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September 28, 2009

Mr. Paresh Khatri  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Subject: **#RO0000346**

Site Address: 3519 Castro Valley Blvd, Castro Valley, CA  
Castro Valley Gasoline Service Station

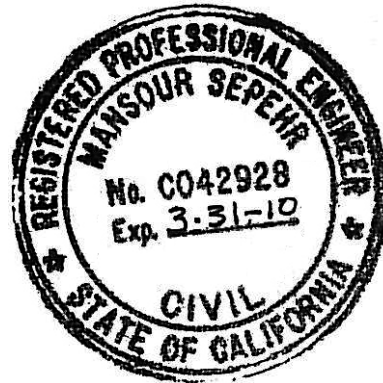
Dear Mr. Khatri:

As requested in your letter dated July 10, 2009, SOMA's "Soil and Groundwater Investigation Report" for the subject property has been uploaded to the State's GeoTracker database and Alameda County's FTP site for your review.

Thank you for your time in reviewing our report. Please do not hesitate to call me at (925) 734-6400, if you have questions or comments.

Sincerely,

Mansour Sepehr, Ph.D., PE  
Principal Hydrogeologist



cc: Mr. Azim Shakoori w/report enclosure  
Mr. Matt Herrick w/Broadbent & Associates, Inc. w/enclosure

# **Soil and Groundwater Investigation Report**

**3519 Castro Valley Boulevard  
Castro Valley, California**

**September 28, 2009**

**Project 2762**

**Prepared for**

**Mr. Mirazim Shakoori  
3519 Castro Valley Boulevard  
Castro Valley, California**



**ENVIRONMENTAL ENGINEERING, INC.**

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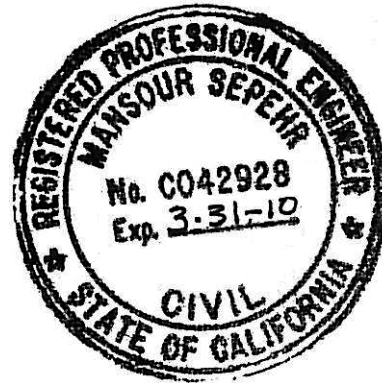
## CERTIFICATION

SOMA Environmental Engineering, Inc. has prepared this report on behalf Mr. Mirazim Shakoori, to document the soil and groundwater investigation conducted for property located at 3519 Castro Valley Boulevard, Castro Valley, California in accordance with SOMA's March 9, 2009 "Site Conceptual Model and Workplan to Address Data Gaps." This report was prepared in response to Alameda County Environmental Health Services, Environmental Protection Division correspondence of July 10, 2009 approving the workplan.



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Mansour Sepehr, PhD, PE  
Principal Hydrogeologist



# TABLE OF CONTENTS

CERTIFICATION .....	i
TABLE OF CONTENTS .....	ii
LIST OF FIGURES .....	iii
LIST OF TABLES .....	iii
LIST OF APPENDICES .....	iii
1. INTRODUCTION .....	1
1.1 Site Location and Description .....	1
1.2 Regional and Site Geology and Hydrogeology .....	1
2. SCOPE OF WORK .....	2
2.1 Permit Acquisition, Health and Safety Plan, and Subsurface Utility Clearance .....	3
2.2 Field Investigations .....	3
2.2.1 Borehole Advancement .....	4
2.2.2 Monitoring Well Installation .....	5
2.2.3 Well Survey, Waste Disposal, and Development .....	6
2.2.4 Well Sampling .....	7
2.2.5 Laboratory Analyses .....	7
2.3 Evaluation of Sampling Results .....	7
2.3.1 Lateral and Vertical Extent of Contamination in Soil .....	8
2.3.2 Lateral and Vertical Extent of Contamination in Groundwater .....	8
3. EVALUATION OF APPROPRIATENESS OF WELL SCREENING INTERVALS .....	9
4. CONCLUSIONS AND RECOMMENDATIONS .....	10
4.1 Conclusions .....	10
4.2 Recommendation .....	11

## **LIST OF FIGURES**

- Figure 1: Site Vicinity Map
- Figure 2: Site map showing locations of existing monitoring wells, decommissioned wells, offsite temporary well boreholes, monitoring wells installed by SOMA, monitoring wells located at neighboring service station, and onsite boreholes
- Figure 3: Contour Map Showing Lateral Extent of TPH-g Contamination in Soil
- Figure 4: Contour Map Showing TPH-g Contamination in Groundwater
- Figure 5: Contour Map Showing TPH-d Contamination in Groundwater
- Figure 6: Contour Map Showing TPH-mo Contamination in Groundwater
- Figure 7: Contour Map Showing Benzene Contamination in Groundwater
- Figure 8: Site Map Showing the Locations of Geological Cross-Sections
- Figure 9: Geologic Cross-Section A-A'
- Figure 10: Geologic Cross-Section B-B'
- Figure 11: Geologic Cross-Section B-A'

## **LIST OF TABLES**

- Table 1: Soil Analytical Data
- Table 2: Groundwater Analytical Data
- Table 3: Historical Groundwater Elevation Data and Analytical Results
- Table 4: Historical Gasoline Oxygenate and Lead Scavenger Results

## **LIST OF APPENDICES**

- Appendix A: Site History and Previous Remediation Activities
- Appendix B: Drilling Permits, Site Access Agreement, and General Field Procedures
- Appendix C: Boring Logs
- Appendix D: Well Development Log and Waste Manifests
- Appendix E: Well Survey Data

## Appendix F: Laboratory Analytical Report and Chain of Custody Form

# 1. INTRODUCTION

SOMA Environmental Engineering, Inc. (SOMA) has prepared this report on behalf of Mr. Mirazim Shakoori, to document the soil and groundwater investigation of property located at 3519 Castro Valley Boulevard, Castro Valley, California. The investigation was completed in accordance with SOMA's "Site Conceptual Model and Workplan to Address Data Gaps," dated March 6, 2009 and "Workplan Addendum" dated May 6, 2009, in compliance with Alameda County Environmental Health Services (ACEHS) Environmental Protection Division correspondence dated March 27, 2009 and July 10, 2009 approving the workplan.

## 1.1 Site Location and Description

The site is located on the corner of Redwood Road and Castro Valley Boulevard (Figure 1). Prior to 1989, the site was a Mobil gasoline service station. In 1989, British Petroleum (BP) purchased and operated the station until ownership was transferred to Mr. Mirazim Shakoori in 1993. The station was operated under the Chevron brand until recently, and now operates as a Shell gasoline service station.

Site features, including the former and current USTs and former dispenser island, are shown in Figure 2. Site violation history, activities and remediation background are summarized in Appendix A.

## 1.2 Regional and Site Geology and Hydrogeology

The site is located in the Coast Range Geomorphic Province, on the eastern side of San Francisco Bay, approximately 1 mile west of the Hayward Fault. The U.S. Geologic Survey (USGS) mapped the site as weakly consolidated, slightly weathered, poorly sorted, irregular interbedded clay, silt, sand, and gravel. In addition, in developed urban areas such as the Bay Area, earthwork construction often involves emplacement of artificial fill derived from nearby cuts or quarries; quite often, artificial fill is emplaced over native earth materials to provide level building pads and base rock for roadways.

Per ACEHS correspondence of 1994, the site is located in the Castro Valley Basin, an isolated structural basin surrounded to the west, north, and east by folded and faulted uplands comprised of Cretaceous sandstone, shale, and conglomerates of marine origin. The valley is bounded on the west by active traces of the Hayward fault. Sediments collected in the valley are mostly of fluvial origin and relatively thin (<100 feet thick). Based on overall structure and topography of the basin in which Castro Valley is located, heterogeneity of sediments (sands, silts, and clays), depth at which groundwater is first encountered and where it eventually stabilizes, and on past evidence at this and

nearby sites, it is reasonable to conclude that groundwater may be present under confined or semi-confined conditions in the vicinity of the site.

According to California's Groundwater Bulletin 118, the principal water bearing formation of the Castro Valley Groundwater Basin is alluvium of Pleistocene age, which unconformably overlies consolidated non-water bearing rock of Jurassic age and underlies a thin surficial deposit of alluvium of Holocene age. The Pleistocene alluvium is a heterogeneous mixture of unconsolidated clay, silt, sand, and gravel with a maximum thickness of 80 feet. Per the groundwater bulletin, groundwater is unconfined and yields are limited, usually only sufficient for lawn irrigation. Per USGS (W-RIR 02-4259, 2003), this alluvium is part of the Newark aquifer that is present in the East Bay Flatlands to a depth of 30 to 130 feet below ground surface (bgs). Water in the Newark aquifer is generally confined except near recharge areas along the mountain front. The nature of groundwater under the site (confined to unconfined) was considered a data gap and is addressed during the current investigation.

The uplands north, east, and west of the valley likely represent areas of groundwater recharge from rain infiltration to aquifers present in the valley. The major drainage through the valley is San Lorenzo Creek located approximately 0.75 mile east of the site.

Depth to first encountered groundwater at the site has historically been between 18 and 25 feet bgs. Stable groundwater has historically been observed from 2.36 to 12.02 feet bgs in groundwater monitoring wells (Table 3). During the Third Quarter 2009 groundwater monitoring event, groundwater was observed to flow southeasterly across the site at an approximate gradient of 0.015 feet/feet. The Rose diagram on Figure 2 demonstrates historical groundwater flow directions at the site.

## **2. SCOPE OF WORK**

To further define the lateral and horizontal extent of COC impact to vadose zone and the WBZ (up to 31 feet bgs), SOMA advanced soil boreholes and installed a groundwater monitoring well at the site.

The purpose of this subsurface assessment is to determine the lateral extent and origin of the elevated concentrations of COCs reported in groundwater samples from ESE-5 and B-6, determine if there is any commingling of the site plume with the plume at the neighboring station west of the site, and to delineate extent of soil and groundwater contamination.

Details of the tasks listed below are discussed in the following sections of this report.

Task 1: Permit Acquisition, Health and Safety Plan Preparation, and Subsurface Utility Clearance



- Task 2: Advancement of DP borings and Shallow Groundwater Monitoring Well
- Task 3: Laboratory Analysis of Soil and Groundwater Samples
- Task 4: Evaluation of Appropriateness of Well Screening Intervals
- Task 5: Preparation of Site Investigation Report and Recommendations for Future Actions at the Site

## **2.1 Permit Acquisition, Health and Safety Plan, and Subsurface Utility Clearance**

Prior to initiating field activities, SOMA obtained drilling permits from Alameda County Public Works Agency (ACPWA). A written property access agreement was obtained from Mr. Anthony Chan, property manager of Valley Business Center, to allow placement of DP-4 on the property at 20860 Redwood Road (Appendix B). ACEHS was given the required minimum 72-hour notice in advance of drilling on August 7, 2009 and ACPWA was contacted on August 4, 2009 to schedule the grouting inspection with John Shouldice.

Before field activities began, a site-specific Health and Safety Plan (HASP) was prepared by SOMA. The HASP is a requirement of the federal Occupational Safety and Health Administration (OSHA), "Hazardous Waste Operation and Emergency Response" guidelines (29 CFR 1910.120) and the California Occupational Safety and Health Administration (Cal/OSHA) "Hazardous Waste Operation and Emergency Response" guidelines (CCR Title 8, section 5192). The HASP is designed to address safety provisions during field activities and protect the field crew from physical and chemical hazards resulting from drilling and sampling. It establishes personnel responsibilities, general safe work practices, field procedures, personal protective equipment standards, decontamination procedures, and emergency action plans. Field staff and contractors reviewed and signed the HASP prior to beginning field operations.

On August 7, 2009, prior to boring advancement activities, SOMA's field crew visited the site and marked proposed well locations using chalk-based white paint. Underground Service Alert (USA) clearance verifying that drilling areas were clear of underground utilities was obtained August 7, 2009 (Ticket 241308). A private utility locator (Cruz Brothers Locators) surveyed proposed drilling areas on August 14, 2009 to locate any additional subsurface conduits. On August 17, 2009, prior to initiation of field activities, Del Secco Diamond Core & Saw cored three soil borings and the groundwater monitoring well, which was located in concrete.

## **2.2 Field Investigations**

Due to previously identified data gaps, this subsurface assessment was conducted to accomplish the following: define the lateral and vertical extent of

residual soil impact; determine the lateral extent of on-site groundwater contamination; determine whether commingling is occurring between the on-site petroleum hydrocarbon plume and the plume from the nearby gasoline station (west of Redwood Road); determine whether on-site groundwater monitoring wells are inappropriately screened.

Under SOMA's supervision, Gregg Drilling & Testing (Gregg) advanced seven soil borings (DP-1 to DP-7, Figure 2) using Direct Push technology (DPT) drilling techniques and SOMA-5 utilizing Hollow Stem Auger (HSA) drilling techniques. All were hand-augured to 5 feet bgs to ensure clearance of underground utilities.

Procedures following during field work are contained in Appendix B.

### **2.2.1 Borehole Advancement**

On August 17 and 18, 2009, SOMA oversaw advancement of seven soil borings (DP-1 through DP-7), three in the vicinity of B-3 north of the former USTs, and four along the western portion of the site. The purpose of each boring was collection of soil and groundwater samples at discrete depths. Each boring was advanced to approximately 30 to 32 feet bgs depending on the lithology encountered. This depth was chosen because it encompasses depths of contamination observed during previous investigations. To clear all underground utilities, each soil boring was hand augured to 5 feet bgs.

#### **2.2.1.1 Soil Sample Collection**

DPT is an efficient method of collecting continuous soil cores while preventing cross-contamination. It involves hydraulically hammering a set of steel rods into the subsurface with the lead section consisting of a polyethylene-lined sampler. After drilling rods are pushed to the desired depth, the soil-filled liner is retrieved. SOMA's field geologist logged continuous soil cores from advanced boring, characterizing the content of each soil-filled tube using the Unified Soil Classification System (USCS) Visual-Manual method. Encountered subsurface lithologies were recorded on geologic borehole logs. Contents of each sediment-filled tube were screened with a photoionization detector (PID) at each screened depth and results noted on respective boring logs (Appendix C).

For vertical definition, soil samples were collected at depths where historical soil contamination was observed or where PID readings or visual observations indicated presence of significant soil contamination, or at significant changes in lithology. At each interval of depth-discrete soil sampling, the DPT drilling rig obtained a 4-foot soil sample core. For soil sample collection, SOMA's field geologist cut sections of the soil-filled tubes into 6-inch-long sections and capped each end with a Teflon liner and polyethylene end cap. Samples were labeled with unique identifiers and immediately placed in a chilled ice chest pending transportation to Curtis & Tompkins, Ltd. (C&T), a California state-certified environmental laboratory.

### **2.2.1.2 Groundwater Sample Collection**

To collect depth discrete groundwater samples from the boreholes, a dual-tube groundwater profiler was used. Dual tube is designed for discrete groundwater sampling at different depth intervals without cross-contaminating WBZs. The dual-walled sampler involves hydraulically driving or hammering a cased set of rods into the ground with the lead rod section consisting of a hollow acetate-lined sampler. After pushing the cased rods to the desired depth, the 1-inch-diameter drilling rods are withdrawn from within the 2.125-inch-diameter outer casing to insert the screened sampler. The field crew used disposable bailers to collect groundwater samples. Samples were decanted into 40 mL amber VOAs with HCl preservative or 1-L amber bottles, labeled with unique identifiers, and placed in an ice chilled cooler pending transportation to C&T.

### **2.2.1.3 Borehole Decommissioning**

After collection of soil and groundwater samples, boreholes were decommissioned according to Cal/EPA guidelines with a neat-cement grout mixture and completed at the surface with rapid-set cement grout and cement at the top to match the existing grade. To prevent bridging and help ensure a good seal, grout was kept under pressure during emplacement. This was achieved by use of a tremie pipe to feed grout into the bottom of the hole. At all times, the opening of the tremie pipe was submerged several feet below the level of grout in the hole, the amount of submergence depending on the amount of pressure needed to ensure adequate penetration of grout into the formation.

Soil and wastewater generated during boring activities was temporarily stored on-site in separate DOT-rated, 55-gallon steel drums pending characterization, profiling, and transport to an approved disposal/recycling facility.

## **2.2.2 Monitoring Well Installation**

On August 18, 2009, SOMA oversaw installation of a shallow groundwater monitoring well (SOMA-5) to 15 feet bgs (within the vadose zone and above the water-bearing permeable zone) and screened from 5 to 15 feet, across the potentiometric surface. To clear all underground utilities, the well was hand augured to 5 feet bgs. Using HSA drilling technology, the well borehole was then continuously cored to 15 feet bgs. SOMA's field geologist logged the continuous soil core, characterizing the content of each soil-filled tube using the USCS Visual-Manual method. Encountered subsurface lithologies were recorded on geologic borehole logs. Contents of each sediment-filled tube were screened using a PID at each screened depth and results were noted on the boring log (Appendix C).

Soil samples were collected at intervals where elevated PID readings, staining, or odor were observed. For soil sample collection, SOMA's field geologist cut

sections of soil-filled tubes into 6-inch-long sections and capped each end with Teflon liner and polyethylene end caps. The samples were labeled with unique identifiers and immediately placed in a chilled ice chest pending transportation to C&T.

After advancing the boring to a final depth of 15 feet bgs, 2-inch-diameter threaded, factory-slotted and blank PVC pipes (schedule 40 polyvinyl chloride) were installed, with a 0.02-inch perforated screen (0.02-inch-wide by 1.5-inch-long slot size with 42 slots per foot) spanning 5 to 15 feet bgs, across the potentiometric surface. The drilling crew attached a threaded PVC cap to the bottom of the casing, without use of adhesives, and the top of the casing was fitted with a locking well cap. After the screen and well riser were positioned, a filter pack (consisting of No. 3 Monterey sand) was emplaced into the annular space from the base of the well to approximately 4 feet bgs.

After the filter pack set, the well was sealed to ground surface. To keep grout out of the filter pack, bentonite chips were placed approximately 1 foot above the top of the filter. After hydrating the bentonite chips with sufficient distilled water for 30 minutes to 1 hour, the well was sealed from the top of the bentonite to approximately 1-foot bgs with Portland Type I/II neat cement grout. A flush-mounted, traffic-rated well vault (protective casing) and locking well cap was installed to ensure that the monitoring well would be protected from vandalism and/or accidental damage. No groundwater was observed in well SOMA-5 during installation. The geologic log of SOMA-5, showing well construction details, is included in Appendix C.

### **2.2.3 Well Survey, Waste Disposal, and Development**

On September 4, 2009 Ben Harrington Land Surveying and Mapping, certified licensed land surveyor (License 5132), surveyed the newly installed well. Latitude and longitude coordinates were surveyed to Zone III NAD 83 datum, and the elevation to NAVD 88 datum from GPS observations. Survey data are included in Appendix E, and were uploaded to the State Water Resources Control Board Geotracker database.

During surveying, SOMA field staff checked SOMA-5 for groundwater, which was found to be present. Depth to water measured 10.48 feet bgs. Depth to water in ESE-1 was also measured, at 10.44 feet bgs. Based on presence of groundwater in SOMA-5, SOMA prepared for well developing and sampling activities. On September 18, 2009, under SOMA's observation Gregg developed SOMA-5; pre-development depth to water was measured at 9.62 feet bgs. Since the well was recharging too slow for purging with a pump, a steel bailer was used to remove sediment-laden water from the well until the sediment load had substantially decreased. Approximately 10 gallons of water were bailed from the well until groundwater quality parameters, measured by Gregg, had stabilized. The well development log summarizing observed groundwater parameters is included in

Appendix D. Presence of groundwater at SOMA-5 with a slow recharge rates supports presence of a potential shallow discontinuous perched WBZ.

On September 25, 2009, two 55-gallon drums of non-hazardous liquid (purge water) and two 55-gallon drums of non-hazardous solid (soil cuttings) waste were transported from the site to a licensed disposal facility (waste manifest contained in Appendix D).

#### **2.2.4 Well Sampling**

After well development was complete, on September 21, 2009, SOMA sampled groundwater from SOMA-5. Pre-sampling depth to water was measured at 9.93 feet bgs. No sheen or color associated with groundwater was observed; however, petroleum hydrocarbon odor was noted. The field crew collected the sample with a disposable bailer. The sample was decanted into 40-mL amber VOAs with HCl preservative bottles, labeled with unique identifiers, and placed in an ice-chilled cooler pending transportation to C&T. Sample analysis turnaround was expedited in order to meet reporting deadline. Groundwater contaminant levels in SOMA-5 were compared with those in wells with long screening intervals to determine whether dilution or cross-contamination in the latter is occurring.

#### **2.2.5 Laboratory Analyses**

Soil Borings: Groundwater and soil samples from soil borings were submitted to C&T and analyzed for the following:

- Total petroleum hydrocarbons as gasoline (TPH-g), diesel (TPH-d), and motor oil (TPH-mo)
- Benzene, toluene, ethyl benzene and total xylenes (BTEX), methyl tertiary-butyl ether (MtBE)
- Volatile organic compounds (VOCs) and fuel oxygenates, additives and lead scavengers including tertiary-butyl alcohol (TBA), ethyl tertiary-butyl ether (ETBE), diisopropyl ether (DIPE), tertiary-amyl methyl ether (TAME), 1,2-dichloroethane (1,2-DCA), 1,2-dibromoethane (EDB), and ethanol.

SOMA-5: Groundwater collected from monitoring well SOMA-5 was analyzed utilizing the quarterly groundwater monitoring compound list.

All analysis was conducted using USEPA Methods 8015 and 8260B. Analytical results and chain of custody documentation are included in Appendix F.

### **2.3 Evaluation of Sampling Results**

Based on lithologies observed at borings DP-1 through DP-7 and monitoring well SOMA-5, historical geologic cross-sections were updated. Figure 8 illustrates the

cross-section lines, and Figures 9, 10, and 11 illustrate the cross-sections A-A', B-B', and B-A'.

### **2.3.1 Lateral and Vertical Extent of Contamination in Soil**

TPH-g was detected above California Regional Water Quality Control Board (CRWQCB) Environmental Screening Level (ESL) of 83 mg/kg for shallow or deep soils where groundwater is a current or potential drinking source. During the current investigation, elevated TPH-g concentrations were observed at 14 feet bgs in DP-5 (91 mg/kg) and at 12 feet bgs in DP-6 (96 mg/kg), in the vicinity of B-3 and the former USTs, and at 11 feet bgs in SOMA-5 (380 mg/kg), located adjacent to SB-1 and ESE-1 (Figure 3). TPH-g was below ESL or laboratory-detection limits in all other soil samples, including the area around B-1, suggesting that an elevated reading of 120 mg/kg at 17 feet bgs during Delta's 2008 investigation was localized. As Figure 3 shows, TPH-g contamination in soil is localized in the vicinity of the former UST pit and in vicinity of SB-2. TPH-d and TPH-mo were not detected above laboratory-detection limits or ESLs (83 mg/kg and 5,000 mg/kg, respectively, in deep soils) in any soil samples during this investigation.

Benzene, toluene, ethyl benzene and MtBE were not detected above laboratory-detection limits or above ESLs (0.044 mg/kg, 2.9 mg/kg, 3.3 mg/kg or 0.023 mg/kg, respectively) in any soil samples. Total xylenes were detected above ESL (2.3 mg/kg) in DP-5 at 14 feet bgs (11 mg/kg), and SOMA-5 at 11 feet bgs (14.2 mg/kg) and 12.5 feet bgs (2.65 mg/kg). Total xylenes were below ESLs or laboratory-detection limits in remaining soil samples.

Soil analytical data is presented in Table 1. The soil laboratory analytical report is included in Appendix F.

In comparison with above results from the current investigation, during Delta's September 2008 investigation residual soil impact was observed north of the former USTs in B-3 at 12 feet bgs (TPH-g at 720 mg/kg) and in B-1 at 17 feet bgs (TPH-g at 120 mg/kg). Soil contamination was observed previously in SB-1 from 1 to 8 feet bgs (TPH-g between 140 and 310 mg/kg) and at SB-2 from 5 to 8 feet bgs (TPH-g between 20 and 230 mg/kg). Boring locations are shown in Figure 2.

### **2.3.2 Lateral and Vertical Extent of Contamination in Groundwater**

TPH-g (ESL 100 µg/L) was elevated in groundwater samples from DP-1 and DP-2 (210 µg/L and 130 µg/L, respectively) along the northwestern portion of the site and in DP-5 and DP-6 (640 µg/L and 1,600 µg/L, respectively) along the eastern portion of the station (north of the former USTs). As shown in Figure 4, there appear to be distinct areas of TPH-g contamination in the groundwater detected in soil borings, along the western boundary of the property, north of the former UST pit, and in the vicinity of TWB-5, downgradient of the Xtra Mart. TPH-d (ESL 100 µg/L) was elevated in all groundwater samples, with

concentrations between 130 µg/L and 980 µg/L (DP-7 and DP-4, respectively) as shown in Figure 5. TPH-mo (ESL 100 µg/L) was observed only along the western portion of the site, in DP-2 through DP-4 with concentrations ranging from 360 µg/L to 570 µg/L (Figure 6).

Benzene was elevated in borings DP-5 and DP-6 at concentrations of 8.9 µg/L and 18 µg/L, respectively (ESL is 1 µg/L for drinking water), although the greatest concentrations were observed previously at TWB-5 (500 µg/L, 2003) as shown in Figure 7. Ethyl benzene was elevated in DP-6 (71 µg/L, ESL 30 µg/L) and total xylenes were elevated in DP-5 and DP-6 (71 µg/L and 186 µg/L, ESL 20 µg/L). Toluene, MtBE, and TBA concentrations were below ESLs (40 µg/L, 5 µg/L, and 12 µg/L, respectively) or below laboratory-detection limits in all groundwater samples.

Results at SOMA-5 showed elevated TPH concentrations compared to concentrations observed in borings, and in on-site wells during quarterly monitoring events. TPH-g, benzene, and total xylenes were detected at 16,000 µg/L, 1,300 µg/L, and 2,360 µg/L respectively. Figures 4 and 7 show TPH-g and benzene concentrations in groundwater.

Groundwater analytical data is presented in Table 2. The groundwater laboratory analytical report is included in Appendix F.

### **3. EVALUATION OF APPROPRIATENESS OF WELL SCREENING INTERVALS**

In January 8, 2009 correspondence, ACEHS questioned the appropriateness of screening intervals for some of the wells located at the site. Specifically, the correspondence specified that some screening intervals may be excessively long and that static groundwater is above the screened intervals for MW-6, MW-7, SOMA-1, SOMA-2, and SOMA-4; therefore, concentrations of contaminants in these wells might not be representative of actual site conditions. Currently, ESE-1 and ESE-2 are screened from 10 to 30 feet bgs, ESE-5 from 9 to 24 feet bgs, SOMA-3 from 10 to 15 feet bgs, MW-6 and MW-7 from 18 to 30 feet bgs, SOMA-1 from 22 to 30 feet bgs, and SOMA-2 and SOMA-4 from 16 to 23 feet bgs. MW-8 was screened from 9 to 20 feet bgs prior to decommissioning during expansion of Redwood Road.

Stable groundwater has historically been observed from 2.36 (abnormally high and might not be representative of onsite conditions) to 12.02 feet bgs in groundwater monitoring wells, seasonal groundwater fluctuations are shown in Table 3. A data gap was identified during evaluation of the well screening intervals as to whether the screened WBZ at the site is confined, semi-confined or unconfined. If the WBZ is semi-confined to confined, then some wells are screened through the TPH-impacted confining unit which maybe introducing contaminants to the groundwater, and if unconfined, then contaminant

concentrations may be diluted within wells with excessively long screening intervals.

To address this data gap, SOMA installed shallow groundwater monitoring well SOMA-5 within the vadose zone to a depth of 15 feet bgs. The well was placed within five feet of ESE-1 on the east and is screened from 5 to 15 feet bgs, through the potentiometric surface. No groundwater was encountered during well placement on August 18, 2009. On September 4, 2009, during site surveying, SOMA field personnel measured depth to water for the newly installed well. Groundwater was encountered at 10.48 feet bgs. Depth to groundwater was measured in adjacent well ESE-1 at 10.44 feet bgs. Due to the long screen interval of ESE-1, the upward or downward flow gradient between the shallow perched water table and the second confined water bearing zone cannot be evaluated.

Furthermore, based on the response of groundwater in borings DP-1 through DP-7 (fast recovery to much shallower depth) groundwater under the site appears to be confined. This suggests that the confining unit at the site is laterally continuous as presented in the cross-sections. The presence of groundwater in the shallow depth above the confined WBZ, suggests that there is a shallow perched WBZ with a low recharge rates at the site. It is likely that the existing wells with a long screened intervals are completed within the shallow perched and the confined WBZs. As such, the existing wells are most likely causing cross contamination between the shallow perched zone and the confined WBZ. Figure 8 illustrates the locations of cross-sections, and Figures 9, 10, and 11 illustrate the updated cross-sections A-A', B-B', and B-A'.

Furthermore, elevated TPH and BTEX concentrations at SOMA-5 suggest that the perched WBZ is significantly impacted by petroleum hydrocarbons. In order to determine if this impact is attributed to the on-site or off-site sources of PHC, additional investigation for characterization of the shallow perched zone is warranted. The result of such investigation will reveal the impact of adjacent gasoline service station to the groundwater at the site.

## **4. CONCLUSIONS AND RECOMMENDATIONS**

### **4.1 Conclusions**

1. Based on analytical data from historical site investigations and ongoing monitoring events, the WBZ appears to be impacted with TPH-g and benzene along the western portion of the site and in the vicinity of ESE-1, south of the station building, with the highest concentrations observed in ESE-5 and B-6 (TPH-g at 2,700 and 900 µg/L, Third Quarter 2009), southwest of the UST pit. Free product has been observed at neighboring station wells MW-4 and OW-1 (Xtra Oil), located along Redwood Road upgradient of the site.



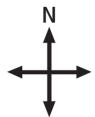
2. TPH-g was elevated in groundwater samples from DP-1 and DP-2 (210 µg/L and 130 µg/L, respectively) along the northwestern portion of the site and in DP-5 and DP-6 (640 µg/L and 1,600 µg/L, respectively) along the eastern portion of the station (north of the former USTs). TPH-d was elevated in all groundwater samples, with concentrations between 130 µg/L and 980 µg/L (DP-7 and DP-4, respectively). TPH-mo was observed only along the western portion of the site, in DP-2 through DP-4, with concentrations ranging from 360 µg/L to 570 µg/L. Based on elevated TPH concentrations along the northwestern portion of the site it appears that plume commingling might be occurring.
3. Based on the response of groundwater in borings DP-1 through DP-7, groundwater under the site appears to be confined in all these borings.
4. Based on groundwater presence in a shallow well screened above the confined WBZ, it appears that there is a shallow perched WBZ with a low recharge rates above the confined WBZ.
5. Results at SOMA-5 showed elevated TPH and BTEX concentrations compared to concentrations observed in borings, and in on-site wells during quarterly monitoring events. TPH-g, benzene, and total xylenes were detected at 16,000 µg/L, 1,300 µg/L, and 2,360 µg/L respectively.
6. Based on the current site investigation, it appears that the excessively long screened wells of ESE-1, ESE-2, ESE-5, MW-6 and MW-7 (installed by previous consultant) are causing cross-contamination and data from these wells during monitoring events are not representative of the actual site conditions in terms of groundwater flow direction or extent of contaminant impact.

## 4.2 Recommendation

SOMA recommends decommissioning wells with excessively long screening intervals (ESE-1, ESE-2, ESE-5, MW-6 and MW-7), and replacing them with wells having appropriate screening intervals screened only within the confined WBZ. Once the groundwater contamination has been reassessed, remedial options to deal with residual contamination can be evaluated.

Furthermore, elevated TPH and BTEX concentrations at SOMA-5 suggest that the perched WBZ is significantly impacted by petroleum hydrocarbons. In order to determine if this impact is attributed to the on-site or off-site sources of PHC, additional investigation for characterization of the shallow perched zone is warranted. SOMA proposes preparing a workplan for completing proposed tasks.

