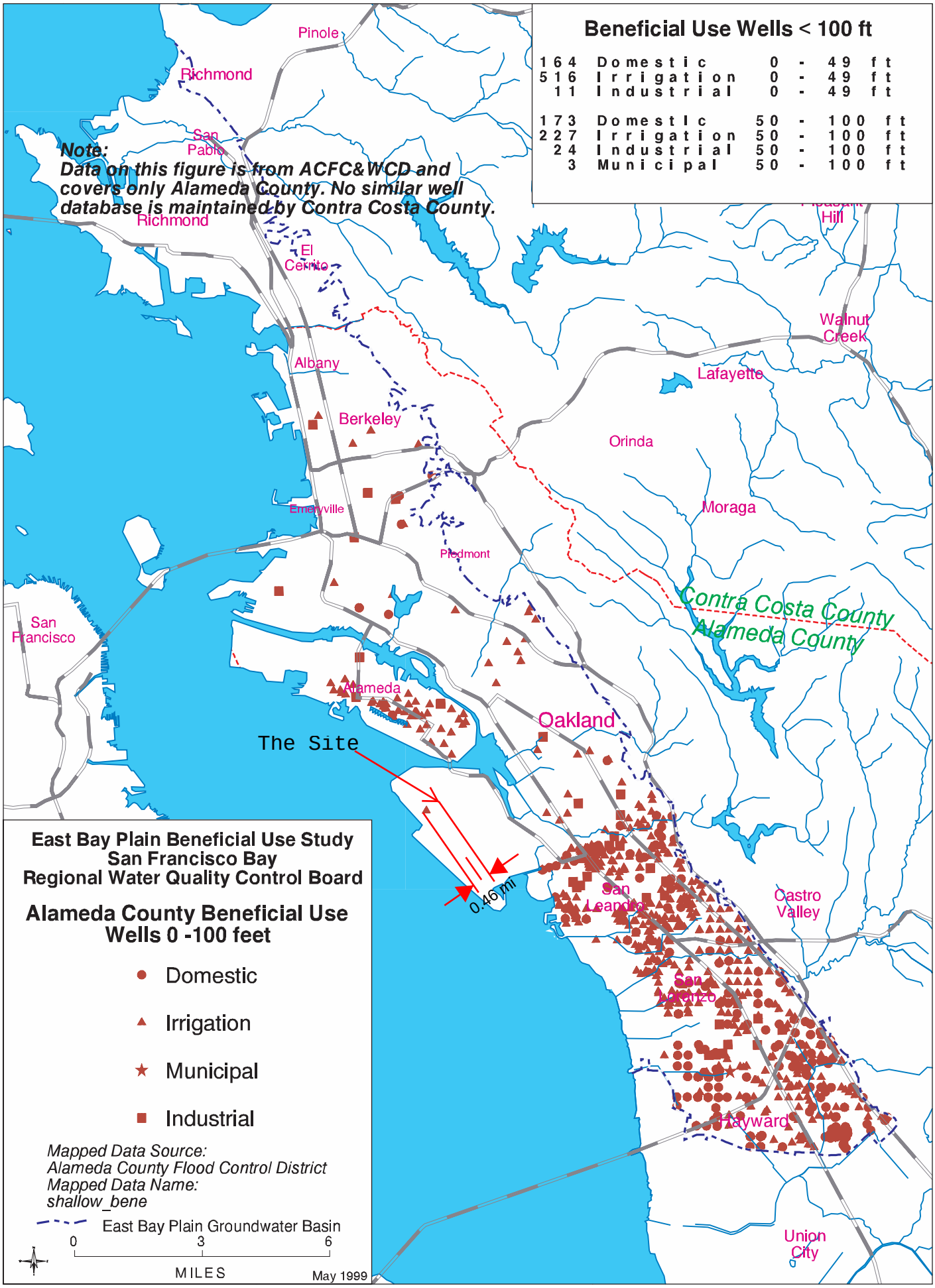

Beneficial Use Wells < 100 ft
164 Domestic 0 - 49 ft
516 Irrigation 0 - 49 ft
11 Industrial 0 - 49 ft
173 Domestic 50 - 100 ft
227 Irrigation 50 - 100 ft
24 Industrial 50 - 100 ft
3 Municipal 50 - 100 ft
Note:
Data on this figure is from ACFC&WCD and covers only Alameda County. No similar well database is maintained by Contra Costa County.
Pinole
Richmond
San Pablo
Richmond
El Cerrito
Albany
Berkeley
Emeryville
Piedmont
Oakland
Alameda
San Francisco
The Site
0.46 mi
Hill
Walnut Creek
Lafayette
Orinda
Moraga
Contra Costa County
Alameda County
San Leandro
Castro Valley
San Lorenzo
Hayward
Union City
East Bay Plain Beneficial Use Study
San Francisco Bay
Regional Water Quality Control Board
Alameda County Beneficial Use Wells 0 -100 feet
Domestic
Irrigation
Municipal
Industrial
Mapped Data Source:
Alameda County Flood Control District
Mapped Data Name:
shallow_bene
East Bay Plain Groundwater Basin
0 3 6
MILES
May 1999

Figure 16

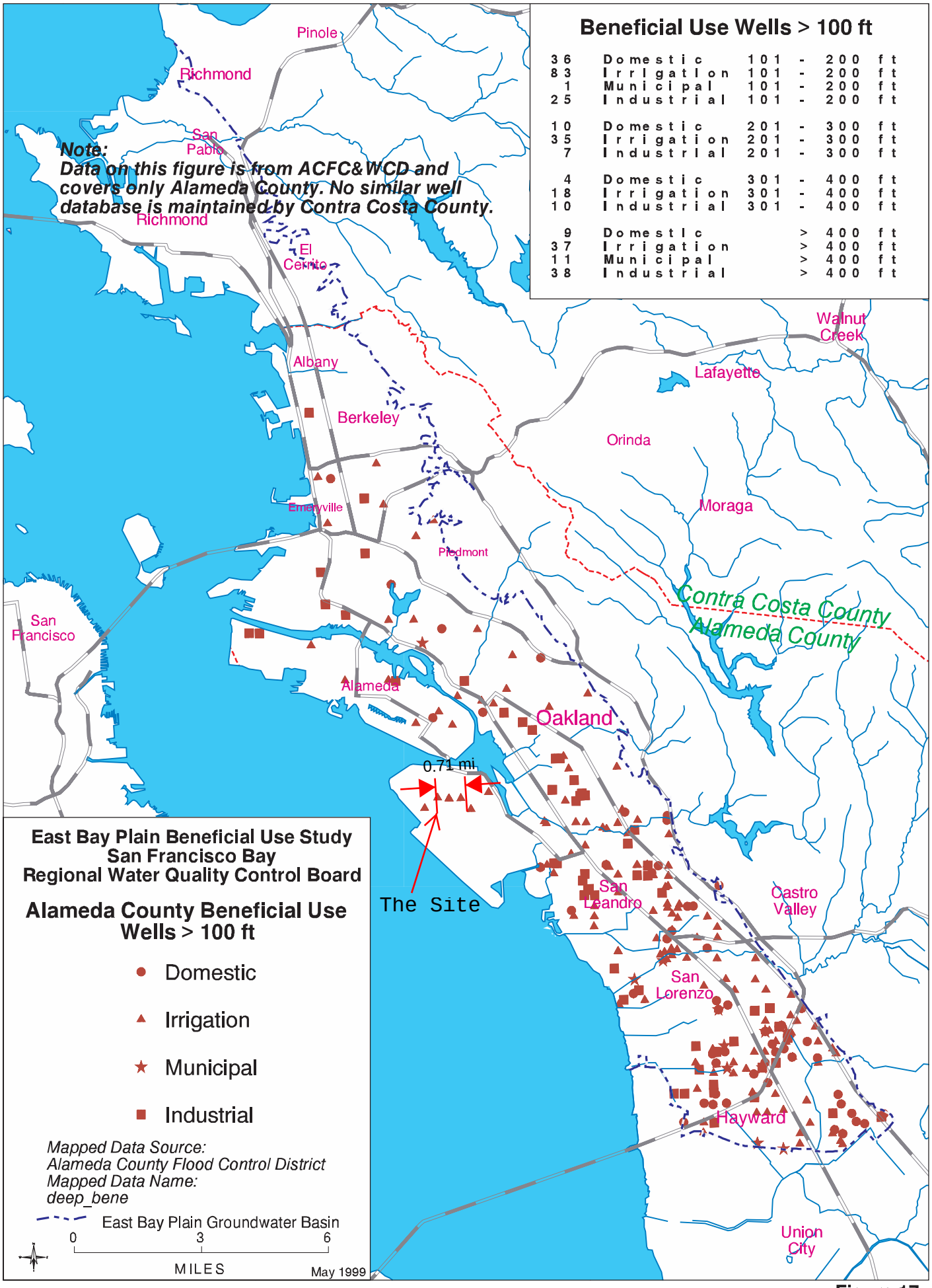

Beneficial Use Wells > 100 ft
36 Domestic 101 - 200 ft
83 Irrigation 101 - 200 ft
1 Municipal 101 - 200 ft
25 Industrial 101 - 200 ft
10 Domestic 201 - 300 ft
35 Irrigation 201 - 300 ft
7 Industrial 201 - 300 ft
4 Domestic 301 - 400 ft
18 Irrigation 301 - 400 ft
10 Industrial 301 - 400 ft
9 Domestic > 400 ft
37 Irrigation > 400 ft
11 Municipal > 400 ft
38 Industrial > 400 ft
Note:
Data on this figure is from ACFC&WCD and covers only Alameda County. No similar well database is maintained by Contra Costa County.
Pinole
Richmond
San Pablo
Richmond
El Cerrito
Albany
Berkeley
Emeryville
Piedmont
Walnut Creek
Lafayette
Orinda
Moraga
Contra Costa County
Alameda County
San Francisco
Alameda
Oakland
0.71 mi
The Site
San Leandro
Castro Valley
San Lorenzo
Hayward
Union City
East Bay Plain Beneficial Use Study
San Francisco Bay
Regional Water Quality Control Board
Alameda County Beneficial Use Wells > 100 ft
Domestic
Irrigation
Municipal
Industrial
Mapped Data Source:
Alameda County Flood Control District
Mapped Data Name:
deep_bene
East Bay Plain Groundwater Basin
0
3
6
MILES
May 1999

Figure 17

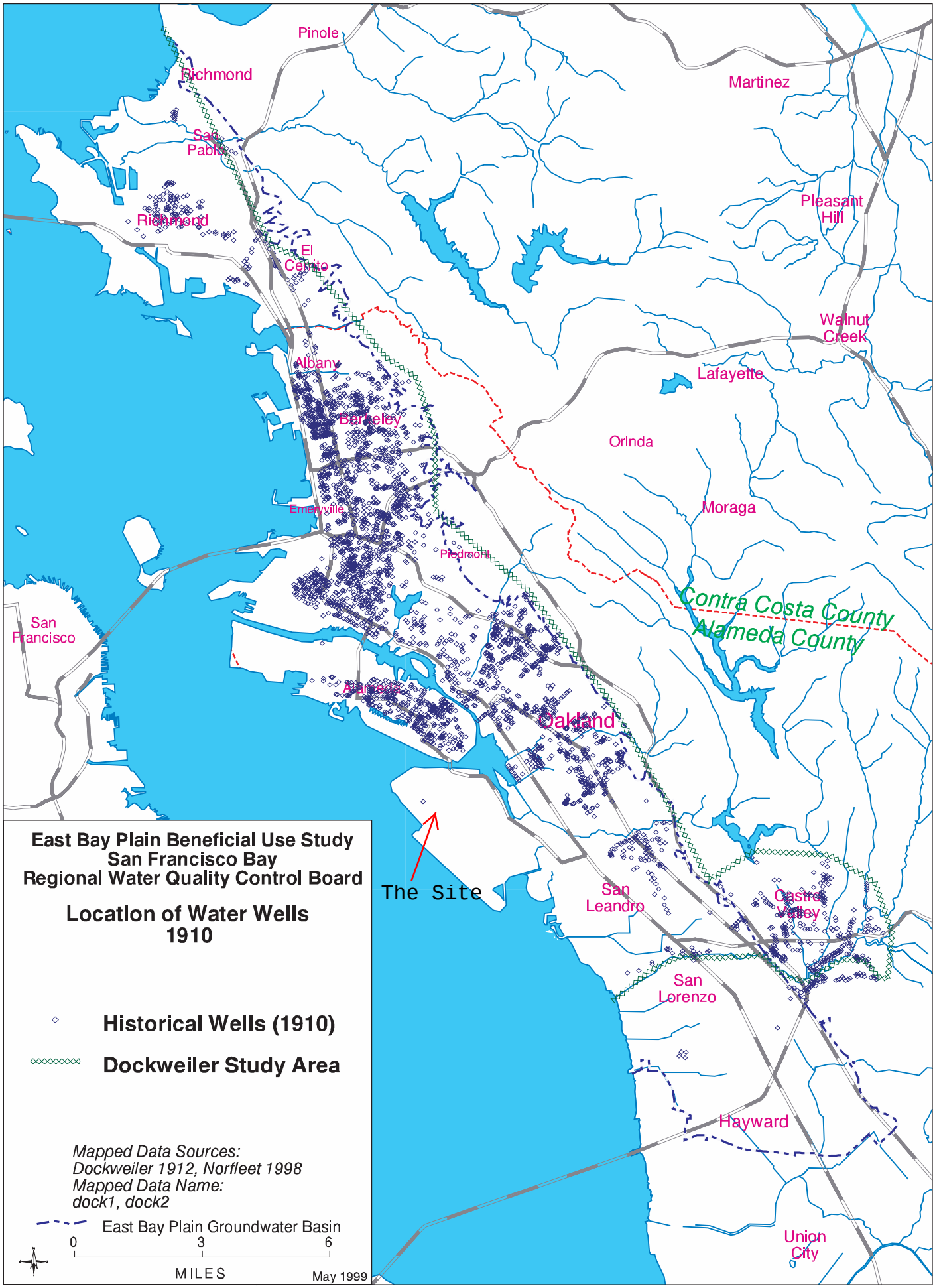

Pinole
Richmond
Martinez
San Pablo
Pleasant Hill
Richmond
El Cerrito
Walnut Creek
Albany
Lafayette
Berkeley
Orinda
Moraga
Emeryville
Piedmont
Contra Costa County
Alameda County
San Francisco
Alameda
Oakland
The Site
San Leandro
Castro Valley
San Lorenzo
Hayward
Union City
East Bay Plain Beneficial Use Study
San Francisco Bay
Regional Water Quality Control Board
Location of Water Wells
1910
Historical Wells (1910)
Dockweiler Study Area
Mapped Data Sources:
Dockweiler 1912, Norfleet 1998
Mapped Data Name:
dock1, dock2
East Bay Plain Groundwater Basin
0
3
6
MILES
May 1999

Figure 2

Attachment F

Soil Vapor Sampling Field Data Sheets

Soil Vapor Sampling Form - Delta Consultants

Project Name:	14261270
Project Number:	"
Date:	9/9/10
Sampled By:	Nadine Reman

Well ID:	SV-1	**Sample ID:**	SV-1
Field Duplicate?	(N) Y	**Duplicate ID:**	—
Sample Depth Interval:	5'		

Weather:	Sunny w/ Some clouds
Barometric Pressure:	29.929 in WC
Relative Pressure:	—
Purge Device:	60cc Syringe
Calculated Purge Volume:	680cc
Purge Rate:	.60L/min
Calculated Purge Time:	680cc/min

Well Purging

Elapsed Time (sec)	Volume Purged (ml)	% LEL	% O_2	H_2S ppm	CO ppm		
15	180	0	13	0	0		
30	320	0	13.2	0	0		
45	500	0	13.2	0	0		
60	680	0	12.8	0	0		

Sample Collection

Summa Cannister ID	Flow Controller ID	Start Time	Start Canister Vacuum (inHg)	End Time	End Canister Vacuum (inHg)	Total Collection Time (mins)
1080C	024	10:59	-29	11:23	-5	24

Summa Cannister Volume:	6L
Flow Control Orofice:	—
Tubing:	¼" Tellon tube

Notes:

Soil Vapor Sampling Field Data Sheet

Date: 9-9-10 SV Point: SV-1 Sampled By: Nadine Perrat

Canister ID: 1080C FR# 024

Time	%He	Comments
10:59	100	Start Sampling 29 in Hg
11:02	100	-26 in Hg
11:05	100	-22 in Hg
11:08	100	-18 in Hg
11:10	100	-16 in Hg
11:12	100	-15 in Hg
11:15	100	-12 in Hg
11:17	100	-10
11:20	100	-8 in Hg
11:22	100	-6 in Hg
11:23	100	-5 in Hg Stop Sampling

Soil Vapor Sampling Form - Delta Consultants

Project Name:	14261270
Project Number:	1
Date:	4/9/10
Sampled By:	Nadine Renaud

Well ID:	SV-2	**Sample ID:**	SV-2
Field Duplicate?	N (Y)	**Duplicate ID:**	DUPLICATE
Sample Depth Interval:	5'		

Weather:	Sunny & Breezy
Barometric Pressure:	29.923
Relative Pressure:	—
Purge Device:	60cc Syringe
Calculated Purge Volume:	620cc
Purge Rate:	600cc/min
Calculated Purge Time:	1 min

Well Purging

Elapsed Time (sec)	Volume Purged (ml)	%LEL	%O2	H2S ppm	CO ppm		
15	180	>100	14.1	0	0		
30	320	>100	14.9	0	0		
45	500	>100	14.2	0	0		
60	620	>100	15.9	0	0		

Sample Collection

Summa Cannister ID	Flow Controller ID	Start Time	Start Canister Vacuum (inHg)	End Time	End Canister Vacuum (inHg)	Total Collection Time (mins)
3433	044	12:44	-30	1:09	-5	25

Summa Cannister Volume:	6L
Flow Control Orofice:	—
Tubing:	¼" Teflon tube

Notes:

Soil Vapor Sampling Field Data Sheet

Date: 9-[illegible]-10 SV Point: SV-2 Sampled By: Nadine Perrot

Summa ID: 3433 FB ID: 044

Time	%He	Comments
12:44	100	Start sampling -30. in Hg
12:47	100	-26 in Hg
12:50	100	-22 in Hg
12:53	100	-19 in Hg
12:55	100	-16 in Hg
12:59	100	-12 in Hg
1:02	100	-10 in Hg
1:05	107	-7 in Hg
1:09	100	-5 in Hg Stop sampling
		Duplicate
1:18	100	Start Sampling >30" Hg
1:22	100	28 in Hg
1:24	100	26 in Hg
1:26	100	24 in Hg
1:28	100	22 in Hg
1:30	100	20 in Hg
1:31	100	18 in Hg
1:35	97	18 in Hg add more He.
1:38	100	11 in Hg
1:41	100	9 in Hg
1:44	100	7 in Hg
1:47	100	5 in Hg Stop Sampling

Soil Vapor Sampling Form - Delta Consultants

Project Name:	1426112.70
Project Number:	1426112.70
Date:	9/20/10
Sampled By:	Nadine Peniat

Well ID:	SV-3	**Sample ID:**	SV-3
Field Duplicate?	(N) Y	**Duplicate ID:**	—
Sample Depth Interval:			

Weather:	Partially Cloudy
Barometric Pressure:	
Relative Pressure:	
Purge Device:	Syringe
Calculated Purge Volume:	1080 cc
Purge Rate:	
Calculated Purge Time:	

Well Purging

Elapsed Time (sec)	Volume Purged (ml)	LEL %	O_2 %	H_2S (ppm)	CO ppm		
15	180	0	12.2	0	0		
30	320	0	11.9	0	0		
45	500	0	12.1	0	0		
60	680	0	12.0	0	0		

Sample Collection

Summa Cannister ID	Flow Controller ID	Start Time	Start Canister Vacuum (inHg)	End Time	End Canister Vacuum (inHg)	Total Collection Time (mins)
2773	005	10:11	-30	10:38	-5 inHg	27

Summa Cannister Volume:	6L
Flow Control Orofice:	200 mL/min
Tubing:	¼ inch Teflon

Notes:

DELTA

Soil Vapor Sampling Field Data Sheet

Date: 9-9-10 **SV Point:** SV-3 **Sampled By:** Nadine Peraza

Cannister 2773 HF005

Time	%He	Comments
10:11	100	Start sample. -30 in Hg
10:13	100	-27 in Hg
10:15	100	-24 in Hg
10:17	100	-22 in Hg
10:20	100	-20 in Hg
10:23	100	-17 in Hg
10:26	100	-14 in Hg
10:30	100	-11 in Hg
10:32	100	-9
10:35	100	-7
10:38	100	-5 stop sampling

Soil Vapor Sampling Form - Delta Consultants

Project Name:	42611270
Project Number:	42611270
Date:	9/30/10
Sampled By:	Nadine Penut

Well ID:	SV-4		Sample ID: SV-4
Field Duplicate?	(N)	Y	Duplicate ID: —
Sample Depth Interval:			

Weather:	Cloudy
Barometric Pressure:	29.914 inHg
Relative Pressure:	
Purge Device:	60cc Syringe
Calculated Purge Volume:	680cc
Purge Rate:	
Calculated Purge Time:	

Well Purging

Elapsed Time (sec)	Volume Purged (ml)	%LEL	%O_2	H_2S ppm	CO ppm		
15	180	47.0%	1.5%	4.1	0.0		
30	320	46.0	0.0	8.0	0.0		
45	500	50.0	0.0	10.0	0.0		
60	680	47.0	0.0	10.9	0.0		

Sample Collection

Summa Cannister ID	Flow Controller ID	Start Time	Start Canister Vacuum (inHg)	End Time	End Canister Vacuum (inHg)	Total Collection Time (mins)
2776	050	9:11	-30 inHg	9:39	-5	28

Summa Cannister Volume:	6L
Flow Control Orofice:	
Tubing:	1/4 inch Teflon

Notes:

DELTA

Soil Vapor Sampling Field Data Sheet

Date: 9-[redacted]-10 **SV Point:** SV-4 **Sampled By:** Nadine Reviat

Summa: 2776 FR # 050

Time	%He	Comments
9:16	100	-30 in Hg START Sampling
9:13	100	-26 in Hg
9:17	100	-23 in Hg
9:21	100	-19 in Hg
9:24	100	-16 in Hg
9:26	100	-14 in Hg
9:29	100	-12 in Hg
9:31	100	-10 in Hg
9:34	100	-7 in Hg
9:38	100	-5 in Hg Stop Sampling