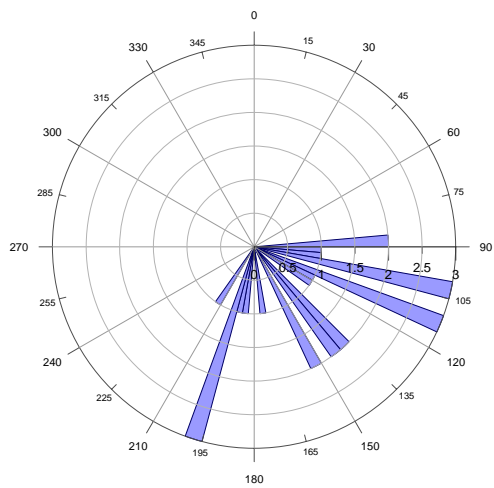
# FIGURES



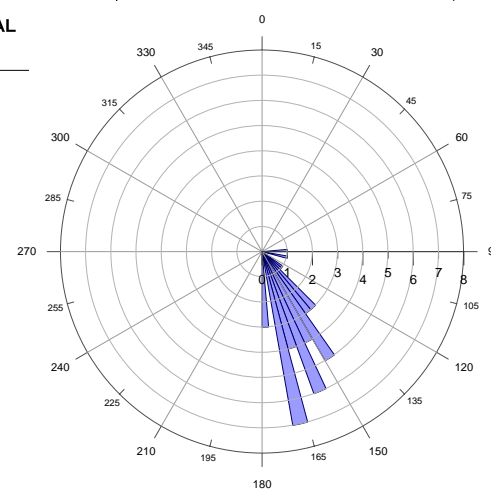
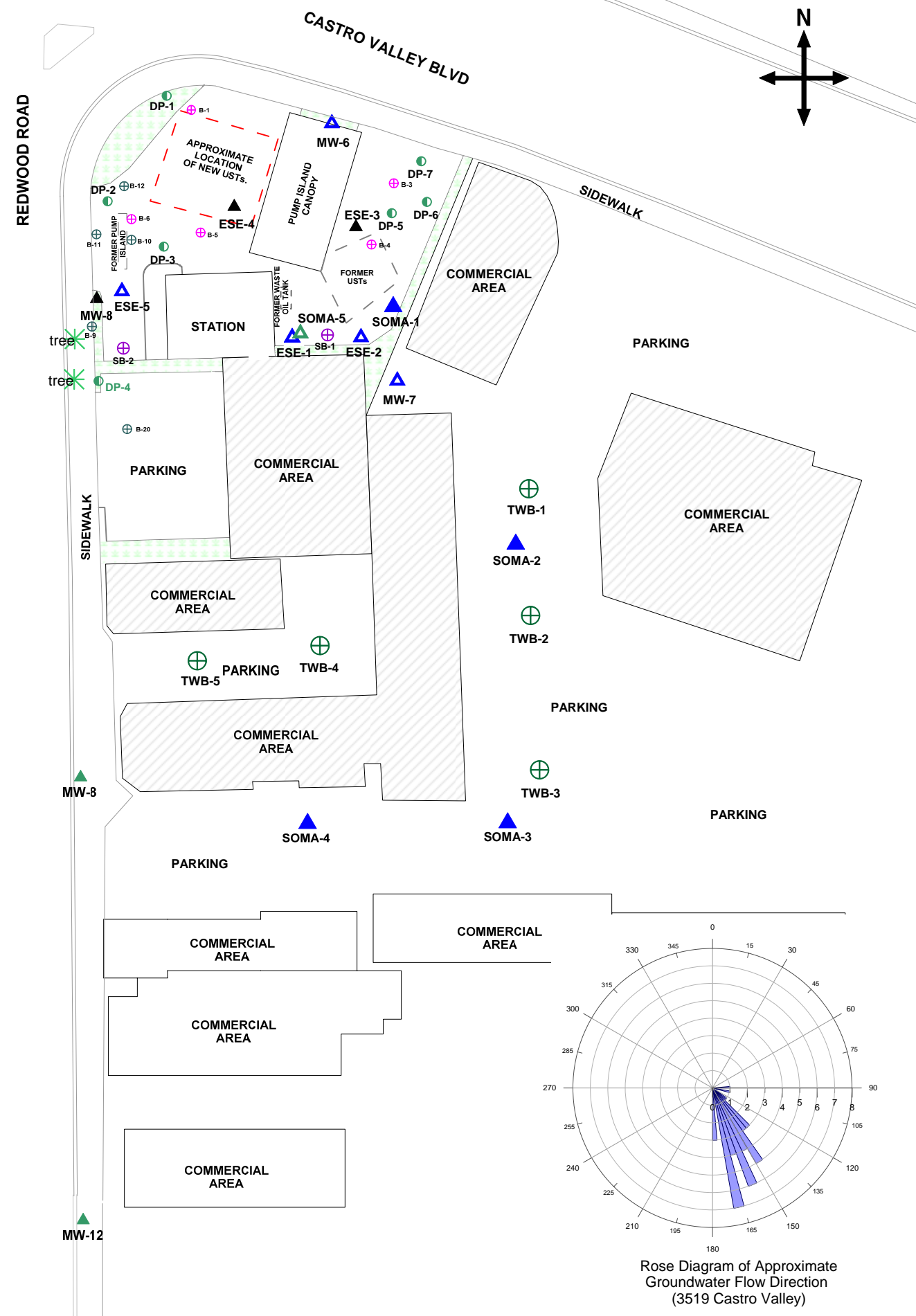
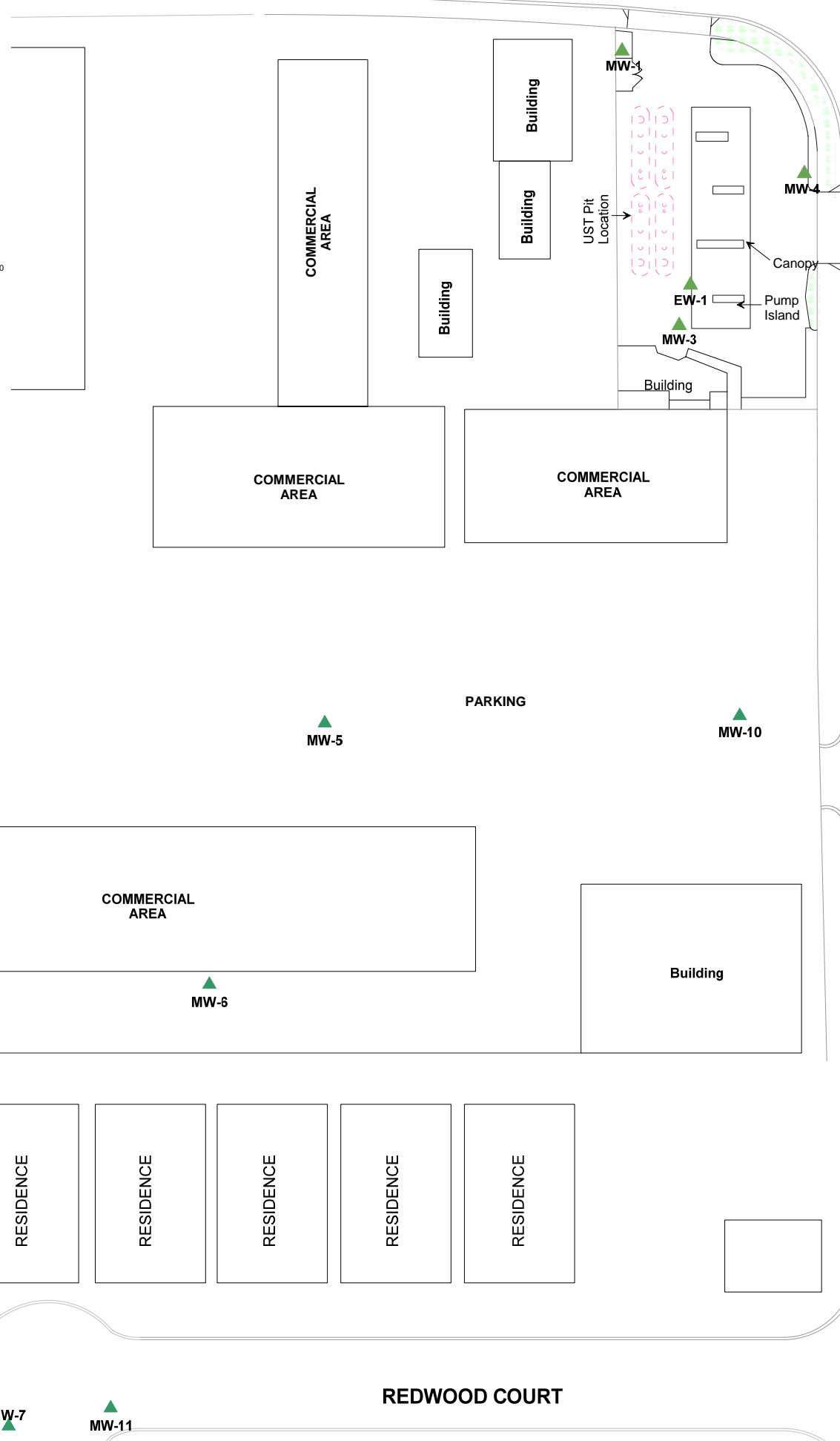
approximate scale in feet



Figure 1: Site vicinity map.



Rose Diagram of Approximate Groundwater Flow Direction (3495 Castro Valley)



Rose Diagram of Approximate Groundwater Flow Direction (3519 Castro Valley)

- ▲ MONITORING WELL
- SOIL BORINGS
- ⊕ SOIL BORINGS- DELTA CONS. SEPT. 2008
- ⊕ SOIL BORINGS REDWOOD ROAD EXPANSION FEB 1995
- ▲ MONITORING WELL
- ▲ DECOMMISSIONED WELL
- ⊕ COMPLETED OFFSITE TEMPORARY WELL BOREHOLE DRILLED DEC. 2003
- ⊕ SOIL BORINGS DRILLED PRIOR TO UST REMOVAL AUG. 2003
- ▲ MONITORING WELL (Located at 3495 Castro Valley Blvd.)

NOTES:  
 ESE-3 and ESE-4 were decommissioned during UST tank excavation activities.  
 MW-8 was decommissioned by the previous consultant.

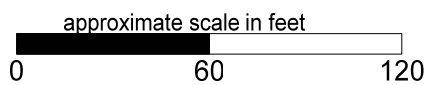
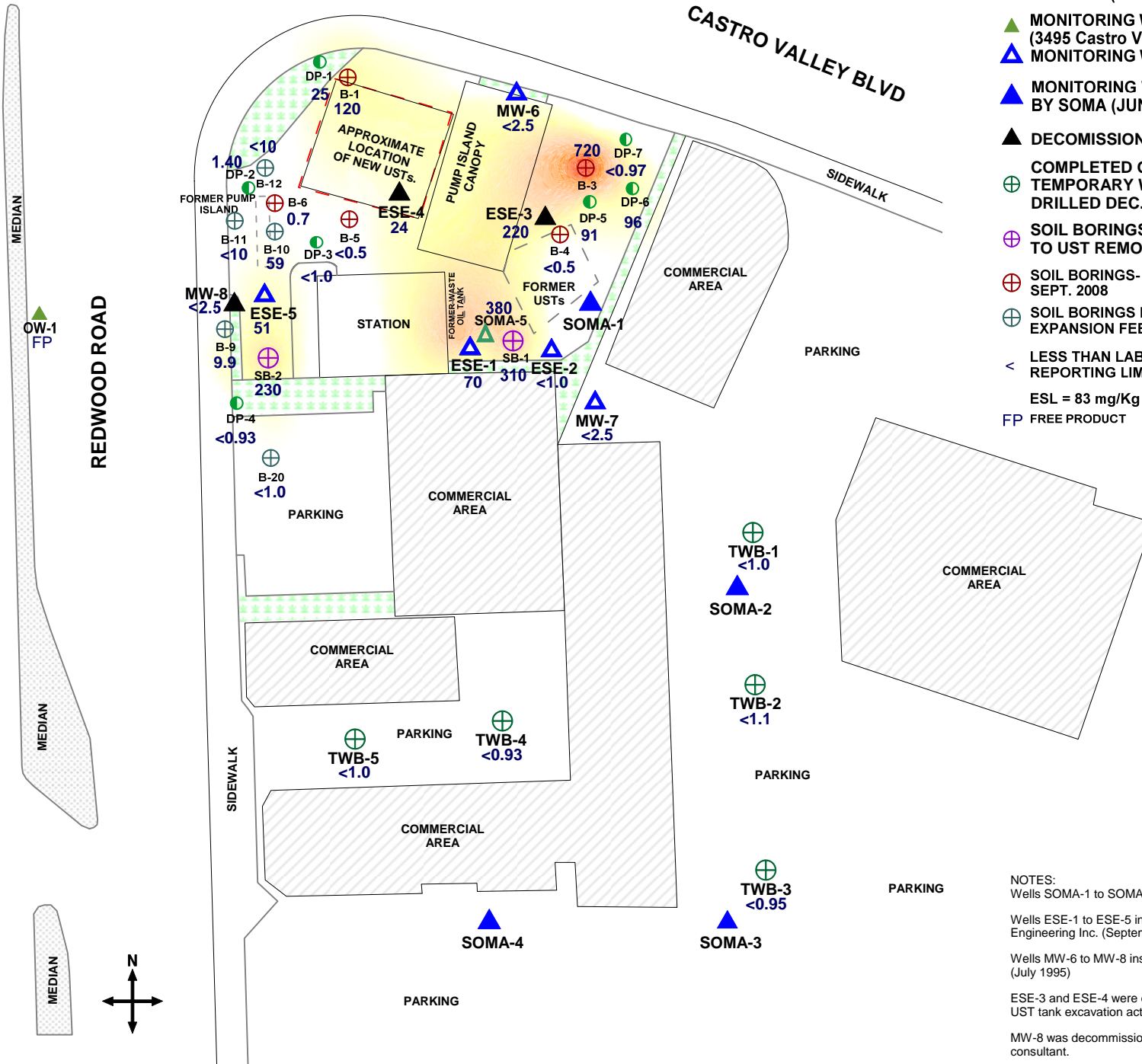
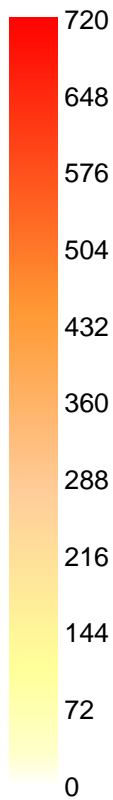


Figure 2: Site Map Showing Locations of Monitoring Well and Soil and Groundwater Borings

TPH-g  
mg/Kg



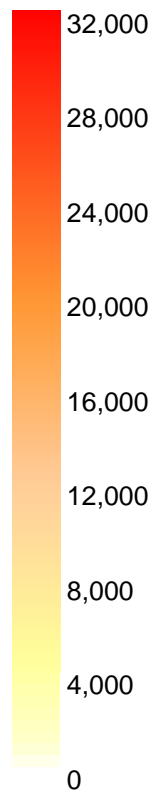
- ▲ MONITORING WELL INSTALLED BY SOMA (AUG 2009)
- ▲ MONITORING WELL (3495 Castro Valley Blvd.)
- ▲ MONITORING WELL
- ▲ MONITORING WELL INSTALLED BY SOMA (JUNE 2004)
- ▲ DECOMMISSIONED WELL
- ⊕ COMPLETED OFFSITE TEMPORARY WELL BOREHOLE DRILLED DEC. 2003
- ⊕ SOIL BORINGS DRILLED PRIOR TO UST REMOVAL AUG. 2003
- ⊕ SOIL BORINGS- DELTA CONS. SEPT. 2008
- ⊕ SOIL BORINGS REDWOOD ROAD EXPANSION FEB 1995
- < LESS THAN LABORATORY REPORTING LIMIT
- ESL = 83 mg/Kg
- FP FREE PRODUCT

NOTES:  
 Wells SOMA-1 to SOMA-4 installed by SOMA June 2004  
 Wells ESE-1 to ESE-5 installed by Environmental Science and Engineering Inc. (September & October 1992)  
 Wells MW-6 to MW-8 installed by Alisto Engineering (July 1995)  
 ESE-3 and ESE-4 were decommissioned during UST tank excavation activities.  
 MW-8 was decommissioned by the previous consultant.

Figure 3: Contour Map Showing Lateral Extent of TPH-g Contamination in Soil

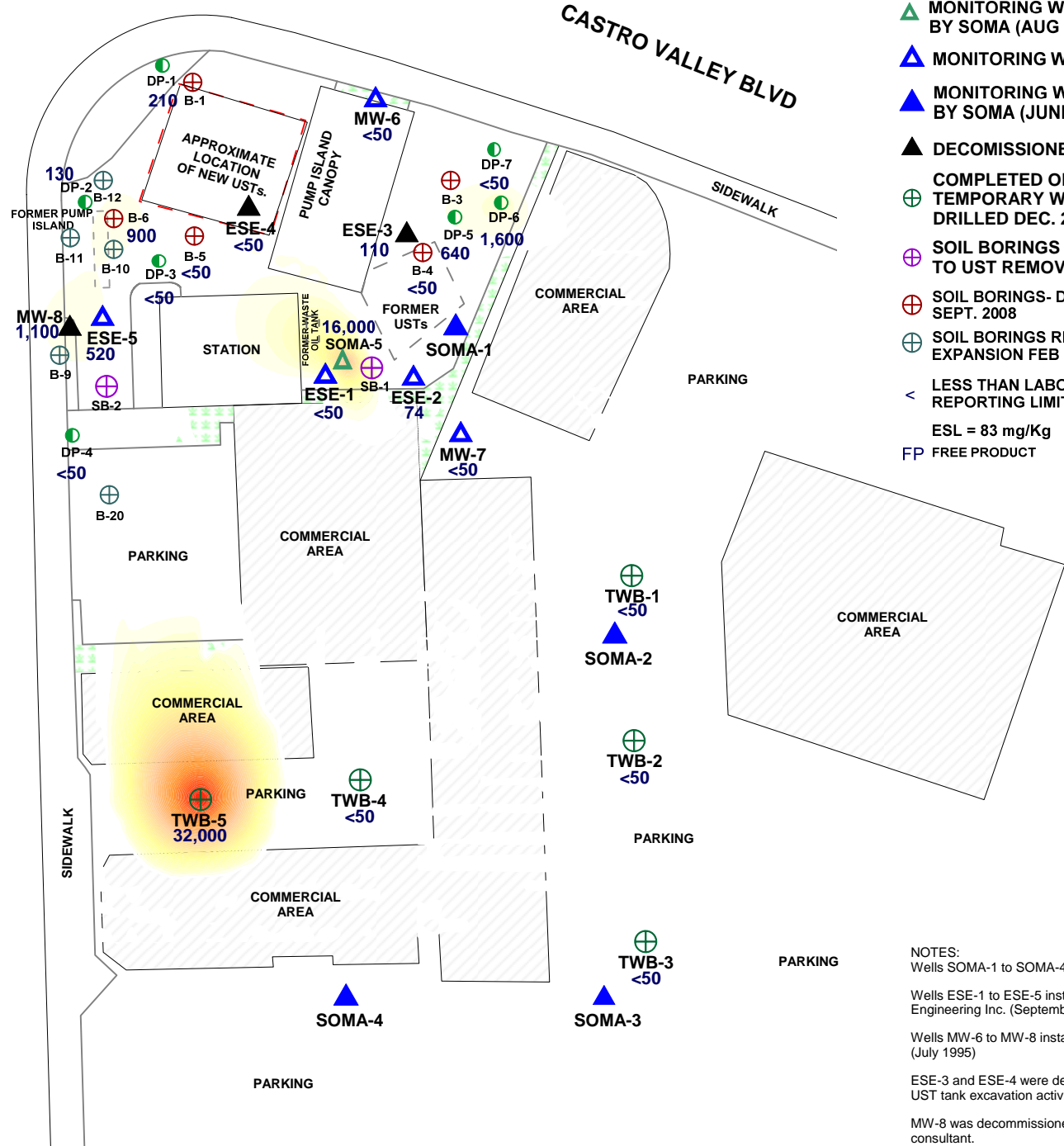


TPH-g  
ug/L



REDWOOD ROAD

CASTRO VALLEY BLVD



- ▲ MONITORING WELL (3495 Castro Valley Blvd.)
- ▲ MONITORING WELL INSTALLED BY SOMA (AUG 2009)
- ▲ MONITORING WELL
- ▲ MONITORING WELL INSTALLED BY SOMA (JUNE 2004)
- ▲ DECOMMISSIONED WELL
- ⊕ COMPLETED OFFSITE TEMPORARY WELL BOREHOLE DRILLED DEC. 2003
- ⊕ SOIL BORINGS DRILLED PRIOR TO UST REMOVAL AUG. 2003
- ⊕ SOIL BORINGS- DELTA CONS. SEPT. 2008
- ⊕ SOIL BORINGS REDWOOD ROAD EXPANSION FEB 1995
- < LESS THAN LABORATORY REPORTING LIMIT
- ESL = 83 mg/Kg
- FP FREE PRODUCT

NOTES:  
Wells SOMA-1 to SOMA-4 installed by SOMA June 2004  
Wells ESE-1 to ESE-5 installed by Environmental Science and Engineering Inc. (September & October 1992)  
Wells MW-6 to MW-8 installed by Alisto Engineering (July 1995)  
ESE-3 and ESE-4 were decommissioned during UST tank excavation activities.  
MW-8 was decommissioned by the previous consultant.

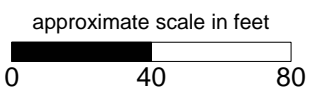
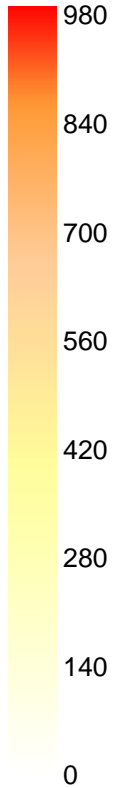


Figure 4: Contour Map Showing TPH-g Contamination in Groundwater

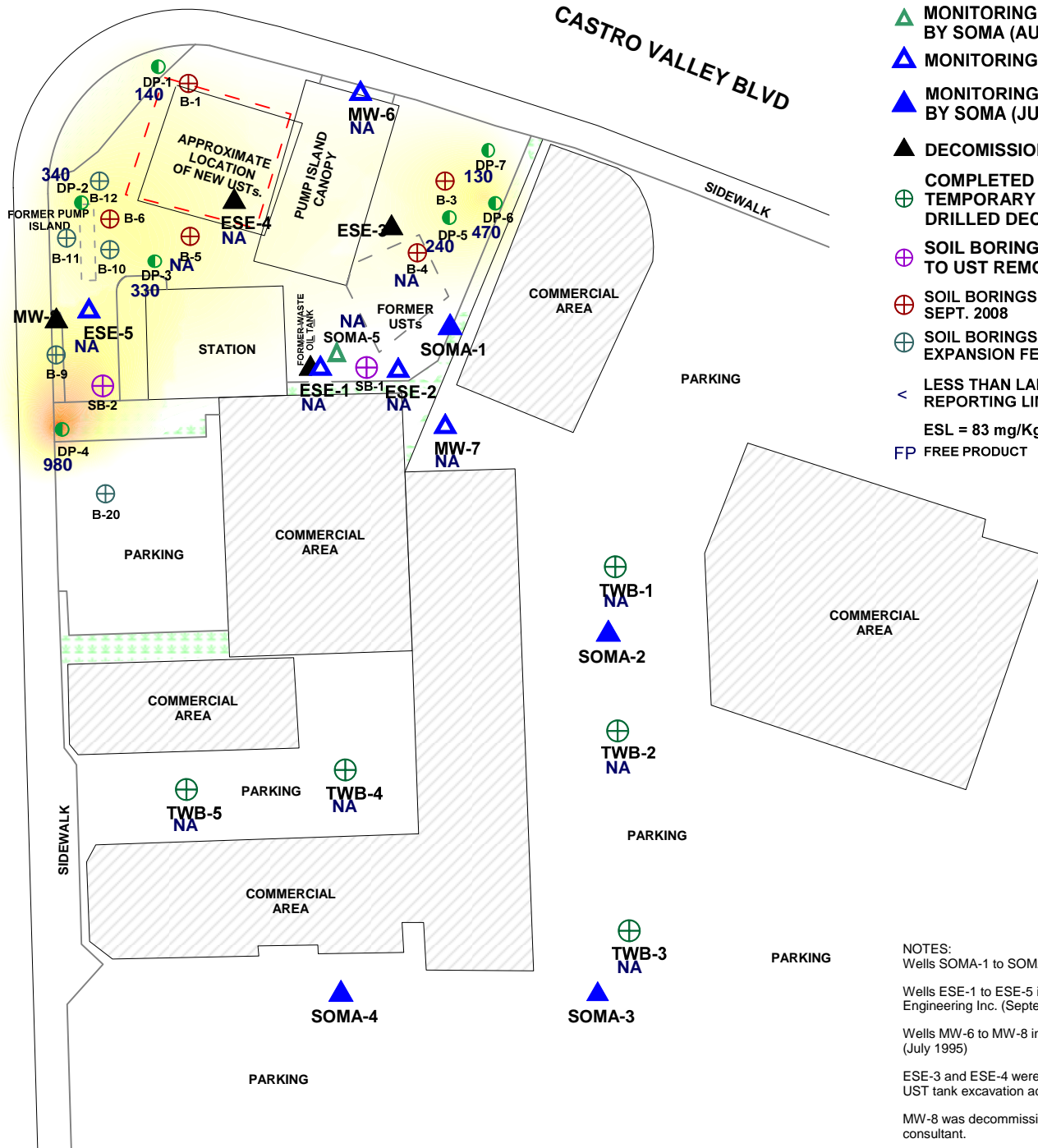


TPH-d  
ug/L



REDWOOD ROAD

CASTRO VALLEY BLVD



- ▲ MONITORING WELL (3495 Castro Valley Blvd.)
- ▲ MONITORING WELL INSTALLED BY SOMA (AUG 2009)
- ▲ MONITORING WELL
- ▲ MONITORING WELL INSTALLED BY SOMA (JUNE 2004)
- ▲ DECOMMISSIONED WELL
- ⊕ COMPLETED OFFSITE TEMPORARY WELL BOREHOLE DRILLED DEC. 2003
- ⊕ SOIL BORINGS DRILLED PRIOR TO UST REMOVAL AUG. 2003
- ⊕ SOIL BORINGS- DELTA CONS. SEPT. 2008
- ⊕ SOIL BORINGS REDWOOD ROAD EXPANSION FEB 1995
- < LESS THAN LABORATORY REPORTING LIMIT
- ESL = 83 mg/Kg
- FP FREE PRODUCT

NOTES:  
 Wells SOMA-1 to SOMA-4 installed by SOMA June 2004  
 Wells ESE-1 to ESE-5 installed by Environmental Science and Engineering Inc. (September & October 1992)  
 Wells MW-6 to MW-8 installed by Alisto Engineering (July 1995)  
 ESE-3 and ESE-4 were decommissioned during UST tank excavation activities.  
 MW-8 was decommissioned by the previous consultant.

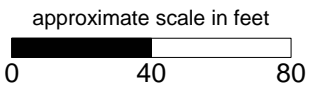
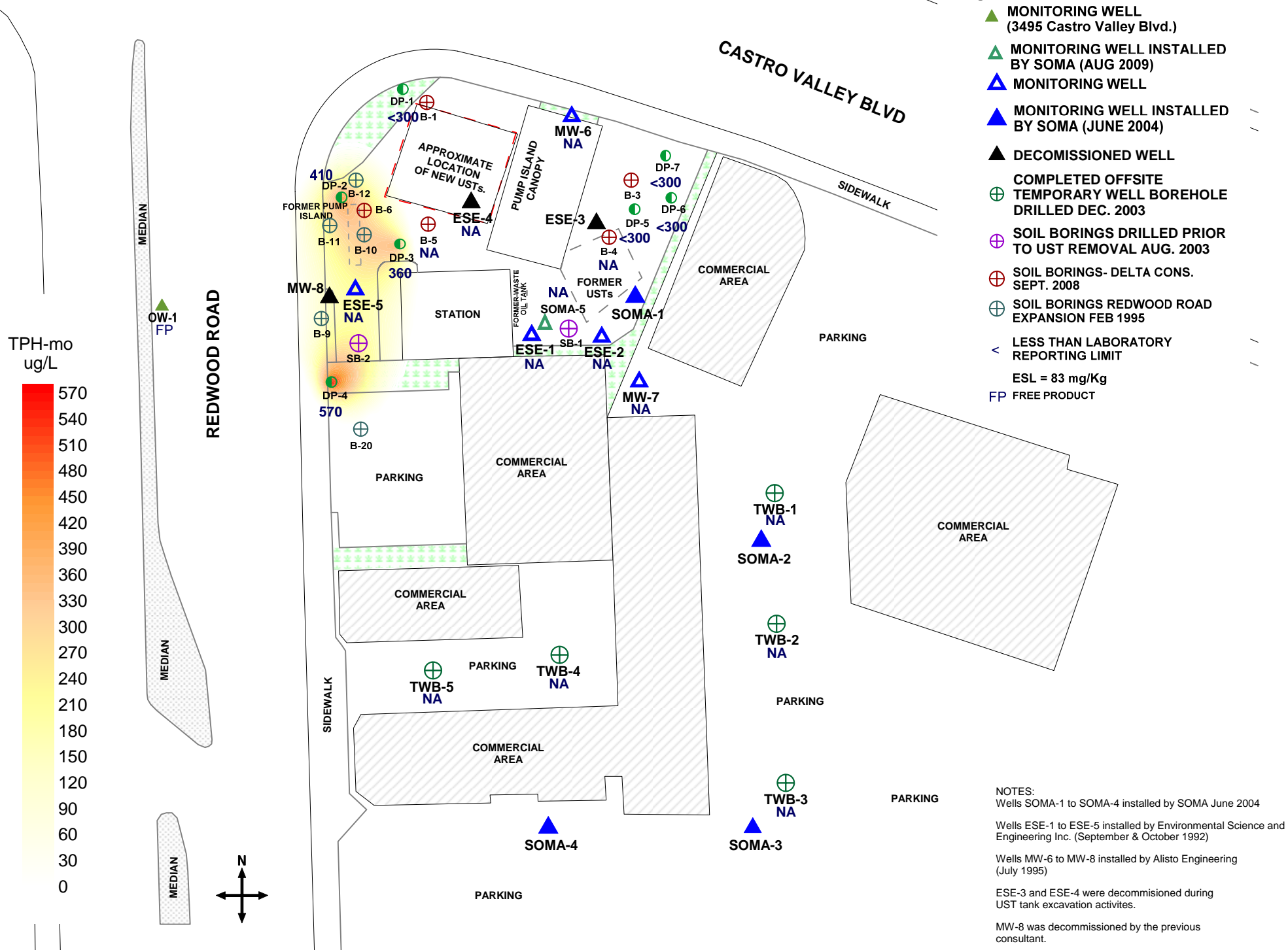


Figure 5: Contour Map Showing TPH-d Contamination in Groundwater





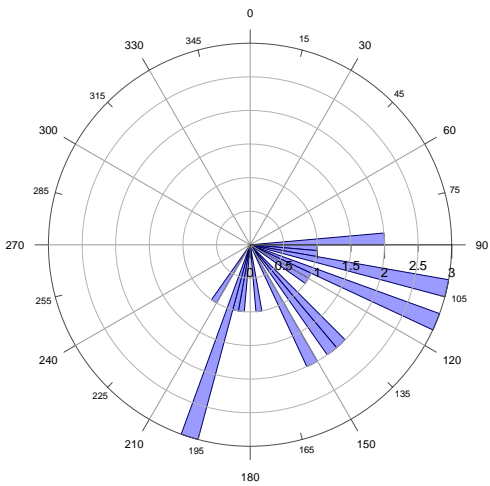
approximate scale in feet  
 0 40 80

Figure 6: Contour Map Showing TPH-mo Contamination in Groundwater

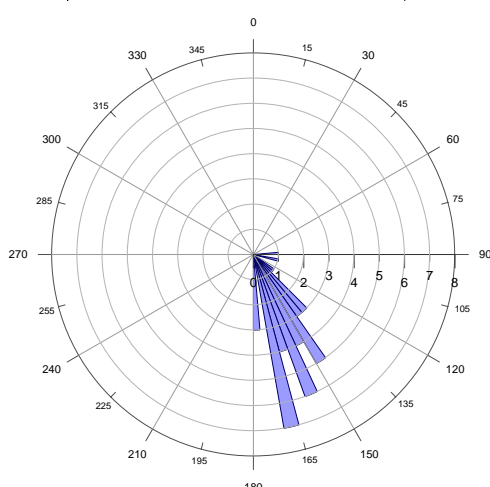
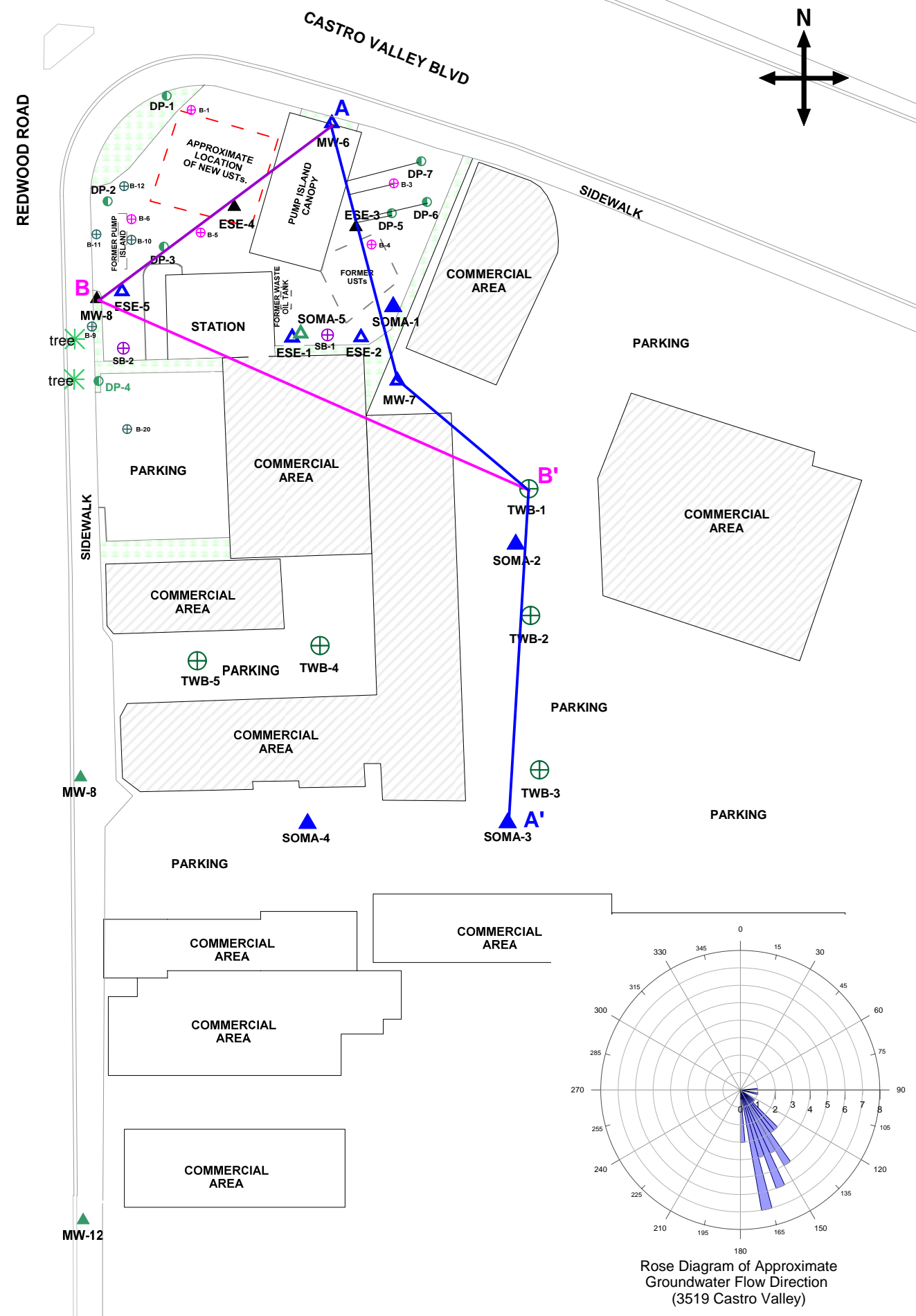
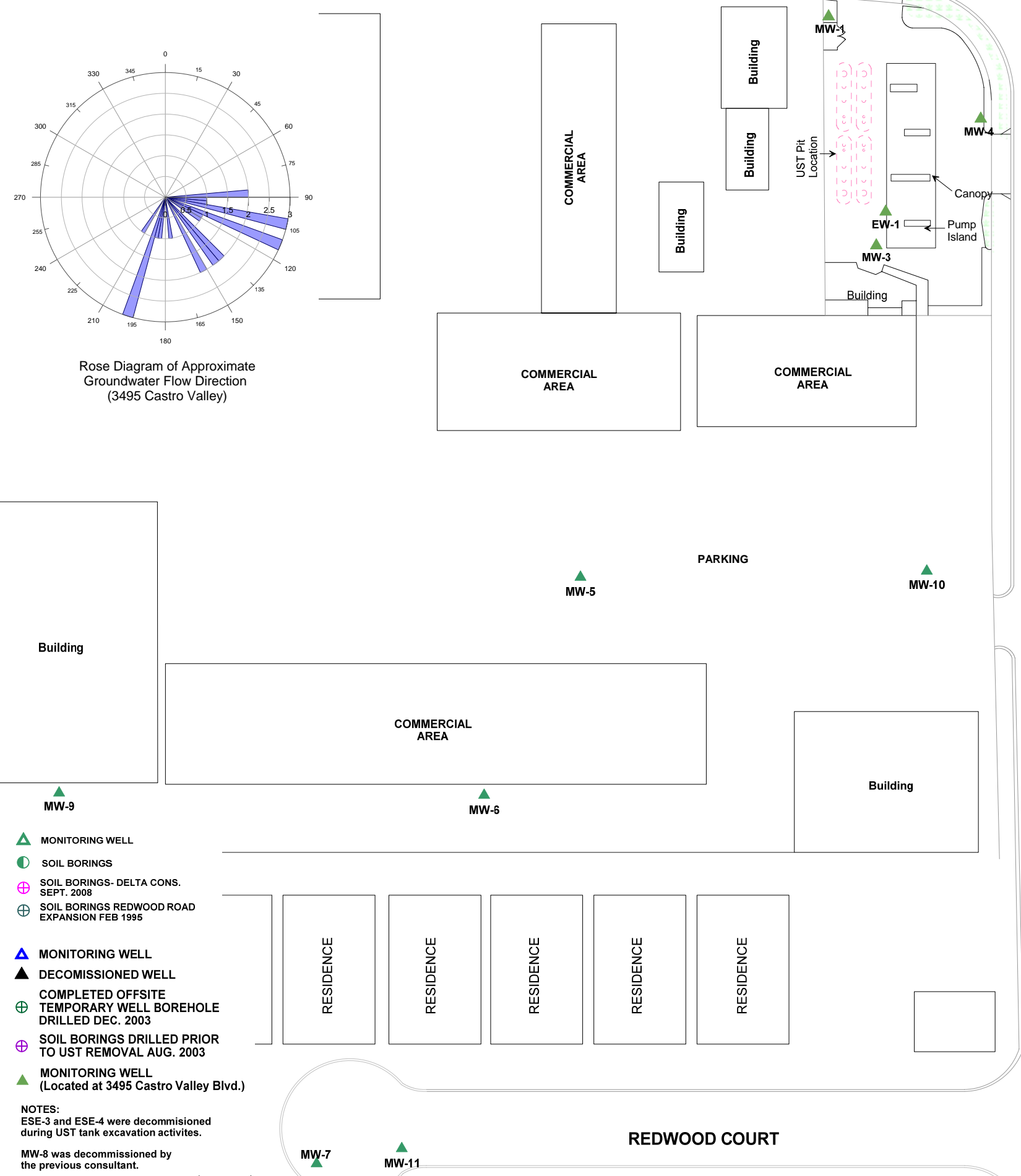