Soil Vapor Sampling Form - Delta Consultants

Project Name:	1426011270
Project Number:	"
Date:	9/14/16
Sampled By:	Nadia Pentak

Well ID:	SV-5	Sample ID:	SV-5
Field Duplicate?	(N) Y	Duplicate ID:	
Sample Depth Interval:	5'		

Weather:	Sunny & Windy
Barometric Pressure:	29.926
Relative Pressure:	—
Purge Device:	60 cc Syringe
Calculated Purge Volume:	680cc
Purge Rate:	680cc/min
Calculated Purge Time:	60 sec

Well Purging

Elapsed Time (sec)	Volume Purged (ml)	%LEL	%O_2	H_2S ppm	CO ppm		
15	120	>100	10.7	0	0		
30	320	>100	13.8	0	0		
45	500	>100	13.8	0	0		
60	680	>100	13.7	0	0		

Sample Collection

Summa Cannister ID	Flow Controller ID	Start Time	Start Canister Vacuum (inHg)	End Time	End Canister Vacuum (inHg)	Total Collection Time (mins)
2375	034	11:54	-29	12:14	-6	18mins

Summa Cannister Volume:	6L
Flow Control Orofice:	—
Tubing:	¼ inch teflon

Notes:

Soil Vapor Sampling Field Data Sheet

Date: 9-9-10 SV Point: SV-5 Sampled By: Nadine Perrot

Summa ID 2375 FR# 034

Time	%He	Comments
11:54	100	-29 in Hg
11:56	100	-25 in Hg
11:58	100	-22 in Hg
12:00	100	-19 in Hg
12:02	100	-16 in Hg
12:04	100	-14 in Hg
12:07	100	-11 in Hg
12:10	100	-9 in Hg
12:13	100	-6 in Hg
12:14	100	-5 in Hg 3:30P Sampling

Attachment G

Laboratory Analytical Report, Chain of Custody
and Laboratory Validation Form

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
3585 Cadillac Avenue, Suite A Costa Mesa, CA 92626 * 714-258-8610 * Fax 714-258-0921

September 29, 2010

LABORATORY REPORT

Client:
Delta Environmental Consultant San Jose
312 Piercy Road
San Jose, CA 95138
Attn: Lia Holden

Work Order: LTI0081
Project Name: Alameda 142611270
Project Number: [none]
Date Received: 09/10/10

TestAmerica Los Angeles certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the Corrective Action Report. NELAC Certification Number for TestAmerica Los Angeles is E87652. The test results listed within this Laboratory Report pertain only to the samples tested at TestAmerica Los Angeles, unless otherwise indicated. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica.

The Chain of Custody, 1 page, is included and is an integral part of this report. This entire report was reviewed and approved for release.

If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 714-258-8610.

CASE NARRATIVE

This report has been amended to report 1,2-Dibromoethane (EDB) by TO-15 Low Level instead of TO-15 Medium Level.

Approved By:

Beth Riley
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
3585 Cadillac Avenue, Suite A Costa Mesa, CA 92626 * 714-258-8610 * Fax 714-258-0921

Delta Environmental Consultant San Jose
312 Piercy Road
San Jose, CA 95138
Lia Holden

Work Order: LTI0081
Project: Alameda 142611270
Project Number: [none]

Received: 09/10/10 10:25
Reported: 09/29/10 10:47

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION	MATRIX	CONTAINER TYPE
SV-4	LTI0081-01	09/09/10 09:11	Air	Passivated Canister
SV-3	LTI0081-02	09/09/10 10:11	Air	Passivated Canister
SV-1	LTI0081-03	09/09/10 10:59	Air	Passivated Canister
SV-5	LTI0081-04	09/09/10 11:54	Air	Passivated Canister
SV-2	LTI0081-05	09/09/10 12:44	Air	Passivated Canister
DUPLICATE	LTI0081-06	09/09/10 13:18	Air	Passivated Canister

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
3585 Cadillac Avenue, Suite A Costa Mesa, CA 92626 * 714-258-8610 * Fax 714-258-0921

Delta Environmental Consultant San Jose
312 Piercy Road
San Jose, CA 95138
Lia Holden

Work Order: LTI0081
Project: Alameda 142611270
Project Number: [none]

Received: 09/10/10 10:25
Reported: 09/29/10 10:47

ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LTI0081-01 (SV-4 - Air)						**Sampled: 09/09/10 09:11**			
EPA TO15 - Volatile Organic Compounds by GC/MS									
1,2-Dibromoethane (EDB)	ND		ug/m3	3.1	1.0	09/28/10 01:11	MSE	DLK	10I0216
Surr: 4-Bromofluorobenzene (70-130%)	*94 %*					09/28/10 01:11	MSE	DLK	10I0216
Surr: 1,2-Dichloroethane-d4 (70-130%)	*97 %*					09/28/10 01:11	MSE	DLK	10I0216
Surr: Toluene-d8 (70-130%)	*100 %*					09/28/10 01:11	MSE	DLK	10I0216
EPA TO15 (Med-level) - Volatile Organic Compounds by GC/MS									
Benzene	ND		ug/m3	9.6	1.0	09/17/10 17:57	MSB	AA	10I0142
tert-Butyl alcohol	ND		ug/m3	45	1.0	09/17/10 17:57	MSB	AA	10I0142
1,2-Dichloroethane	ND		ug/m3	12	1.0	09/17/10 17:57	MSB	AA	10I0142
Ethanol	ND		ug/m3	94	1.0	09/17/10 17:57	MSB	AA	10I0142
tert-Amyl methyl ether (TAME)	ND		ug/m3	8.4	1.0	09/17/10 17:57	MSB	AA	10I0142
Ethyl tert-butyl ether (ETBE)	ND		ug/m3	8.4	1.0	09/17/10 17:57	MSB	AA	10I0142
Ethylbenzene	ND		ug/m3	8.7	1.0	09/17/10 17:57	MSB	AA	10I0142
Diisopropyl ether (DIPE)	ND		ug/m3	8.4	1.0	09/17/10 17:57	MSB	AA	10I0142
Methyl tert-butyl ether (MTBE)	**140**		ug/m3	7.2	1.0	09/17/10 17:57	MSB	AA	10I0142
Naphthalene	ND		ug/m3	31	1.0	09/17/10 17:57	MSB	AA	10I0142
Toluene	**19**		ug/m3	7.5	1.0	09/17/10 17:57	MSB	AA	10I0142
TPH as Gasoline	**92000**		ug/m3	2000	1.0	09/17/10 17:57	MSB	AA	10I0142
Xylenes, total	**22**		ug/m3	8.7	1.0	09/17/10 17:57	MSB	AA	10I0142
Surr: 4-Bromofluorobenzene (70-130%)	*109 %*					09/17/10 17:57	MSB	AA	10I0142
Surr: 1,2-Dichloroethane-d4 (70-130%)	*100 %*					09/17/10 17:57	MSB	AA	10I0142
Surr: Toluene-d8 (70-130%)	*106 %*					09/17/10 17:57	MSB	AA	10I0142

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
3585 Cadillac Avenue, Suite A Costa Mesa, CA 92626 * 714-258-8610 * Fax 714-258-0921

Delta Environmental Consultant San Jose
312 Piercy Road
San Jose, CA 95138
Lia Holden

Work Order: LTI0081
Project: Alameda 142611270
Project Number: [none]

Received: 09/10/10 10:25
Reported: 09/29/10 10:47

ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LTI0081-02 (SV-3 - Air)							**Sampled: 09/09/10 10:11**		
EPA TO15 - Volatile Organic Compounds by GC/MS									
1,2-Dibromoethane (EDB)	ND	GR	ug/m3	3.1	1.0	09/28/10 02:11	MSE	DLK	10I0216
Surr: 4-Bromofluorobenzene (70-130%)	*99 %*	*GR*				09/28/10 02:11	MSE	DLK	10I0216
Surr: 1,2-Dichloroethane-d4 (70-130%)	*114 %*	*GR*				09/28/10 02:11	MSE	DLK	10I0216
Surr: Toluene-d8 (70-130%)	*112 %*	*GR*				09/28/10 02:11	MSE	DLK	10I0216
EPA TO15 (Med-level) - Volatile Organic Compounds by GC/MS									
Benzene	ND		ug/m3	9.6	1.0	09/17/10 10:32	MSB	AD	10I0142
tert-Butyl alcohol	ND		ug/m3	45	1.0	09/17/10 10:32	MSB	AD	10I0142
1,2-Dichloroethane	ND		ug/m3	12	1.0	09/17/10 10:32	MSB	AD	10I0142
Ethanol	ND		ug/m3	94	1.0	09/17/10 10:32	MSB	AD	10I0142
tert-Amyl methyl ether (TAME)	ND		ug/m3	8.4	1.0	09/17/10 10:32	MSB	AD	10I0142
Ethyl tert-butyl ether (ETBE)	ND		ug/m3	8.4	1.0	09/17/10 10:32	MSB	AD	10I0142
Ethylbenzene	ND		ug/m3	8.7	1.0	09/17/10 10:32	MSB	AD	10I0142
Diisopropyl ether (DIPE)	ND		ug/m3	8.4	1.0	09/17/10 10:32	MSB	AD	10I0142
Methyl tert-butyl ether (MTBE)	ND		ug/m3	7.2	1.0	09/17/10 10:32	MSB	AD	10I0142
Naphthalene	ND		ug/m3	31	1.0	09/17/10 10:32	MSB	AD	10I0142
Toluene	**7.7**		ug/m3	7.5	1.0	09/17/10 10:32	MSB	AD	10I0142
TPH as Gasoline	ND		ug/m3	2000	1.0	09/17/10 10:32	MSB	AD	10I0142
Xylenes, total	ND		ug/m3	8.7	1.0	09/17/10 10:32	MSB	AD	10I0142
Surr: 4-Bromofluorobenzene (70-130%)	*103 %*					09/17/10 10:32	MSB	AD	10I0142
Surr: 1,2-Dichloroethane-d4 (70-130%)	*107 %*					09/17/10 10:32	MSB	AD	10I0142
Surr: Toluene-d8 (70-130%)	*105 %*					09/17/10 10:32	MSB	AD	10I0142

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
3585 Cadillac Avenue, Suite A Costa Mesa, CA 92626 * 714-258-8610 * Fax 714-258-0921

Delta Environmental Consultant San Jose
312 Piercy Road
San Jose, CA 95138
Lia Holden

Work Order: LTI0081
Project: Alameda 142611270
Project Number: [none]

Received: 09/10/10 10:25
Reported: 09/29/10 10:47

ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LTI0081-03 (SV-1 - Air)							**Sampled: 09/09/10 10:59**		
EPA TO15 - Volatile Organic Compounds by GC/MS									
1,2-Dibromoethane (EDB)	ND		ug/m3	3.1	1.0	09/28/10 15:54	MSE	DLK	10I0223
Surr: 4-Bromofluorobenzene (70-130%)	*95 %*					09/28/10 15:54	MSE	DLK	10I0223
Surr: 1,2-Dichloroethane-d4 (70-130%)	*104 %*					09/28/10 15:54	MSE	DLK	10I0223
Surr: Toluene-d8 (70-130%)	*104 %*					09/28/10 15:54	MSE	DLK	10I0223
EPA TO15 (Med-level) - Volatile Organic Compounds by GC/MS									
Benzene	ND		ug/m3	9.6	1.0	09/18/10 04:03	MSA	AD	10I0151
tert-Butyl alcohol	ND		ug/m3	45	1.0	09/18/10 04:03	MSA	AD	10I0151
1,2-Dichloroethane	ND		ug/m3	12	1.0	09/18/10 04:03	MSA	AD	10I0151
Ethanol	ND		ug/m3	94	1.0	09/18/10 04:03	MSA	AD	10I0151
tert-Amyl methyl ether (TAME)	ND		ug/m3	8.4	1.0	09/18/10 04:03	MSA	AD	10I0151
Ethyl tert-butyl ether (ETBE)	ND		ug/m3	8.4	1.0	09/18/10 04:03	MSA	AD	10I0151
Ethylbenzene	ND		ug/m3	8.7	1.0	09/18/10 04:03	MSA	AD	10I0151
Diisopropyl ether (DIPE)	ND		ug/m3	8.4	1.0	09/18/10 04:03	MSA	AD	10I0151
Methyl tert-butyl ether (MTBE)	ND		ug/m3	7.2	1.0	09/18/10 04:03	MSA	AD	10I0151
Naphthalene	ND		ug/m3	31	1.0	09/18/10 04:03	MSA	AD	10I0151
Toluene	ND		ug/m3	7.5	1.0	09/18/10 04:03	MSA	AD	10I0151
TPH as Gasoline	ND		ug/m3	2000	1.0	09/18/10 04:03	MSA	AD	10I0151
Xylenes, total	ND		ug/m3	8.7	1.0	09/18/10 04:03	MSA	AD	10I0151
Surr: 4-Bromofluorobenzene (70-130%)	*92 %*					09/18/10 04:03	MSA	AD	10I0151
Surr: 1,2-Dichloroethane-d4 (70-130%)	*132 %*	*AZ*				09/18/10 04:03	MSA	AD	10I0151
Surr: Toluene-d8 (70-130%)	*98 %*					09/18/10 04:03	MSA	AD	10I0151

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Work Order: LTI0081
Project: Alameda 142611270
Project Number: [none]

Received: 09/10/10 10:25
Reported: 09/29/10 10:47

ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LTI0081-04 (SV-5 - Air)						**Sampled: 09/09/10 11:54**			
EPA TO15 - Volatile Organic Compounds by GC/MS									
1,2-Dibromoethane (EDB)	ND		ug/m3	33	11	09/28/10 16:41	MSE	DLK	10I0223
Surr: 4-Bromofluorobenzene (70-130%)	*101 %*					09/28/10 16:41	MSE	DLK	10I0223
Surr: 1,2-Dichloroethane-d4 (70-130%)	*130 %*					09/28/10 16:41	MSE	DLK	10I0223
Surr: Toluene-d8 (70-130%)	*92 %*					09/28/10 16:41	MSE	DLK	10I0223
EPA TO15 (Med-level) - Volatile Organic Compounds by GC/MS									
Benzene	**12**		ug/m3	9.6	1.0	09/18/10 04:46	MSA	AD	10I0151
tert-Butyl alcohol	ND		ug/m3	45	1.0	09/18/10 04:46	MSA	AD	10I0151
1,2-Dichloroethane	ND		ug/m3	12	1.0	09/18/10 04:46	MSA	AD	10I0151
Ethanol	ND		ug/m3	94	1.0	09/18/10 04:46	MSA	AD	10I0151
tert-Amyl methyl ether (TAME)	ND		ug/m3	8.4	1.0	09/18/10 04:46	MSA	AD	10I0151
Ethyl tert-butyl ether (ETBE)	ND		ug/m3	8.4	1.0	09/18/10 04:46	MSA	AD	10I0151
Ethylbenzene	ND		ug/m3	8.7	1.0	09/18/10 04:46	MSA	AD	10I0151
Diisopropyl ether (DIPE)	ND		ug/m3	8.4	1.0	09/18/10 04:46	MSA	AD	10I0151
Methyl tert-butyl ether (MTBE)	**6300**		ug/m3	77	11	09/21/10 00:56	MSA	AA	10I0159
Naphthalene	ND		ug/m3	31	1.0	09/18/10 04:46	MSA	AD	10I0151
Toluene	**16**		ug/m3	7.5	1.0	09/18/10 04:46	MSA	AD	10I0151
TPH as Gasoline	**31000**		ug/m3	2000	1.0	09/18/10 04:46	MSA	AD	10I0151
Xylenes, total	ND		ug/m3	8.7	1.0	09/18/10 04:46	MSA	AD	10I0151
Surr: 4-Bromofluorobenzene (70-130%)	*88 %*					09/18/10 04:46	MSA	AD	10I0151
Surr: 4-Bromofluorobenzene (70-130%)	*91 %*					09/21/10 00:56	MSA	AA	10I0159
Surr: 1,2-Dichloroethane-d4 (70-130%)	*115 %*					09/18/10 04:46	MSA	AD	10I0151
Surr: 1,2-Dichloroethane-d4 (70-130%)	*111 %*					09/21/10 00:56	MSA	AA	10I0159
Surr: Toluene-d8 (70-130%)	*103 %*					09/18/10 04:46	MSA	AD	10I0151
Surr: Toluene-d8 (70-130%)	*105 %*					09/21/10 00:56	MSA	AA	10I0159

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ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LTI0081-05 (SV-2 - Air)						**Sampled: 09/09/10 12:44**			
EPA TO15 - Volatile Organic Compounds by GC/MS									
1,2-Dibromoethane (EDB)	ND		ug/m3	3.1	1.0	09/28/10 05:02	MSE	DLK	10I0216
Surr: 4-Bromofluorobenzene (70-130%)	*103 %*					09/28/10 05:02	MSE	DLK	10I0216
Surr: 1,2-Dichloroethane-d4 (70-130%)	*104 %*					09/28/10 05:02	MSE	DLK	10I0216
Surr: Toluene-d8 (70-130%)	*98 %*					09/28/10 05:02	MSE	DLK	10I0216
EPA TO15 (Med-level) - Volatile Organic Compounds by GC/MS									
Benzene	**26**		ug/m3	9.6	1.0	09/18/10 05:31	MSA	AD	10I0151
tert-Butyl alcohol	ND		ug/m3	45	1.0	09/18/10 05:31	MSA	AD	10I0151
1,2-Dichloroethane	ND		ug/m3	12	1.0	09/18/10 05:31	MSA	AD	10I0151
Ethanol	ND		ug/m3	94	1.0	09/18/10 05:31	MSA	AD	10I0151
tert-Amyl methyl ether (TAME)	ND		ug/m3	8.4	1.0	09/18/10 05:31	MSA	AD	10I0151
Ethyl tert-butyl ether (ETBE)	ND		ug/m3	8.4	1.0	09/18/10 05:31	MSA	AD	10I0151
Ethylbenzene	ND		ug/m3	8.7	1.0	09/18/10 05:31	MSA	AD	10I0151
Diisopropyl ether (DIPE)	ND		ug/m3	8.4	1.0	09/18/10 05:31	MSA	AD	10I0151
Methyl tert-butyl ether (MTBE)	**85**		ug/m3	7.2	1.0	09/18/10 05:31	MSA	AD	10I0151
Naphthalene	ND		ug/m3	31	1.0	09/18/10 05:31	MSA	AD	10I0151
Toluene	**23**		ug/m3	7.5	1.0	09/18/10 05:31	MSA	AD	10I0151
TPH as Gasoline	**7500**		ug/m3	2000	1.0	09/18/10 05:31	MSA	AD	10I0151
Xylenes, total	**16**		ug/m3	8.7	1.0	09/18/10 05:31	MSA	AD	10I0151
Surr: 4-Bromofluorobenzene (70-130%)	*91 %*					09/18/10 05:31	MSA	AD	10I0151
Surr: 1,2-Dichloroethane-d4 (70-130%)	*116 %*					09/18/10 05:31	MSA	AD	10I0151
Surr: Toluene-d8 (70-130%)	*102 %*					09/18/10 05:31	MSA	AD	10I0151

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ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LTI0081-06 (DUPLICATE - Air)						**Sampled: 09/09/10 13:18**			
EPA TO15 - Volatile Organic Compounds by GC/MS									
1,2-Dibromoethane (EDB)	ND		ug/m3	3.1	1.0	09/28/10 17:41	MSE	DLK	10I0223
Surr: 4-Bromofluorobenzene (70-130%)	*101 %*					09/28/10 17:41	MSE	DLK	10I0223
Surr: 1,2-Dichloroethane-d4 (70-130%)	*97 %*					09/28/10 17:41	MSE	DLK	10I0223
Surr: Toluene-d8 (70-130%)	*100 %*					09/28/10 17:41	MSE	DLK	10I0223
EPA TO15 (Med-level) - Volatile Organic Compounds by GC/MS									
Benzene	**23**		ug/m3	9.6	1.0	09/18/10 06:13	MSA	AD	10I0151
tert-Butyl alcohol	ND		ug/m3	46	1.0	09/18/10 06:13	MSA	AD	10I0151
1,2-Dichloroethane	ND		ug/m3	12	1.0	09/18/10 06:13	MSA	AD	10I0151
Ethanol	ND		ug/m3	94	1.0	09/18/10 06:13	MSA	AD	10I0151
tert-Amyl methyl ether (TAME)	ND		ug/m3	8.4	1.0	09/18/10 06:13	MSA	AD	10I0151
Ethyl tert-butyl ether (ETBE)	ND		ug/m3	8.4	1.0	09/18/10 06:13	MSA	AD	10I0151
Ethylbenzene	ND		ug/m3	8.7	1.0	09/18/10 06:13	MSA	AD	10I0151
Diisopropyl ether (DIPE)	ND		ug/m3	8.4	1.0	09/18/10 06:13	MSA	AD	10I0151
Methyl tert-butyl ether (MTBE)	ND		ug/m3	7.2	1.0	09/18/10 06:13	MSA	AD	10I0151
Naphthalene	ND		ug/m3	31	1.0	09/18/10 06:13	MSA	AD	10I0151
Toluene	**19**		ug/m3	7.5	1.0	09/18/10 06:13	MSA	AD	10I0151
TPH as Gasoline	**6700**		ug/m3	2000	1.0	09/18/10 06:13	MSA	AD	10I0151
Xylenes, total	ND		ug/m3	8.7	1.0	09/18/10 06:13	MSA	AD	10I0151
Surr: 4-Bromofluorobenzene (70-130%)	*90 %*					09/18/10 06:13	MSA	AD	10I0151
Surr: 1,2-Dichloroethane-d4 (70-130%)	*145 %*	*AZ*				09/18/10 06:13	MSA	AD	10I0151
Surr: Toluene-d8 (70-130%)	*101 %*					09/18/10 06:13	MSA	AD	10I0151