Rose Diagram of Approximate Groundwater Flow Direction (3495 Castro Valley)



Rose Diagram of Approximate Groundwater Flow Direction (3519 Castro Valley)

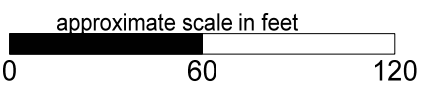
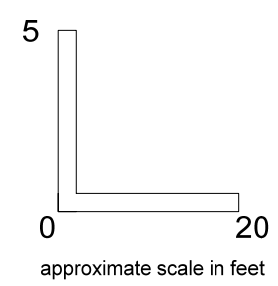
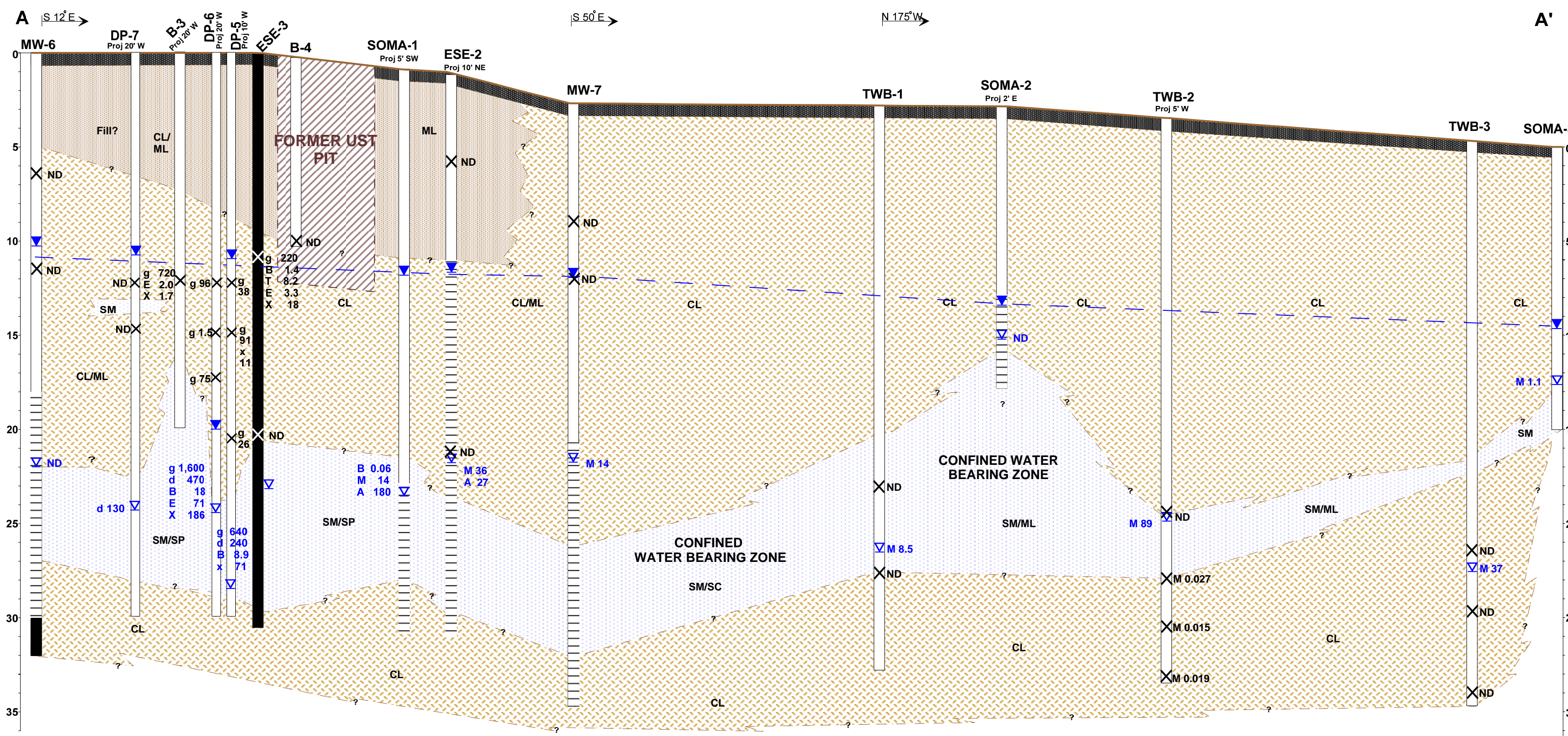


Figure 8 : Site Map Showing Locations of Geological Cross-Sections



**100 Soil Sampling Data (mg/kg)**  
 g - TPH-g  
 d - TPH-d  
 B - Benzene  
 T - Toluene  
 E - Ethyl Benzene  
 X - Total Xylenes  
 M - MtBE  
 ND - below detection limits

**100 Groundwater Sampling Data (ug/L)**  
 Samples 1/6/09, TWB Samples 12/2/03  
 g - TPH-g  
 d - TPH-d  
 B - Benzene  
 T - Toluene  
 E - Ethyl Benzene  
 X - Total Xylenes  
 M - MtBE  
 ND - below detection limits

**Legend**  
 ML Sandy Silt  
 CL Clay/Silty Clay  
 SM Silty Sand  
 SP Sand  
 SC Clayey Sand

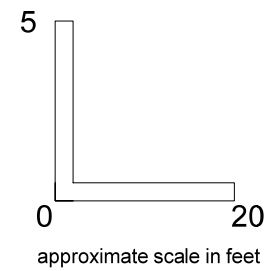
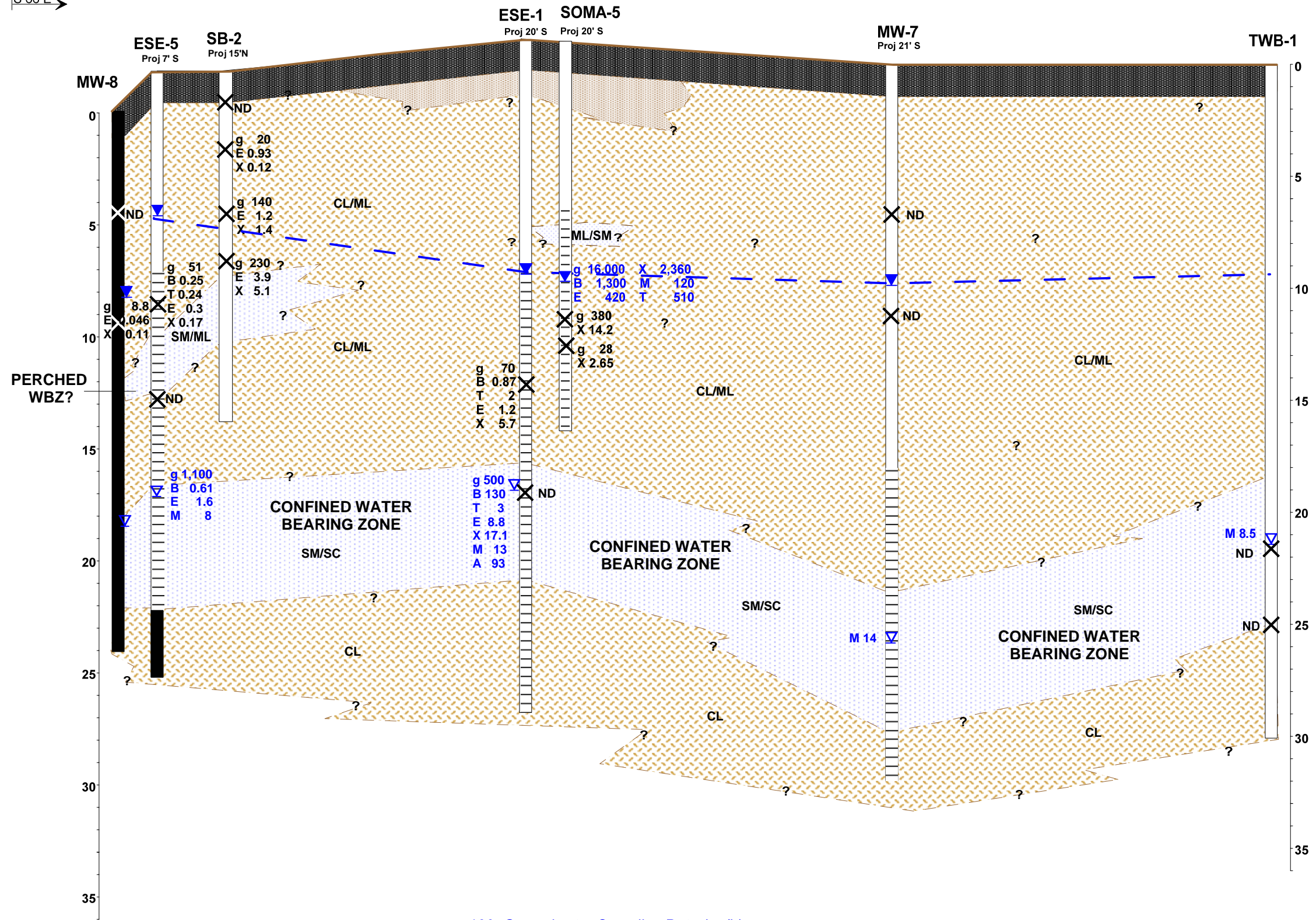
**EXPLANATION**  
 First groundwater observed in sediment cores  
 Stabilized Groundwater Observed during Monitoring  
 Stabilized Groundwater Level  
 Screened Interval  
 Well Destroyed Dec 2003

Figure 9: Geologic Cross-Section A-A'

B

S 66° E

B'



100 Soil Sampling Data (mg/kg)

- g - TPH-g
- d - TPH-d
- B - Benzene
- T - Toluene
- E - Ethyl Benzene
- X - Total Xylenes
- M - MtBE
- ND - below detection limits

100 Groundwater Sampling Data (ug/L)  
Samples 1/6/09, TWB Samples 12/2/03

- g - TPH-g
- d - TPH-d
- B - Benzene
- T - Toluene
- E - Ethyl Benzene
- X - Total Xylenes
- M - MtBE
- A - TBA
- ND - below detection limits

Legend

- ML Sandy Silt
- CL Clay/Silty Clay
- SM Silty Sand
- SP Sand
- SC Clayey Sand

EXPLANATION

- ▽ First groundwater observed in sediment cores
- ▼ Stabilized Groundwater Observed during Monitoring
- - - Stabilized Groundwater Level
- ▭ Screened Interval
- Well Destroyed Dec 2003

Figure 10: Geologic Cross-Section B-B'

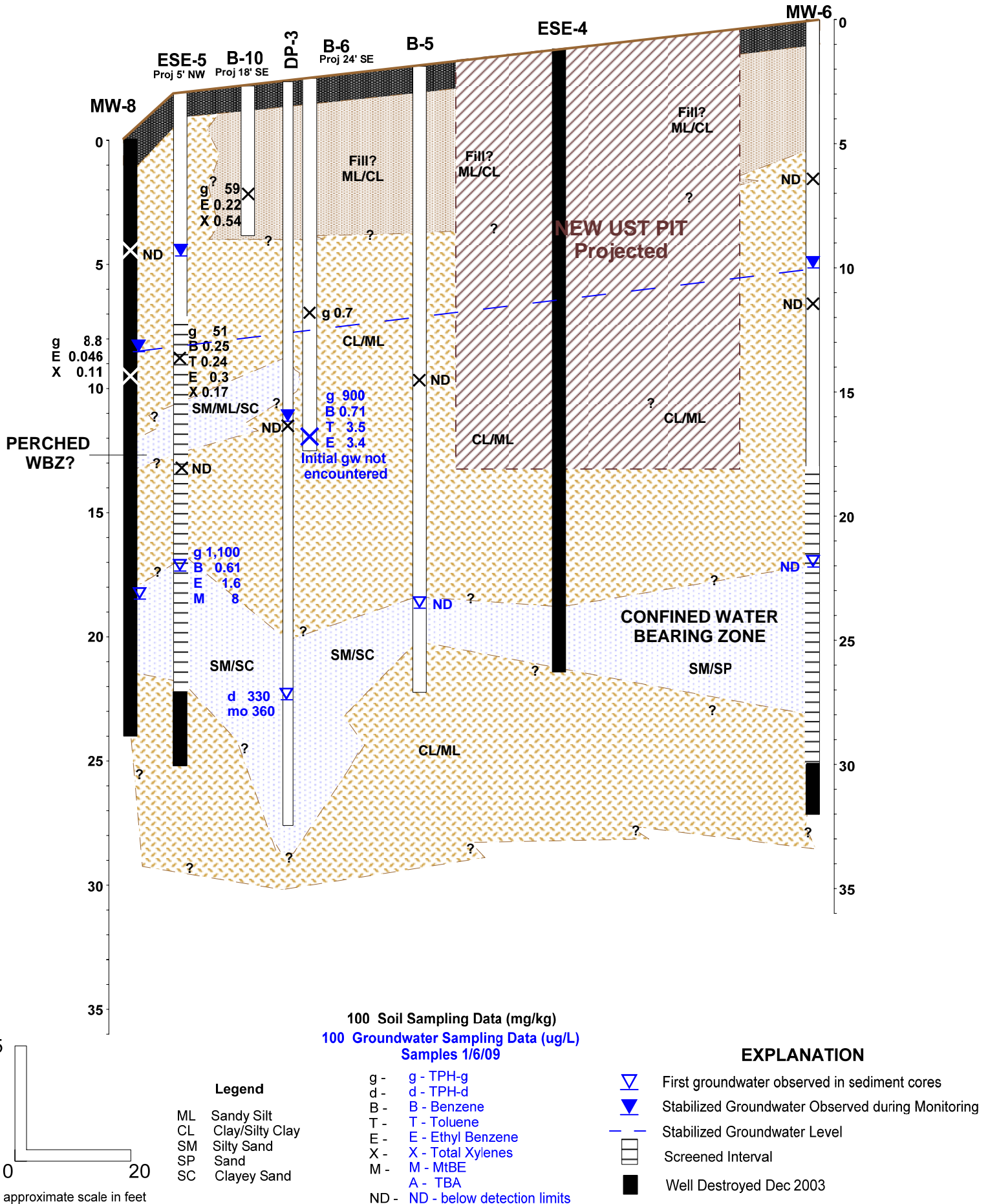


Figure 11: Geologic Cross-Section B-A

# TABLES

**Table 1**  
**Historical Soil Analytical Data**  
**3519 Castro Valley Blvd., Castro Valley**

Sample ID	Consultant	Sample Depth (feet)	Sample Date	TPH-g (mg/kg)	TPH-d (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl Benzene (mg/kg)	Total Xylenes (mg/kg)	TOG (mg/kg)	MtBE (mg/kg)	Lead (mg/kg)
WO1	Kaprealian	8.5	9/20/1988	<1.0	NA	0.0068	0.0095	<0.005	<0.005	<1.0	NA	NA
Comp A	Kaprealian	Composite	9/20/1988	<1.0	NA	NA	NA	NA	NA	100	NA	NA
Comp B	Kaprealian	Composite	10/4/1988	<1.0	<10	NA	NA	NA	NA	<50	NA	NA
ESE-1	Alisto	15	9/29/1992	70	<5.0	<b>0.87</b>	2	1.2	<b>5.7</b>	<50	NA	NA
ESE-1	Alisto	20	9/29/1992	<1.0	<5.0	<0.005	<0.005	<0.005	<0.005	<50	NA	NA
ESE-2	Alisto	10.5	9/28/1992	<1.0	<5.0	<0.005	<0.005	<0.005	<0.005	NA	NA	NA
ESE-2	Alisto	20	9/28/1992	<1.0	NA	<0.005	<0.005	<0.005	<0.005	NA	NA	NA
ESE-3	Alisto	10.5	9/29/1992	<b>220</b>	NA	<b>1.4</b>	<b>8.2</b>	<b>3.3</b>	<b>18</b>	NA	NA	NA
ESE-3	Alisto	20	9/29/1992	<1.0	NA	<0.005	<0.005	<0.005	<0.005	NA	NA	NA
ESE-4	Alisto	6.5	9/28/1992	<1.0	NA	<0.005	<0.005	<0.005	<0.005	NA	NA	NA
ESE-4	Alisto	10	9/28/1992	24	NA	<b>0.15</b>	0.17	0.23	0.82	NA	NA	NA
ESE-5	Alisto	10	9/28/1992	51	NA	<b>0.25</b>	0.24	0.3	0.17	NA	NA	NA
ESE-5	Alisto	14	9/28/1992	<1.0	NA	<0.005	<0.005	<0.005	<0.005	NA	NA	NA
B-9	ACC Env	2	12/5/1994	9.9	NA	0.016	<0.005	0.067	0.23	NA	NA	NA
B-9	ACC Env	4	12/5/1994	1	NA	0.0058	<0.005	0.0065	0.009	NA	NA	NA
B-10	ACC Env	4	12/6/1994	59	NA	<50	<0.005	0.22	0.54	NA	NA	NA
B-11	ACC Env	2	12/6/1994	<10	NA	<50	<0.005	<0.005	<0.005	NA	NA	NA
B-12	ACC Env	4	12/6/1994	<10	NA	<50	<0.005	<0.005	<0.005	NA	NA	NA
B-12	ACC Env	6	12/6/1994	<10	NA	<50	<0.005	<0.005	<0.005	NA	NA	NA
B-20	ACC Env	3	12/8/1994	<1.0	NA	<0.005	<0.005	<0.005	<0.005	NA	NA	NA
B-20	ACC Env	5	12/8/1994	<1.0	NA	<0.005	<0.005	<0.005	<0.005	NA	NA	NA
MW-6	Alisto	6 to 6.5	7/18/1995	<2.5	NA	<0.025	<0.025	<0.025	<0.05	NA	NA	NA
MW-6	Alisto	11 to 11.5	7/18/1995	<2.5	NA	<0.025	<0.025	<0.025	<0.05	NA	NA	NA
MW-7	Alisto	6 to 6.5	7/18/1995	<2.5	NA	<0.025	<0.025	<0.025	<0.05	NA	NA	NA
MW-7	Alisto	11 to 11.5	7/18/1995	<2.5	NA	<0.025	<0.025	<0.025	<0.05	NA	NA	NA
MW-8	Alisto	3.5 to 4	7/19/1995	<2.5	NA	<0.025	<0.025	<0.025	<0.050	NA	NA	NA
MW-8	Alisto	7.5 to 8	7/19/1995	8.8	NA	<0.025	<0.025	0.046 <sup>E</sup>	0.11 <sup>E</sup>	NA	NA	NA
SB-1	Alisto	1.5 to 2	7/19/1995	<b>140</b>	NA	<0.1	<0.1	1.4	<b>4.1</b>	NA	NA	NA
SB-1	Alisto	3.5 to 4	7/19/1995	<b>190</b>	NA	<0.25	0.33	<b>4.5</b>	<b>18</b>	NA	NA	NA
SB-1	Alisto	7 to 7.5	7/19/1995	<b>310</b>	NA	<b>0.088</b>	0.088 <sup>E</sup>	0.41	2	NA	NA	NA
SB-2	Alisto	1.5 to 2	7/19/1995	<2.5	NA	<0.025	<0.025	<0.025	<0.05	NA	NA	NA
SB-2	Alisto	3.5 to 4	7/19/1995	20	NA	<0.025	<0.025	0.93 <sup>E</sup>	0.12 <sup>E</sup>	NA	NA	NA

**Table 1**  
**Historical Soil Analytical Data**  
**3519 Castro Valley Blvd., Castro Valley**

Sample ID	Consultant	Sample Depth (feet)	Sample Date	TPH-g (mg/kg)	TPH-d (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl Benzene (mg/kg)	Total Xylenes (mg/kg)	TOG (mg/kg)	MtBE (mg/kg)	Lead (mg/kg)
SB-2	Alisto	5.5 to 6	7/19/1995	140	NA	<0.25	<0.25	1.2	1.4	NA	NA	NA
SB-2	Alisto	7.5 to 8	7/19/1995	230	NA	<0.25	<0.25	3.9	5.1	NA	NA	NA
UST-NE	SOMA	9.5	9/4/2003	<0.96	<1.0	<0.0048	<0.0048	<0.0048	<0.0048	NA	0.059	NA
UST-NW	SOMA	9.5	9/4/2003	2 <sup>H</sup>	<1.0	<0.0047	<0.0047	0.007	<0.0047	NA	0.069	NA
UST-SE	SOMA	8	9/4/2003	<1.1	<1.0	<0.0053	<0.0053	<0.0053	<0.0053	NA	<0.021	NA
UST-SW	SOMA	8	9/4/2003	17 <sup>H</sup>	36 <sup>LY</sup>	<0.0049	0.044 <sup>C</sup>	0.28	0.112	NA	0.071	NA
UST-SW	SOMA	10	9/4/2003	<1.0	<1.0	<0.0052	<0.0052	<0.0052	<0.0052	NA	0.075	NA
WOT-W	SOMA	5.5	9/4/2003	<0.97	<0.99	<0.0049	<0.0049	<0.0049	<0.0049	NA	<0.019	6.3
Pumps 1&2	SOMA	2.5	9/11/2003	4.5 <sup>HY</sup>	NA	<0.0055	0.0055 <sup>C</sup>	0.016	0.0197 <sup>C</sup>	NA	<0.022	9.1
Pumps 3&4	SOMA	3	9/11/2003	<1.1	NA	<0.0054	<0.0054	<0.0054	<0.0054	NA	<0.022	6.9
Pumps 5&6	SOMA	3	9/11/2003	<1.1	NA	<0.0054	<0.0054	<0.0054	<0.0054	NA	<0.022	7.6
Pumps 7&8	SOMA	3	9/11/2003	<1.1	NA	<0.0053	<0.0053	<0.0053	<0.0053	NA	<0.021	18
Intersection	SOMA	3	9/11/2003	<1.1	NA	<0.0055	<0.0055	<0.0055	<0.0055	NA	<0.022	7.7
PL1 <sup>1</sup>	SOMA	4	9/13/2003	530 <sup>HY</sup>	NA	<0.011	<0.011	0.34 <sup>C</sup>	0.524 <sup>C</sup>	NA	<0.043	NA
PL2 <sup>2</sup>	SOMA	4	9/13/2003	<1.1	NA	<0.0055	<0.0055	<0.0055	<0.0055	NA	<0.022	NA
SB1- Comp	SOMA	Composite	8/20/2003	<1.0	NA	0.02 <sup>C</sup>	<0.0052	0.0098	0.013	NA	0.23	7.2
SB2 - Comp	SOMA	Composite	8/20/2003	390	NA	<0.13	<0.13	2.8	9.8	NA	<0.5	8.2
Comp 1	SOMA	Composite	9/3/2003	8.8	NA	<0.0054	<0.0054	0.032	0.049	NA	<0.018	10
Comp 2	SOMA	Composite	9/4/2003	<0.99	NA	<0.0048	<0.0048	<0.0048	<0.0048	NA	<0.0048	4.6
Comp 2R	SOMA	Composite	9/5/2003	21 <sup>H</sup>	4.8 <sup>HLY</sup>	<0.01	0.024 <sup>C</sup>	0.054 <sup>C</sup>	0.01 <sup>C</sup>	NA	<0.041	5.3
Comp ESE-3WA	SOMA	Composite	10/3/2008	<1.1	NA	<0.0055	<0.0055	<0.0055	0.008	NA	<0.022	4
TWB-1	SOMA	22	12/2/2003	<1.0	NA	<0.0044	<0.0044	<0.0044	<0.0044	NA	<0.0044	NA
TWB-1	SOMA	25	12/2/2003	<0.94	NA	<0.0047	<0.0047	<0.0047	<0.0047	NA	<0.0047	NA
TWB-2	SOMA	22	12/2/2003	<1.1	NA	<0.0047	<0.0047	<0.0047	<0.0047	NA	<0.0047	NA
TWB-2	SOMA	24	12/2/2003	<1.0	NA	<0.0048	<0.0048	<0.0048	<0.0048	NA	0.027	NA
TWB-2	SOMA	27	12/2/2003	<1.1	NA	<0.0043	<0.0043	<0.0043	<0.0043	NA	0.015	NA
TWB-2	SOMA	29	12/2/2003	<1.0	NA	<0.0047	<0.0047	<0.0047	<0.0047	NA	0.019	NA
TWB-3	SOMA	22	12/2/2003	<0.95	NA	<0.0049	<0.0049	<0.0049	<0.0049	NA	<0.0049	NA
TWB-3	SOMA	25	12/2/2003	<0.95	NA	<0.0048	<0.0048	<0.0048	<0.0048	NA	<0.0048	NA
TWB-3	SOMA	29	12/2/2003	<1.0	NA	<0.0047	<0.0047	<0.0047	<0.0047	NA	<0.0047	NA
TWB-4	SOMA	10	12/2/2003	<0.93	NA	<0.0045	<0.0045	<0.0045	<0.0045	NA	<0.0045	NA



**Table 1**  
**Historical Soil Analytical Data**  
**3519 Castro Valley Blvd., Castro Valley**

Sample ID	Consultant	Sample Depth (feet)	Sample Date	TPH-g (mg/kg)	TPH-d (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl Benzene (mg/kg)	Total Xylenes (mg/kg)	TOG (mg/kg)	MtBE (mg/kg)	Lead (mg/kg)
TWB-4	SOMA	27	12/2/2003	<1.1	NA	<0.0047	<0.0047	<0.0047	<0.0047	NA	<0.0047	NA
TWB-4	SOMA	29	12/2/2003	<0.98	NA	<0.0048	<0.0048	<0.0048	<0.0048	NA	<0.0048	NA
TWB-5	SOMA	16	12/2/2003	<1.0	NA	0.018	<0.0045	0.041	0.187	NA	<0.0045	NA
TWB-5	SOMA	18	12/2/2003	<0.93	NA	<0.0045	<0.0045	<0.0045	<0.0045	NA	<0.0045	NA
TWB-5	SOMA	29	12/2/2003	<0.97	NA	<0.0045	<0.0045	0.0051	0.018	NA	<0.0045	NA
B-1	Delta	17	8/28/2008	<b>120</b>	NA	<0.12	<0.12	<0.12	<0.24	NA	<0.12	NA
B-3	Delta	12	8/28/2008	<b>720</b>	NA	<0.5	<0.5	2	1.7	NA	<0.5	NA
B-4	Delta	10	8/28/2008	<0.5	NA	<0.005	<0.005	<0.005	<0.01	NA	<0.005	NA
B-5	Delta	12	8/28/2008	<0.5	NA	<0.005	<0.005	<0.005	<0.01	NA	<0.005	NA
B-6	Delta	9 to 10	8/28/2008	0.7	NA	<0.005	<0.005	<0.005	<0.01	NA	<0.005	NA
DP-1	SOMA	11	8/18/2009	6.1 Y	48 Y	<0.0049	<0.0049	<0.0049	<0.0049	<5.0	<0.0049	NA
DP-1	SOMA	14	8/18/2009	25 Y	35 Y	<0.0048	<0.0048	<0.0048	<0.0048	<5.0	<0.0048	NA
DP-1	SOMA	17	8/18/2009	<1.1	1.9 Y	<0.0049	<0.0049	<0.0049	<0.0049	<5.0	<0.0049	NA
DP-2	SOMA	8	8/17/2009	1.4 Y	4.3 Y	<0.0049	<0.0049	<0.0049	<0.0049	<5.0	<0.0049	NA
DP-2	SOMA	12	8/17/2009	1.3 Y	1.6 Y	<0.0047	<0.0047	<0.0047	<0.0047	<5.0	<0.0047	NA
DP-3	SOMA	12	8/17/2009	<1.0	<0.99	<0.0049	<0.0049	<0.0049	<0.0049	<5.0	<0.0049	NA
DP-4	SOMA	6	8/17/2009	<1.1	<1.0	<0.0049	<0.0049	<0.0049	<0.0049	<5.0	<0.0049	NA
DP-4	SOMA	14	8/17/2009	<0.93	<1.0	<0.005	<0.005	<0.005	<0.005	<5.0	<0.005	NA
DP-5	SOMA	12	8/18/2009	38	16 Y	<0.047 a	<0.047 a	0.11 a	1.87 a	<5.0	<0.047 a	NA
DP-5	SOMA	14	8/18/2009	<b>91</b>	51 Y	<0.25 b	<0.25 b	2.4 b	<b>11 b</b>	22	<0.25 b	NA
DP-5	SOMA	20	8/18/2009	26	8.1 Y	<0.017 c	<0.017 c	<0.017 c	0.051 c	<5.0	<0.017 c	NA
DP-6	SOMA	12	8/18/2009	<b>96</b>	2.6 Y	<0.025 f	<0.025 f	0.54 f	0.2 f	<5.0	<0.025 f	NA
DP-6	SOMA	14	8/18/2009	1.5	3.9 Y	<0.0048	<0.0048	<0.0048	<0.0048	<5.0	<0.0048	NA
DP-6	SOMA	17	8/18/2009	75	9.9	<0.04 d	<0.04 d	0.22 d	0.84 d	<5.0	<0.04 d	NA
DP-7	SOMA	12	8/18/2009	<0.97	<1.0	<0.0048	<0.0048	<0.0048	<0.0048	<5.0	<0.0048	NA
DP-7	SOMA	14	8/18/2009	<0.94	<0.99	<0.0049	<0.0049	<0.0049	<0.0049	<5.0	<0.0049	NA
SOMA-5	SOMA	11	8/18/2009	<b>380</b>	31 Y	<0.25 b	<0.25 b	2.0 b	<b>14.2 b</b>	<5.0	<0.25 b	NA
SOMA-5	SOMA	12.5	8/18/2009	28	2.6 Y	<0.05 e	<0.05 e	0.4 e	<b>2.65 e</b>	<5.0	<0.05 e	NA
<b>ESL - Shallow Soil, Commercial</b>				<b>83</b>	<b>83</b>	<b>0.044</b>	<b>2.9</b>	<b>3.3</b>	<b>2.3</b>	<b>2500</b>	<b>0.023</b>	<b>750</b>

**Table 1**  
**Historical Soil Analytical Data**  
**3519 Castro Valley Blvd., Castro Valley**

Sample ID	Consultant	Sample Depth (feet)	Sample Date	TPH-g (mg/kg)	TPH-d (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl Benzene (mg/kg)	Total Xylenes (mg/kg)	TOG (mg/kg)	MtBE (mg/kg)	Lead (mg/kg)
<b>ESL - Deep Soils, Commercial</b>				83	83	0.044	2.9	3.3	2.3	5000	0.023	750

Notes:

< - not detected above laboratory reporting limits

NA - not analyzed

C - Presence confirmed but RPD between columns exceeds 40%

E - Analyte Amount Exceeds the Calibration Range

H - Heavier hydrocarbons contributed to the quantitation

L - Lighter Hydrocarbons contributed to quantitation

Y - Sample exhibits chromatographic pattern that does not resemble standard

1 - located adjacent to pumps 5&6

2 - located adjacent to pumps 3&4

Petroleum Hydrocarbons analyzed by EPA 8015, 8021, and 8260

ESL - Environmental Screening Level, California Regional Water Control Board, Interim Final November 2007, revised May 2008

- a Dilution factor 9.434
- b Dilution factor 50
- c Dilution factor 3.311
- d Dilution Factor 8.065
- e Dilution Factor 10
- f Dilution Factor 4.950