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ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LTI0081-01 (SV-4 - Air)							**Sampled: 09/09/10 09:11**		
ASTM D1946 - Fixed Gases									
Carbon dioxide	**15**		%(v/v)	0.019	1.9	09/10/10 16:23	GC8	EI	10I0073
Carbon monoxide	ND		%(v/v)	0.0019	1.9	09/10/10 16:23	GC8	EI	10I0073
Helium	ND		%(v/v)	0.039	1.9	09/10/10 16:23	GC8	EI	10I0073
Methane	**2.3**		%(v/v)	0.00039	1.9	09/10/10 16:23	GC8	EI	10I0073
Oxygen	**1.4**		%(v/v)	0.39	1.9	09/10/10 16:23	GC8	EI	10I0073
Nitrogen	**82**		%(v/v)	1.9	1.9	09/10/10 16:23	GC8	EI	10I0073

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ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LTI0081-02 (SV-3 - Air)							**Sampled: 09/09/10 10:11**		
ASTM D1946 - Fixed Gases									
Carbon dioxide	**8.5**		%(v/v)	0.019	1.9	09/10/10 16:40	GC8	EI	10I0073
Carbon monoxide	ND		%(v/v)	0.0019	1.9	09/10/10 16:40	GC8	EI	10I0073
Helium	ND		%(v/v)	0.038	1.9	09/10/10 16:40	GC8	EI	10I0073
Methane	ND		%(v/v)	0.00038	1.9	09/10/10 16:40	GC8	EI	10I0073
Oxygen	**14**		%(v/v)	0.38	1.9	09/10/10 16:40	GC8	EI	10I0073
Nitrogen	**77**		%(v/v)	1.9	1.9	09/10/10 16:40	GC8	EI	10I0073

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ANALYTICAL REPORT

Sample ID: LTI0081-03 (SV-1 - Air) **Sampled: 09/09/10 10:59**

ASTM D1946 - Fixed Gases

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Carbon dioxide	**6.1**		%(v/v)	0.020	2.0	09/10/10 17:00	GC8	EI	10I0073
Carbon monoxide	ND		%(v/v)	0.0020	2.0	09/10/10 17:00	GC8	EI	10I0073
Helium	ND		%(v/v)	0.040	2.0	09/10/10 17:00	GC8	EI	10I0073
Methane	ND		%(v/v)	0.00040	2.0	09/10/10 17:00	GC8	EI	10I0073
Oxygen	**15**		%(v/v)	0.40	2.0	09/10/10 17:00	GC8	EI	10I0073
Nitrogen	**79**		%(v/v)	2.0	2.0	09/10/10 17:00	GC8	EI	10I0073

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ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LTI0081-04 (SV-5 - Air)							**Sampled: 09/09/10 11:54**		
ASTM D1946 - Fixed Gases									
Carbon dioxide	**14**		%(v/v)	0.021	2.1	09/10/10 17:17	GC8	EI	10I0073
Carbon monoxide	ND		%(v/v)	0.0021	2.1	09/10/10 17:17	GC8	EI	10I0073
Helium	ND		%(v/v)	0.043	2.1	09/10/10 17:17	GC8	EI	10I0073
Methane	**36**		%(v/v)	0.00043	2.1	09/10/10 17:17	GC8	EI	10I0073
Oxygen	**1.1**		%(v/v)	0.43	2.1	09/10/10 17:17	GC8	EI	10I0073
Nitrogen	**50**		%(v/v)	2.1	2.1	09/10/10 17:17	GC8	EI	10I0073

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ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LTI0081-05 (SV-2 - Air)							**Sampled: 09/09/10 12:44**		
ASTM D1946 - Fixed Gases									
Carbon dioxide	**15**		%(v/v)	0.020	2.0	09/10/10 17:43	GC8	EI	10I0073
Carbon monoxide	ND		%(v/v)	0.0020	2.0	09/10/10 17:43	GC8	EI	10I0073
Helium	ND		%(v/v)	0.040	2.0	09/10/10 17:43	GC8	EI	10I0073
Methane	**65**		%(v/v)	0.00040	2.0	09/10/10 17:43	GC8	EI	10I0073
Oxygen	**1.1**		%(v/v)	0.40	2.0	09/10/10 17:43	GC8	EI	10I0073
Nitrogen	**20**		%(v/v)	2.0	2.0	09/10/10 17:43	GC8	EI	10I0073

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ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LTI0081-06 (DUPLICATE - Air)						**Sampled: 09/09/10 13:18**			
ASTM D1946 - Fixed Gases									
Carbon dioxide	**16**		%(v/v)	0.019	1.9	09/10/10 18:09	GC8	EI	10I0073
Carbon monoxide	ND		%(v/v)	0.0019	1.9	09/10/10 18:09	GC8	EI	10I0073
Helium	ND		%(v/v)	0.037	1.9	09/10/10 18:09	GC8	EI	10I0073
Methane	**67**		%(v/v)	0.00037	1.9	09/10/10 18:09	GC8	EI	10I0073
Oxygen	**0.66**		%(v/v)	0.37	1.9	09/10/10 18:09	GC8	EI	10I0073
Nitrogen	**18**		%(v/v)	1.9	1.9	09/10/10 18:09	GC8	EI	10I0073

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PROJECT QUALITY CONTROL DATA

Blank

Analyte	Result	Data Qualifier	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: 10I0142-BLK1 (Blank - Air)									
EPA TO15 (Med-level) - Volatile Organic Compounds by GC/MS									
Benzene	ND		ug/m3	9.6	1.00	09/17/10 3:07	MSB	AD	10I0142
tert-Butyl alcohol	ND		ug/m3	45	1.00	09/17/10 3:07	MSB	AD	10I0142
1,2-Dichloroethane	ND		ug/m3	12	1.00	09/17/10 3:07	MSB	AD	10I0142
Ethanol	ND		ug/m3	94	1.00	09/17/10 3:07	MSB	AD	10I0142
tert-Amyl methyl ether (TAME)	ND		ug/m3	8.4	1.00	09/17/10 3:07	MSB	AD	10I0142
Ethyl tert-butyl ether (ETBE)	ND		ug/m3	8.4	1.00	09/17/10 3:07	MSB	AD	10I0142
Ethylbenzene	ND		ug/m3	8.7	1.00	09/17/10 3:07	MSB	AD	10I0142
Diisopropyl ether (DIPE)	ND		ug/m3	8.4	1.00	09/17/10 3:07	MSB	AD	10I0142
Methyl tert-butyl ether (MTBE)	ND		ug/m3	7.2	1.00	09/17/10 3:07	MSB	AD	10I0142
Naphthalene	ND		ug/m3	31	1.00	09/17/10 3:07	MSB	AD	10I0142
Toluene	ND		ug/m3	7.5	1.00	09/17/10 3:07	MSB	AD	10I0142
TPH as Gasoline	ND		ug/m3	2000	1.00	09/17/10 3:07	MSB	AD	10I0142
Xylenes, total	ND		ug/m3	8.7	1.00	09/17/10 3:07	MSB	AD	10I0142
Surr: 4-Bromofluorobenzene (70-130%)	*98%*					09/17/10 3:07	MSB	AD	10I0142
Surr: 1,2-Dichloroethane-d4 (70-130%)	*105%*					09/17/10 3:07	MSB	AD	10I0142
Surr: Toluene-d8 (70-130%)	*105%*					09/17/10 3:07	MSB	AD	10I0142
Sample ID: 10I0151-BLK1 (Blank - Air)									
EPA TO15 (Med-level) - Volatile Organic Compounds by GC/MS									
Benzene	ND		ug/m3	9.6	1.00	09/17/10 23:57	MSA	AD	10I0151
tert-Butyl alcohol	ND		ug/m3	45	1.00	09/17/10 23:57	MSA	AD	10I0151
1,2-Dichloroethane	ND		ug/m3	12	1.00	09/17/10 23:57	MSA	AD	10I0151
Ethanol	ND		ug/m3	94	1.00	09/17/10 23:57	MSA	AD	10I0151
tert-Amyl methyl ether (TAME)	ND		ug/m3	8.4	1.00	09/17/10 23:57	MSA	AD	10I0151
Ethyl tert-butyl ether (ETBE)	ND		ug/m3	8.4	1.00	09/17/10 23:57	MSA	AD	10I0151
Ethylbenzene	ND		ug/m3	8.7	1.00	09/17/10 23:57	MSA	AD	10I0151
Diisopropyl ether (DIPE)	ND		ug/m3	8.4	1.00	09/17/10 23:57	MSA	AD	10I0151
Methyl tert-butyl ether (MTBE)	ND		ug/m3	7.2	1.00	09/17/10 23:57	MSA	AD	10I0151
Naphthalene	ND		ug/m3	31	1.00	09/17/10 23:57	MSA	AD	10I0151
Toluene	ND		ug/m3	7.5	1.00	09/17/10 23:57	MSA	AD	10I0151
TPH as Gasoline	ND		ug/m3	2000	1.00	09/17/10 23:57	MSA	AD	10I0151
Xylenes, total	ND		ug/m3	8.7	1.00	09/17/10 23:57	MSA	AD	10I0151
Surr: 4-Bromofluorobenzene (70-130%)	*109%*					09/17/10 23:57	MSA	AD	10I0151
Surr: 1,2-Dichloroethane-d4 (70-130%)	*104%*					09/17/10 23:57	MSA	AD	10I0151
Surr: Toluene-d8 (70-130%)	*100%*					09/17/10 23:57	MSA	AD	10I0151

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Lia Holden	Project Number:	[none]	

PROJECT QUALITY CONTROL DATA

Blank - Cont.

Analyte	Result	Data Qualifier	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: 10I0159-BLK1 (Blank - Air)									
EPA TO15 (Med-level) - Volatile Organic Compounds by GC/MS									
Benzene	ND		ug/m3	9.6	1.00	09/20/10 23:40	MSA	AA	10I0159
tert-Butyl alcohol	ND		ug/m3	45	1.00	09/20/10 23:40	MSA	AA	10I0159
1,2-Dichloroethane	ND		ug/m3	12	1.00	09/20/10 23:40	MSA	AA	10I0159
Ethanol	ND		ug/m3	94	1.00	09/20/10 23:40	MSA	AA	10I0159
tert-Amyl methyl ether (TAME)	ND		ug/m3	8.4	1.00	09/20/10 23:40	MSA	AA	10I0159
Ethyl tert-butyl ether (ETBE)	ND		ug/m3	8.4	1.00	09/20/10 23:40	MSA	AA	10I0159
Ethylbenzene	ND		ug/m3	8.7	1.00	09/20/10 23:40	MSA	AA	10I0159
Diisopropyl ether (DIPE)	ND		ug/m3	8.4	1.00	09/20/10 23:40	MSA	AA	10I0159
Methyl tert-butyl ether (MTBE)	ND		ug/m3	7.2	1.00	09/20/10 23:40	MSA	AA	10I0159
Naphthalene	ND		ug/m3	31	1.00	09/20/10 23:40	MSA	AA	10I0159
Toluene	ND		ug/m3	7.5	1.00	09/20/10 23:40	MSA	AA	10I0159
TPH as Gasoline	ND		ug/m3	2000	1.00	09/20/10 23:40	MSA	AA	10I0159
Xylenes, total	ND		ug/m3	8.7	1.00	09/20/10 23:40	MSA	AA	10I0159
Surr: 4-Bromofluorobenzene (70-130%)	*93%*					09/20/10 23:40	MSA	AA	10I0159
Surr: 1,2-Dichloroethane-d4 (70-130%)	*117%*					09/20/10 23:40	MSA	AA	10I0159
Surr: Toluene-d8 (70-130%)	*99%*					09/20/10 23:40	MSA	AA	10I0159
Sample ID: 10I0216-BLK1 (Blank - Air)									
EPA TO15 - Volatile Organic Compounds by GC/MS									
1,2-Dibromoethane (EDB)	ND		ug/m3	3.1	1.00	09/27/10 20:23	MSE	DLK	10I0216
Surr: 4-Bromofluorobenzene (70-130%)	*96%*					09/27/10 20:23	MSE	DLK	10I0216
Surr: 1,2-Dichloroethane-d4 (70-130%)	*96%*					09/27/10 20:23	MSE	DLK	10I0216
Surr: Toluene-d8 (70-130%)	*101%*					09/27/10 20:23	MSE	DLK	10I0216
Sample ID: 10I0223-BLK1 (Blank - Air)									
EPA TO15 - Volatile Organic Compounds by GC/MS									
1,2-Dibromoethane (EDB)	ND		ug/m3	3.1	1.00	09/28/10 13:01	MSE	DLK	10I0223
Surr: 4-Bromofluorobenzene (70-130%)	*96%*					09/28/10 13:01	MSE	DLK	10I0223
Surr: 1,2-Dichloroethane-d4 (70-130%)	*99%*					09/28/10 13:01	MSE	DLK	10I0223
Surr: Toluene-d8 (70-130%)	*102%*					09/28/10 13:01	MSE	DLK	10I0223

Blank - Cont.