**Table 2**  
**Historical Grab Groundwater Analytical Data**  
**3519 Castro Valley Blvd., Castro Valley**

Sample ID	Consultant	Sample Date	TPH-g (µg/L)	TPH-d (µg/L)	TPH-mo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L)	TBA (µg/L)
ESE-1	Alisto	7/28/1995	190	NA	NA	<0.5	<0.5	<0.5	<1.0	NA	NA
ESE-2	Alisto	7/28/1995	2,000	NA	NA	<2.5	<2.5	<2.5	<5.0	NA	NA
ESE-3	Alisto	7/28/1995	<50	NA	NA	<0.5	<0.5	<0.5	<1.0	NA	NA
ESE-4	Alisto	7/28/1995	<50	NA	NA	<0.5	<0.5	<0.5	<1.0	NA	NA
ESE-5	Alisto	7/28/1995	520	NA	NA	15	<0.5	1.7	1.3	NA	NA
ESE-5 QC1	Alisto	7/28/1995	460	NA	NA	7.2	<0.5	1.9	1.5	NA	NA
MW-6	Alisto	7/28/1995	<50	NA	NA	<0.5	<0.5	<0.5	<1.0	NA	NA
MW-7	Alisto	7/28/1995	<50	NA	NA	0.54 <sup>E</sup>	0.54	<0.5	<1.0	NA	NA
MW-8	Alisto	7/28/1995	1,100	NA	NA	<2.5	<2.5	<2.5	<5.0	NA	NA
S-10	Alisto	7/28/1995	<50	NA	NA	<0.5	<0.5	<0.5	<1.0	NA	NA
ESE-3 WA	SOMA	10/3/2003	110	NA	NA	<5.0	<5.0	0.59	1.2	3.3	NA
TWB-1	SOMA	12/2/2003	<50	NA	NA	<0.5	<0.5	<0.5	0.8	8.5	NA
TWB-2	SOMA	12/2/2003	<50	NA	NA	<0.5	<0.5	<0.5	<0.5	89	NA
TWB-3	SOMA	12/2/2003	<50	NA	NA	<0.5	<0.5	<0.5	<0.5	37	NA
TWB-4	SOMA	12/2/2003	<50	NA	NA	<0.5	<0.5	<0.5	2.3	<0.5	NA
TWB-5	SOMA	12/2/2003	32,000	NA	NA	500	13	540	1,150	9.5	NA
B-4	Delta	8/28/2008	<50	NA	NA	<0.5	<1.0	<1.0	<2.0	<1.0	<10
B-5	Delta	8/28/2008	<50	NA	NA	<0.5	<1.0	<1.0	<2.0	<1.0	<10
B-6	Delta	8/28/2008	900	NA	NA	0.71	3.5	3.4	<2.0	<1.0	<10
MW-1 <sup>1</sup>	Delta	10/28/2008	<50	NA	NA	<0.5	<1.0	<1.0	<2.0	15	38
MW-2 <sup>1</sup>	Delta	10/28/2008	74	NA	NA	<0.5	<1.0	<1.0	<2.0	51	<10
MW-3 <sup>1</sup>	Delta	10/28/2008	<50	NA	NA	<0.5	<1.0	<1.0	<2.0	19	<10
MW-4 <sup>1</sup>	Delta	10/28/2008	<50	NA	NA	<0.5	<1.0	<1.0	<2.0	<1.0	<10
DP-1	SOMA	8/18/2009	210 Y	140 Y	<300	<0.5	<0.5	<0.5	<0.5	<0.5	<10
DP-2	SOMA	8/17/2009	130	340 Y	410	<0.5	<0.5	3.7	<0.5	<0.5	<10
DP-3	SOMA	8/17/2009	<50	330 Y	360	<0.5	<0.5	<0.5	<0.5	1.9	<10
DP-4	SOMA	8/17/2009	<50	980 Y	570	<0.5	<0.5	<0.5	<0.5	0.76	<10

**Table 2**  
**Historical Grab Groundwater Analytical Data**  
**3519 Castro Valley Blvd., Castro Valley**

Sample ID	Consultant	Sample Date	TPH-g (µg/L)	TPH-d (µg/L)	TPH-mo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L)	TBA (µg/L)
DP-5	SOMA	8/18/2009	640	240 Y	<300	8.9	1.6	18	71	4.8	<10
DP-6	SOMA	8/18/2009	1,600	470 Y	<300	18	<0.5	71	186	<0.5	<10
DP-7	SOMA	8/18/2009	<50	130 Y	<300	<0.5	<0.5	<0.5	<0.5	<0.5	<10
SOMA-5	SOMA	9/21/2009	16,000	NA	NA	1,300	<10	420	2,360	120	510
<b>ESL - Drinking Water</b>			<b>100</b>	<b>100</b>	<b>100</b>	<b>1</b>	<b>40</b>	<b>30</b>	<b>20</b>	<b>5</b>	<b>12</b>
<b>ESL - Non-Drinking Water</b>			<b>210</b>	<b>210</b>	<b>210</b>	<b>46</b>	<b>130</b>	<b>43</b>	<b>100</b>	<b>1,800</b>	<b>18,000</b>

Notes:

1: Wells designated by Delta, Correct designation for monitoring wells is: MW-1 is ESE-1, MW-2 is ESE-2, MW-3 is SOMA-1, MW-4 is MW-6

ESL - Environmental Screening Level, California Regional Water Control Board, Interim Final November 2007, revised May 2008

**Table 3**  
**Historical Groundwater Elevations & Analytical Data**  
**TPH-g, BTEX, MtBE**  
**3519 Castro Valley Blvd, Castro Valley, CA**

Monitoring Well	Date	Top of casing elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
<b>ESE-1</b>	10/5/1992	177.69	11.22	166.47	2100	370	150	17	110	NA
	10/5/1992	177.69	NM	NM	2300	370	160	16	110	NA
	4/1/1993	177.69	8.79	168.90	5900	1500	410	110	390	NA
	6/29/1993	177.69	10.34	167.35	7600	2900	390	130	460	NA
	9/23/1993	177.69	10.91	166.78	2000	490	40	20	56	600
	9/23/1993	177.69	NM	NM	1500	420	39	19	56	550
	12/10/1993	177.69	9.93	167.76	1800	480	42	19	66	921
	12/10/1993	177.69	NM	NM	1500	380	38	17	55	770
	2/17/1994	177.69	9.64	168.05	1900	380	48	24	80	585
	2/17/1994	177.69	NM	NM	2200	430	42	19	65	491
	8/8/1994	177.69	11.72	165.97	2100	450	46	16	50	760
	10/12/1994	177.69	10.48	167.21	760	240	16	51	39	230
	1/19/1995	177.69	7.77	169.92	840	600	120	22	58	NA
	5/2/1995	177.69	8.69	169.00	2000	640	67	24	98	NA
	7/28/1995	177.69	10.12	167.57	190	<0.50	<0.50	<0.50	<1.0	NA
	11/17/1995	177.69	10.57	167.12	200	3.4	<1.0	1	<2.0	600
	2/7/1996	177.69	7.41	170.28	750	370	23	21	64	680
	4/23/1996	177.69	9.12	168.57	310	100	<1.0	<1.0	<1.0	1500
7/9/1996	177.69	10.12	167.57	730	230	74	13	63	750	
10/10/1996	177.69	10.80	166.89	420	26	1.6	7.3	12	430	

**Table 3**  
**Historical Groundwater Elevations & Analytical Data**  
**TPH-g, BTEX, MtBE**  
**3519 Castro Valley Blvd, Castro Valley, CA**

<b>Monitoring Well</b>	<b>Date</b>	<b>Top of casing elevation <sup>1</sup> (feet)</b>	<b>Depth to Groundwater (feet)</b>	<b>Groundwater Elevation (feet)</b>	<b>TPH-g (µg/L)</b>	<b>Benzene (µg/L)</b>	<b>Toluene (µg/L)</b>	<b>Ethyl benzene (µg/L)</b>	<b>Total Xylenes (µg/L)</b>	<b>MtBE (µg/L) 8260B</b>
ESE-1 cont.	1/20/1997	177.69	10.52	167.17	660	290	4.2	13	36	450
	4/25/1997	177.69	9.77	167.92	410	<0.5	<1.0	<1.0	<1.0	580
	7/18/1997	177.69	10.55	167.14	420	<0.5	<1.0	<1.0	<1.0	370
	10/27/1997	177.69	10.36	167.33	300	56	<1.0	6.5	<1.0	220
	1/22/1998	177.69	7.52	170.17	4200	440	9	15	17.7	1300
	4/23/1998	177.69	8.80	168.89	15000	3400	190	910	900	4900
	4/23/1998	177.69	NM	NM	15000	2800	140	730	730	4400
	7/29/1998	177.69	9.73	167.96	NA	NA	NA	NA	NA	NA
	7/30/1998	177.69	NM	NM	15000	<2.5	<5.0	<5.0	<5.0	15000
	12/17/1998	177.69	9.51	168.18	2400	73	1	2.8	4.6	2000
	3/19/1999	177.69	8.65	169.04	4700	58	<1.0	<1.0	<1.0	4700
	6/23/1999	177.69	10.51	167.18	600	170	<1.0	7.2	5	3900
	9/27/1999	177.69	10.32	167.37	920	200	<25	<25	<25	4900
	12/9/1999	177.69	10.24	167.45	460	130	1.2	5.2	1.5	5100
	3/9/2000	177.69	7.72	169.97	3000	1300	120	80	140	7300
	6/8/2000	177.69	9.40	168.29	2900	540	9.7	20	17	5200
	9/18/2000	177.69	10.05	167.64	890	3.4	<0.5	1.4	<0.5	2800
	12/14/2000	177.69	8.20	169.49	1600	11.1	<0.5	<0.5	<0.5	2730
	3/21/2001	177.69	9.75	167.94	5700	2.28	<0.5	0.51	<1.5	6810
	6/18/2001	177.69	10.21	167.48	2000	152	0.669	3.62	2.34	1980
	9/18/2001	177.69	10.30	167.39	2500	57.1	<5.0	6.25	<15	2090
	12/13/2001	177.69	9.82	167.87	2800	208	6.05	8.54	9.66	2030
	3/14/2002	177.69	9.10	168.59	1800	140	6.31	4.5	9.41	1970
	6/19/2002	177.69	9.92	167.77	1100	220	2.02	4.23	3.8	1280
	9/10/2002	177.69	10.21	167.48	490	39	2.9	<2.0	4.9	670
	12/16/2002	177.69	8.56	169.13	730	140	6	3.2	9.1	670

**Table 3**  
**Historical Groundwater Elevations & Analytical Data**  
**TPH-g, BTEX, MtBE**  
**3519 Castro Valley Blvd, Castro Valley, CA**

Monitoring Well	Date	Top of casing elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-1 cont.	3/11/2003	177.69	9.40	168.29	1700	490	21	22	41	530
	6/17/2003	177.69	9.86	167.83	1300	140	<10	<10	<10	480
	12/9/2003	177.69	9.32	168.37	1400	390	12	14	26.1	260
	2/26/2004	177.69	7.71	169.98	3200	880	50	44	89	200
	5/21/2004	177.69	10.19	167.50	1500	370	10	14	25.2	140
	8/10/2004	180.24	10.41	169.83	460	390	7	8.1	15.4	110
	10/19/2004	180.24	10.40	169.84	1600	490	13	12	25.3	110
	1/14/2005	180.24	8.26	171.98	790 Z	420	26	19	52	91
	4/14/2005	180.24	8.77	171.47	3020	766	25.6	21.3	25.26	88.2
	7/7/2005	180.24	9.94	170.30	1940	440	15.5	15.7	21	80.6
	11/15/2005	180.24	10.21	170.03	1260	259	6.2	8.2	10.81	45.8
	2/8/2006	180.24	9.01	171.23	1430	332	13.6	18.1	25.03	43
	4/27/2006	180.24	9.14	171.10	1,600	519	23.2	32.4	40.20	63.4
	8/1/2006	180.24	9.92	170.32	1,530	395	11.8	25.4	28.01	40
	10/19/2006	180.24	10.34	169.90	1,230	327	10.2	21.6	21.19	29.6
	1/12/2007	180.24	9.84	170.40	561	153	7.18	14.4	14.95	30.9
	4/17/2007	180.24	9.78	170.46	467	192	7.59	13.8	16.42	30.4
	7/17/2007	180.24	9.82	170.42	755	271	8.6	17.8	22.06	26.7
	10/16/2007	180.24	8.99	171.25	164	80.2	<2.0	5.24	2.47	16.6
	1/17/2008	180.24	9.35	170.89	70	10.8	<2.0	<0.50	<2.0	19.3
	4/17/2008	180.24	9.80	170.44	687	89.7	<2.0	4.01	5.30	8.79
	7/16/2008	180.24	10.17	170.07	1,400	223	3.88	12.6	17.88	18.1
	10/14/2008	180.24	10.86	169.38	540	95	2.7	7.7	18	15
1/6/2009	180.24	10.10	170.14	500 <sup>Y</sup>	130	3	8.8	17.1	13	
4/6/2009	180.24	10.05	170.19	910 <sup>Y</sup>	230	2.4	11	12.1	17	
<b>7/7/2009</b>	<b>180.24</b>	<b>10.42</b>	<b>169.82</b>	<b>850<sup>Y</sup></b>	<b>89</b>	<b>1.9</b>	<b>7.8</b>	<b>15.1</b>	<b>15</b>	

**Table 3**  
**Historical Groundwater Elevations & Analytical Data**  
**TPH-g, BTEX, MtBE**  
**3519 Castro Valley Blvd, Castro Valley, CA**

Monitoring Well	Date	Top of casing elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-2	10/5/1992	178.23	11.68	166.55	300	5.4	16	3.9	45	NA
	4/1/1993	178.23	9.17	169.06	240	27	<0.5	17	2.6	123
	6/29/1993	178.23	10.88	167.35	1,700	260	24	110	23	NA
	6/29/1993	178.23	NM	NM	1,300	240	17	110	25	NA
	9/23/1993	178.23	11.56	166.67	240	3.1	0.5	0.6	2.5	643
	12/10/1993	178.23	10.48	167.75	250	2.4	2.4	1.5	11	940
	2/17/1994	178.23	10.06	168.17	900	<0.5	<0.5	<0.5	<0.5	930
	8/8/1994	178.23	11.11	167.12	750	<0.5	<0.5	<0.5	<0.5	1400
	10/12/1994	178.23	11.31	166.92	1,700	<0.5	<0.5	<0.5	<0.5	3000
	1/19/1995	178.23	8.25	169.98	300	2	0.9	0.7	1	NA
	5/2/1995	178.23	9.21	169.02	1,200	4	<2.5	<2.5	<5	NA
	7/28/1995	178.23	10.64	167.59	2,000	<2.5	<2.5	<2.5	<5	NA
	11/17/1995	178.23	11.13	167.10	3,600	<25	<25	<25	<50	12000
	11/17/1995	178.23	NM	NM	3,400	<25	<25	<25	<50	12000
	2/7/1996	178.23	7.94	170.29	450	<0.5	<1	<1	<1	2300
	4/23/1996	178.23	9.73	168.50	260	0.9	<1	<1	<1	8600
	7/9/1996	178.23	10.70	167.53	780	<2.5	<5	<5	<5	13393
	10/10/1996	178.23	11.39	166.84	2,900	<0.5	<1	<1	<1	12000
	1/20/1997	178.23	9.04	169.19	<250	<2.5	<5	<5	<5	13000
	4/25/1997	178.23	10.31	167.92	2,700	<0.5	<1	<1	<1	15000
	7/18/1997	178.23	11.02	167.21	11,000	<5	<10	<10	<10	11000
	10/27/1997	178.23	10.93	167.30	6,100	<2.5	<5.0	<5.0	<5.0	7100
	10/27/1997	178.23	NM	NM	6,600	<2.5	<5.0	<5.0	<5.0	7400
	1/22/1998	178.23	7.93	170.30	13,000	<0.5	<1	<1	<1	10000
	1/22/1998	178.23	NM	NM	13,000	<0.5	<1	<1	<1	10000
	4/23/1998	178.23	9.34	168.89	19,000	<5	<10	<10	<10	36000
	7/29/1998	178.23	10.29	167.94	NA	NA	NA	NA	NA	NA
	7/30/1998	178.23	NM	NM	19,000	<5	<10	<10	<10	36000
	12/17/1998	178.23	10.20	168.03	12,000	<5	<5	<5	<5	13000



**Table 3**  
**Historical Groundwater Elevations & Analytical Data**  
**TPH-g, BTEX, MtBE**  
**3519 Castro Valley Blvd, Castro Valley, CA**

Monitoring Well	Date	Top of casing elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-2 cont	3/19/1999	178.23	9.02	169.21	18,000	160	<1	<1	<1	18000
	6/23/1999	178.23	9.99	168.24	280	<1	<1	<1	<1	16000
	9/27/1999	178.23	10.69	167.54	<500	<25	<25	<25	<25	12000
	12/9/1999	178.23	11.26	166.97	<50	<0.3	<0.3	<0.3	<0.6	12000
	3/9/2000	178.23	7.95	170.28	<50	1.6	<0.5	<0.5	<0.5	7900
	6/8/2000	178.23	9.66	168.57	1,600	<0.5	0.73	<0.5	2.2	9400
	12/14/2000	178.23	11.15	167.08	6,000	0.75	<0.5	<0.5	<0.5	11200
	3/21/2001	178.23	10.35	167.88	6,900	786	45.7	37.7	71.5	3790
	6/18/2001	178.23	11.24	166.99	6,400	<2.5	<2.5	<2.5	<7.5	9320
	9/18/2001	178.23	11.35	166.88	4,800	<12.5	<12.5	<12.5	<37.5	6960
	12/13/2001	178.23	10.97	167.26	59,000	0.592	<0.5	<0.5	<1	5940
	3/14/2002	178.23	10.13	168.10	4,500	76	<0.5	<0.5	<1	6660
	6/19/2002	178.23	10.91	167.32	250	<12.5	<12.5	<12.5	<25	4900
	9/10/2002	178.23	10.82	167.41	1,500	<5	<5	<5	6.3	3100
	12/16/2002	178.23	7.87	170.36	1,400	<5	<5	<5	<5	2400
	3/11/2003	178.23	10.24	167.99	2,800	<10	<10	<10	<10	4800
	6/17/2003	178.23	10.19	168.04	10,000	<100	<100	<100	<100	4400
	12/9/2003	178.23	9.97	168.26	<50	<0.5	<0.5	<0.5	<0.5	3400
	2/26/2004	178.23	7.89	170.34	<50	<0.5	<0.5	<0.5	<0.5	3000
	5/21/2004	178.23	10.70	167.53	<50	<0.5	<0.5	<0.5	<0.5	1100
	8/10/2004	180.79	10.99	169.80	<50	<0.5	<0.5	<0.5	<0.5	550
	10/19/2004	180.79	10.46	170.33	<50	<0.5	<0.5	<0.5	<0.5	410
	1/14/2005	180.79	8.66	172.13	<50	<8.3	<8.3	<8.3	<8.3	1200
	4/14/2005	180.79	9.38	171.41	<860	<2.15	<2.15	<2.15	<4.30	1020
	7/7/2005	180.79	10.46	170.33	<860	<2.15	<8.60	<2.15	<4.30	378
	11/15/2005	180.79	10.55	170.24	<50	<0.5	<2.0	<0.5	<1.0	210
	2/8/2006	180.79	9.46	171.33	<215	<2.15	<8.6	<2.15	<4.3	419
	4/27/2006	180.79	10.67	170.12	<100	1.71	<4.0	<1.0	<2.0	432
	8/1/2006	180.79	10.29	170.50	<100	2.83	<4.0	<1.0	<2.0	222
	10/19/2006	180.79	10.65	170.14	<50	0.8	<2.0	<0.5	<1.0	221

**Table 3**  
**Historical Groundwater Elevations & Analytical Data**  
**TPH-g, BTEX, MtBE**  
**3519 Castro Valley Blvd, Castro Valley, CA**

<b>Monitoring Well</b>	<b>Date</b>	<b>Top of casing elevation <sup>1</sup> (feet)</b>	<b>Depth to Groundwater (feet)</b>	<b>Groundwater Elevation (feet)</b>	<b>TPH-g (µg/L)</b>	<b>Benzene (µg/L)</b>	<b>Toluene (µg/L)</b>	<b>Ethyl benzene (µg/L)</b>	<b>Total Xylenes (µg/L)</b>	<b>MtBE (µg/L) 8260B</b>	
<b>ESE-2 cont</b>	1/12/2007	180.79	NM	NM	NA	NA	NA	NA	NA	NA	
	4/17/2007	180.79	10.20	170.59	<50	3.17	<2.0	4.49	<2.0	158	
	7/17/2007	180.79	10.31	170.48	<50	1.65	<2.0	<0.5	<2.0	105	
	10/16/2007	180.79	9.22	171.57	<50	5.67	<2.0	<0.5	<2.0	73.9	
	1/17/2008	180.79	9.88	170.91	<50.0	<0.50	<2.0	<0.50	<2.0	80.2	
	4/17/2008	180.79	10.29	170.50	<50	<0.5	<2.0	<0.5	<2.0	45	
	7/16/2008	180.79	10.64	170.15	<50	<0.5	<2.0	<0.5	<2.0	54	
	10/14/2008	180.79	11.41	169.38	<50	<0.5	<0.5	<0.5	<0.5	41	
	1/6/2009	180.79	10.60	170.19	<50	<0.5	<0.5	<0.5	<0.5	36	
	4/6/2009	180.79	10.62	170.17	<50	<0.5	<0.5	<0.5	<0.5	30	
	<b>7/7/2009</b>	<b>180.79</b>	<b>10.92</b>	<b>169.87</b>	<b>&lt;50</b>	<b>2.4</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>32</b>	
	<b>ESE-3</b>	10/5/1992	178.20	10.58	167.62	430	57	31	3.6	34	NA
4/1/1993		178.20	8.14	170.06	2400	460	220	74	210	NA	
6/29/1993		178.20	9.72	168.48	280	56	14	15	13	NA	
9/23/1993		178.20	10.46	167.74	72	13	3.5	1.7	4.1	NA	
12/10/1993		178.20	9.30	168.90	270	71	32	6.1	33	NA	
2/17/1994		178.20	8.97	169.23	520	140	10	20	33	5.74	
8/8/1994		178.20	10.02	168.18	<50	8.8	1.6	1.6	2.3	<5.0	
10/12/1994		178.20	10.32	167.88	470	190	6.4	15	18	<5.0	
1/19/1995		178.20	7.40	170.80	330	260	27	21	20	NA	
5/2/1995		178.20	8.26	169.94	530	180	30	23	44	NA	
7/28/1995		178.20	9.54	168.66	<50	<0.50	<0.50	<0.50	<1	NA	
11/17/1995		178.20	10.04	168.16	<50	1.7	<0.50	<0.50	<1	<5.0	
2/7/1996		178.20	7.08	171.12	<50	8.6	<1	<1	<1	<10	
4/1/2396		178.20	8.79	169.41	<50	7.6	<1	<1	<1	65	
7/9/1996		178.20	10.09	168.11	<50	12	2.6	2	3.9	26	
10/10/1996	178.20	10.48	167.72	NA	NA	NA	NA	NA	NA		
10/11/1996	178.20	NM	NM	260	140	<1	<1	2.6	<10		

**Table 3**  
**Historical Groundwater Elevations & Analytical Data**  
**TPH-g, BTEX, MtBE**  
**3519 Castro Valley Blvd, Castro Valley, CA**

Monitoring Well	Date	Top of casing elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-3 cont.	1/20/1997	178.20	8.65	169.55	<50	1.5	1.7	<1	<1	14
	4/25/1997	178.20	10.02	168.18	<50	<0.5	<1	<1	<1	14
	7/18/1997	178.20	10.66	167.54	10000	1400	1400	300	1280	<250
	10/27/1997	178.20	9.83	168.37	<250	<2.5	<5.0	<5.0	36	<50
	1/22/1998	178.20	7.06	171.14	130	<0.5	<1.0	<1.0	<1.0	120
	4/23/1998	178.20	8.44	169.76	4800	560	<10	15	<10	4000
	7/29/1998	178.20	9.27	168.93	NA	NA	NA	NA	NA	NA
	7/30/1998	178.20	NM	NM	1800	6.2	<5.0	<5.0	<5.0	1700
	12/17/1998	178.20	9.15	169.05	600	54	<1.0	2.1	4.9	340/480
	3/19/1999	178.20	8.14	170.06	2000	260	4.4	13	28	870
	6/23/1999	178.20	9.44	168.76	290	91	<1.0	8.3	16	240
	9/27/1999	178.20	9.69	168.51	130	35	<1.0	2.7	3.8	100
	12/9/1999	178.20	10.99	167.21	380	84	1.7	8.7	6.3	160
	3/9/2000	178.20	7.12	171.08	950	190	4.6	39	62	350
	6/8/2000	178.20	10.92	167.28	300	37	<0.5	2.3	1.3	400
	9/18/2000	178.20	11.12	167.08	920	140	1.3	15	4.8	170
	12/14/2000	178.20	9.70	168.50	320	64	<0.5	6.24	1.76	201
	3/21/2001	178.20	10.07	168.13	680	80.5	0.546	21.1	18.2	398
	6/18/2001	178.20	11.42	166.78	380	47	<0.5	3.11	<1.5	242
	9/18/2001	178.20	11.55	166.65	340	54.8	<0.5	4.36	<1.5	79.7
	12/13/2001	178.20	10.12	168.08	270	31.4	<0.5	1.31	2.24	129
	3/14/2002	178.20	9.84	168.36	670	89.8	0.769	23.4	30.4	413
	6/19/2002	178.20	10.57	167.63	130	18.6	<0.5	<0.5	<1	166
	9/10/2002	178.20	9.90	168.30	88	12	<0.5	<0.5	<0.5	93
	12/16/2002	178.20	9.23	168.97	290	55	17	3.7	14	78
	3/11/2003	178.20	9.05	169.15	100	3.4	<0.5	0.54	<0.50	140
	6/17/2003	178.20	9.30	168.90	520	17	<5	5.3	<5	130

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**Historical Groundwater Elevations & Analytical Data**  
**TPH-g, BTEX, MtBE**  
**3519 Castro Valley Blvd, Castro Valley, CA**

Monitoring Well	Date	Top of casing elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-4	10/5/1992	177.73	10.33	167.40	98	7.2	1.3	1.1	6.1	NA
	4/1/1993	177.73	7.88	169.85	550	93	20	23	33	NA
	6/29/1993	177.66	8.33	169.33	150	23	0.6	5.4	0.5	54
	9/23/1993	177.66	10.05	167.61	110	14	1.7	3.2	4.6	NA
	12/10/1993	177.66	8.95	168.71	110	21	7.2	4.2	10	28.75
	2/17/1994	177.66	8.65	169.01	210	26	1.2	4.7	11	113
	8/8/1994	177.66	9.76	167.90	76	9.6	<0.5	2	<0.5	62
	10/12/1994	177.66	9.62	168.04	<50	<0.5	<0.5	<0.5	<0.5	44
	1/19/1995	177.66	6.97	170.69	140	56	14	24	23	NA
	5/2/1995	177.66	7.85	169.81	130	21	2.8	8.6	8.2	NA
	7/28/1995	177.66	9.20	168.46	<50	<0.5	<0.5	<0.5	<1	NA
	11/17/1995	177.66	9.68	167.98	<50	<0.5	0.6	<0.5	<1	18
	2/7/1996	177.66	6.59	171.07	100	2.6	<1	1.6	4.1	42
	4/23/1996	177.66	8.30	169.36	160	37	15	16	31	43
	7/9/1996	177.66	9.21	168.45	60	17	1.5	6.8	11.6	27
	10/10/1996	177.66	9.97	167.69	NA	NA	NA	NA	NA	NA
	10/11/1996	177.66	NM	NM	<50	<0.5	<1.0	<1.0	<1.0	18
	1/20/1997	177.66	7.68	169.98	<50	<0.5	<1.0	<1.0	<1.0	130
	4/25/1997	177.66	9.15	168.51	<250	<2.5	<5.0	<5.0	<5.0	<50
	7/18/1997	177.66	9.71	167.95	<50	15	<10	<10	<10	<100
	10/27/1997	177.66	9.38	168.28	<250	<2.5	<5.0	<5.0	<5.0	<50
	1/22/1998	177.66	6.59	171.07	<50	<0.5	<1.0	<1.0	<1.0	<10
4/23/1998	177.66	7.90	169.76	<250	<2.5	<5.0	<5.0	<5.0	<50	
7/29/1998	177.66	8.96	168.70	NA	NA	NA	NA	NA	NA	
7/30/1998	177.66	NM	NM	<50	<0.5	<1.0	<1.0	<1.0	<10	
12/17/1998	177.66	8.32	169.34	NA	NA	NA	NA	NA	NA	

**Table 3**  
**Historical Groundwater Elevations & Analytical Data**  
**TPH-g, BTEX, MtBE**  
**3519 Castro Valley Blvd, Castro Valley, CA**

Monitoring Well	Date	Top of casing elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-4 cont.	3/19/1999	177.66	7.71	169.95	NA	NA	NA	NA	NA	NA
	6/23/1999	177.66	8.78	168.88	NA	NA	NA	NA	NA	NA
	9/27/1999	177.66	9.27	168.39	NA	NA	NA	NA	NA	NA
	12/9/1999	177.66	9.21	168.45	NA	NA	NA	NA	NA	NA
	3/9/2000	177.66	6.82	170.84	NA	NA	NA	NA	NA	NA
	6/8/2000	177.66	8.72	168.94	NA	NA	NA	NA	NA	NA
	9/18/2000	177.66	8.72	168.94	NA	NA	NA	NA	NA	NA
	12/14/2000	177.66	8.61	169.05	NA	NA	NA	NA	NA	NA
	3/21/2001	177.66	8.61	169.05	NA	NA	NA	NA	NA	NA
	6/18/2001	177.66	9.24	168.42	NA	NA	NA	NA	NA	NA
	9/18/2001	177.66	9.35	168.31	NA	NA	NA	NA	NA	NA
	12/13/2001	177.66	8.53	169.13	NA	NA	NA	NA	NA	NA
	3/14/2002	177.66	8.44	169.22	NA	NA	NA	NA	NA	NA
	6/19/2002	177.66	10.97	166.69	NA	NA	NA	NA	NA	NA
	9/10/2002	177.66	9.27	168.39	NA	NA	NA	NA	NA	NA
	12/16/2002	177.66	6.90	170.76	NA	NA	NA	NA	NA	NA
3/11/2003	177.66	8.83	168.83	NA	NA	NA	NA	NA	NA	
6/17/2003	177.66	8.84	168.82	NA	NA	NA	NA	NA	NA	
ESE-5	10/5/1992	176.08	9.22	166.86	1300	200	3.8	1.2	18	NA
	4/1/1993	176.08	7.02	169.06	13000	2200	26	730	1000	NA
	4/1/1993	176.08	NM	NM	13000	2500	25	740	1100	NA
	6/29/1993	176.08	10.21	165.87	7600	1500	9.3	170	100	NA
	9/23/1993	176.08	10.64	165.44	560	19	1.2	0.9	1.8	NA
	12/10/1993	176.08	9.42	166.66	1700	300	3	76	110	14.07

**Table 3**  
**Historical Groundwater Elevations & Analytical Data**  
**TPH-g, BTEX, MtBE**  
**3519 Castro Valley Blvd, Castro Valley, CA**

<b>Monitoring Well</b>	<b>Date</b>	<b>Top of casing elevation <sup>1</sup> (feet)</b>	<b>Depth to Groundwater (feet)</b>	<b>Groundwater Elevation (feet)</b>	<b>TPH-g (µg/L)</b>	<b>Benzene (µg/L)</b>	<b>Toluene (µg/L)</b>	<b>Ethyl benzene (µg/L)</b>	<b>Total Xylenes (µg/L)</b>	<b>MtBE (µg/L) 8260B</b>
<b>ESE-5 cont</b>	2/7/1994	176.08	9.35	166.73	3500	640	7.8	90	130	45.13
	8/8/1994	176.08	8.76	167.32	2600	210	4.6	9.4	4.4	33
	8/8/1994	176.08	NM	NM	2500	230	4.6	13	4.8	32
	10/12/1994	176.08	8.95	167.13	5600	560	9.5	75	21	79.2
	10/12/1994	176.08	NM	NM	6000	550	10	78	22	77
	1/19/1995	176.08	5.40	170.68	1900	620	<5	95	15	NA
	1/19/1995	176.08	NM	NM	1600	620	<5	93	17	NA
	5/2/1995	176.08	6.48	169.60	5700	1100	<10	180	58	NA
	5/2/1995	176.08	NM	NM	5300	1100	<10	180	58	NA
	7/28/1995	176.08	7.97	168.11	520	15	<0.50	1.7	1.3	NA
	7/28/1995	176.08	NM	NM	460	7.2	<0.50	1.9	1.5	NA
	11/17/1995	176.08	8.39	167.69	850	39	1.8	7.6	2.7	24
	2/7/1996	176.08	4.71	171.37	4100	670	6	190	140	<50
	4/23/1996	176.08	7.35	168.73	3000	570	<5	79	100	84
	7/9/1996	176.08	9.40	166.68	620	150	1.7	9.3	6.4	25
	10/10/1996	176.08	9.04	167.04	1100	29	<5	<5	<5	<50
	10/10/1996	176.08	NM	NM	1100	31	<5	<5	<5	<50
	1/20/1997	176.08	5.82	170.26	2100	980	<25	280	80	<250
	1/20/1997	176.08	NM	NM	2700	910	8.8	280	84	180
	4/25/1997	176.08	7.24	168.84	NA	NA	NA	NA	NA	NA
	4/28/1997	176.08	NM	NM	<250	7.9	<5.0	<5.0	<5.0	<50
	7/18/1997	176.08	7.86	168.22	1200	<5	<10	<10	<10	<100
	7/18/1997	176.08	NM	NM	630	31	<5.0	<5.0	<5.0	130
	10/27/1997	176.08	7.91	168.17	<250	5.4	<5.0	<5.0	<5.0	<50

**Table 3**  
**Historical Groundwater Elevations & Analytical Data**  
**TPH-g, BTEX, MtBE**  
**3519 Castro Valley Blvd, Castro Valley, CA**

Monitoring Well	Date	Top of casing elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-5 cont.	1/22/1998	176.08	4.64	171.44	170	7.7	<1.0	<1.0	<1.0	130
	4/23/1998	176.08	6.31	169.77	720	79	<5.0	9	<5.0	180
	7/29/1998	176.08	7.43	168.65	NA	NA	NA	NA	NA	NA
	7/30/1998	176.08	NM	NM	840	9.8	<1.0	4	<1.0	710
	12/17/1998	176.08	7.05	169.03	NA	NA	NA	NA	NA	NA
	3/19/1999	176.08	5.00	171.08	<250	<5.0	<5.0	<5.0	<5.0	<5.0
	6/23/1999	176.08	7.77	168.31	NA	NA	NA	NA	NA	NA
	9/27/1999	176.08	8.11	167.97	450	10	<5.0	6.3	<5.0	220
	12/9/1999	176.08	7.66	168.42	NA	NA	NA	NA	NA	NA
	3/9/2000	176.08	5.08	171.00	1700	170	2.5	45	6.4	140
	6/8/2000	176.08	7.36	168.72	NA	NA	NA	NA	NA	NA
	9/18/2000	176.08	7.71	168.37	130	0.65	<0.50	0.71	<0.50	51
	12/14/2000	176.08	2.36	173.72	NA	NA	NA	NA	NA	NA
	3/21/2001	176.08	7.42	168.66	1000	10.3	<2.5	11	<7.5	70.8
	6/18/2001	176.08	7.92	168.16	NA	NA	NA	NA	NA	NA
	9/18/2001	176.26	8.23	168.03	200	0.868	<0.50	0.55	<1.5	57.5
	12/13/2001	176.26	7.80	168.46	NA	NA	NA	NA	NA	NA
	3/14/2002	176.26	6.55	169.71	1300	17.1	1.35	15.4	1.42	37.4
	6/19/2002	176.26	7.83	168.43	NA	NA	NA	NA	NA	NA
	9/10/2002	176.26	8.22	168.04	680	9.9	<5.0	<5.0	<5.0	44
	12/16/2002	176.26	6.58	169.68	NA	NA	NA	NA	NA	NA
	3/11/2003	176.26	6.77	169.49	2100	14	<2.5	15	3	80
	6/17/2003	176.26	6.75	169.51	NA	NA	NA	NA	NA	NA
9/17/2003	176.26	8.48	167.78	970	10 C	<0.5	<0.5	5.3	34	
12/9/2003	176.26	7.32	168.94	700	6.5	<0.5	3.1	2.7 C	34	

**Table 3**  
**Historical Groundwater Elevations & Analytical Data**  
**TPH-g, BTEX, MtBE**  
**3519 Castro Valley Blvd, Castro Valley, CA**

Monitoring Well	Date	Top of casing elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
<b>ESE-5 cont.</b>	2/26/2004	176.26	5.21	171.05	2400 H	41	2.8 C	18	2.4 C	29
	5/21/2004	176.26	7.50	168.76	1500	2.6 C	<0.5	2.1 C	2.1 C	25
	8/10/2004	178.80	8.28	170.52	680	<0.5	<0.5	<0.5	<0.5	33
	10/19/2004	178.80	8.26	170.54	380	<0.5	<0.5	<0.5	1.4	39
	1/14/2005	178.80	5.16	173.64	2400	18	1.4	22	2.1	26
	4/14/2005	178.80	6.13	172.67	4800	7.75	1.26	14.3	<1.0	23.1
	7/7/2005	178.80	7.52	171.28	3240	0.78	<2.0	1.18	<1.0	36.6
	11/15/2005	178.80	7.85	170.95	1190	0.51	<2.0	<0.5	<1.0	30
	2/8/2006	178.80	5.83	172.97	2510	1.91	<2.0	2.82	<1.0	20.7
	4/27/2006	178.80	5.71	173.09	4,700	2.76	<2.0	4.77	<1.0	28.3
	8/1/2006	178.80	7.71	171.09	1,890	0.7	<2.0	0.75	<1.0	24.7
	10/19/2006	178.80	8.00	170.80	474	<0.5	<2.0	3.39	<1.0	29
	1/12/2007	178.80	7.41	171.39	868	2.18	<2.0	2.66	<2.0	16.3
	4/17/2007	178.80	7.51	171.29	1,240	10.2	<2.0	10.4	2.37	17.2
	7/17/2007	178.80	7.47	171.33	836	3.1	<2.0	4.91	2.35	25.8
	10/16/2007	178.80	6.26	172.54	2,120	2.5	<2.0	6.19	2.61	17.5
	1/17/2008	178.80	6.59	172.21	2,730	5.74	<2.0	14.3	<2.0	13.1
	4/17/2008	178.80	6.81	171.99	2,770	4.7	<2.0	15.9	<2.0	<0.5
	7/16/2008	178.80	7.76	171.04	2,160	0.9	<2.0	1.1	<2.0	6.28
	10/14/2008	178.80	8.40	170.40	1,300	<0.5	<0.5	0.6	<0.5	9.9
1/6/2009	178.80	7.66	171.14	1,100 <sup>Y</sup>	0.61	<0.5	1.6	<0.5	8	
4/6/2009	178.80	7.79	171.01	1,900 <sup>Y</sup>	4.6	<0.5	9.3	0.59	5.3	
	<b>7/7/2009</b>	<b>178.80</b>	<b>7.84</b>	<b>170.96</b>	<b>2,700<sup>Y</sup></b>	<b>3.0</b>	<b>&lt;0.5</b>	<b>2.3</b>	<b>&lt;0.5</b>	<b>6.6</b>
<b>MW-6</b>	7/28/1995	179.24	10.00	169.24	<50	<0.50	<0.50	<0.50	<1.0	NA
	11/17/1995	179.24	10.44	168.80	<50	<0.50	<0.50	<0.50	<1.0	<5.0
	2/7/1996	179.24	7.68	171.56	<50	<0.5	<1.0	<1.0	<1.0	<10
	4/23/1996	179.24	9.33	169.91	<50	<0.5	<1.0	<1.0	<1.0	<10
	7/9/1996	179.24	10.10	169.14	<50	<0.5	<1.0	<1.0	<1.0	<10
	10/10/1996	179.24	11.00	168.24	<50	<0.5	<1.0	<1.0	<1.0	<10



**Table 3**  
**Historical Groundwater Elevations & Analytical Data**  
**TPH-g, BTEX, MtBE**  
**3519 Castro Valley Blvd, Castro Valley, CA**

<b>Monitoring Well</b>	<b>Date</b>	<b>Top of casing elevation <sup>1</sup> (feet)</b>	<b>Depth to Groundwater (feet)</b>	<b>Groundwater Elevation (feet)</b>	<b>TPH-g (µg/L)</b>	<b>Benzene (µg/L)</b>	<b>Toluene (µg/L)</b>	<b>Ethyl benzene (µg/L)</b>	<b>Total Xylenes (µg/L)</b>	<b>MtBE (µg/L) 8260B</b>
MW-6 cont.	1/20/1997	179.24	8.70	170.54	<50	<0.5	<1.0	<1.0	<1.0	<10
	4/25/1997	179.24	10.16	169.08	<50	<0.5	<1.0	<1.0	<1.0	<10
	7/18/1997	179.24	10.66	168.58	<50	<0.5	<1.0	<1.0	<1.0	<10
	10/27/1997	179.24	10.25	168.99	<50	<0.5	<1.0	<1.0	<1.0	<10
	1/22/1998	179.24	7.76	171.48	<50	<0.5	<1.0	<1.0	<1.0	<10
	4/23/1998	179.24	9.10	170.14	<50	<0.5	<1.0	<1.0	<1.0	<10
	7/29/1998	179.24	10.40	168.84	NA	NA	NA	NA	NA	NA
	7/30/1998	179.24	NM	NM	<50	<0.5	<1.0	<1.0	<1.0	<10
	12/17/1998	179.24	9.40	169.84	NA	NA	NA	NA	NA	NA
	3/19/1999	179.24	9.10	170.14	NA	NA	NA	NA	NA	NA
	6/23/1999	179.24	9.79	169.45	NA	NA	NA	NA	NA	NA
	9/27/1999	179.24	10.10	169.14	NA	NA	NA	NA	NA	NA
	12/9/1999	179.24	9.97	169.27	NA	NA	NA	NA	NA	NA
	3/9/2000	179.24	8.56	170.68	NA	NA	NA	NA	NA	NA
	6/8/2000	179.24	9.11	170.13	NA	NA	NA	NA	NA	NA
	9/18/2000	179.24	9.77	169.47	NA	NA	NA	NA	NA	NA
	12/14/2000	179.24	9.17	170.07	NA	NA	NA	NA	NA	NA
	3/21/2001	179.24	9.82	169.42	NA	NA	NA	NA	NA	NA
	6/18/2001	179.24	10.19	169.05	NA	NA	NA	NA	NA	NA
	9/18/2001	179.24	10.25	168.99	NA	NA	NA	NA	NA	NA
	12/13/2001	179.24	9.75	169.49	NA	NA	NA	NA	NA	NA
	3/14/2002	179.24	9.53	169.71	NA	NA	NA	NA	NA	NA
	6/19/2002	179.24	9.87	169.37	NA	NA	NA	NA	NA	NA
	9/10/2002	179.24	9.49	169.75	NA	NA	NA	NA	NA	NA
	12/16/2002	179.24	8.39	170.85	NA	NA	NA	NA	NA	NA
	3/11/2003	179.24	9.40	169.84	NA	NA	NA	NA	NA	NA
	6/17/2003	179.24	9.71	169.53	NA	NA	NA	NA	NA	NA
	9/17/2003	179.24	10.21	169.03	<50	<0.5	<0.5	<0.5	<0.5	<2.0
	12/9/2003	179.24	9.66	169.58	<50	<0.5	<0.5	<0.5	<0.5	<0.5

**Table 3**  
**Historical Groundwater Elevations & Analytical Data**  
**TPH-g, BTEX, MtBE**  
**3519 Castro Valley Blvd, Castro Valley, CA**

Monitoring Well	Date	Top of casing elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
<b>MW-6 cont.</b>	2/26/2004	179.24	7.83	171.41	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	5/21/2004	179.24	9.75	169.49	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	8/10/2004	181.80	10.28	171.52	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	10/19/2004	181.80	9.91	171.89	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	1/14/2005	181.80	8.40	173.40	<50	0.6	<0.5	<0.5	<0.5	<0.5
	4/14/2005	181.80	9.04	172.76	<200	<0.5	<0.5	<0.5	<1.0	<0.5
	7/7/2005	181.80	9.94	171.86	<200	<0.5	<2.00	<0.5	<1.00	<0.5
	11/15/2005	181.80	9.98	171.82	<50	<0.5	<2.0	<0.5	<1.0	<0.5
	2/8/2006	181.80	9.91	171.89	<50	<0.5	<2.0	<0.5	<1.0	<0.5
	4/27/2006	181.80	9.54	172.26	<50	<0.5	<2.0	<0.5	<1.0	<0.5
	8/1/2006	181.80	9.61	172.19	<50	<0.5	<2.0	<0.5	<1.0	0.51
	10/19/2006	181.80	10.23	171.57	<50	<0.5	<2.0	<0.5	<1.0	0.63
	1/12/2007	181.80	10.13	171.67	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	4/17/2007	181.80	10.22	171.58	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	7/17/2007	181.80	9.76	172.04	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	10/16/2007	181.80	9.82	171.98	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	1/17/2008	181.80	9.43	172.37	<50	<0.50	<2.0	<0.50	<2.0	<0.5
	4/17/2008	181.80	9.54	172.26	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	7/16/2008	181.80	9.80	172.00	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	10/14/2008	181.80	10.48	171.32	<50	<0.5	<0.5	<0.5	<0.5	<0.5
1/6/2009	181.80	10.01	171.79	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
4/6/2009	181.80	10.15	171.65	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
<b>7/7/2009</b>	<b>181.80</b>	<b>10.28</b>	<b>171.52</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	
<b>MW-7</b>	7/28/1995	176.55	9.25	167.30	<50	0.54	0.54	<0.50	<1.0	NA
	11/17/1995	176.55	9.73	166.82	1100	<10	<10	<10	<20	4000

**Table 3**  
**Historical Groundwater Elevations & Analytical Data**  
**TPH-g, BTEX, MtBE**  
**3519 Castro Valley Blvd, Castro Valley, CA**

Monitoring Well	Date	Top of casing elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
MW-7 cont.	2/7/1996	176.55	6.48	170.07	610	<0.50	<1.0	<1.0	<1.0	2500
	2/7/1996	176.55	NM	NM	280	<0.50	<1.0	<1.0	<1.0	2600
	4/23/1996	176.55	8.37	168.18	110	<0.50	<1.0	<1.0	<1.0	3500
	4/23/1996	176.55	NM	NM	230	<0.50	<1.0	<1.0	<1.0	3500
	7/9/1996	176.55	9.24	167.31	230	<0.50	<1.0	<1.0	<1.0	4296
	7/9/1996	176.55	NM	NM	220	<0.50	<1.0	<1.0	<1.0	4400
	10/10/1996	176.55	10.05	166.50	NA	NA	NA	NA	NA	NA
	10/11/1996	176.55	NM	NM	1600	<0.50	<1.0	<1.0	<1.0	3000
	1/20/1997	176.55	7.51	169.04	<50	0.63	<1.0	<1.0	<1.0	2600
	4/25/1997	176.55	8.79	167.76	NA	NA	NA	NA	NA	NA
	4/28/1997	176.55	NM	NM	1500	<0.50	<1.0	<1.0	<1.0	3600
	4/28/1997	176.55	NM	NM	7700	3500	<25	74	37	<250
	7/18/1997	176.55	9.50	167.05	1400	<0.50	<1.0	<1.0	<1.0	2600
	10/27/1997	176.55	9.19	167.36	420	<0.50	<1.0	<1.0	<1.0	560
	1/22/1998	176.55	6.45	170.10	3100	<0.50	<1.0	<1.0	1.4	2300
	4/23/1998	176.55	8.02	168.53	3800	<0.50	<1.0	<1.0	<1.0	3800
	7/29/1998	176.55	8.88	167.67	NA	NA	NA	NA	NA	NA
	7/30/1998	176.55	NM	NM	500	<2.5	<5.0	<5.0	<5.0	<50
	7/30/1998	176.55	NM	NM	4700	<12	<25	<25	<25	4700
	12/17/1998	176.55	8.62	167.93	NA	NA	NA	NA	NA	NA
	3/19/1999	176.55	7.52	169.03	3800	<1.0	<1.0	<1.0	<1.0	3800
	6/23/1999	176.55	9.63	166.92	NA	NA	NA	NA	NA	NA
	9/27/1999	176.55	9.39	167.16	140	<10	<10	<10	<10	3800
	12/9/1999	176.55	9.94	166.61	NA	NA	NA	NA	NA	NA
	3/9/2000	176.55	6.72	169.83	<50	<0.50	<0.50	<0.50	<0.50	1400
	6/8/2000	176.55	7.38	169.17	NA	NA	NA	NA	NA	NA
9/18/2000	176.55	9.18	167.37	190	<0.50	<0.50	<0.50	<0.50	580	
12/14/2000	176.55	8.13	168.42	NA	NA	NA	NA	NA	NA	

**Table 3**  
**Historical Groundwater Elevations & Analytical Data**  
**TPH-g, BTEX, MtBE**  
**3519 Castro Valley Blvd, Castro Valley, CA**

Monitoring Well	Date	Top of casing elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
MW-7 cont.	3/21/2001	176.55	8.98	167.57	1300	<0.50	<0.50	<0.50	<1.5	1460
	6/18/2001	176.55	9.68	166.87	NA	NA	NA	NA	NA	NA
	9/18/2001	176.55	9.80	166.75	<0.50	<0.50	<0.50	<0.50	<1.5	94.9
	12/13/2001	176.55	9.26	167.29	NA	NA	NA	NA	NA	NA
	3/14/2002	176.55	8.69	167.86	800	<0.50	<0.50	<0.50	<1.0	952
	6/19/2002	176.55	9.06	167.49	NA	NA	NA	NA	NA	NA
	9/10/2002	176.55	9.23	167.32	260	<2.0	<2.0	<2.0	<2.0	580
	12/16/2002	176.55	7.77	168.78	NA	NA	NA	NA	NA	NA
	3/11/2003	176.55	8.30	168.25	620	<2.5	<2.5	<2.5	<2.5	1100
	6/17/2003	176.55	9.51	167.04	NA	NA	NA	NA	NA	NA
	9/17/2003	176.55	9.52	167.03	<50	<0.5	<0.5	<0.5	<0.5	460
	12/9/2003	176.55	8.99	167.56	<50	<0.5	<0.5	<0.5	<0.5	420
	2/26/2004	176.55	6.55	170.00	<50	<0.5	<0.5	<0.5	<0.5	330
	5/21/2004	176.55	8.90	167.65	<50	<0.5	<0.5	<0.5	<0.5	630
	8/10/2004	179.11	9.58	169.53	<50	<0.5	<0.5	<0.5	<0.5	750
	10/19/2004	179.11	9.20	169.91	<50	<0.5	<0.5	<0.5	<0.5	550
	1/14/2005	179.11	7.25	171.86	<50	<2.0	<2.0	<2.0	<2.0	250
	4/14/2005	179.11	7.94	171.17	<200	<0.5	<0.5	<0.5	<1.0	285
	7/7/2005	179.11	9.08	170.03	<400	<1.0	<4.0	<1.0	<2.0	452
	11/15/2005	179.11	9.14	169.97	<50	<0.5	<2.0	<0.5	<1.0	110
	2/8/2006	179.11	7.93	171.18	<50	<0.5	<2.0	<0.5	<1.0	101
	4/27/2006	179.11	8.40	170.71	<50	<0.5	<2.0	<0.5	<1.0	131
	8/1/2006	179.11	8.89	170.22	<50	<0.5	<2.0	<0.5	<1.0	68.6
	10/19/2006	179.11	9.44	169.67	<50	<0.5	<2.0	<0.5	<1.0	65.5
1/12/2007	179.11	8.91	170.20	<50	<0.5	<2.0	<0.5	<2.0	38	
4/17/2007	179.11	8.58	170.53	<50	<0.5	<2.0	<0.5	<2.0	24.7	
7/17/2007	179.11	9.04	170.07	<50	2.07	<2.0	<0.5	<2.0	29.3	
10/6/2007	179.11	7.88	171.23	<50	0.88	<2.0	<0.5	<2.0	5.26	

**Table 3**  
**Historical Groundwater Elevations & Analytical Data**  
**TPH-g, BTEX, MtBE**  
**3519 Castro Valley Blvd, Castro Valley, CA**

Monitoring Well	Date	Top of casing elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
<b>MW-7 cont.</b>	1/17/2008	179.11	NM	NM	NA	NA	NA	NA	NA	NA
	4/17/2008	179.11	8.85	170.26	<50	1.87	<2.0	<0.5	<2.0	21.6
	7/16/2008	179.11	9.34	169.77	<50	<0.5	<2.0	<0.5	<2.0	11.4
	10/14/2008	179.11	10.06	169.05	<50	0.78	<0.5	<0.5	<0.5	12
	1/6/2009	179.11	9.12	169.99	<50	<0.5	<0.5	<0.5	<0.5	14
	4/6/2009 <b>7/7/2009</b>	179.11 <b>179.11</b>	9.28 <b>9.59</b>	169.83 <b>169.52</b>	<50 <b>&lt;50</b>	<0.5 <b>&lt;0.5</b>	<0.5 <b>&lt;0.5</b>	<0.5 <b>&lt;0.5</b>	<0.5 <b>&lt;0.5</b>	13 <b>15</b>
<b>MW-8</b>	7/28/1995	176.34	7.80	168.54	1,100	<2.5	<2.5	<2.5	<5.0	NA
	11/17/1995	176.34	8.29	168.05	8,300	75	5.3	670	240	140
	2/7/1996	176.34	4.99	171.35	2,300	33	<10	190	216	<100
	4/23/1996	176.34	6.09	170.25	2,000	390	<10	150	26	<250
<b>QC-2</b>	4/1/1993	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	NA
	6/29/1993	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	NA
	9/23/1993	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	NA
	12/10/1993	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	2/17/1994	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	NA
	8/8/1994	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	NA
	10/12/1994	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	NA
	1/19/1995	NM	NM	NM	<50	<0.5	<0.5	<0.5	<1.0	NA
	5/2/1995	NM	NM	NM	<50	<0.50	<0.50	<0.50	<1.0	NA
	7/28/1995	NM	NM	NM	<50	<0.50	<0.50	<0.50	<1.0	NA
	11/17/1995	NM	NM	NM	<50	<0.50	<0.50	<0.50	<1.0	<5.0
	2/7/1996	NM	NM	NM	<50	<0.5	<1.0	<1.0	<1.0	<10
	4/23/1996	NM	NM	NM	<50	<0.5	<1.0	<1.0	<1.0	<10
	7/9/1996	NM	NM	NM	<50	<0.5	<1.0	<1.0	<1.0	<10

**Table 3**  
**Historical Groundwater Elevations & Analytical Data**  
**TPH-g, BTEX, MtBE**  
**3519 Castro Valley Blvd, Castro Valley, CA**

Monitoring Well	Date	Top of casing elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
<b>SOMA-1</b>	8/10/2004	180.95	11.53	169.42	84	<0.5	<0.5	1.5 C	2.2	2100
	10/19/2004	180.95	10.41	170.54	56	<0.5	<0.5	1.3 C	1.4 C	1600
	1/14/2005	180.95	9.68	171.27	58	<3.1	<3.1	<3.1	<3.1	330
	4/14/2005	180.95	9.37	171.58	<2200	<5.5	<5.5	<5.5	<11	668
	7/7/2005	180.95	10.21	170.74	<860	<2.15	<8.6	<2.15	<4.3	591
	11/15/2005	180.95	10.70	170.25	<50	<0.5	<2.0	1.1	<1.0	256
	2/8/2006	180.95	9.30	171.65	127	1.56	<2.0	3.23	3.12	176
	4/27/2006	180.95	9.64	171.31	81.6	1.14	<2.0	2.8	<1.0	189
	8/1/2006	180.95	10.25	170.70	<50	1.07	<2.0	1.46	<1.0	122
	10/19/2006	180.95	10.73	170.22	<50	0.68	<2.0	4.17	<1.0	116
	1/12/2007	180.95	10.38	170.57	<50	<0.5	<2.0	<0.5	<2.0	68.7
	4/17/2007	180.95	10.09	170.86	<50	5.76	<2.0	4.33	2.59	33.4
	7/17/2007	180.95	10.35	170.60	<50	14.8	<2.0	4.63	3.32	39.4
	10/16/2007	180.95	9.71	171.24	<50	5.7	<2.0	<0.5	<2.0	14.2
	1/17/2008	180.95	10.01	170.94	<50	1.02	<2.0	<0.5	<2.0	12.8
	4/17/2008	180.95	10.17	170.78	<50	3.13	<2.0	<0.5	<2.0	12.8
	7/16/2008	180.95	10.63	170.32	<50	10.6	<2.0	<0.5	<2.0	15.8
	10/14/2008	180.95	11.36	169.59	<50	1.1	<0.5	<0.5	<0.5	15
	1/6/2009	180.95	10.81	170.14	<50	0.6	<0.5	<0.5	<0.5	14
4/6/2009	180.95	10.69	170.26	<50	<0.5	<0.5	<0.5	<0.5	12	
<b>7/7/2009</b>	<b>180.95</b>	<b>11.01</b>	<b>169.94</b>	<b>&lt;50</b>	<b>0.57</b>	<b>&lt;0.5</b>	<b>1.2</b>	<b>0.91</b>	<b>12</b>	
<b>SOMA-2</b>	8/10/2004	178.99	10.69	168.30	<50	<0.5	<0.5	<0.5	<0.5	0.8
	10/19/2004	178.99	10.75	168.24	<50	<0.5	<0.5	<0.5	<0.5	2.4
	1/14/2005	178.99	9.45	169.54	<50	<0.5	<0.5	<0.5	<0.5	1.1
	4/14/2005	178.99	10.46	168.53	<200	<0.5	<0.5	<0.5	<1.0	<0.5
	7/7/2005	178.99	11.81	167.18	<200	<0.5	<2.0	<0.5	<1.0	<0.5
	11/15/2005	178.99	12.02	166.97	<50	<0.5	<2.0	<0.5	<1.0	1.61

**Table 3**  
**Historical Groundwater Elevations & Analytical Data**  
**TPH-g, BTEX, MtBE**  
**3519 Castro Valley Blvd, Castro Valley, CA**

Monitoring Well	Date	Top of casing elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
<b>SOMA-2 cont</b>	2/8/2006	178.99	11.88	167.11	<50	<0.5	<2.0	<0.5	<1.0	<0.5
	4/27/2006	178.99	10.95	168.04	<50	<0.5	<2.0	<0.5	<1.0	<0.5
	8/1/2006	178.99	11.85	167.14	<50	<0.5	<2.0	<0.5	<1.0	1.11
	10/19/2006	178.99	10.62	168.37	<50	<0.5	<2.0	<0.5	<1.0	1.36
	1/12/2007	178.99	10.26	168.73	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	4/17/2007	178.99	11.88	167.11	<50	<0.5	<2.0	<0.5	<2.0	0.87
	7/17/2007	178.99	10.84	168.15	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	10/16/2007	178.99	9.69	169.30	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	1/17/2008	178.99	9.62	169.37	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	4/17/2008	178.99	10.06	168.93	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	7/16/2008	178.99	10.63	168.36	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	10/14/2008	178.99	11.26	167.73	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	1/6/2009	178.99	10.22	168.77	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	4/6/2009	178.99	10.38	168.61	<50	<0.5	<0.5	<0.5	<0.5	<0.5
<b>7/7/2009</b>	<b>178.99</b>	<b>10.40</b>	<b>168.59</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	
<b>SOMA-3</b>	8/10/2004	176.81	9.97	166.84	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	10/19/2004	176.81	9.59	167.22	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	1/14/2005	176.81	8.23	168.58	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	4/14/2005	176.81	8.64	168.17	<200	<0.5	<0.5	<0.5	<1.0	<0.5
	7/7/2005	176.81	9.60	167.21	<200	<0.5	<2.0	<0.5	<1.0	<0.5
	11/15/2005	176.81	10.01	166.80	<50	<0.5	<2.0	<0.5	<1.0	5.1
	2/8/2006	176.81	8.80	168.01	<50	<0.5	<2.0	<0.5	<1.0	7.16
	4/27/2006	176.81	9.00	167.81	<50	<0.5	<2.0	<0.5	<1.0	14.2
	8/1/2006	176.81	9.91	166.90	<50	<0.5	<2.0	<0.5	<1.0	7.29
	10/19/2006	176.81	10.21	166.60	<50	<0.5	<2.0	<0.5	<1.0	41.4
	1/12/2007	176.81	9.73	167.08	<50	<0.5	<2.0	<0.5	<2.0	20.9
	4/17/2007	176.81	9.81	167.00	<50	<0.5	<2.0	<0.5	<2.0	32.1
	7/17/2007	176.81	10.06	166.75	<50	<0.5	<2.0	<0.5	<2.0	23.6
10/16/2007	176.81	9.54	167.27	<50	<0.5	<2.0	<0.5	<2.0	22.3	

**Table 3**  
**Historical Groundwater Elevations & Analytical Data**  
**TPH-g, BTEX, MtBE**  
**3519 Castro Valley Blvd, Castro Valley, CA**

Monitoring Well	Date	Top of casing elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
SOMA-3 cont.	1/17/2008	176.81	9.06	167.75	<50	<0.5	<2.0	<0.5	<2.0	11.1
	4/17/2008	176.81	9.57	167.24	<50	<0.5	<2.0	<0.5	<2.0	23.7
	7/16/2008	176.81	10.25	166.56	<50	<0.5	<2.0	<0.5	<2.0	10.6
	10/14/2008	176.81	10.76	166.05	<50	<0.5	<0.5	<0.5	<0.5	19
	1/6/2009	176.81	9.53	167.28	<50	<0.5	<0.5	<0.5	<0.5	1.1
	4/6/2009	176.81	9.65	167.16	<50	<0.5	<0.5	<0.5	<0.5	5.7
	<b>7/7/2009</b>	<b>176.81</b>	<b>10.19</b>	<b>166.62</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>6</b>
SOMA-4	8/10/2004	176.94	9.44	167.50	140	0.98	<0.5	7.8	<0.5	11
	10/19/2004	176.94	9.91	167.03	150	<0.5	<0.5	10	<0.5	8.8
	1/14/2005	176.94	8.36	168.58	500	3.7	<0.5	53	<0.5	7.6
	4/14/2005	176.94	7.89	169.05	<200	0.74	<0.5	3.21	<1.0	5.65
	7/7/2005	176.94	11.62	165.32	<200	<0.5	<2.0	0.56	<1.0	7.09
	11/15/2005	176.94	9.33	167.61	<50	<0.5	<2.0	<0.5	<1.0	8.6
	2/8/2006	176.94	9.18	167.76	55.8	<0.5	<2.0	0.85	<1.0	10.4
	4/27/2006	176.94	8.75	168.19	172	1.35	<2.0	8.83	<1.0	11.7
	8/1/2006	176.94	9.52	167.42	<50	0.52	<2.0	1.53	<1.0	14.1
	10/19/2006	176.94	9.51	167.43	<50	<0.5	<2.0	<0.5	<1.0	19.2
	1/12/2007	176.94	8.98	167.96	<50	<0.5	<2.0	<0.5	<2.0	20.4
	4/17/2007	176.94	8.96	167.98	<50	<0.5	<2.0	4.33	<2.0	15.8
	7/17/2007	176.94	9.31	167.63	<50	<0.5	<2.0	4.47	<2.0	13.3
	10/16/2007	176.94	8.96	167.98	<50	<0.5	<2.0	4.5	<2.0	8.57
	1/17/2008	176.94	8.84	168.10	<50	<0.5	<2.0	<0.5	<2.0	8.87
	4/17/2008	176.94	9.44	167.50	<50	<0.5	<2.0	<0.5	<2.0	1.22
	7/16/2008	176.94	9.52	167.42	<50	<0.5	<2.0	<0.5	<2.0	8.58
10/14/2008	176.94	9.98	166.96	<50	<0.5	<0.5	<0.5	<0.5	9.7	
	1/6/2009	176.94	9.29	167.65	<50	<0.5	<0.5	<0.5	<0.5	10
	4/6/2009	176.94	9.31	167.63	<50	<0.5	<0.5	<0.5	<0.5	5.3
	<b>7/7/2009</b>	<b>176.94</b>	<b>9.54</b>	<b>167.40</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>7</b>



**Table 3**  
**Historical Groundwater Elevations & Analytical Data**  
**TPH-g, BTEX, MtBE**  
**3519 Castro Valley Blvd, Castro Valley, CA**

Monitoring Well	Date	Top of casing elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
EB-PMP	1/17/2008	NA	NA	NA	<50	<0.5	<2.0	<0.5	<2.0	<0.5
EB-PRB	1/17/2008	NA	NA	NA	<50	<0.5	<2.0	<0.5	<2.0	<0.5
EB-PMP2	1/17/2008	NA	NA	NA	<50	<0.5	<2.0	<0.5	<2.0	<0.5
EB-PRB2	1/17/2008	NA	NA	NA	<50	<0.5	<2.0	<0.5	<2.0	<0.5

Notes:

< : Not detected above laboratory reporting limit.

<sup>1</sup> Top of Casing Elevations were resurveyed by Kier & Wright Engineers Surveyors of Pleasanton, CA on June 21, 2004.

C: Presence confirmed, but RPD between columns exceeds 40%.

H: Heavier hydrocarbons contributed to the quantitation.

NA: Not Applicable/Not Analyzed. Due to construction activities in the Third Quarter 2003, which consisted of the replacement of the USTs and dispensers, wells ESE-1 & ESE-2 were inaccessible. Well ESE-2 also inaccessible during the First Quarter 2007. Well MW-7 had a car parked over it and was inaccessible during the First Quarter 2008 monitoring event

NM: Not Measured

Well ESE-2 was covered over with dirt during the First Quarter 2007 monitoring event.

Well MW-7 had a car parked over it and was inaccessible during the First Quarter 2008 monitoring event.

Equipment Blanks (EB-PRB & EB-PMP) were done to make sure decon efforts were adequate.

Z: Sample exhibits unknown single peak or peaks.

The Third Quarter 2003 was the first time that SOMA analyzed groundwater samples at the site.

The Third Quarter 2004 was the first time that SOMA analyzed groundwater samples at wells SOMA-1 to SOMA-4.