Analyte	Result	Data Qualifier	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch

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San Jose, CA 95138
Lia Holden

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PROJECT QUALITY CONTROL DATA

Blank - Cont.

Analyte	Result	Data Qualifier	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: 10I0073-BLK1 (Blank - Air)									
ASTM D1946 - Fixed Gases									
Carbon dioxide	ND		%(v/v)	0.010	1.00	09/10/10 12:10	GC8	EI	10I0073
Carbon monoxide	ND		%(v/v)	0.0010	1.00	09/10/10 12:10	GC8	EI	10I0073
Helium	ND		%(v/v)	0.020	1.00	09/10/10 13:19	GC8	EI	10I0073
Methane	ND		%(v/v)	0.00020	1.00	09/10/10 12:10	GC8	EI	10I0073
Oxygen	ND		%(v/v)	0.20	1.00	09/10/10 12:10	GC8	EI	10I0073
Nitrogen	ND		%(v/v)	1.0	1.00	09/10/10 12:10	GC8	EI	10I0073

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PROJECT QUALITY CONTROL DATA

LCS

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Spike Conc	% Rec	Target Range	Instrument	Date Analyzed	QC Batch
Sample ID: 10I0142-BS1 (LCS - Air)											
EPA TO15 (Med-level) - Volatile Organic Compounds by GC/MS											
Benzene	**134**		ug/m3	9.6	1.00	169	79%	70 - 130	MSB	09/17/10 01:46	10I0142
tert-Butyl alcohol	**896**		ug/m3	45	1.00	758	118%	70 - 130	MSB	09/17/10 00:26	10I0142
1,2-Dichloroethane	**197**		ug/m3	12	1.00	215	92%	70 - 130	MSB	09/17/10 01:46	10I0142
Ethanol	**459**		ug/m3	94	1.00	471	97%	70 - 130	MSB	09/17/10 00:26	10I0142
tert-Amyl methyl ether (TAME)	**240**		ug/m3	8.4	1.00	209	115%	70 - 130	MSB	09/17/10 00:26	10I0142
Ethyl tert-butyl ether (ETBE)	**241**		ug/m3	8.4	1.00	209	115%	70 - 130	MSB	09/17/10 00:26	10I0142
Ethylbenzene	**213**		ug/m3	8.7	1.00	230	93%	70 - 130	MSB	09/17/10 01:46	10I0142
Diisopropyl ether (DIPE)	**228**		ug/m3	8.4	1.00	209	109%	70 - 130	MSB	09/17/10 00:26	10I0142
Methyl tert-butyl ether (MTBE)	**149**		ug/m3	7.2	1.00	193	77%	70 - 130	MSB	09/17/10 01:46	10I0142
Naphthalene	**231**		ug/m3	31	1.00	223	104%	70 - 130	MSB	09/17/10 01:46	10I0142
Toluene	**176**		ug/m3	7.5	1.00	202	88%	70 - 130	MSB	09/17/10 01:46	10I0142
TPH as Gasoline	**44600**		ug/m3	2000	1.00	40900	109%	70 - 130	MSB	09/16/10 22:26	10I0142
Xylenes, total	**688**		ug/m3	8.7	1.00	651	106%	70 - 130	MSB	09/17/10 01:46	10I0142
Surr: 4-Bromofluorobenzene	**359**		ug/m3		1.00	358	100%	70 - 130	MSB	09/17/10 00:26	10I0142
Surr: 1,2-Dichloroethane-d4	**230**		ug/m3		1.00	211	109%	70 - 130	MSB	09/17/10 00:26	10I0142
Surr: Toluene-d8	**212**		ug/m3		1.00	205	103%	70 - 130	MSB	09/17/10 00:26	10I0142
Sample ID: 10I0151-BS1 (LCS - Air)											
EPA TO15 (Med-level) - Volatile Organic Compounds by GC/MS											
Benzene	**136**		ug/m3	9.6	1.00	169	80%	70 - 130	MSA	09/17/10 22:06	10I0151
tert-Butyl alcohol	**701**		ug/m3	45	1.00	758	92%	70 - 130	MSA	09/17/10 20:52	10I0151
1,2-Dichloroethane	**193**		ug/m3	12	1.00	215	90%	70 - 130	MSA	09/17/10 22:06	10I0151
Ethanol	**358**		ug/m3	94	1.00	471	76%	70 - 130	MSA	09/17/10 20:52	10I0151
tert-Amyl methyl ether (TAME)	**188**		ug/m3	8.4	1.00	209	90%	70 - 130	MSA	09/17/10 20:52	10I0151
Ethyl tert-butyl ether (ETBE)	**166**		ug/m3	8.4	1.00	209	79%	70 - 130	MSA	09/17/10 20:52	10I0151
Ethylbenzene	**193**		ug/m3	8.7	1.00	230	84%	70 - 130	MSA	09/17/10 22:06	10I0151
Diisopropyl ether (DIPE)	**153**		ug/m3	8.4	1.00	209	73%	70 - 130	MSA	09/17/10 20:52	10I0151
Methyl tert-butyl ether (MTBE)	**159**		ug/m3	7.2	1.00	193	82%	70 - 130	MSA	09/17/10 22:06	10I0151
Naphthalene	**223**		ug/m3	31	1.00	223	100%	70 - 130	MSA	09/17/10 22:06	10I0151
Toluene	**172**		ug/m3	7.5	1.00	202	86%	70 - 130	MSA	09/17/10 22:06	10I0151
TPH as Gasoline	**35500**		ug/m3	2000	1.00	40900	87%	70 - 130	MSA	09/17/10 19:33	10I0151
Xylenes, total	**583**		ug/m3	8.7	1.00	651	90%	70 - 130	MSA	09/17/10 22:06	10I0151
Surr: 4-Bromofluorobenzene	**318**		ug/m3		1.00	358	89%	70 - 130	MSA	09/17/10 22:06	10I0151
Surr: 1,2-Dichloroethane-d4	**219**		ug/m3		1.00	211	104%	70 - 130	MSA	09/17/10 22:06	10I0151
Surr: Toluene-d8	**207**		ug/m3		1.00	205	101%	70 - 130	MSA	09/17/10 22:06	10I0151

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PROJECT QUALITY CONTROL DATA

LCS - Cont.

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Spike Conc	% Rec	Target Range	Instrument	Date Analyzed	QC Batch
Sample ID: 10I0159-BS1 (LCS - Air)											
EPA TO15 (Med-level) - Volatile Organic Compounds by GC/MS											
Benzene	**149**		ug/m3	9.6	1.00	169	88%	70 - 130	MSA	09/20/10 22:26	10I0159
1,2-Dichloroethane	**194**		ug/m3	12	1.00	215	90%	70 - 130	MSA	09/20/10 22:26	10I0159
Ethylbenzene	**214**		ug/m3	8.7	1.00	230	93%	70 - 130	MSA	09/20/10 22:26	10I0159
Methyl tert-butyl ether (MTBE)	**153**		ug/m3	7.2	1.00	193	79%	70 - 130	MSA	09/20/10 22:26	10I0159
Naphthalene	**267**		ug/m3	31	1.00	223	120%	70 - 130	MSA	09/20/10 22:26	10I0159
Toluene	**178**		ug/m3	7.5	1.00	202	88%	70 - 130	MSA	09/20/10 22:26	10I0159
Xylenes, total	**596**		ug/m3	8.7	1.00	651	91%	70 - 130	MSA	09/20/10 22:26	10I0159
Surr: 4-Bromofluorobenzene	**327**		ug/m3		1.00	358	91%	70 - 130	MSA	09/20/10 22:26	10I0159
Surr: 1,2-Dichloroethane-d4	**211**		ug/m3		1.00	211	100%	70 - 130	MSA	09/20/10 22:26	10I0159
Surr: Toluene-d8	**203**		ug/m3		1.00	205	99%	70 - 130	MSA	09/20/10 22:26	10I0159
Sample ID: 10I0216-BS1 (LCS - Air)											
EPA TO15 - Volatile Organic Compounds by GC/MS											
1,2-Dibromoethane (EDB)	**77.5**		ug/m3	3.1	1.00	76.8	101%	70 - 130	MSE	09/27/10 18:49	10I0216
Surr: 4-Bromofluorobenzene	**28.9**		ug/m3		1.00	28.6	101%	70 - 130	MSE	09/27/10 18:49	10I0216
Surr: 1,2-Dichloroethane-d4	**17.1**		ug/m3		1.00	16.9	102%	70 - 130	MSE	09/27/10 18:49	10I0216
Surr: Toluene-d8	**16.1**		ug/m3		1.00	16.4	98%	70 - 130	MSE	09/27/10 18:49	10I0216
Sample ID: 10I0223-BS1 (LCS - Air)											
EPA TO15 - Volatile Organic Compounds by GC/MS											
1,2-Dibromoethane (EDB)	**80.5**		ug/m3	3.1	1.00	76.8	105%	70 - 130	MSE	09/28/10 10:44	10I0223
Surr: 4-Bromofluorobenzene	**29.5**		ug/m3		1.00	28.6	103%	70 - 130	MSE	09/28/10 10:44	10I0223
Surr: 1,2-Dichloroethane-d4	**17.4**		ug/m3		1.00	16.9	103%	70 - 130	MSE	09/28/10 10:44	10I0223
Surr: Toluene-d8	**16.0**		ug/m3		1.00	16.4	97%	70 - 130	MSE	09/28/10 10:44	10I0223

LCS - Cont.