**Table 4**  
**Historical Groundwater Analytical Data**  
**Gasoline Oxygenates & Lead Scavengers**  
**3519 Castro Valley Blvd, Castro Valley, CA**

<b>Monitoring Well</b>	<b>Date</b>	<b>TBA (µg/L)</b>	<b>DIPE (µg/L)</b>	<b>ETBE (µg/L)</b>	<b>TAME (µg/L)</b>	<b>ETHANOL (µg/L)</b>	<b>1,2-DCA (µg/L)</b>	<b>EDB (µg/L)</b>
<b>ESE-1</b>	6/17/2003	<400	<10	<10	18	NA	NA	NA
	9/17/2003	NA	NA	NA	NA	NA	NA	NA
	12/9/2003	290	<1.0	<1.0	9.5	<2,000	<1.0	<1.0
	2/26/2004	410	<0.5	<0.5	9.7	<1000	<0.5	<0.5
	5/21/2004	190	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	8/10/2004	180	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	10/19/2004	270	<0.7	<0.7	4.4	<1400	9.9	<0.7
	1/14/2005	280	<1.3	<1.3	<1.3	<2,500	<1.3	<1.3
	4/14/2005	144	<2.15	<2.15	<8.6	<4300	<2.15	<2.15
	7/7/2005	119	<2.15	<2.15	<8.6	<4300	<2.15	<2.15
	11/15/2005	107	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	2/8/2006	181	<2.15	<2.15	<8.6	<4300	<2.15	<2.15
	4/27/2006	261	<2.15	<2.15	<8.6	<4300	<2.15	<2.15
	8/1/2006	165	<1.0	<1.0	<4.0	<2000	<1.0	<1.0
	10/19/2006	154	<1.0	<1.0	<4.0	<2000	<1.0	<1.0
	1/12/2007	103	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	4/17/2007	80.5	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	7/17/2007	128	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	10/16/2007	98.7	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	1/17/2008	61.5	<0.5	<0.5	2.52	<1000	<0.5	<0.5
	4/17/2008	76.4	<0.5	<0.5	<2.0	<1000	59.2	<0.5
	7/16/2008	179	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	10/14/2008	87	<0.5	<0.5	2.6	<1000	<0.5	<0.5
1/6/2009	93	<1.0	<1.0	<1.0	<2000	<1.0	<1.0	
4/6/2009	130	<1.0	<1.0	<1.0	<2000	<1.0	<1.0	
<b>7/7/2009</b>	<b>100</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1,000</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	

**Table 4**  
**Historical Groundwater Analytical Data**  
**Gasoline Oxygenates & Lead Scavengers**  
**3519 Castro Valley Blvd, Castro Valley, CA**

Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	ETHANOL (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
<b>ESE-2</b>	6/17/2003	<4000	<100	<100	<100	NA	NA	NA
	9/17/2003	NA	NA	NA	NA	NA	NA	NA
	12/9/2003	500	<13	<13	77	<25,000	<13	<13
	2/26/2004	1200	<0.5	<0.5	92	<1000	<0.5	<0.5
	5/21/2004	2400	<10	<10	25	<20,000	<10	<10
	8/10/2004	2300	<2.5	<2.5	12	<5000	<2.5	<2.5
	10/19/2004	1800	<3.6	<3.6	8.6	<7100	<3.6	<3.6
	1/14/2005	470	<8.3	<8.3	28	<17,000	<8.3	<8.3
	4/14/2005	<10.8	<2.15	<2.15	17.9	<4300	<2.15	<2.15
	7/7/2005	109	<2.15	<2.15	9.7	<4300	<2.15	<2.15
	11/15/2005	64.7	<0.5	<0.5	3.43	<1000	<0.5	<0.5
	2/8/2006	46.4	<2.15	<2.15	11	<4300	<2.15	<2.15
	4/27/2006	47.7	<1.0	<1.0	8.29	<2000	<1.0	<1.0
	8/1/2006	20.6	<1.0	<1.0	4.67	<2000	<1.0	<1.0
	10/19/2006	28.9	<0.5	<0.5	4.55	<1000	<0.5	<0.5
	1/12/2007	NA	NA	NA	NA	NA	NA	NA
	4/17/2007	60.8	<0.5	<0.5	3.85	<1000	<0.5	<0.5
	7/17/2007	62.3	<0.5	<0.5	2.95	<1000	<0.5	<0.5
	10/16/2007	46	<0.5	<0.5	2.21	<1000	<0.5	<0.5
	1/17/2008	18.8	<0.5	<0.5	3.38	<1000	<0.5	<0.5
	4/17/2008	18.8	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	7/16/2008	9.95	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	10/14/2008	<10	<0.5	<0.5	0.85	<1000	<0.5	<0.5
1/6/2009	27	<0.5	<0.5	0.83	<1000	<0.5	<0.5	
4/6/2009	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5	
<b>7/7/2009</b>	<b>18</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>0.56</b>	<b>&lt;1,000</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>
<b>ESE-3</b>	6/17/2003	<200	<5.0	<5.0	<5.0	NA	NA	NA
<b>ESE-5</b>	9/17/2003	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	12/9/2003	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	2/26/2004	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	5/21/2004	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	8/10/2004	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	10/19/2004	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5

**Table 4**  
**Historical Groundwater Analytical Data**  
**Gasoline Oxygenates & Lead Scavengers**  
**3519 Castro Valley Blvd, Castro Valley, CA**

Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	ETHANOL (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
ESE-5 cont.	1/14/2005	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	4/14/2005	17	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	7/7/2005	<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	11/15/2005	<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	2/8/2006	<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	4/27/2006	<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	8/1/2006	<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	10/19/2006	<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	1/12/2007	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	4/17/2007	8.7	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	7/17/2007	15.4	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	10/16/2007	11.5	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	1/17/2008	17.2	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	4/17/2008	<2.0	<0.5	<0.5	<2.0	<1000	5.44	<0.5
	7/16/2008	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	10/14/2008	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	1/6/2009	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	4/6/2009	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	<b>7/7/2009</b>	<b>&lt;10</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1000</b>	<b>&lt;0.5</b>
MW-6	9/17/2003	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	12/9/2003	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	2/26/2004	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	5/21/2004	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	8/10/2004	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	10/19/2004	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	1/14/2005	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	4/14/2005	<2.5	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	7/7/2005	<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	11/15/2005	<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	2/8/2006	<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	4/27/2006	<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	8/1/2006	<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	10/19/2006	<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	1/12/2007	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	4/17/2007	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
7/17/2007	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
10/16/2007	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	

**Table 4**  
**Historical Groundwater Analytical Data**  
**Gasoline Oxygenates & Lead Scavengers**  
**3519 Castro Valley Blvd, Castro Valley, CA**

<b>Monitoring Well</b>	<b>Date</b>	<b>TBA (µg/L)</b>	<b>DIPE (µg/L)</b>	<b>ETBE (µg/L)</b>	<b>TAME (µg/L)</b>	<b>ETHANOL (µg/L)</b>	<b>1,2-DCA (µg/L)</b>	<b>EDB (µg/L)</b>
<b>MW-6 contd.</b>	1/17/2008	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	4/17/2008	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	7/16/2008	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	10/14/2008	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	1/6/2009	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	4/6/2009	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	<b>7/7/2009</b>	<b>&lt;10</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1000</b>	<b>&lt;0.5</b>
<b>MW-7</b>	9/17/2003	<10	<0.5	<0.5	9.8	<1000	<0.5	<0.5
	12/9/2003	<25	<1.3	<1.3	8.1	<2500	<1.3	<1.3
	2/26/2004	<10	<0.5	<0.5	9.9	<1000	<0.5	<0.5
	5/21/2004	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	8/10/2004	<25	<1.3	<1.3	19	<2500	<1.3	<1.3
	10/19/2004	<100	<5.0	<5.0	11	<10,000	<5.0	<5.0
	1/14/2005	<40	<2.0	<2.0	5.1	<4,000	<2.0	<2.0
	4/14/2005	2.62	<0.5	<0.5	4.57	<1000	<0.5	<0.5
	7/7/2005	55.6	<1.0	<1.0	10.2	<2000	<1.0	<1.0
	11/15/2005	10.6	<0.5	<0.5	2.07	<1000	<0.5	<0.5
	2/8/2006	<10	<0.5	<0.5	2.19	<1000	<0.5	<0.5
	4/27/2006	<10	<0.5	<0.5	2.63	<1000	<0.5	<0.5
	8/1/2006	<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	10/19/2006	<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	1/12/2007	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	4/17/2007	11.6	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	7/17/2007	13.3	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	10/16/2007	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	1/17/2008	NA	NA	NA	NA	NA	NA	NA
	4/17/2008	8.63	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	7/16/2008	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
	10/14/2008	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
1/6/2009	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5	
4/6/2009	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5	
<b>7/7/2009</b>	<b>&lt;10</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1000</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>
<b>SOMA-1</b>	8/10/2004	2300	<6.3	<6.3	53	<13000	<6.3	<6.3
	10/19/2004	2400	<13	<13	36	<25,000	<13	<13
	1/14/2005	530	<3.1	<3.1	7.1	<6,300	<3.1	<3.1
	4/14/2005	<27.5	<5.5	<5.5	<22	<11000	<5.5	<5.5
	7/7/2005	2180	<2.15	<2.15	12.9	<4300	<2.15	<2.15
	11/15/2005	792	<0.5	<0.5	5.01	<1000	<0.5	<0.5

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**Historical Groundwater Analytical Data**  
**Gasoline Oxygenates & Lead Scavengers**  
**3519 Castro Valley Blvd, Castro Valley, CA**

<b>Monitoring Well</b>	<b>Date</b>	<b>TBA (µg/L)</b>	<b>DIPE (µg/L)</b>	<b>ETBE (µg/L)</b>	<b>TAME (µg/L)</b>	<b>ETHANOL (µg/L)</b>	<b>1,2-DCA (µg/L)</b>	<b>EDB (µg/L)</b>	
<b>SOMA-1 contd.</b>	2/8/2006	618	<0.5	<0.5	3.67	<1000	<0.5	<0.5	
	4/27/2006	983	<0.5	<0.5	3.48	<1000	<0.5	<0.5	
	8/1/2006	639	<0.5	<0.5	2.27	<1000	<0.5	<0.5	
	10/19/2006	603	<0.5	<0.5	2.25	<1000	<0.5	<0.5	
	1/12/2007	396	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
	4/17/2007	148	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
	7/17/2007	555	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
	10/16/2007	65	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
	1/17/2008	29.6	<0.5	<0.5	2.06	<1000	<0.5	<0.5	
	4/17/2008	339	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
	7/16/2008	264	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
	10/14/2008	250	<0.5	<0.5	<0.5	<1000	<0.5	<0.5	
	1/6/2009	180	<0.5	<0.5	<0.5	<1000	<0.5	<0.5	
	4/6/2009	120	<0.5	<0.5	<0.5	<1000	<0.5	<0.5	
	<b>7/7/2009</b>	<b>250</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1000</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>
	<b>SOMA-2</b>	8/10/2004	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
10/19/2004		<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5	
1/14/2005		<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5	
4/14/2005		<2.5	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
7/7/2005		<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
11/15/2005		<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
2/8/2006		<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
4/27/2006		<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
8/1/2006		<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
10/19/2006		<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
1/12/2007		<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
4/17/2007		14.6	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
7/17/2007		2.58	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
10/16/2007		<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
1/17/2008		<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
4/17/2008		<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
7/16/2008	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5		
10/14/2008	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5		
1/6/2009	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5		
4/6/2009	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5		
<b>7/7/2009</b>	<b>&lt;10</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1000</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	
<b>SOMA-3</b>	8/10/2004	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5	
	10/19/2004	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	

**Table 4**  
**Historical Groundwater Analytical Data**  
**Gasoline Oxygenates & Lead Scavengers**  
**3519 Castro Valley Blvd, Castro Valley, CA**

Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	ETHANOL (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	
<b>SOMA-3 contd.</b>	1/14/2005	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
	4/14/2005	<2.5	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
	7/7/2005	<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
	11/15/2005	<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
	2/8/2006	<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
	4/27/2006	<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
	8/1/2006	<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
	10/19/2006	<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
	1/12/2007	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
	4/17/2007	6.72	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
	7/17/2007	7.6	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
	10/16/2007	9.96	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
	1/17/2008	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
	4/17/2008	6.05	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
	7/16/2008	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
	10/14/2008	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5	
	1/6/2009	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5	
	4/6/2009	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5	
	<b>7/7/2009</b>	<b>&lt;10</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1000</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>
	<b>SOMA-4</b>	8/10/2004	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
10/19/2004		<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
1/14/2005		<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5	
4/14/2005		<2.5	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
7/7/2005		<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
11/15/2005		<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
2/8/2006		<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
4/27/2006		<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
8/1/2006		<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
10/19/2006		<10	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
1/12/2007		<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
4/17/2007		3.98	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
7/17/2007		6.31	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
10/16/2007		<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
1/17/2008		<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
4/17/2008		<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
7/16/2008		<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5	
10/14/2008		<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5	
1/6/2009		<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5	
4/6/2009		<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5	
<b>7/7/2009</b>	<b>&lt;10</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1000</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	

**Table 4**  
**Historical Groundwater Analytical Data**  
**Gasoline Oxygenates & Lead Scavengers**  
**3519 Castro Valley Blvd, Castro Valley, CA**

Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	ETHANOL (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
EB-PMP	1/17/2008	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
EB-PRB	1/17/2008	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
EB-PMP2	1/17/2008	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5
EB-PRB2	1/17/2008	<2.0	<0.5	<0.5	<2.0	<1000	<0.5	<0.5

Notes:

< : Not detected above laboratory reporting limit.

NA: Not Analyzed. Due to construction activities in the Third Quarter 2003, which consisted of the replacement of the USTs and dispensers, wells ESE-1 & ESE-2 were inaccessible. Well ESE-2 was inaccessible during the First Quarter 2007, dirt was covered over well. Well MW-7 had a car parked over it and was inaccessible during the First Quarter 2008 monitoring event. The Third Quarter 2003 was the first time that SOMA analyzed groundwater samples at the Site.

The Third Quarter 2004 was the first time that SOMA analyzed groundwater samples at wells SOMA-1 to SOMA-4.

Gasoline Oxygenates:

TBA: tertiary butyl alcohol

DIPE: isopropyl ether

ETBE: ethyl tertiary butyl ether

TAME: methyl tertiary amyl ether

Ethanol

Lead Scavengers:

1,2-DCA: 1,2-Dichloroethane

EDB: 1,2-Dibromoethane



# **APPENDIX A**

## **Site History and Previous Remediation Activities**

## Violation History

A Notice of Violation (NOV) was issued in June 1991 due to non-compliance issues at the station; a second NOV was issued in October 1991. An Unauthorized Release was detected during the 1992 Preliminary Site Assessment. A second Unauthorized Release was reported in May 2000, due to a leaking shear valve on piping in the former UST pit. The site underwent remodeling in December 2003, when the former UST pit was excavated and four USTs were removed. Soils were over excavated to 12 feet bgs; the shallow soil (top 5 feet) was reused to backfill the new UST pit, after confirmation sampling determined that no chemicals of potential concern (COCs) were present. The remaining soil and purge water were transported off-site for disposal. The upgraded gasoline USTs, with capacities of 12,000 gallons and 20,000 gallons, as well as new piping and distribution lines, were installed during remodeling. A former dispenser island (and possible source of on-site contamination) was located along the western side of the site and was removed sometime prior to the 1995 Phase II Site Investigation (BP).

## Previous Activities

1984: Three single-walled fiberglass underground storage tanks (USTs) with capacities of 6,000 gallons, 8,000 gallons, and 10,000 gallons, were installed in the southeastern portion of the site. A former dispenser island reportedly existed on the west side of the site; however, there was no available information about the dispenser removal date.

1988: A 1,000-gallon, double-walled, fiberglass waste oil tank (WOT) was installed to replace the previous 380-gallon WOT. In September, Kaprealian Engineering, Inc. removed the original 380-gallon WOT and observed holes in this UST. As a result, confirmation soil samples were collected from the bottom of the excavation. The following analytical soil results were observed: benzene and toluene were detected at 6.8 µg/kg and 9.5 µg/kg, respectively; total petroleum hydrocarbons (TPH) and total oil and grease (TOG) constituents were not detected.

September and October 1992: Environmental Science & Engineering, Inc. (ESE) drilled five soil boreholes and converted them into monitoring wells (ESE-1 through ESE-5). Soil and groundwater samples were collected during well installation. In the soil samples, the maximum level of soil contamination was detected in monitoring well borehole ESE-5 at 220,000 µg/kg TPH as gasoline (TPH-g); 1,400 µg/kg benzene; 8,200 µg/kg toluene; 3,300 µg/kg ethylbenzene; and 18,000 µg/kg xylenes. In the groundwater samples collected from ESE-1, maximum concentrations were TPH-g at 2,300 µg/L; benzene at 370 µg/L; toluene at 160 µg/L; ethylbenzene at 17 µg/L; and xylenes at 110 µg/L.

July 1995: Three additional monitoring wells were installed: two on-site wells, MW-6 and MW-8, and one off-site well, MW-7.

April 1996: Well MW-8, located on the western margin of the site, was decommissioned to accommodate the road-widening project along Redwood Boulevard.

August 20, 2003: Prior to UST removal, SOMA oversaw drilling of two boreholes by Vironex. The boreholes were drilled in order to characterize the soil for landfill acceptance criteria.

September 2003: Three single-walled, fiberglass USTs, with capacities of 6,000 gallons, 8,000 gallons, and 10,000 gallons, were removed and replaced with two new double-walled, fiberglass USTs with capacities of 12,000 gallons and 20,000 gallons. In addition, the dispensers, product lines, and vent lines were removed and replaced. Soil below 5 feet bgs was disposed of off-site. Shallow soil was used as backfill material for the former UST pit after confirmation.

Third Quarter 2003: Two monitoring wells, ESE-3 and ESE-4, were decommissioned due to construction activities.

Fourth Quarter 2003: In December, SOMA oversaw drilling of off-site temporary well boreholes TWB-1 through TWB-5 to determine the horizontal extent of off-site petroleum hydrocarbon contamination.

June 2004: On June 10, SOMA installed on- and off-site monitoring wells: SOMA-1 in the southeastern section of the site, and SOMA-2 to SOMA-4 south and southeast of the site. Kier and Wright Engineers Surveyors, of Pleasanton, California, surveyed all site wells on June 21.

August 2006: SOMA conducted a sensitive receptor survey and it was concluded that no irrigation or domestic wells, and no sensitive groups or environments, evaluated during this sensitive receptor survey and located within ½-mile radius have the potential to be impacted by the site's contaminants at this time

Third Quarter 1993 to Present: On-going quarterly groundwater monitoring events have been conducted at the site.

September 2008: Shell Oil conducted a Phase II investigation. Elevated TPH-g concentrations 900 µg/L in groundwater and 720 mg/kg in soil were observed in the borings. Based on these elevated readings, Shell Oil filed a UST Unauthorized Release Report with Alameda County Environmental Health on September 24, 2008.

February 2009: Per ACEHD correspondence dated January 8, 2009, SOMA prepared a Site Conceptual Model and workplan to address data gaps at the site. SOMA proposed advancing soil borings to further define the lateral and horizontal extent of COC impact to vadose zone and the WBZ (up to 31 feet bgs). Per the ACEHD correspondence dated March 27, 2009, SOMA submitted

a workplan addendum which was approved by the ACEHD on July 10, 2009 which reduced the number of DP borings from 9 to 7 and proposed the advancement of a shallow groundwater monitoring well within the vadose zone (screened across the potentiometric surface) to determine the appropriateness of the screening interval for existing wells at the site.

# **APPENDIX B**

## **Well Permits, Site Access Agreement, and General Field Procedures**

# Alameda County Public Works Agency - Water Resources Well Permit



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

**Application Approved on: 08/03/2009 By jamesy**

**Permit Numbers: W2009-0700 to W2009-0701**  
**Permits Valid from 08/17/2009 to 08/21/2009**

**Application Id:** 1248304479791  
**Site Location:** 3519 Castro Valley Blvd,

**City of Project Site:**Castro Valley

**Project Start Date:** 08/17/2009  
**Assigned Inspector:** Contact John Shouldice at (510) 670-5424 or johns@acpwa.org

**Completion Date:**08/21/2009

**Applicant:** SOMA Environmental Engineering - Elena Manzo  
6620 Owens Drive, Suite A, Pleasanton, CA 94550  
**Property Owner:** Mirazim Shakoori  
4313 Mansfield Drive, Danville, CA 94506  
**Client:** \*\* same as Property Owner \*\*

**Phone:** 925-734-6400

**Phone:** --

<b>Receipt Number: WR2009-0290</b>	<b>Total Due:</b>	\$662.00
<b>Payer Name : Mansour Sepehr</b>	<b>Total Amount Paid:</b>	\$662.00
	<b>Paid By: CHECK</b>	<b>PAID IN FULL</b>

**Works Requesting Permits:**

Borehole(s) for Investigation-Contamination Study - 7 Boreholes  
Driller: Gregg Drilling - Lic #: 485165 - Method: DP

**Work Total: \$265.00**

**Specifications**

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2009-0700	08/03/2009	11/15/2009	7	2.00 in.	35.00 ft

**Specific Work Permit Conditions**

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

## Alameda County Public Works Agency - Water Resources Well Permit

5. Applicant shall contact John Shouldice for an inspection time at 510-670-5424 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
6. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
7. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
8. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

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### Well Construction-Monitoring-Monitoring - 1 Wells

Driller: Gregg Drilling - Lic #: 485165 - Method: hstem

**Work Total: \$397.00**

#### Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2009-0701	08/03/2009	11/15/2009	SOMA-5	8.00 in.	2.00 in.	4.00 ft	15.00 ft

#### Specific Work Permit Conditions

1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
2. Permitte, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.
3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.

## **Alameda County Public Works Agency - Water Resources Well Permit**

5. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.
  6. Applicant shall contact John Shouldice for an inspection time at 510-670-5424 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
  7. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.
  8. Minimum surface seal thickness is two inches of cement grout placed by tremie
  9. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.
  10. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
-



# PROGRAMS AND SERVICES

## Well Standards Program

The Alameda County Public Works Agency, Water Resources is located at:

399 Elmhurst Street

Hayward, CA 94544

For Driving Directions or General Info, Please Contact 510-670-5480 or wells@acpwa.org

For Drilling Permit information and process contact James Yoo at

Phone: 510-670-6633

FAX: 510-782-1939

Email: [Jamesy@acpwa.org](mailto:Jamesy@acpwa.org)

Alameda County Public Works is the administering agency of General Ordinance Code, Chapter 6.88 . The purpose of this chapter is to provide for the regulation of groundwater wells and exploratory holes as required by California Water Code. The provisions of these laws are administered and enforced by Alameda County Public Works Agency through its Well Standards Program.

**Drilling Permit Jurisdictions in Alameda County:** There are four jurisdictions in Alameda County.

### Location: Agency with Jurisdiction Contact Number

Berkeley City of Berkeley Ph: 510-981-7460

Fax: 510-540-5672

Fremont, Newark, Union City Alameda County Water District Ph: 510-668-4460

Fax: 510-651-1760

Pleasanton, Dublin, Livermore, Sunol Zone 7 Water Agency Ph: 925-454-5000

Fax: 510-454-5728

The Alameda County Public Works Agency, Water Resources has the responsibility and authority to issue drilling permits and to enforce the County Water Well Ordinance 73-68. This jurisdiction covers the western Alameda County area of **Oakland, Alameda, Piedmont, Emeryville, Albany, San Leandro, San Lorenzo, Castro Valley, and Hayward** . The purpose of the drilling permits are to ensure that any new well or the destruction of wells, including geotechnical investigations and environmental sampling within the above jurisdiction and within Alameda County will not cause pollution or contamination of ground water or otherwise jeopardize the health, safety or welfare of the people of Alameda County.

**Permits** are required for all work pertaining to wells and exploratory holes at any depth within the jurisdiction of the Well Standards Program. A completed permit application (30 Kb)\* , along with a site map, should be submitted at least **ten (10) working days prior to the planned start of work**. Submittals should be sent to the address or fax number provided on the application form. When submitting an application via fax, please use a high resolution scan to retain legibility.

### Fees

**Beginning April 11, 2005** , the following fees shall apply:

A permit to construct, rehabilitate, or destroy wells, including cathodic protection wells, but excluding dewatering wells (\*Horizontal hillside dewatering and dewatering for construction period only), shall cost \$300.00 per well.

A permit to bore exploratory holes, including temporary test wells, shall cost \$200 per site. A site includes the project parcel as well as any adjoining parcels.

Please make checks payable to: **Treasurer, County of Alameda**

### Permit Fees are exempt to State & Federal Projects

Applicants shall submit a letter from the agency requesting the fee exemption.

**Scheduling Work/Inspections:**

Alameda County Public Works Agency (ACPWA), Water Resources Section requires scheduling and inspection of permitted work. All drilling activities must be scheduled in advance. Availability of inspections will vary from week to week and will come on a first come, first served bases. To ensure inspection availability on your desired or driller scheduled date, the following procedures are required:

Please contact **James Yoo at 510-670-6633** to schedule the inspection date and time (You must have drilling permit approved prior to scheduling).

Schedule the work as far in advance as possible (at least 5 days in advance); and confirm the scheduled drilling date(s) at least 24 hours prior to drilling.

Once the work has been scheduled, an ACPWA Inspector will coordinate the inspection requirements as well as how the Inspector can be reached if they are not at the site when inspection is required. Expect for special circumstances given, all work will require the inspection to be conducted during the working hours of 8:30am to 2:30pm., Monday to Friday, excluding holidays.

**Request for Permit Extension:**

Permits are only valid from the start date to the completion date as stated on the drilling permit application and Conditions of Approval. To request an extension of a drilling permit application, applicants must request in writing prior to the completion date as set forth in the Conditions of Approval of the drilling permit application. Please send fax or email to Water Resources Section, Fax 510-782-1939 or email at wells@acpwa.org. There are no additional fees for permit extensions or for re-scheduling inspection dates. You may not extend your drilling permit dates beyond 90 days from the approval date of the permit application. **NO refunds** shall be given back after 90 days and the permit shall be deemed voided.

**Cancel a Drilling Permit:**

Applicants may cancel a drilling permit only in writing by mail, fax or email to Water Resources Section, Fax 510-782-1939 or email at wells@acpwa.org. If you do not cancel your drilling permit application before the drilling completion date or notify in writing within 90 days, Alameda County Public Works Agency, Water Resources Section may void the permit and No refunds may be given back.

**Refunds/Service Charge:**

A service charge of \$25.00 dollars for the first check returned and \$35.00 dollars for each subsequent check returned.

Applicants who cancel a drilling permit application **before** we issue the approved permit(s), will receive a **FULL** refund (at any amount) and will be mailed back within two weeks.

Applicants who cancel a drilling permit application **after** a permit has been issued will then be charged a service fee of \$50.00 (fifty Dollars).

To collect the remaining funds will be determined by the amount of the refund to be refunded (see process below).

Board of Supervisors Minute Order, File No. 9763, dated January 9, 1996, gives blanket authority to the Auditor-Controller to process claims, from all County departments for the refund of fees which do not exceed \$500 (Five Hundred Dollars)(with the exception of the County Clerk whose limit is \$1,500).

Refunds over the amounts must be authorized by the Board of Supervisors Minute Order, File No. 9763 require specific approval by the Board of Supervisors. The forms to request for refunds under \$500.00 (Five Hundred Dollars) are available at this office or any County Offices. If the amount is exceeded, a Board letter and Minute Order must accompany the claim. Applicant shall fill out the request form and the County Fiscal department will process the request.

**Enforcement**

Penalty. Any person who does any work for which a permit is required by this chapter and who fails to obtain a permit shall be guilty of a misdemeanor punishable by fine not exceeding Five Hundred Dollars (\$500.00) or by imprisonment not exceeding six months, or by both such fine and imprisonment, and such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any such

violation is committed, continued, or permitted, and shall be subject to the same punishment as for the original offense. (Prior gen. code §3-160.6)

**Enforcement actions will be determined by this office on a case-by-case basis**

Drilling without a permit shall be the cost of the permit(s) and a fine of \$500.00 (Five Hundred Dollars).

**Well Completion Reports** (State DWR-188 forms) must be filed with the Well Standards Program within 60 days of completing work. Staff will review the report, assign a state well number, and then forward it to the California Department of Water Resources (DWR). Drillers should not send completed reports to DWR directly. Failure to file a Well Completion Report or deliberate falsification of the information is a misdemeanor; it is also grounds for disciplinary action by the Contractors' State License Board. Also note that filed Well Completion Reports are considered private record protected by state law and can only be released to the well owner or those specifically authorized by government agencies.

See our website ([www.acgov.org/pwa/wells/index.shtml](http://www.acgov.org/pwa/wells/index.shtml)) for links to additional forms.



**ENVIRONMENTAL ENGINEERING, INC.**  
6620 Owens Drive, Suite A • Pleasanton, CA 94588  
TEL (925)734-6400 • FAX (925)734-6401  
www.somaenv.com


**Property Access Agreement**

**20860 Redwood Rd,  
Castro Valley, CA  
(Valley Business Center)**

The purpose of this Agreement is to allow SOMA Environmental Engineering, Inc, and their authorized representatives, contractors and subcontractors, to enter the Owner's property described above to perform subsurface sampling as well as other field investigation activities.


*OWNERS SHALL NOT BE HELD LIABLE FOR ANY INJURY AND OR DAMAGES.*

This signed Access Agreement was executed on July 29, 2009.

<u>ANTHONY CHAN</u>	<u></u>	<u>7/31/09</u>
Name	Signature	Date

*Acknowledged by:*

**SOMA Environmental Engineering, Inc.**

Dated: <u>7/29/09</u>	<u></u>
	Mansour Sepehr Principal Hydrogeologist

# Hydraulic Push (GEOPROBE) Drilling

## *Utility Locating*

Prior to drilling, boring locations are marked with white paint or other discernible marking and cleared for underground utilities through Underground Service Alert (USA). In addition, the first five feet of each borehole are air-knifed, or carefully advanced with a hand auger if shallow soil samples are necessary, to help evaluate the borehole location for underground structures or utilities.

## *Borehole Advancement*

Pre-cleaned push rods (typically one to two inches in diameter) are advanced using a hydraulic push type rig for the purpose of collecting samples and evaluating subsurface conditions. The drill rod serves as a soil sampler, and an acetate liner is inserted into the annulus of the drill rod prior to advancement. Once the sample is collected, the rods and sampler are retracted and the sample tubes are removed from the sampler head. The sampler head is then cleaned, filled with clean sample tubes, inserted into the borehole and advanced to the next sampling point where the sample collection process is repeated.

## *Soil Sample Collection*

The undisturbed soil samples intended for laboratory analysis are cut away from the acetate sample liner using a hacksaw, or equivalent tool, in sections approximately 6 inches in length. The 6 inch samples are lined at each end with Teflon® sheets and capped with plastic caps. Labels documenting job number, borehole identification, collection date, and depth are affixed to each sample. The samples are then placed into an ice-filled cooler for delivery under chain-of-custody to a laboratory certified by the State of California to perform the specified tests. The remaining collected soil that has not been selected for laboratory analysis is logged using the United Soil Classification System (USCS) under the direction of a State Registered Professional Geologist, and is field screened for organic vapors using a photo-ionization detector (PID), or an equivalent tool. Soil cuttings generated are stored in Department of Transportation (DOT) approved 55-gallon steel drums, or an equivalent storage container.

## *Groundwater Sample Collection*

Once the desired groundwater sampling depth has been reached, a Hydropunch tip is affixed to the head of the sampling rods. The Hydropunch tip is advanced between approximately 6 inches to one foot within the desired groundwater sampling zone (effort is made to emplace the Hydropunch screen across the center and lower portion of the water table), and retracted to expose the Hydropunch screen.

Grab groundwater samples are collected by lowering a pre-cleaned, single-sample polypropylene, disposable bailer down the annulus of the sampler rod. The groundwater sample is discharged from the bailer to the sample container through a bottom emptying flow control valve to minimize volatilization.

Because the sampling section of the non-discrete groundwater sampler is not protected or sealed, this sampler should only be used where cross contamination from overlying materials is not a concern. Discrete groundwater samplers are driven to the sample interval, then o-rings, a protective tube/sheath, and an expendable point provide a water-tight seal.

Collected water samples are discharged directly into laboratory-provided, pre-cleaned vials or

containers and sealed with Teflon-lined septum, screw-on lids. Labels documenting sample number, well identification, collection date, and type of preservative (if applicable, e.g., HCl for TPPH, BTEX, and fuel oxygenates) are affixed to each sample. The samples are then placed into an ice-filled cooler for delivery under chain-of-custody to a laboratory certified by the State of California to perform the specified tests.

#### *Borehole Completion*

Upon completion of drilling and sampling, the rods are retracted. Neat cement grout, mixed at a ratio of 6 gallons of water per 94 pounds of Portland cement, is introduced, *via* a tremmie pipe, and pumped to displace standing water in the borehole. Displaced groundwater is collected at the surface into DOT approved 55-gallon steel drums, or an equivalent storage container. In areas where the borehole penetrates asphalt or concrete, the borehole is capped with an equivalent thickness of asphalt or concrete patch to match finished grade.

#### **Organic Vapor Procedures**

Soil samples are collected for analysis in the field for ionizable organic compounds using a PID with a 10.2 eV lamp. The test procedure *involves* measuring approximately 30 grams from an undisturbed soil sample, placing this subsample in a Ziploc-type bag or in a clean glass jar, and sealing the jar with aluminum foil secured under a ring-type threaded lid. The container is warmed for approximately 20 minutes (in the sun); then the head-space within the container is tested for total organic *vapor*, measured in parts per million as benzene (ppm; volume/volume). The instrument is calibrated prior to drilling. The results of the field-testing are noted on the boring logs. PID readings are useful for indicating relative levels of contamination, but cannot be used to evaluate petroleum hydrocarbon levels with the confidence of laboratory analyses.

#### **Equipment Decontamination**

Equipment that could potentially contact subsurface media and compromise the integrity of the samples is carefully decontaminated prior to drilling and sampling. Drill augers and other large pieces of equipment are decontaminated using high pressure hot water spray. Samplers, groundwater pumps, liners and other equipment are decontaminated in an Alconox scrub solution and double rinsed in clean tap water rinse followed by a final distilled water rinse.

The rinsate and other wastewater are contained in 55-gallon DOT-approved drums, labeled (to identify the contents, generation date and project) and stored on-site pending waste profiling and disposal.

#### **Soil Cuttings and Rinsate/Purge Water**

Soil cuttings and rinsate/purge water generated during drilling and sampling are stored onsite in DOT-approved 55-gallon steel drums pending characterization. A label is affixed to the drums indicating the contents of the drum, suspected contaminants, date of generation, and the boring number from which the waste is generated. The drums are removed from the site by a licensed waste disposal contractor under manifest to an appropriate facility for treatment/recycling.

## **Hollow Stem Auger Drilling/Monitoring Well Installation**

#### *Utility Locating*

Prior to drilling, boring locations are marked with white paint or other discernible marking, and

cleared for underground utilities through Underground Service Alert (USA). In addition, the first five feet of each borehole are air-knifed, or carefully advanced with a hand auger if shallow soil samples are necessary, to help evaluate the presence of underground structures or utilities.

#### *Borehole Advancement*

Pre-cleaned hollow stem augers (typically 8 to 10 inches in diameter) are advanced using a drill rig for the purpose of collecting samples and evaluating subsurface conditions. Upon completion of drilling and sampling, if no well is to be constructed, the augers are retracted, and the borehole is filled with neat cement grout, mixed at a ratio of 6 gallons of water per 94 pounds of Portland cement, through a tremmie pipe to displace standing water in the borehole. In areas where the borehole penetrates asphalt or concrete, the borehole is capped with an equivalent thickness of asphalt or concrete patch to match finish grade.

During the drilling process, a physical description of the encountered soil characteristics (i.e. moisture content, consistency or density, odor, color, and plasticity), drilling difficulty, and soil type as a function of depth are described on boring logs. The soil cuttings are classified in accordance with the uses.

#### *Split-Spoon Sampling*

The precleaned split spoon sampler lined with three 6-inch long brass or stainless steel tubes is driven 18 inches into the underlying soils at the desired sample depth interval. The sampler is driven by repeatedly dropping a 140-pound hammer a free fall distance of 30 inches. The number of blows (blow count) to advance the sampler for each six-inch drive length is recorded on the field logs. Once the sampler is driven the 18-inch drive length or the sampler has met refusal (typically 50 blows per six inches), the sampler is retrieved.

Of the three sample tubes, the bottom sample is generally selected for laboratory analysis. The sample is carefully packaged for chemical analysis by capping each end of the sample with a Teflon sheet followed by a tight-fitting plastic cap, and sealing the cap with nonvolatile organic compound (VOC), self-adhering silicon tape. A label is affixed to the sample indicating the sample identification number, borehole number, sampling depth, sample collection date and time, and job number. The sample is then annotated on a chain-of custody form and placed in an ice-filled cooler for transport to the laboratory.

The remaining soil samples are used for soil classification and field evaluation of headspace volatile organic vapors, where applicable, using a photo ionization or flame ionization detector calibrated to a calibration gas (typically isobutylene or hexane). VOC vapor concentrations are recorded on the boring logs.

#### *Grab Groundwater Sample Collection*

Grab groundwater samples are collected by lowering a pre-cleaned, single-sample polypropylene, disposable bailer down the borehole or temporary casing. The groundwater sample is discharged from the bailer to the sample container through a bottom emptying flow control valve to minimize volatilization.

Collected water samples are discharged directly into laboratory provided, pre-cleaned, vials or containers and sealed with Teflon-lined septum, screw-on lids. Labels documenting sample number, well identification, collection date and time, type of sample and type of preservative (if applicable, i.e. HCl for TPPH, BTEX, and fuel oxygenates) are affixed to each sample. The samples are then placed into an ice-filled cooler for delivery under chain-of-custody to a laboratory certified by the State of California to perform the specified tests.

## *Groundwater Monitoring Well Installation and Development*

Groundwater monitoring wells are constructed by inserting or tremmieing well materials through the annulus of the hollow stem auger. The groundwater monitoring wells are constructed with a screen interval determined from the encountered soil stratigraphy, to maintain a proper seal at the surface (minimum three feet), to allow flow from permeable zones into the well, and to avoid penetrating aquicludes. Groundwater wells are installed in accordance with the conditions of the well construction permit issued by the regulatory agency exercising jurisdiction over the project site.

The well screen generally consists of schedule 40 polyvinyl chloride (PVC) casing with 0.01 to 0.02-inch factory slots. As a general rule, 0.01-inch slots are used in fine-grained silts and clays, and 0.02-inch slots are used in coarse-grained materials. The screen is then filter packed with #2/12 or #3 sand, or equivalent, for the 0.01 and 0.02 inch slots, respectively.

Once the borehole has been drilled to the desired depth, the well screen and blank well casing are inserted through the annulus of the hollow stem augers. The well screen is sand packed by tremmieing the appropriate filter sand through the annulus between the casing and augers while slowly retracting the augers. During this operation, the depth of the sand pack in the auger is continuously sounded to make sure that the sand remains in the auger annulus during auger retraction to avoid short-circuiting the well. The sand pack is tremmied to approximately two feet above the screen, at which time pre-development surging is performed to consolidate the sand pack. Additional sand is added as necessary so that the sand pack extends approximately two feet above top of screen. Following construction of the sand pack, a one to two foot thick bentonite seal is tremmied over the sand and hydrated in place. The remainder of the borehole is backfilled with Portland neat cement grout (or the equivalent), mixed at ratio of 6 gallons of water per 94 pounds of neat cement. The well head is then capped with a locking cap and secured with a lock to protect the well from surface water intrusion and vandalism.

The well head is further protected from damage with traffic a rated well box in paved areas or locking steel riser in undeveloped areas. The protective boxes or risers are set in concrete. The details of well construction are recorded on well construction logs.

Following well construction, the wells are developed in accordance with agency protocols by intermittently surging and bailing the wells. Development is determined to be sufficient once pH, conductivity, and temperature stabilize to within s 0.1, s 3%, and s 10%, respectively.

### **Groundwater Monitoring Well Sampling**

#### *Depth to Groundwater/SPH Thickness Measurements*

Prior to the beginning of purging and sampling the wells, the depth to groundwater and thickness of SPH, if present, within each well casing are measured to the nearest 0.01 foot using either an electronic water level indicator or an electronic oil-water interface probe. This is done in within a narrow a time frame as possible, and before the first well is purged. Measurements are taken from a point of known elevation on the top of each well casing as determined in accordance with surveys by licensed land surveyors.

#### *Groundwater Monitoring Well Purging*

Groundwater wells are purged using low-flow protocol at a flow rate of less the 1 liter per minute using a bladder pump. The purge intake is placed opposite the portion of the saturated zone expected to contain the greatest hydrocarbon impact, and the depth of the purge intake is recorded during and after purging. The water level in each well is monitored, and care is taken that the well is not dewatered. The conductivity, temperature, and pH of the delivered effluent



are monitored and recorded using a flow-through cell during purge operations. Purge operations are determined to be sufficient once three successive measurements of pH, conductivity, and temperature of the purged water at 3 to 5 minute intervals following the evacuation of on system or line volume vary by  $\pm 0.1$ ,  $\pm 3\%$ , and  $\pm 10\%$ , respectively. System or line volumes, actual purge volumes, and the purging equipment used are recorded on the field data sheets.

#### *Groundwater Sample Acquisition, Handling, and Analysis*

Following purging operations, groundwater samples are collected from each of the wells, using a low-flow bladder pump. The groundwater sample is discharged from the pump tubing to the sample container before the water passes through the flow-through cell. The sampling equipment is recorded on the field data sheets.

Collected water samples are discharged directly into laboratory provided, pre-cleaned, and chemically preserved sample containers for the analyses requested. Preservatives are used in the samples if appropriate for the analyses, i.e., hydrochloric acid (HCl) for TPPH, BTEX, and fuel oxygenates by EPA Method 8260B.

Labels documenting sample number, well identification, collection date and time, type of sample and type of preservative (if applicable) are affixed to each sample. The samples are then placed into an ice-filled cooler for delivery under chain of custody to a certified laboratory. The type of preservative used is documented on the chain of custody form.

To help assure the quality of the collected samples and to evaluate the potential for cross contamination during transport to the laboratory, a distilled-water trip blank accompanies the samples in the cooler. The trip blank is analyzed for the presence of volatile organic compounds of concern. For petroleum hydrocarbons, the trip blank is typically analyzed for TPPH, BTEX, and fuel oxygenates by EPA Method 8260.

#### **Organic Vapor Procedures**

Soil samples are collected for analysis in the field for ionizable organic compounds using a PID with a 10.2 eV lamp. The test procedure involves measuring approximately 30 grams from an undisturbed soil sample, placing this subsample in a Ziploc™-type bag or in a clean glass jar, and sealing the jar with aluminum foil secured under a ring-type threaded lid. The container is warmed for approximately 20 minutes (in the sun); then the head-space within the container is tested for total organic vapor, measured in parts per million as benzene (ppm; volume/volume). The instrument is calibrated prior to drilling. The results of the field-testing are noted on the boring logs. PID readings are useful for indicating relative levels of contamination, but cannot be used to evaluate petroleum hydrocarbon levels with the confidence of laboratory analyses.

#### **Equipment Decontamination**

Equipment that could potentially contact subsurface media and compromise the integrity of the samples is carefully decontaminated prior to drilling and sampling. Drill augers and other large pieces of equipment are decontaminated using high pressure hot water spray. Samplers, groundwater pumps, liners and other equipment are decontaminated in an Alconox scrub solution and double rinsed in clean tap water rinse followed by a final distilled water rinse.

The rinsate and other wastewater are contained in 55-gallon DOT-approved drums, labeled (to identify the contents, generation date and project) and stored on-site pending waste

profiling and disposal.

### **Soil Cuttings and Rinsate/Purge Water**

Soil cuttings and rinsate/purge water generated during drilling and sampling are stored on-site in DOT-approved 55-gallon steel drums pending characterization. A label is affixed to the drums indicating the contents of the drum, suspected contaminants, date of generation, and the boring number from which the waste is generated. A licensed waste disposal contractor removes the drums from the site to an appropriate facility for treatment/recycling.

# **APPENDIX C**

## **Boring Logs**



PROJECT: 2762

DATE DRILLED: 8/18/2009

SITE LOCATION: 3519 Castro Valley Blvd.  
Castro Valley

CASING ELEVATION: N/A

DRILLER: Gregg Drilling & Testing

DEPTH TO GW: First Encountered: 22 Ft.  
Stable GW: 10.05 Ft.

DRILLING METHOD: Direct Push

T.O.C. TO SCREEN: N/A

BORING DIAMETER: 2 in.

SCREEN LENGTH: N/A

LOGGED BY: E. Hightower

APPROVED BY: M. Sepehr

DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	SPLIT SPOON CORE	SAMPLED	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
			Hand Auger to 5 ft.					
0.0		CL-ML	SILTY CLAY: Dark brown, very high dry strength, no dilatancy, low toughness, moist, no HCl reaction, soft, medium plastic, no Petroleum Hydrocarbon (PHC) odor.					
0.0		CL	SANDY LEAN CLAY: Brown, very high dry strength, no dilatancy, medium toughness, moist, no HCl reaction, firm, low plastic, no PHC odor.					
110.3		CL	SANDY LEAN CLAY: Brown with gray-green mottling, high dry strength, no dilatancy, medium toughness, moist, no HCl reaction, hard, medium plastic, PHC odor, about 40% fine- to medium-grained sand.		X			
41.7		ML	SANDY LEAN CLAY: Brown, very high dry strength, no dilatancy, medium toughness, moist, no HCl reaction, firm, low plastic, slight PHC odor, which becomes stronger @ 13 ft, about 40% fine- to medium-grained sand.		X			
27.2		CL-ML	SILTY CLAY: Brown, very high dry strength, no dilatancy, medium tough, moist, no HCl reaction, hard, low plasticity, slight PHC odor.  At 15.5, PHC odor becomes stronger and color becomes gray-green.		X			
19.7			Slight PHC odor		X			
5.7		CL	SANDY LEAN CLAY: Brown, high dry strength, low dilatancy, low toughness, moist, no HCl reaction, firm, low plasticity, no PHC odor, about 40% fine- to medium-grained sand.					
3.5		CL	LEAN CLAY: Light brown, very high dry strength, low dilatancy, medium toughness, wet, no HCl reaction, firm, medium plastic, no PHC odor.					
3.5		SM	SILTY SAND: Light brown, low dry strength, low toughness, moist to wet, no HCl reaction, firm, nonplastic, no PHC odor, about 70% fine- to medium-grained sand.					
25								

COMMENTS: TD @ 30 ft., Visual-Manual method ASTM 2488-09a  
Depth to stable groundwater: 10.05 ft.



PROJECT: 2762

DATE DRILLED: 8/18/2009

SITE LOCATION: 3519 Castro Valley Blvd.  
Castro Valley

CASING ELEVATION: N/A

DRILLER: Gregg Drilling & Testing

DEPTH TO GW: First Encountered: 22 Ft.  
Stable GW: 10.05 Ft.

DRILLING METHOD: Direct Push

T.O.C. TO SCREEN: N/A

BORING DIAMETER: 2 in.

SCREEN LENGTH: N/A

LOGGED BY: E. Hightower

APPROVED BY: M. Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	SPLIT SPOON CORE	SAMPLED	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
0.0			<b>SM</b>	SILTY SAND: Light brown, low dry strength, low toughness, moist to wet, no HCl reaction, firm, nonplastic, no PHC odor, about 70% fine- to medium-grained sand.					
			<b>SC</b>	CLAYEY SAND: Light brown, very high dry strength, medium dilatancy, low toughness, wet, no HCl reaction, very soft, low plasticity, no PHC odor, about 70% fine- to medium-grained sand.  Becomes moist and firm at 29 ft.					
	30								
	35								
	40								
	45								
	50								

COMMENTS: TD @ 30 ft., Visual-Manual method ASTM 2488-09a  
Depth to stable groundwater: 10.05 ft.



PROJECT: 2762

DATE DRILLED: 8/17/2009

SITE LOCATION: 3519 Castro Valley Blvd.  
Castro Valley

CASING ELEVATION: N/A

DRILLER: Gregg Drilling & Testing

DEPTH TO GW: First Encountered: 25 Ft.  
Stable Groundwater: 6.50 Ft.

DRILLING METHOD: Direct Push

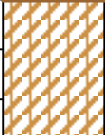



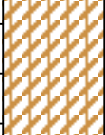

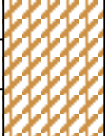

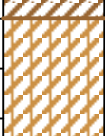
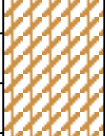

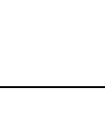


T.O.C. TO SCREEN: N/A

BORING DIAMETER: 2 in.

SCREEN LENGTH: N/A

LOGGED BY: E. Hightower

APPROVED BY: M. Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	SPLIT SPOON CORE	SAMPLED	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
				Hand auger to 5 ft.					
	5		<b>CL-ML</b>	SILTY CLAY: Black, high dry strength, no dilatancy, low toughness, moist, no HCl reaction, soft, medium plasticity, slight Petroleum Hydrocarbon (PHC) odor.  Becomes gray-green and firm at 7 ft.					
	4.7		<b>CL-ML</b>	SILTY CLAY: Light brown, high dry strength, no dilatancy, medium tough, moist, no HCl reaction, PHC odor, hard, low plasticity.					
	32.2		<b>CL-ML</b>	SILTY CLAY: Light brown, high dry strength, no dilatancy, medium tough, moist, no HCl reaction, PHC odor, hard, low plasticity.					
	37.2		<b>CL</b>	SANDY LEAN CLAY: Brown, high dry strength, no dilatancy, medium tough, moist, no HCl reaction, hard, medium plastic, no PHC odor, about 30% fine- to coarse-grained sand.					
	10		<b>CL</b>	SANDY LEAN CLAY: Brown, high dry strength, no dilatancy, medium tough, moist, no HCl reaction, hard, medium plastic, no PHC odor, about 30% fine- to coarse-grained sand.					
	11.4		<b>CL</b>	SANDY LEAN CLAY: Brown, high dry strength, no dilatancy, medium tough, moist, no HCl reaction, hard, medium plastic, no PHC odor, about 30% fine- to coarse-grained sand.					
	15		<b>CL</b>	SANDY LEAN CLAY: Brown, high dry strength, no dilatancy, medium tough, moist, no HCl reaction, hard, medium plastic, no PHC odor, about 30% fine- to coarse-grained sand.					
	3.0		<b>CL-ML</b>	SILTY CLAY: Light brown, high dry strength, no dilatancy, medium tough, moist, no HCl reaction, no PHC odor, hard, low plasticity.					
	20		<b>CL-ML</b>	SILTY CLAY: Light brown, high dry strength, no dilatancy, medium tough, moist, no HCl reaction, no PHC odor, hard, low plasticity.					
	25		<b>CL-ML</b>	SILTY CLAY: Light brown, high dry strength, no dilatancy, medium tough, moist, no HCl reaction, no PHC odor, hard, low plasticity.					

COMMENTS: TD @ 30 Ft., Visual-Manual Method ASTM 2488-09a  
Depth to Stable Groundwater: 6.50 Ft.



PROJECT: 2762

DATE DRILLED: 8/17/2009

SITE LOCATION: 3519 Castro Valley Blvd.  
Castro Valley

CASING ELEVATION: N/A

DRILLER: Gregg Drilling & Testing

DEPTH TO GW: First Encountered: 25 Ft.  
Stable Groundwater: 6.50 Ft.

DRILLING METHOD: Direct Push


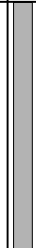
T.O.C. TO SCREEN: N/A

BORING DIAMETER: 2 in.

SCREEN LENGTH: N/A

LOGGED BY: E. Hightower

APPROVED BY: M. Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	SPLIT SPOON CORE	SAMPLED	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
0.0	30		SC	CLAYEY SAND: Brown, high dry strength, slow dilatancy, medium tough, wet, no HCl reaction, soft, medium plastic, no PHC odor, about 60% fine-to medium-grained sand.					
	35								
	40								
	45								
	50								

COMMENTS: TD @ 30 Ft., Visual-Manual Method ASTM 2488-09a  
Depth to Stable Groundwater: 6.50 Ft.

PROJECT: 2762

DATE DRILLED: 8/17/2009

SITE LOCATION: 3519 Castro Valley Blvd.  
Castro Valley

CASING ELEVATION: N/A

DRILLER: Gregg Drilling & Testing

DEPTH TO GW: First Encountered: 22 Ft.  
Stable Groundwater: 11.50 Ft.

DRILLING METHOD: Direct Push

T.O.C. TO SCREEN: N/A

BORING DIAMETER: 2 in.

SCREEN LENGTH: N/A

LOGGED BY: E. Hightower

APPROVED BY: M. Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	SPLIT SPOON CORE	SAMPLED	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
				Hand auger to 5 ft.					
0.0	5		CL-ML	SILTY CLAY: Black, very high dry strength, very slow dilatancy, medium toughness moist, no HCl reaction, soft, no Petroleum Hydrocarbon (PHC) odor.					
			CL-ML	SILTY CLAY: Greenish-gray with some orange mottling, very high dry strength, slow dilatancy, medium toughness, moist, no HCl reaction, firm, no PHC odor.					
2.1			SC	CLAYEY SAND: Greenish-brown, high dry strength, medium tough, very moist, no HCl reaction, soft, weak cementation, medium plastic, no PHC odor.					
10			CL	SANDY LEAN CLAY: Light brown, very high dry strength, low dilatancy, medium toughness, moist, no HCl reaction, very hard, medium plastic, no PHC odor, about 25% fine- to medium-grained sand.					
0.0			CL-ML	SILTY CLAY: Dark greenish-gray, very high dry strength, soft, slow dilatancy, medium toughness, moist, no HCl reaction, firm, medium plasticity, no PHC odor. Becomes light brown @ 13 ft.					
15			CL	LEAN CLAY: Brown, very high dry strength, no dilatancy, medium tough, moist, no HCl reaction, very hard, medium plastic, no PHC odor.					
0.0			CL-ML	SILTY CLAY with Sand: Light brown, very high dry strength, slow dilatancy, medium toughness, moist, no HCl reaction, hard, low plasticity, ~15% fine- to coarse-grained sand.					
0.0			CL	LEAN CLAY: Brown, high dry strength, no dilatancy, medium toughness, moist, no HCl reaction, very hard, medium plasticity, no PHC odor.					
20			CL-ML	SILTY CLAY: Orange-brown, high dry strength, slow dilatancy, medium toughness, moist, no HCl reaction, firm, medium plastic, no PHC odor.					
0.0			SC	CLAYEY SAND: Gray-green, high dry strength, slow dilatancy, low toughness, moist, no HCl reaction, firm, low plasticity, no PHC odor, ~60% fine- to coarse-grained sand.					
0.0			SW-SC	WELL GRADED SAND with clay: Green-brown, wet, fine- to coarse-grained sand, ~ 10% fines, no PHC odor, weak cementation.					
0.0			CL	LEAN CLAY: Light-brown, high dry strength, slow dilatancy, medium tough, moist, no HCl reaction, very hard, medium plastic, no PHC odor.					
25				No Recovery					

COMMENTS: TD @ 30 Ft., Visual-Manual Method ASTM 2488-09a  
Depth to stable groundwater: 11.50 ft





PROJECT: 2762

DATE DRILLED: 8/17/2009

SITE LOCATION: 3519 Castro Valley Blvd.  
Castro Valley

CASING ELEVATION: N/A

DRILLER: Gregg Drilling & Testing

DEPTH TO GW: First Encountered: 22 Ft.  
Stable Groundwater: 11.50 Ft.

DRILLING METHOD: Direct Push

T.O.C. TO SCREEN: N/A

BORING DIAMETER: 2 in.

SCREEN LENGTH: N/A

LOGGED BY: E. Hightower

APPROVED BY: M. Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	SPLIT SPOON CORE	SAMPLED	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
				No Recovery					
0.0			<b>SW-SC</b>	WELL-GRADED SAND with clay: Greenish-brown, wet, fine- to coarse-grained sand, ~ 10% fines, weak cementation, no PHC odor.					
	30		<b>CL</b>	LEAN CLAY: Light-brown, high dry strength, slow dilatancy, medium tough, moist, no HCl reaction, very hard, medium plastic, no PHC odor.					
	35								
	40								
	45								
	50								

COMMENTS: TD @ 30 Ft., Visual-Manual Method ASTM 2488-09a  
Depth to stable groundwater: 11.50 ft



PROJECT: 2762

DATE DRILLED: 8/17/2009

SITE LOCATION: 3519 Castro Valley Blvd.  
Castro Valley

CASING ELEVATION: N/A

DRILLER: Gregg Drilling & Testing

DEPTH TO GW: First Encountered: 31 ft.  
Stable Groundwater: 28 Ft.

DRILLING METHOD: Direct Push

T.O.C. TO SCREEN: N/A

BORING DIAMETER: 2 in.

SCREEN LENGTH: N/A

LOGGED BY: E. Hightower

APPROVED BY: M. Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	SPLIT SPOON CORE SAMPLED	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
				Hand Auger to 5 Ft.				
	5		CL	SANDY LEAN CLAY: Olive brown w/ some orange mottling, very high dry strength, no dilatancy, high toughness, moist, no HCl reaction, firm, high plasticity, ~30% fine- to coarse-grained sands, coarse grains angular to sub-rounded, no Petroleum Hydrocarbon (PHC) odor.	X			
	4.5		SW	WELL-GRADED SAND with gravel: Brown, fine- to coarse-grained sand, about 25% rounded to sub-angular gravel up to 1 in., dry, weak cementation, no PHC odor.				
	10		CL	SANDY LEAN CLAY with gravel: Orange-brown, high dry strength, no dilatancy, medium toughness, moist, CaCO3 nodules - strong HCl reaction, hard, moderate cementation, medium plastic, no PHC odor, ~ 30% fine- to coarse-grained sand, about 15% subrounded gravel up to 1/2 in.				
			SC	CLAYEY SAND: Brown, medium dry strength, no dilatancy, medium toughness, dry, no HCl reaction, soft, weak cementation, medium plastic, ~65% fine- to coarse- sand, no PHC				
	15		CL	SANDY LEAN CLAY: Orange-brown, high dry strength, no dilatancy, medium toughness, moist, no HCl reaction, hard, medium plasticity, ~ 45% fine- to coarse- sand, no PHC odor.	X			
				No Recovery				
	20		CL-ML	SILTY CLAY: Brown with orange mottling, high dry strength, no dilatancy, low toughness, moist, no HCl reaction, firm, medium plastic, no PHC odor.				
	25		CL-ML	SILTY CLAY: Brown, high dry strength, low dilatancy, low toughness, moist - 6 in. very moist at 26 ft, no HCl reaction, firm, medium plastic, no PHC odor.				

COMMENTS: TD @ 32 ft., Visual-Manual Method ASTM 2488-09a  
Depth to stable groundwater: 28.00 ft



PROJECT: 2762

DATE DRILLED: 8/17/2009

SITE LOCATION: 3519 Castro Valley Blvd.  
Castro Valley

CASING ELEVATION: N/A

DRILLER: Gregg Drilling & Testing

DEPTH TO GW: First Encountered: 31 ft.  
Stable Groundwater: 28 Ft.

DRILLING METHOD: Direct Push

T.O.C. TO SCREEN: N/A

BORING DIAMETER: 2 in.

SCREEN LENGTH: N/A

LOGGED BY: E. Hightower

APPROVED BY: M. Sepehr

PID, ppm	DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	SPLIT SPOON CORE	SAMPLED	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
	6.2		<b>CL-ML</b>	SILTY CLAY: Brown, high dry strength, low dilatancy, low toughness, moist - 6 in. very moist at 26 ft, no HCl reaction, firm, medium plastic, no PHC odor.			▼		
	30		<b>CL</b>	SANDY LEAN CLAY: Orange-brown, high dry strength, no dilatancy, medium toughness, moist, no HCl reaction, hard, medium plasticity, ~ 45% fine- to coarse-grained sand, no PHC odor.					
	3.5		<b>CL-ML</b>	SILTY CLAY: Orange-brown, high dry strength, no dilatancy, medium toughness, no HCl reaction, moist to very moist, firm, no PHC odor.			▼		
	2.4		<b>SC</b>	CLAYEY SAND: Brown, high dry strength, low dilatancy, low toughness, wet, no HCl reaction, soft, medium plastic, no PHC odor, about 70% fine- to coarse-grained sand.			▼		
	35								
	40								
	45								
	50								

COMMENTS: TD @ 32 ft., Visual-Manual Method ASTM 2488-09a  
Depth to stable groundwater: 28.00 ft



GEOLOGIC LOG OF BOREHOLE: DP-5

PROJECT: 2762

DATE DRILLED: 8/18/2009

SITE LOCATION: 3519 Castro Valley Blvd.  
Castro Valley

CASING ELEVATION: N/A

DRILLER: Gregg Drilling & Testing

DEPTH TO GW: First Encountered: 28 ft.  
Stable Groundwater: 10.29 Ft.

DRILLING METHOD: Direct Push

T.O.C. TO SCREEN: N/A

BORING DIAMETER: 2 in.

SCREEN LENGTH: N/A

LOGGED BY: E. Hightower

APPROVED BY: M. Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	SPLIT SPOON CORE	SAMPLED	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
				Hand auger to 5 ft.					
	5.0		CL	SANDY LEAN CLAY: Dark brown, high dry strength, no dilatancy, low toughness, moist, no HCl reaction, soft, medium plasticity, no Petroleum Hydrocarbon (PHC) odor, about 40% fine- to medium-grained sand.					
			CL	SANDY LEAN CLAY: Orange-brown, high dry strength, slow dilatancy, medium tough, moist, no HCl reaction, firm, nonplastic, about 35% fine- to medium-grained sand.					
			CL-ML	SILTY CLAY: Dark brown, high dry strength, slow dilatancy, medium toughness, no HCl reaction, firm, low plasticity, no PHC odor.					
	10.0		CL	SANDY LEAN CLAY: Brown, high dry strength, slow dilatancy, medium toughness, moist, no HCl reaction, hard, low plasticity, PHC odor, about 25% fine- to medium-grained sand.			▼		
			CL-ML	SILTY CLAY: Brown, high dry strength, slow dilatancy, medium toughness, moist, no HCl reaction, firm, low plasticity, PHC odor.		X			
			CL-ML	SILTY CLAY: Brown, high dry strength, no dilatancy, medium toughness, moist, no HCl reaction, hard, medium plasticity, slight PHC odor.		X			
	15.0		CL-ML	SILTY CLAY: Brown, high dry strength, slow dilatancy, medium toughness, moist, no HCl reaction, firm, low plasticity, PHC odor.					
			CL	SANDY LEAN CLAY: Brown, high dry strength, slow dilatancy, medium toughness, moist, no HCl reaction, hard, low plasticity, PHC odor, about 25% fine- to coarse-grained sand.					
			CL-ML	SILTY CLAY: Brown, high dry strength, slow dilatancy, medium toughness, moist, no HCl reaction, firm, low plasticity, PHC odor.					
	20.0		CL-ML	SILTY CLAY: Light brown, high dry strength, slow dilatancy, medium toughness, moist, no HCl reaction, hard, low plasticity, no PHC odor.					
			SM	SITLY SAND: Light brown, low dry strength, slow dilatancy, medium toughness, moist, no HCl reaction, soft, nonplastic, no PHC odor, about 65% fine- to medium-grained sand.		X			

COMMENTS: TD @ 30 ft., Visual-Manual Method, ASTM 2488-09a  
Depth to stable groundwater: 10.29 ft



PROJECT: 2762

DATE DRILLED: 8/18/2009

SITE LOCATION: 3519 Castro Valley Blvd.  
Castro Valley

CASING ELEVATION: N/A

DRILLER: Gregg Drilling & Testing

DEPTH TO GW: First Encountered: 28 ft.  
Stable Groundwater: 10.29 Ft.

DRILLING METHOD: Direct Push

T.O.C. TO SCREEN: N/A

BORING DIAMETER: 2 in.

SCREEN LENGTH: N/A

LOGGED BY: E. Hightower

APPROVED BY: M. Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	SPLIT SPOON CORE	SAMPLED	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
	0.0		<b>SM</b>	SILTY SAND: Light brown, low dry strength, slow dilatancy, medium toughness, moist, no HCl reaction, soft, nonplastic, no PHC odor, about 65% fine- to medium-grained sand.					
	30		<b>SC</b>	CLAYEY SAND: Dark brown, medium dry strength, slow dilatancy, low toughness, wet, no HCl reaction, soft, low plasticity, no PHC odor, about 65% fine- to medium-grained sand.					
	35								
	40								
	45								
	50								

COMMENTS: TD @ 30 ft., Visual-Manual Method, ASTM 2488-09a  
Depth to stable groundwater: 10.29 ft



PROJECT: 2762

DATE DRILLED: 8/18/2009

SITE LOCATION: 3519 Castro Valley Blvd.  
Castro Valley

CASING ELEVATION: N/A

DRILLER: Gregg Drilling & Testing

DEPTH TO GW: First Encountered: 24 Ft.  
Stable Groundwater: 19.79 Ft.

DRILLING METHOD: DP

T.O.C. TO SCREEN: N/A

BORING DIAMETER: 2 in.

SCREEN LENGTH: N/A

LOGGED BY: E. Hightower

APPROVED BY: M. Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	SPLIT SPOON CORE	SAMPLED	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
				Hand auger to 5 ft.					
	5		CL	SANDY LEAN CLAY: Dark brown, high dry strength, no dilatancy, medium toughness, moist, no HCl reaction, firm, medium plasticity, no Petroleum Hydrocarbon (PHC) odor, about 40% fine- to medium-grained sand.					
			CL	SANDY LEAN CLAY: Orange-brown, high dry strength, slow dilatancy, med tough, moist, no HCl reaction, firm, nonplastic, no PHC odor, about 30% fine- to medium-grained sand.					
			CL-ML	SILTY CLAY: Dark brown, high dry strength, slow dilatancy, medium toughness, moist, no HCl reaction, firm, low plasticity, no PHC odor.					
			CL	SANDY LEAN CLAY: Brown, high dry strength, low dilatancy, medium toughness, moist, no HCl reaction, hard, low plasticity, about 30% fine- to medium-grained sand.					
				Slight PHC odor @ 11.5 ft.					
			CL-ML	SILTY CLAY: Brown, high dry strength, slow dilatancy, medium toughness, moist, no HCl reaction, firm, low plasticity, slight PHC odor.		X			
			CL-ML	SILTY CLAY: Brown, high dry strength, no dilatancy, medium toughness, moist, no HCl reaction, hard, medium plasticity, slight PHC odor.		X			
			CL-ML	SILTY CLAY: Brown, high dry strength, slow dilatancy, medium toughness, moist, no HCl reaction, firm, low plasticity, slight PHC odor.					
			CL	SANDY LEAN CLAY: Brown, high dry strength, low dilatancy, medium toughness, moist, no HCl reaction, hard, low plasticity, about 30% fine- to medium-grained sand.		X			
			CL-ML	SILTY CLAY: Brown, high dry strength, slow dilatancy, medium toughness, moist, no HCl reaction, firm, low plasticity, slight PHC odor.					
			CL-ML	SILTY CLAY: Light brown, high dry strength, slow dilatancy, medium toughness, moist, no HCl reaction, hard, low plasticity, no PHC odor.					
			SM	SILTY SAND: Light brown, low dry strength, no dilatancy, low toughness, wet, no HCl reaction, soft, nonplastic, no PHC odor, about 55% fine- to medium-grained sand.					

COMMENTS: TD @ 30 Ft., Visual-Manual Method, ASTM 2488-09a  
Depth to stable groundwater: 19.79 ft



PROJECT: 2762

DATE DRILLED: 8/18/2009

SITE LOCATION: 3519 Castro Valley Blvd.  
Castro Valley

CASING ELEVATION: N/A

DRILLER: Gregg Drilling & Testing

DEPTH TO GW: First Encountered: 24 Ft.  
Stable Groundwater: 19.79 Ft.

DRILLING METHOD: Direct Push

T.O.C. TO SCREEN: N/A

BORING DIAMETER: 2 in.

SCREEN LENGTH: N/A

LOGGED BY: E. Hightower

APPROVED BY: M. Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	SPLIT SPOON CORE	SAMPLED	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
	0.0		<b>SM</b>	SILTY SAND: Light brown, low dry strength, no dilatancy, low toughness, wet, no HCl reaction, soft, nonplastic, no PHC odor, about 55% fine- to medium-grained sand.					
	30		<b>SC</b>	CLAYEY SAND: Dark brown, medium dry strength, slow dilatancy, low toughness, wet, no HCl reaction, soft, low plasticity, no PHC odor, about 60% fine- to medium-grained sand.					
	35								
	40								
	45								
	50								

COMMENTS: TD @ 30 Ft., Visual-Manual Method, ASTM 2488-09a  
Depth to stable groundwater: 19.79 ft



PROJECT: 2762

DATE DRILLED: 8/18/2009

SITE LOCATION: 3519 Castro Valley Blvd.  
Castro Valley

CASING ELEVATION: N/A

DRILLER: Gregg Drilling & Testing

DEPTH TO GW: First Encountered: 24 Ft.  
Stable Groundwater: 10.32 Ft.

DRILLING METHOD: Direct Push

T.O.C. TO SCREEN: N/A

BORING DIAMETER: 2 in.

SCREEN LENGTH: N/A

LOGGED BY: E. Hightower

APPROVED BY: M. Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	SPLIT SPOON CORE SAMPLED	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
				Hand auger to 5 ft.				
0.0	5		CL	SANDY LEAN CLAY: Dark brown, high dry strength, no dilatancy, medium toughness, moist, no HCl reaction, very soft, low plasticity, no Petroleum Hydrocarbon (PHC) odor, about 35% fine- to medium-grained sand.  (only recovered 6 in. of soil in sampling tube)				
0.0			CL	As above.				
0.0	10		ML	SANDY SILT: Reddish-brown, low dry strength, slow dilatancy, medium toughness, moist, no HCl reaction, firm, nonplastic, no PHC odor, about 30% fine- to medium-grained sand.		▼		
0.0			CL-ML	SILTY CLAY: Dark brown, high dry strength, no dilatancy, low toughness, moist, no HCl reaction, very soft, medium plastic, no PHC odor.	X			
3.6			SM	SILTY SAND: Reddish-brown, low dry strength, low dilatancy, low toughness, moist, no HCl reaction, hard, nonplastic, no PHC odor, about 65% fine- to coarse-grained sand.				
0.0	15		CL-ML	SILTY CLAY: Dark brown, high dry strength, no dilatancy, low toughness, moist, no HCl reaction, very soft, medium plastic, no PHC odor.	X			
0.0			CL	SANDY LEAN CLAY: Brown, high dry strength, no dilatancy, medium toughness, moist, no HCl reaction, hard, low plasticity, no PHC odor, about 40% fine- to coarse-grained sand.				
0.0			CL-ML	SILTY CLAY: Dark brown, high dry strength, no dilatancy, low toughness, moist, no HCl reaction, very soft, medium plastic, no PHC odor.				
0.0			CL	SANDY LEAN CLAY: Brown, high dry strength, no dilatancy, medium toughness, moist, no HCl reaction, hard, low plasticity, no PHC odor, about 40% fine- to coarse-grained sand.				
0.0	20		CL-ML	SILTY CLAY: Light brown, high dry strength, low dilatancy, medium toughness, moist, no HCl reaction, hard, low plasticity, no PHC odor.				
0.0			ML	SANDY SILT: Light brown, low dry strength, low dilatancy, low toughness, moist, no HCl reaction, firm, nonplastic, no PHC odor, about 25% fine- to coarse-grained sand.				
0.0	25		SM	SILTY SAND: Light brown, low dry strength, slow dilatancy, low toughness, wet, no HCl reaction, soft, nonplastic, no PHC odor, about 60% fine- to medium-grained sand.		▼		

COMMENTS: TD @ 30 Ft., Visual-Manual Method, ASTM 2488-09a  
Depth to stable groundwater: 10.32 ft





PROJECT: 2762

DATE DRILLED: 8/18/2009

SITE LOCATION: 3519 Castro Valley Blvd.  
Castro Valley

CASING ELEVATION: N/A

DRILLER: Gregg Drilling & Testing

DEPTH TO GW: First Encountered: 24 Ft.  
Stable Groundwater: 10.32 Ft.

DRILLING METHOD: Direct Push

T.O.C. TO SCREEN: N/A

BORING DIAMETER: 2 in.