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Spike Conc	% Rec	Target Range	Instrument	Date Analyzed	QC Batch
Sample ID: 10I0073-BS1 (LCS - Air)											
ASTM D1946 - Fixed Gases											
Carbon dioxide	**1.03**		%(v/v)	0.010	1.00	0.998	103%	80 - 120	GC8	09/10/10 10:33	10I0073
Carbon monoxide	**0.0510**		%(v/v)	0.0010	1.00	0.0455	112%	80 - 120	GC8	09/10/10 10:33	10I0073
Helium	**12.6**		%(v/v)	0.020	1.00	12.5	101%	80 - 120	GC8	09/10/10 12:34	10I0073
Methane	**0.0581**		%(v/v)	0.00020	1.00	0.0500	116%	80 - 120	GC8	09/10/10 10:33	10I0073

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PROJECT QUALITY CONTROL DATA

LCS - Cont.

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Spike Conc	% Rec	Target Range	Instrument	Date Analyzed	QC Batch
Sample ID: 10I0073-BS1 (LCS - Air) - cont.											
ASTM D1946 - Fixed Gases											
Oxygen	**5.44**		%(v/v)	0.20	1.00	4.98	109%	80 - 120	GC8	09/10/10 10:33	10I0073
Nitrogen	**21.5**		%(v/v)	1.0	1.00	19.9	108%	80 - 120	GC8	09/10/10 10:33	10I0073

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PROJECT QUALITY CONTROL DATA

LCS Dup

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Spike Conc	% Rec	Target Range	RPD	Limit	Date Analyzed	QC Batch
Sample ID: 10I0142-BSD1 (LCS Dup - Air)												
EPA TO15 (Med-level) - Volatile Organic Compounds by GC/MS												
Benzene	**135**		ug/m3	9.6	1.00	169	80%	70 - 130	0.5	25	09/17/10 02:28	10I0142
tert-Butyl alcohol	**919**		ug/m3	45	1.00	758	121%	70 - 130	3	25	09/17/10 01:06	10I0142
1,2-Dichloroethane	**197**		ug/m3	12	1.00	215	92%	70 - 130	0.007	25	09/17/10 02:28	10I0142
Ethanol	**501**		ug/m3	94	1.00	471	106%	70 - 130	9	25	09/17/10 01:06	10I0142
tert-Amyl methyl ether (TAME)	**239**		ug/m3	8.4	1.00	209	114%	70 - 130	0.5	25	09/17/10 01:06	10I0142
Ethyl tert-butyl ether (ETBE)	**245**		ug/m3	8.4	1.00	209	117%	70 - 130	2	25	09/17/10 01:06	10I0142
Ethylbenzene	**215**		ug/m3	8.7	1.00	230	93%	70 - 130	0.7	25	09/17/10 02:28	10I0142
Diisopropyl ether (DIPE)	**233**		ug/m3	8.4	1.00	209	111%	70 - 130	2	25	09/17/10 01:06	10I0142
Methyl tert-butyl ether (MTBE)	**146**		ug/m3	7.2	1.00	193	75%	70 - 130	3	25	09/17/10 02:28	10I0142
Naphthalene	**236**		ug/m3	31	1.00	223	106%	70 - 130	2	25	09/17/10 02:28	10I0142
Toluene	**175**		ug/m3	7.5	1.00	202	87%	70 - 130	0.6	25	09/17/10 02:28	10I0142
TPH as Gasoline	**44900**		ug/m3	2000	1.00	40900	110%	70 - 130	0.6	25	09/16/10 23:05	10I0142
Xylenes, total	**687**		ug/m3	8.7	1.00	651	105%	70 - 130	0.1	25	09/17/10 02:28	10I0142
Surr: 4-Bromofluorobenzene	**371**		ug/m3		1.00	358	104%	70 - 130			09/17/10 01:06	10I0142
Surr: 1,2-Dichloroethane-d4	**223**		ug/m3		1.00	211	106%	70 - 130			09/17/10 01:06	10I0142
Surr: Toluene-d8	**216**		ug/m3		1.00	205	106%	70 - 130			09/17/10 01:06	10I0142
Sample ID: 10I0151-BSD1 (LCS Dup - Air)												
EPA TO15 (Med-level) - Volatile Organic Compounds by GC/MS												
Benzene	**137**		ug/m3	9.6	1.00	169	81%	70 - 130	0.7	25	09/17/10 22:44	10I0151
tert-Butyl alcohol	**645**		ug/m3	45	1.00	758	85%	70 - 130	8	25	09/17/10 21:28	10I0151
1,2-Dichloroethane	**186**		ug/m3	12	1.00	215	87%	70 - 130	3	25	09/17/10 22:44	10I0151
Ethanol	**349**		ug/m3	94	1.00	471	74%	70 - 130	2	25	09/17/10 21:28	10I0151
tert-Amyl methyl ether (TAME)	**188**		ug/m3	8.4	1.00	209	90%	70 - 130	0.03	25	09/17/10 21:28	10I0151
Ethyl tert-butyl ether (ETBE)	**170**		ug/m3	8.4	1.00	209	81%	70 - 130	3	25	09/17/10 21:28	10I0151
Ethylbenzene	**201**		ug/m3	8.7	1.00	230	87%	70 - 130	4	25	09/17/10 22:44	10I0151
Diisopropyl ether (DIPE)	**154**		ug/m3	8.4	1.00	209	74%	70 - 130	1	25	09/17/10 21:28	10I0151
Methyl tert-butyl ether (MTBE)	**167**		ug/m3	7.2	1.00	193	87%	70 - 130	5	25	09/17/10 22:44	10I0151
Naphthalene	**265**		ug/m3	31	1.00	223	119%	70 - 130	17	25	09/17/10 22:44	10I0151
Toluene	**166**		ug/m3	7.5	1.00	202	82%	70 - 130	4	25	09/17/10 22:44	10I0151
TPH as Gasoline	**35700**		ug/m3	2000	1.00	40900	87%	70 - 130	0.4	25	09/17/10 20:13	10I0151
Xylenes, total	**576**		ug/m3	8.7	1.00	651	88%	70 - 130	1	25	09/17/10 22:44	10I0151
Surr: 4-Bromofluorobenzene	**337**		ug/m3		1.00	358	94%	70 - 130			09/17/10 22:44	10I0151
Surr: 1,2-Dichloroethane-d4	**231**		ug/m3		1.00	211	110%	70 - 130			09/17/10 22:44	10I0151
Surr: Toluene-d8	**212**		ug/m3		1.00	205	104%	70 - 130			09/17/10 22:44	10I0151

Delta Environmental Consultant San Jose
312 Piercy Road
San Jose, CA 95138
Lia Holden

Work Order: LTI0081
Project: Alameda 142611270
Project Number: [none]

Received: 09/10/10 10:25
Reported: 09/29/10 10:47

PROJECT QUALITY CONTROL DATA

LCS Dup - Cont.

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Spike Conc	% Rec	Target Range	RPD	Limit	Date Analyzed	QC Batch
Sample ID: 10I0159-BSD1 (LCS Dup - Air)												
EPA TO15 (Med-level) - Volatile Organic Compounds by GC/MS												
Benzene	**151**		ug/m3	9.6	1.00	169	89%	70 - 130	0.9	25	09/20/10 23:04	10I0159
1,2-Dichloroethane	**197**		ug/m3	12	1.00	215	92%	70 - 130	2	25	09/20/10 23:04	10I0159
Ethylbenzene	**208**		ug/m3	8.7	1.00	230	91%	70 - 130	3	25	09/20/10 23:04	10I0159
Methyl tert-butyl ether (MTBE)	**155**		ug/m3	7.2	1.00	193	80%	70 - 130	1	25	09/20/10 23:04	10I0159
Naphthalene	**260**		ug/m3	31	1.00	223	117%	70 - 130	2	25	09/20/10 23:04	10I0159
Toluene	**182**		ug/m3	7.5	1.00	202	90%	70 - 130	2	25	09/20/10 23:04	10I0159
Xylenes, total	**588**		ug/m3	8.7	1.00	651	90%	70 - 130	1	25	09/20/10 23:04	10I0159
Surr: 4-Bromofluorobenzene	**321**		ug/m3		1.00	358	90%	70 - 130			09/20/10 23:04	10I0159
Surr: 1,2-Dichloroethane-d4	**230**		ug/m3		1.00	211	109%	70 - 130			09/20/10 23:04	10I0159
Surr: Toluene-d8	**208**		ug/m3		1.00	205	101%	70 - 130			09/20/10 23:04	10I0159
Sample ID: 10I0216-BSD1 (LCS Dup - Air)												
EPA TO15 - Volatile Organic Compounds by GC/MS												
1,2-Dibromoethane (EDB)	**76.7**		ug/m3	3.1	1.00	76.8	100%	70 - 130	1	25	09/27/10 19:36	10I0216
Surr: 4-Bromofluorobenzene	**28.9**		ug/m3		1.00	28.6	101%	70 - 130			09/27/10 19:36	10I0216
Surr: 1,2-Dichloroethane-d4	**16.9**		ug/m3		1.00	16.9	100%	70 - 130			09/27/10 19:36	10I0216
Surr: Toluene-d8	**16.3**		ug/m3		1.00	16.4	99%	70 - 130			09/27/10 19:36	10I0216
Sample ID: 10I0223-BSD1 (LCS Dup - Air)												
EPA TO15 - Volatile Organic Compounds by GC/MS												
1,2-Dibromoethane (EDB)	**80.6**		ug/m3	3.1	1.00	76.8	105%	70 - 130	0.03	25	09/28/10 11:31	10I0223
Surr: 4-Bromofluorobenzene	**28.9**		ug/m3		1.00	28.6	101%	70 - 130			09/28/10 11:31	10I0223
Surr: 1,2-Dichloroethane-d4	**17.3**		ug/m3		1.00	16.9	103%	70 - 130			09/28/10 11:31	10I0223
Surr: Toluene-d8	**16.2**		ug/m3		1.00	16.4	99%	70 - 130			09/28/10 11:31	10I0223

LCS Dup - Cont.

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Spike Conc	% Rec	Target Range	RPD	Limit	Date Analyzed	QC Batch
Sample ID: 10I0073-BSD1 (LCS Dup - Air)												
ASTM D1946 - Fixed Gases												
Carbon dioxide	**1.03**		%(v/v)	0.010	1.00	0.998	103%	80 - 120	0.5	20	09/10/10 10:50	10I0073
Carbon monoxide	**0.0512**		%(v/v)	0.0010	1.00	0.0455	112%	80 - 120	0.3	20	09/10/10 10:50	10I0073
Helium	**12.7**		%(v/v)	0.020	1.00	12.5	101%	80 - 120	0.06	20	09/10/10 12:53	10I0073
Methane	**0.0581**		%(v/v)	0.00020	1.00	0.0500	116%	80 - 120	0.09	20	09/10/10 10:50	10I0073

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San Jose, CA 95138	Project:	Alameda 142611270	
Lia Holden	Project Number:	[none]	

PROJECT QUALITY CONTROL DATA

LCS Dup - Cont.

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Spike Conc	% Rec	Target Range	RPD	Limit	Date Analyzed	QC Batch
Sample ID: 10I0073-BSD1 (LCS Dup - Air) - cont.												
ASTM D1946 - Fixed Gases												
Oxygen	**5.44**		%(v/v)	0.20	1.00	4.98	109%	80 - 120	0.03	20	09/10/10 10:50	10I0073
Nitrogen	**21.5**		%(v/v)	1.0	1.00	19.9	108%	80 - 120	0.06	20	09/10/10 10:50	10I0073

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
3585 Cadillac Avenue, Suite A Costa Mesa, CA 92626 * 714-258-8610 * Fax 714-258-0921

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DATA QUALIFIERS AND DEFINITIONS

AZ	Surr. recovery outside of acceptance limits due to matrix interf.
GR	Internal standard recovery is outside method recovery limit
ND	Not detected at the reporting limit (or method detection limit if shown)

TestAmerica Los Angeles
3585 Cadillac Ave., Suite A
Costa Mesa, CA 92626
Phone 714-258-8610 Fax 714-258-0921

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Lia Holden	LTI0086	1 of 1 COCs
Company: Delta Consultants	Phone: 408-826-1863	Samples Collected By: Nadine Peneat	
Address: 312 Piercy Rd	Email: Lholden@deltaenv.com		
City/State/Zip San Jose, CA, 95138	Site Contact: Nadine Peneat		
Phone: 408-826-1879	LAB Contact: Beth Riley		
FAX: 408-225-8506	Analysis Turnaround Time		
Project Name: 1426112.70	Standard (Specify)		
Site: 1426112.70	Rush (Specify)		
PO #			

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	TO-3	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SV-4	9/9/10	9:11	9:38	~30 in Hg	-5 in Hg	058	2776	X										X		
SV-3	9/9/10	10:11	10:38	-30	-5	005	2773	X										X		
SV-1	9/9/10	10:59	11:23	-29	-5	024	1800C	X										X		
SV-5	9/9/10	11:54	12:14	-29	-5	034	2375	X										X		
SV-2	9/9/10	12:44	1:09	-30	-5	049	3433	X										X		
Duplicate	9/9/10	1:18	1:47	-30	-5	079	2338	X										X		

NP

Temperature (Fahrenheit)			
	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)			
	Interior	Ambient	
Start			
Stop			

TO-15= TPH-G, MTBE, BTEX, 1,2-DCA, EDB, Ethanol, TAME, ETBE, TBA, DIPE

Fixed gasses: He, Oxygen, Argon, Nitrogen, Methane, CO_2, CO

BR 9/10/10

Special Instructions/QC Requirements & Comments:

Samples Shipped by: Nadine Peneat	Date/Time: 9/9/10 3:15	Samples Received by:	
Samples Relinquished by: Nadine Peneat	Date/Time: 9/9/10 3:15	Received by:	
Relinquished by:	Date/Time: 9/10/10 1025	Received by:	

Lab Use Only Shipper Name: Opened by: Condition:

LTI0081A

CANISTER QC CERTIFICATION

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Certification Type: TO-15 SCAN

Date Cleaned/Batch: A082710B

Date of QC: 09-01-10

Data File Number: MW08317(MSE)

CANISTER ID NUMBERS

* 3190	✓ 2776 [1]
1102C	✓ 2375 [4]
✓ 2773 [2]	3580
✓ 1080C [3]	1095C
✓ 3433 [5]	2351
✓ 2338 [6]	1050C

The above canisters were cleaned as a batch. This certifies this batch contains no target analyte concentration greater than or equal to the method criteria for the "*Certification Type*" indicated above.

"*" INDICATES THE CAN OR CANS WHICH WERE SCREENED.

Reviewed By: _____ Date: 09-01-10

TestAmerica Los Angeles

AIR LOW LEVEL TO-14A / TO-15

Data file : \\TAILAX106\D\chem\MSE.i\100831.B\MB08317.D
Lab Smp Id: BLANK Client Smp ID: 3190
Inj Date : 01-SEP-2010 02:31
Operator : DLK Inst ID: mse.i
Smp Info : BLANK,3190,,METHOD BLANK
Misc Info : 1,1,500,500,3,,BLANK,TO15CORP.SUB,0,
Comment :
Method : \\TAILAX106\D\chem\MSE.i\100831.B\TO15.m
Meth Date : 01-Sep-2010 07:24 donga Quant Type: ISTD
Cal Date : 31-AUG-2010 20:49 Cal File: IC08319.D
Als bottle: 14 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TO15CORP.SUB
Target Version: 4.14
Processing Host: TAILAX106

Concentration Formula:
Amt * DF * (FinalPres / InitPres)*(CalVol / SmpVol) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
FinalPres	1.000	Final Pressure
InitPres	1.000	Initial Pressure
CalVol	500.000	Calibration Volume
SmpVol	500.000	Sample Volume
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppbv)	FINAL (ppbv)
*	47 Bromochloromethane	49	11.802	11.784	(1.000)	48513	4.00000	
$	53 1,2-Dichloroethane-d4	65	12.577	12.565	(0.956)	47479	3.86783	3.868
*	60 1,4-Difluorobenzene	114	13.160	13.148	(1.000)	129966	4.00000	
$	70 Toluene-d8	98	15.281	15.275	(0.883)	129679	3.90389	3.904
*	83 Chlorobenzene-d5	117	17.308	17.303	(1.000)	125582	4.00000	
$	95 4-Bromofluorobenzene	95	18.927	18.927	(1.094)	98172	3.76631	3.766

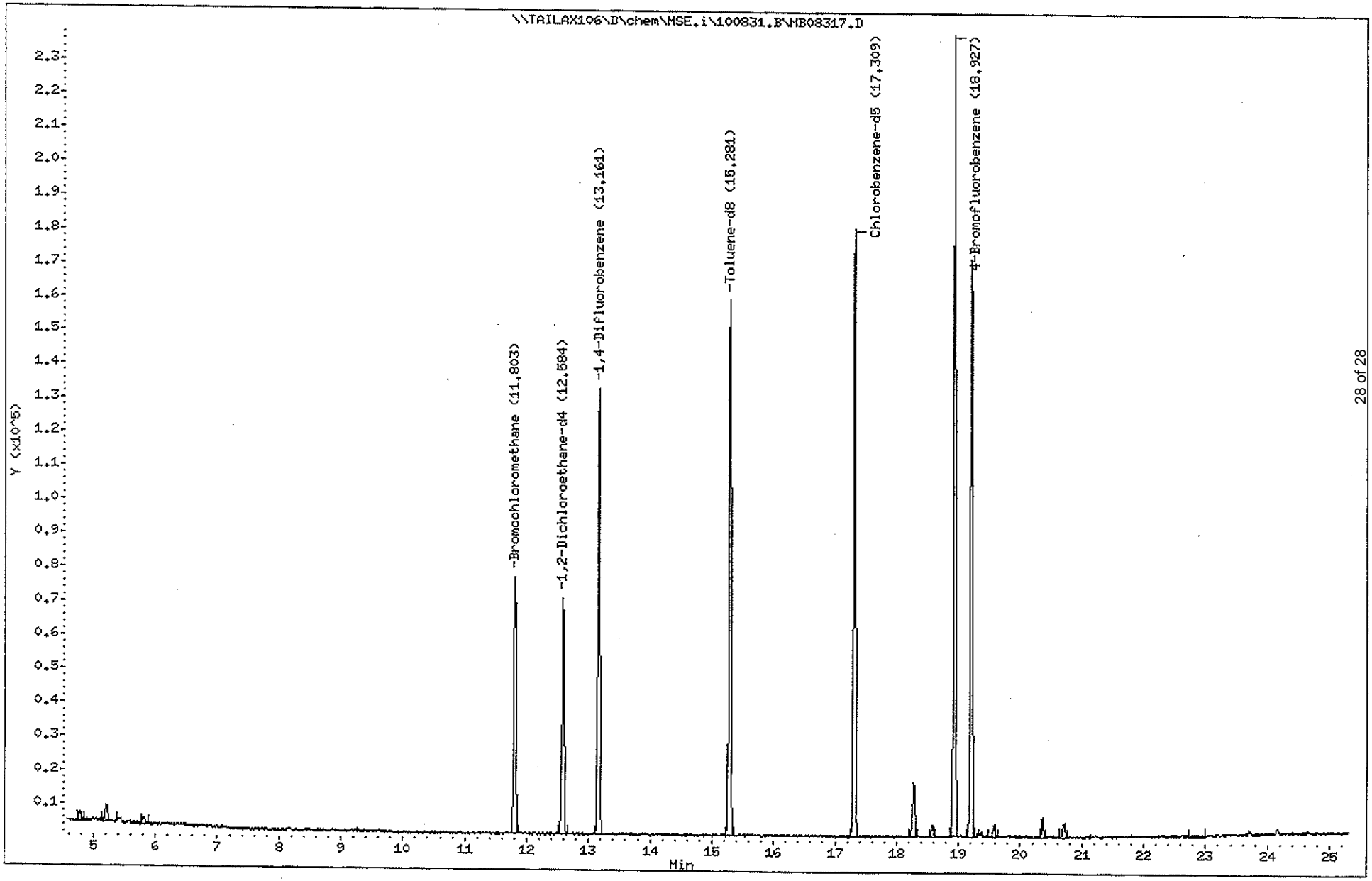
Data File: \\TAILAX106\D\chem\MSE.i\100831.B\MB08317.D
Date : 01-SEP-2010 02:31
Client ID: 3190
Sample Info: BLANK,3190,,METHOD BLANK

Column phase: J&W DB-5ms

Instrument: mse.i

Operator: DLK
Column diameter: 0.32

LTI0081A



Is the Data Valid?

(circle)

Yes / No

Preservation Temperature

(if Known): _____ **°C**

Delta Lab Validation Sheet

Project/Client: Delta –COP/ELT

Project #: I42611270

Date of Validation: 9/22/2010 **Date of Analysis:** 9/17/2010

Sample Date: 9/9/2010 **Completed By:** Nadine Periat

Circle or Highlight **Yes / No** (below)

Signature: Nadi Per

Analytical Lab Used and Report # Test America Laboratories No. LTI0081

1.	Was the analysis the one requested?	**Yes / No**
2.	Do the sample number(s) on the chain-of-custody (COC) match the one(s) that appear on the laboratory data sheet?	**Yes / No**
3.	Were samples prepared (extracted, filtered, etc.) within EPA holding times?	**Yes / No**
4.	Once prepared/extracted, were the samples analyzed within the EPA holding times?	**Yes / No**
5.	Were Laboratory blanks performed, if so, were they below non-detect?	**Yes / No**
6.	Are the units correct? (i.e., soil samples in mg/kg or ug/g, water samples mg/L, ug/L, and air samples in volume ug/m^3,etc.)	**Yes / No**
7.	Were appropriate Matrix Spike (MS) and Matrix Spike Duplicate (MSD) samples included in the laboratory batch sample?	**Yes / No**
8.	In lieu of MS/ MSD, were surrogate spike (SS) or surrogate spike duplicate (SSD) samples included in the laboratory batch samples?	**NA**
9.	Were MS/ MSD (or SS/SSD) within the acceptable range of % recovery (i.e., approx 80-120% depending on analyte)?	**Yes / No**
10.	Were MS/MSD (or SS/SSD) values used to calculate Relative Percent Difference (RPD)?	**Yes / No**
11.	Were Relative Percent Difference values within the acceptable range (i.e. ±25%)?	**Yes / No**

If any answer is no, explain why and what corrective action was taken:

1. Lab additionally analyzed samples for Napthalene, which was not requested by Delta on the COC.
7. Laboratory used laboratory control samples/duplicates (LCS/LCSD) instead of MS/MSD