SCREEN LENGTH: N/A

LOGGED BY: E. Hightower

APPROVED BY: M. Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	SPLIT SPOON CORE	SAMPLED	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
0.0			<b>SM</b>	SILTY SAND: Light brown, low dry strength, slow dilatancy, low toughness, wet, no HCl reaction, soft, nonplastic, no PHC odor, about 60% fine- to medium-grained sand.					
				Dry from 27.5 ft to 28 ft.					
	30		<b>SC</b>	CLAYEY SAND: Dark brown, medium dry strength, slow dilatancy, low toughness, wet, no HCl reaction, soft, low plasticity, no PHC odor, about 65% fine- to medium-grained sand. (only recovered 6 in. of soil in sampling tube)					
	35								
	40								
	45								
	50								

COMMENTS: TD @ 30 Ft., Visual-Manual Method, ASTM 2488-09a  
Depth to stable groundwater: 10.32 ft



PROJECT: 2762

DATE DRILLED: 8/18/2009

SITE LOCATION: 3519 Castro Valley Blvd.  
Castro Valley

CASING ELEVATION:

DRILLER: Gregg Drilling & Testing

DEPTH TO GW: Not Encountered  
Stable GW: 10.48 Ft.

DRILLING METHOD: DP

T.O.C. TO SCREEN: 5 Ft.

BORING DIAMETER: 8 in.

SCREEN LENGTH: 10 Ft.

LOGGED BY: E. Hightower

APPROVED BY: M. Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	SPLIT SPOON CORE	SAMPLED	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
				Hand auger to 5 ft.					
	5		CL	SANDY LEAN CLAY: Dark brown, high dry strength, no dilatancy, medium toughness, moist, no HCl reaction, soft, low plasticity, no Petroleum Hydrocarbon (PHC) odor.					
			ML	SANDY SILT: Brown, low dry strength, slow dilatancy, medium toughness, moist, no HCl reaction, hard, nonplastic, no PHC odor.					
			CL-ML	SILTY CLAY: Brown, high dry strength, slow dilatancy, medium toughness, moist, no HCl reaction, hard, low plasticity, no PHC odor.					
	10			Becomes greenish-brown with PHC odor at 10.5 ft.					
	15								
	20								
	25								

COMMENTS: TD @ 15 Ft., Visual-Manual Method, ASTM 2488-09a



ALISTO ENGINEERING GROUP  
WALNUT CREEK, CALIFORNIA

LOG OF BORING <sup>SB-1</sup>

Page 1 of 1

SEE SITE PLAN

ALISTO PROJECT NO: 10-138-03      DATE DRILLED: 07/19/95  
 CLIENT: BP Oil Company  
 LOCATION: 3519 Castro Valley Boulevard, Castro Valley, CA.  
 DRILLING METHOD: Hollow-stem auger (8"); 2" split-spoon sampler  
 DRILLING COMPANY: Soils Exploration Svcs.      CASING ELEVATION: N/A  
 LOGGED BY: C. Ladd      APPROVED BY: Al Sevilla

BLOMS/B IN.	PID VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
							6" Concrete
8,10,10	1008					CL	<del>silty CLAY</del> black, damp, very stiff; medium plasticity.
8,8,14	1998					CL	Same: brown, damp, very stiff; Fe oxide stain; minor fines.
12,18,18	113			5		ML	<del>clayey SILT</del> brown mottled gray, damp, hard; Fe oxide staining; minor fines; < 1% subrounded gravel to 1/4"-diameter.
9,14,20	934.2					ML	Same: at 7 feet, root traces; calcium carbonate on fractures.
9,14,21	217			10		ML	<del>clayey SILT</del> red/brown mottled gray, damp, hard; Fe oxide stain; some very fine-grained sand; root traces present.
10,18,20	298					ML	Same: at 11.5 feet.
18,18,23	10.3			15		CL	<del>silty CLAY</del> brown mottled gray, damp, hard; root traces to approximately 3%.
15,18,21	8.4					Same: at 15.5 feet.	
							Soil boring terminated at 18 feet.
			20				
			25				
			30				



ALISTO ENGINEERING GROUP  
WALNUT CREEK, CALIFORNIA

SB-2

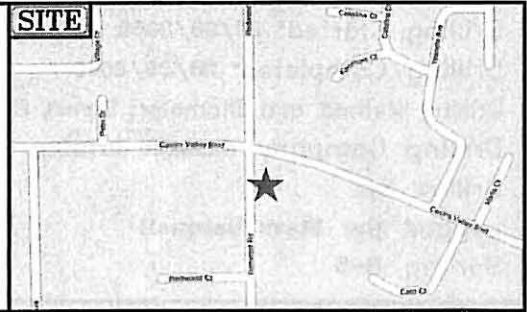
# LOG OF BORING

SEE SITE PLAN

ALISTO PROJECT NO: 10-138-03      DATE DRILLED: 07/19/95  
 CLIENT: BP Oil Company  
 LOCATION: 3519 Castro Valley Boulevard, Castro Valley, CA.  
 DRILLING METHOD: Hollow-stem auger (8"); 2" spilt-spoon sampler  
 DRILLING COMPANY: Soils Exploration Svcs.      CASING ELEVATION: N/A  
 LOGGED BY: C. Ladd      APPROVED BY: Al Sevilla

BLOWS/6 IN.	PTD VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
		<p style="text-align: center;">Neat Cement</p>					8" Concrete
15,18,21	3.3					CL	<del>CLAY</del> CLAY: black, damp, very stiff; < 1% Fe oxide stain; low plasticity.
15,15,23	10.0					ML	<del>CLAY</del> CLAY: gray mottled brown, damp, hard; Fe oxide stain approximately 5%; minor fines; root traces present.
12,18,21	285.6			5			Same: gray with white calcium voids and red/brown, damp, hard; Fe oxide stain; root traces; minor fines.
18,14,20	222.1					ML	<del>SAND</del> SAND: red/brown, damp, hard; root traces; fine-grained sand; some clay.
13,15,18	3.4			10			<del>CLAY</del> CLAY: brown mottled gray, damp, hard; root traces to 4%; Fe oxide stain; some very fine-grained sand.
14,18,20	1.1						Same: at 11.5 feet.
19,21,21	0.3			15		CL	<del>CLAY</del> CLAY: brown mottled gray, damp, hard; root traces to 1%; minor fines.
14,18,20	0					Same: at 15.5 feet.	
			20				Soil boring terminated at 18 feet.
			25				
			30				


Drilling Started: 08/28/2008  
 Drilling Completed: 08/28/2008  
 Drilling Method and Diameter: Direct Push; 2" diameter  
 Drilling Company: Cascade Drilling  
 Drilled By:  
 Logged By: Steve Harquail  
 Boring: B-6



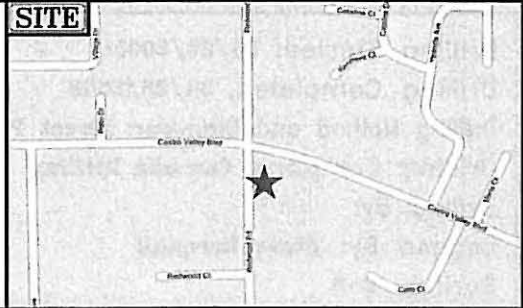
Depth (feet)	Samples Recovery (%)	PID (ppm)	LITHOLOGIC DESCRIPTION	USCS	Graphic Log	Depth (feet)
2			No Recovery - Air Knifed to 5 feet below ground surface (bgs)			2
4						4
6			Clayey Silt: Dark brown/black, firm.	ML		6
8			Dark brown, hard, damp, with 5% sand.			8
10	95	86.0				10
12			Tan, brown/light tan mix, hard.			12
14	40	0.0	Damp With 5-10% sand			14

Boring Terminated at 15 feet bgs.

▼ Initial Water Level (Not Encountered)  DIRECT PUSH Sample Collected for Laboratory Analysis

	CASHL-BADW-A		SHELL FACILITY NO. 171445 3519 Castro Valley Blvd. Castro Valley, California	Soil Boring Log B-6	FIGURE
	10-03-2008	FILE 10-10-2008			
	CALIFORNIA	CRF A.D.			
	SH1445-B6				

Drilling Started: 08/28/2008  
 Drilling Completed: 08/28/2008  
 Drilling Method and Diameter: Direct Push; 2" diameter  
 Drilling Company: Cascade Drilling  
 Drilled By:  
 Logged By: Steve Harquail  
 Boring: B-5



Depth (feet)	Samples	Recovery (%)	PID (ppm)	LITHOLOGIC DESCRIPTION	USCS	Graphic Log	Depth (feet)
2				<i>No Recovery - Air Knifed to 5 feet below ground surface (bgs)</i>			2
4					5.00'		4
6				<i>Clayey Silt: Dark brown, with 10% sand. Hard, dry. Brown/tan/rust color mix.</i>	ML		6
8							8
10	80	0.0		<i>Dark brown, very hard.</i>			10
12					<i>Brown, dry.</i>		
14				<i>Brown, very hard, dry, with 10% sand.</i>			14
16	80	0.0					16
18				<i>Silty Sand: Brown, damp.</i>			18
20	70	0.0			21.00'		20
22				<i>Sand: Brown, homogenous, wet.</i>	SM		22
				<i>Silty Clay: Brown/light tan, soft, dry.</i>	SP		23
24					CL		24
	80	0.0					25

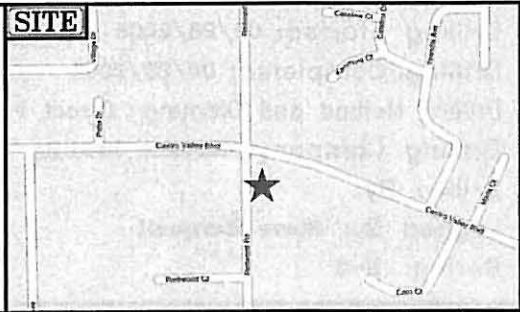
Boring Terminated at 25 feet bgs.

▼ Initial Water Level (22' bgs)

DIRECT PUSH Sample Collected for Laboratory Analysis


	CASHL-BADW-A	SHELL FACILITY NO. 171445 3519 Castro Valley Blvd. Castro Valley, California	Soil Boring Log B-5	FIGURE
	10-03-2008			
	CALIFORNIA			
FILE NUMBER	SH1445-B5			

Drilling Started: 08/28/2008  
 Drilling Completed: 08/28/2008  
 Drilling Method and Diameter: Direct Push; 2" diameter  
 Drilling Company: Cascade Drilling  
 Drilled By:  
 Logged By: Steve Harquail  
 Boring: B-4

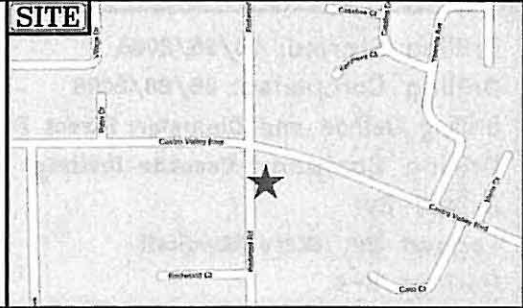


Depth (feet)	Samples Recovery (%)	PID (ppm)	LITHOLOGIC DESCRIPTION	USCS	Graphic Log	Depth (feet)
2			No Recovery - Air Knifed to 5 feet below ground surface (bgs)			2
4						4
6			Sandy Silt: Blackish, hard.	ML		6
8						8
10	95	0.0	Gravel 1", cobbles 1.25", light tan/light gray, damp/wet. Boring terminated at 10 feet bgs.			10

▼ Initial Water Level (Not Encountered)  DIRECT PUSH Sample Collected for Laboratory Analysis

	CASHL-BADW-A		SHELL FACILITY NO. 171445 3519 Castro Valley Blvd. Castro Valley, California	Soil Boring Log B-4	FIGURE
	10-03-2008	10-10-2008			
	CALIFORNIA	CRF A.D.			
	SH1445-B4				

Drilling Started: 08/28/2008  
 Drilling Completed: 08/28/2008  
 Drilling Method and Diameter: Direct Push; 2" diameter  
 Drilling Company: Cascade Drilling  
 Drilled By:  
 Logged By: Steve Harquail  
 Boring: B-3



Depth (feet)	Samples	Recovery (%)	PID (ppm)	LITHOLOGIC DESCRIPTION	USCS	Graphic Log	Depth (feet)
0				No Recovery - Air Knifed to 5 feet below ground surface (bgs)			0
2							2
4							4
5.00'				Sandy Silt: Dark brown/black mix, hard.	ML		5.00'
6.50'				Clayey Silt: Brown, with 3% sand.	ML		6.50'
8							8
10	100	0.0		With 20% greenish color. Greenish-brown, hard, dry.			10
12			83.0				12
14				Medium to low plasticity.			14
15.00'	100	6.3		Sandy Silt: Tan/light tan/reddish, hard, dry.	ML		15.00'
16							16
18				Tan, homogenous, firm, dry.			18
20	85	0.0		Boring terminated at 20 feet bgs.			20

▼ Initial Water Level (Not Encountered) DIRECT PUSH Sample Collected for Laboratory Analysis

	CASHL-BADW-A	SHELL FACILITY NO. 171445 3519 Castro Valley Blvd. Castro Valley, California	Soil Boring Log B-3	FIGURE
	10-03-2008			
	CALIFORNIA CRP A.D. SH1445-B3			





**Environmental Science & Engineering, Inc.**  
A CILCORP Company

**BORING LOG AND WELL COMPLETION SUMMARY**

**WELL COMPLETION**

Completion Depth: 30 Feet

Size/Type	From	To
Casing: 2" Diam. Sched. 40 PVC	10 Feet	0 Feet
Screen: 2" Diam. Sched. 40 Slotted (0.02") PVC	30 Feet	10 Feet
Filter: #3 Sand	30 Feet	9 Feet
Seal: Bentonite	9 Feet	7.5 Feet
Grout	7.5 Feet	0 Feet

Well Cap or Box: Flush Mounted Well Box

Project Name: BP Oil Company Project No: 6-92-5428  
Location: BP Station #11105  
3519 Castro Valley Boulevard  
Castro Valley, CA

Driller: Soils Exploration Services, Inc.  
Method: HSA  
Hole Diameter: 8" Total Depth: 30 Feet  
Ref. Elevations:  
Logged By: Chris Valcheff

Dates:  
Start: 9-29-92  
Finish: 9-29-92

Depth (ft)	Lithologic Description	USC	Graphic Log			Remarks
			Sample Blows	Lithology	Well Installation	
0	Asphalt FILL GRAVEL NATIVE CLAY	GM				
0-5	Black, stiff, damp, no odor.	CL				
5	Black, 10-20% coarse, very stiff, damp, no odor.		2 7 9			SAMPLE @ 5 FEET
5-10	Blue-grey, 10-20% coarse, very stiff, damp, heavy hydrocarbon odor.					
10	As above, with orange mottles.	ML	4 8 11			SAMPLE @ 10.5 FEET
10-15	Orange with blue-grey mottles, 5-10% medium grained sand, stiff, damp, heavy hydrocarbon odor.					
15	As above, no odor.		3 7 8			SAMPLE @ 15 FEET
15-20						
20	Red-brown, 10-20% coarse sand, 70-80% medium sand, dense, moist, no odor.	SM	2 4 6 2 3 5			SAMPLE @ 20 FEET
20-25	As above					
25	Grey with orange mottles, 30-40% medium grained sand, stiff, moist, no odor.					
25-30	Dark grey, damp, stiff, no odor.	CL	2 3 4			
30						TOTAL DEPTH = 30 FEET

70,000 / 830



sample con. - TPH/benzene (ug/kg)



**Environmental Science & Engineering, Inc.**  
A CULCORP Company

**BORING LOG AND WELL COMPLETION SUMMARY**



**WELL COMPLETION**

Completion Depth: 30 Feet

Size/Type	From	To
Casing: 2" Diam. Sched. 40 PVC	10 Feet	0 Feet
Screen: 2" Diam. Sched. 40 Slotted (0.02") PVC	30 Feet	10 Feet
Filter: #3 Sand	30 Feet	9 Feet
Seal: Bentonite Grout	9 Feet	7.5 Feet
	7.5 Feet	0 Feet

Well Cap or Box: Flush Mounted Well Box

Project Name: BP Oil Company Project No: 6-92-5428

Location: BP Station #11105  
3519 Castro Valley Boulevard  
Castro Valley, CA

Driller: Soils Exploration Services, Inc.  
Method: HSA  
Hole Diameter: 8" Total Depth: 31 Feet  
Ref. Elevations:  
Logged By: Chris Valchett

Page 1 of 1

Dates:  
Start: 9-28-92  
Finish: 9-29-92

Depth (ft)	Lithologic Description	USC	Graphic Log			Vapor	Remarks
			Sample/Blows	Lithology	Well Installation		
0	Asphalt FILL GRAVEL	GP					
5	NATIVE black, stiff, damp, no odor.	CL	3 3 6				SAMPLE @ 4.5 FEET
10	gray with orange mottles, stiff, damp, slight odor.		5 7 9				SAMPLE @ 10.5 FEET
15	orange with gray mottles, stiff, damp, heavy hydrocarbon odor.	ML	8 13 16				SAMPLE @ 14.5 FEET
20	orange, 50-60% medium to coarse grained sand, stiff, damp, no odor.		8 14 14				SAMPLE @ 20 FEET
25	orange-brown, 5-10% silt, medium to coarse grained sand, dense, no odor.	SM	9 15 13				
30	gray, stiff, no odor.	ML	3 5 6 3 5 8				STANDARD PEN. TOTAL DRILLED DEPTH = 30 FEET TOTAL DEPTH = 31 FEET





Environmental  
Science &  
Engineering, Inc.

# BORING LOG AND WELL COMPLETION SUMMARY

ESE-3

## WELL COMPLETION

Completion Depth: 30 Feet

Size/Type	From	To
Casing: 2" Diam. Sched. 40 PVC	10 Feet	0 Feet
Screen: 2" Diam. Sched. 40 Slotted (0.02") PVC	30 Feet	10 Feet
Filter: #3 Sand	30 Feet	9 Feet
Seal: Bentonite	9 Feet	7.5 Feet
Grout	7.5 Feet	0 Feet

Well Cap or Box: Flush Mounted Well Box

Project Name: BP Oil Company Project No: 6-92-5428

Location: BP Station #11105  
3519 Castro Valley Boulevard  
Castro Valley, CA

Driller: Soils Exploration Services, Inc.  
Method: HSA  
Hole Diameter: 6" Total Depth: 30.5 Feet  
Ref. Elevations:  
Logged By: Chris Valchett

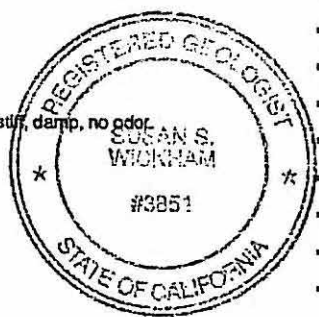
Page 1 of 1

Dates:  
Start: 8-29-92  
Finish: 9-29-92

Depth (ft)	Lithologic Description	USC	Graphic Log		Vapor	Remarks
			Sample Blows	Lithology		
0	Asphalt Fill					
0-5	reddish brown, 20-30% medium to coarse grained sand, dense, damp, no odor.					
0-5	black, 5-10% medium to coarse grained sand, stiff, damp, no odor.					
5	As above, with orange-red mottles.		2 5 6			SAMPLE @ 5 FEET
5-10	gray, 5-10% fine grained sand, stiff, damp, no odor.					
5-10	orange-yellow-brown, 20-30% medium grained sand, stiff, damp, slight hydrocarbon odor.	ML				
10	As above, grey mottling, heavy hydrocarbon odor.		10 15 22			SAMPLE @ 10.5 FEET
10-15	As above, 30-40% medium to coarse grained sand, no odor.					
15			7 14 18 10 11 18			SAMPLE @ 15.5 FEET
15-20	light brown, some sand, 5-10% medium, stiff, damp, no odor.					
20			5 10 11			SAMPLE @ 20 FEET
20-25	light brown, 10-20% silt, medium grained sand, dense, no odor.					
25	As above.	SM	7 13 13			NO SAMPLE COLLECTED
25-30						
30	light brown, stiff, damp, no odor.	CL	1 4 5			STANDARD PEN. TOTAL DRILLED DEPTH = 30 FEET TOTAL DEPTH = 30.5 FEET

$\frac{220,000}{1400}$

(ND)



sample core. — TPH / benzene (ug/kg)



**Environmental Science & Engineering, Inc.**  
A GILCORP Company

### BORING LOG AND WELL COMPLETION SUMMARY

**WELL COMPLETION**

Completion Depth: 25 Feet

Size/Type	From	To
Casing: 2" Diam. Sched. 40 PVC	7 Feet	0 Feet
Screen: 2" Diam. Sched. 40 Slotted (0.02") PVC	25 Feet	7 Feet
Filter: #3 Sand	25 Feet	6 Feet
Seal: Bentonite	8 Feet	4 Feet
Grout	4 Feet	0 Feet

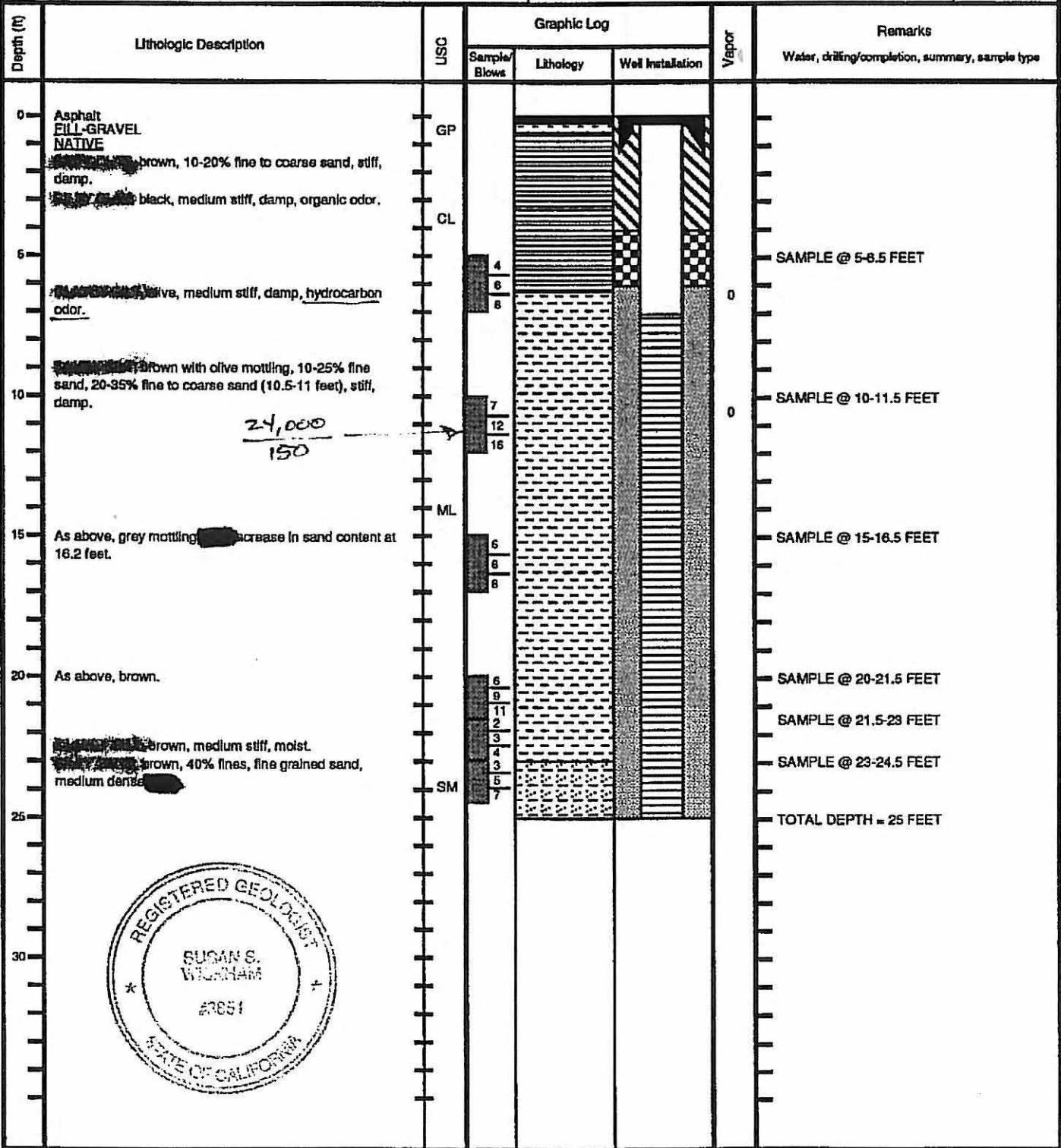
Well Cap or Box: Flush Mounted Well Box

Project Name: BP Oil Company      Project No: 6-92-5428  
 Location: BP Station #11105  
 3519 Castro Valley Boulevard  
 Castro Valley, CA

Driller: Solis Exploration Services, Inc.  
 Method: HSA  
 Hole Diameter: 8"      Total Depth: 25 Feet  
 Ref. Elevations:  
 Logged By: Mike Edmonson

Page 1 of 1

Dates:  
 Start: 9-28-92  
 Finish: 9-28-92



sample conc. — TPH/benzene (ug/kg)



**Environmental  
Science &  
Engineering, Inc.**

**BORING LOG AND  
WELL COMPLETION SUMMARY**

**WELL COMPLETION**

Completion Depth: 24 Feet

Size/Type	From	To
Casing: 2" Diam. Sched. 40 PVC	8 Feet	0 Feet
Screen: 2" Diam. Sched. 40 Slotted (0.02") PVC	24 Feet	9 Feet
Filter: #3 Sand	24 Feet	8 Feet
Seal: Bentonite	8 Feet	5.5 Feet
Grout	5.5 Feet	0 Feet

Well Cap or Box: Flush Mounted Well Box

Project Name: BP Oil Company Project No: 6-92-5428  
 Location: BP Station #11105  
 3519 Castro Valley Boulevard  
 Castro Valley, CA

Driller: Soils Exploration Services, Inc.  
 Method: HSA  
 Hole Diameter: 6" Total Depth: 27 Feet  
 Ref. Elevations:  
 Logged By: Chris Valchaff

Dates:  
 Start: 9-28-92  
 Finish: 9-28-92

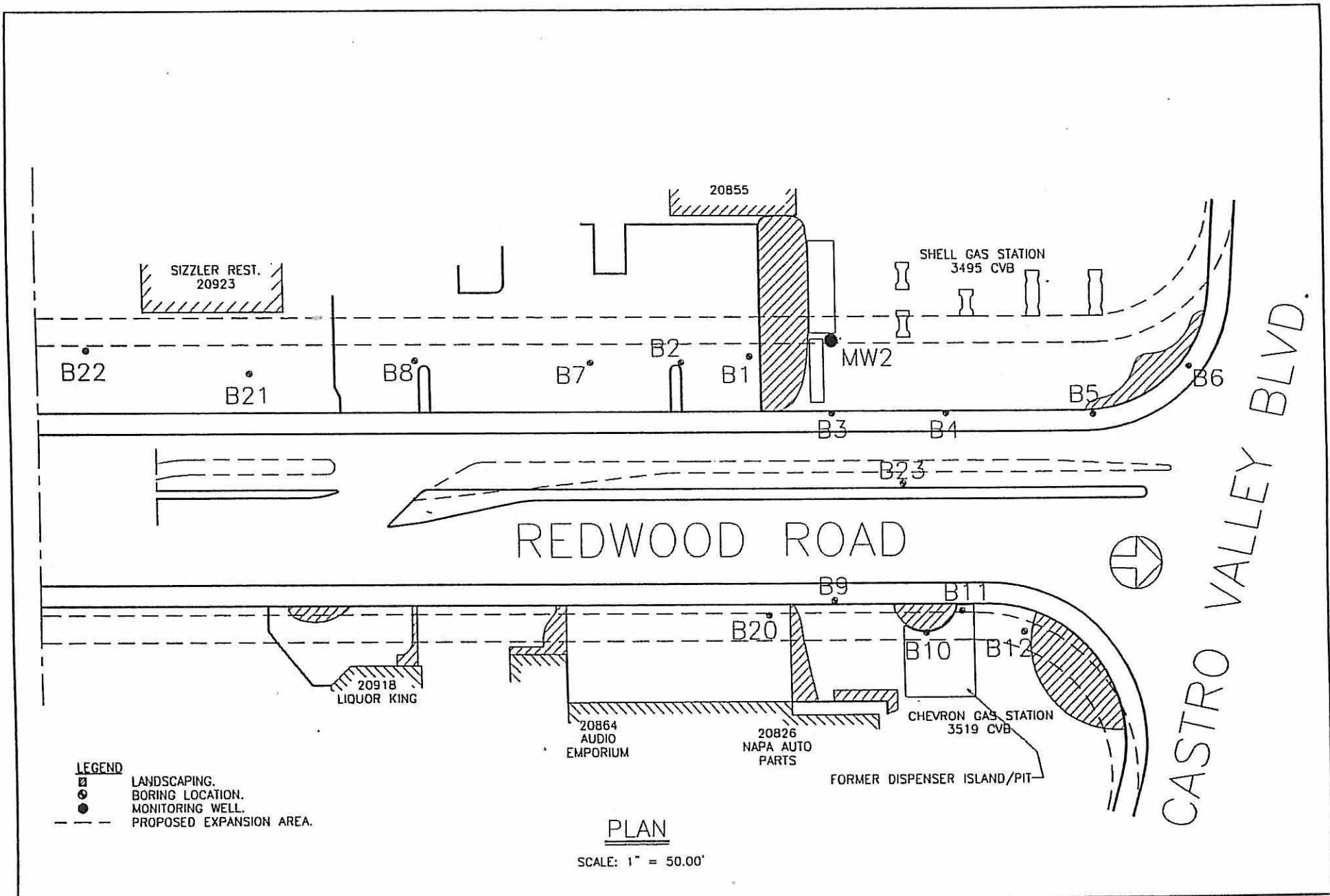
Depth (ft)	Lithologic Description	USC	Graphic Log			Remarks
			Sample/Blows	Lithology	Well Installation	
0	Asphalt Fill	GP				
0-5	NATIVE black-gray, 20-30% medium to coarse grained sand, stiff, damp, slight hydrocarbon odor.		3			
5	NATIVE with blue-gray mottling, 25-30% fine to coarse grained sand, stiff, damp, slight hydrocarbon odor.		4			SAMPLE @ 5 FEET
5-10	NATIVE, decrease in sand content, stiff, damp, slight hydrocarbon odor.		5			
10	NATIVE with blue-gray mottling, 80-90% silt and clay, stiff, damp.	ML	8			SAMPLE @ 10 FEET
10-15	Orange-brown with minor mottling, 30-40% fine to coarse grained sand, stiff, damp.		11			
15	Light brown, stiff, damp, no odor.		7			
15-20	As above, slight increase in sand content.		12			
20	As above, orange-brown, dry.		12			
20-25	As above, damp.		6			
25			9			
25-30			12			
30			12			

51,000  
250



TOTAL DRILLED DEPTH = 24 FEET  
 TOTAL DEPTH = 27 FEET

Sample conc. — TPH/benzene (ug/kg)



CASTRO VALLEY BLVD.

REDWOOD ROAD







- LEGEND**
- LANDSCAPING.
  - BORING LOCATION.
  - MONITORING WELL.
  - PROPOSED EXPANSION AREA.

PLAN

SCALE: 1" = 50.00'

FIG. No. 2	ACC ENVIRONMENTAL CONSULTANTS, INC. 1000 ATLANTIC AVENUE SUITE 110 ALAMEDA, CA 94501 (510) 522-8188 • FAX: (510) 865-5731	<b>SITE PLAN</b> REDWOOD RD. CASTRO VALLEY, CA	DATE JAN 1995
PRJ. No. 6163-1			DRAWN KMN

Environmental Control Associates, Inc. Geoprobe Sampler.	HNu (ppm)	SAMPLE #	Sample Interval	Depth (feet)	EQUIPMENT: Pneumatic Sampler LOGGED BY: M. Kaltreider PROJECT: Redwood Road START DATE: 12/5/94
<u>Munsell Color Scale</u>  (Gley 5G - 4/1)  (7.5YR - 4/4)  (2.5Y - 4/3)	100	B9-2	0-2	0	Concrete/Baserock: sandy gravel
	15	B9-4	2-4	2	Brown mottled olive grey sandy clay (CL), with 15% fine grain sand (interperated as fill material) plastic, stiff, moist, hydrocarbon odor.
	50	B9-6	4-6	4	Dark olive grey mottled olive brown, clay (CL) with 5% fine grain sand, slight mottling, stiff, plastic, moist.
	5	B9-8	6-8	6	Dark olive grey mottled brown, sandy clay (CL), with 15% fine grain sand, medium stiff, plastic, moist.
	5	B9-10	8-10	8	Brown sandy clay (CL) with 30% fine grain sand, med. stiff, plastic, moist.
				10	BOTTOM OF BORING @ 10 feet
				12	
				14	
				16	
				18	
ACC ENVIRONMENTAL CONSULTANTS 1000 ATLANTIC AVEUNUE, SUITE 110 ALAMEDA, CA 94501	JOB NO: 6163-1	LOG OF BORING=B9 Redwood Road Expansion Phase II Site Assessment Castro Valley, CA			
		DATE: 12/22/94			

Environmental Control Associates, Inc. Geoprobe Sampler.	HNu (ppm)	SAMPLE #	Sample Interval	Depth (feet)	EQUIPMENT: Pneumatic Sampler LOGGED BY: M. Kaltreider PROJECT: Redwood Road START DATE: 12/6/94
Munsell Color Scale  (Gley 5G - 4/1)	10	B10-2		0 2	 Concrete/Baserock: sandy gravel.
	50	B10-4		4 6	  
8 10 12 14 16 18 20 22 24 26 28					BOTTOM OF BORING @ 6 feet

ACC ENVIRONMENTAL CONSULTANTS 1000 ATLANTIC AVEUNUE, SUITE 110 ALAMEDA, CA 94501	JOB NO: 6163-1	LOG OF BORING B10 Redwood Road Expansion Phase II Site Assessment Castro Valley, CA
	DATE: 12/22/94	



Environmental Control Associates, Inc. Geoprobe Sampler.	HNu (ppm)	SAMPLE #	Sample Interval	Depth (feet)	EQUIPMENT: Pneumatic Sampler LOGGED BY: M. Kaltreider PROJECT: Redwood Road START DATE: 12/6/94
Munsell Color Scale (10YR - 2/2)	0	B11-2	0-2	0	Asphalt/Baserock: sandy gravel.
(Gley 5GY - 4/1)	0	B11-6	2-4	2	Very dark brown silty clay (CL) with 10% fine grain sand, slight mottling and roots, plastic, med. stiff, moist.
				4	Poor recovery, no sample collected.
		B11-8	4-6	6	Dark greenish grey mottled brown, sandy clay (CL) with 30% fine grain sand, stiff, plastic, moist.
(2.5Y - 4/3)	200	B11-10	6-8	8	Same as above, sand content increases to approximately 40% with depth, hydrocarbon odor.
	300		8-10	10	Brown clayey sand (SC) with 50% fine grain sand, med. dense, moist.
					BOTTOM OF BORING @ 10 feet









ACC ENVIRONMENTAL CONSULTANTS  
1000 ATLANTIC AVEUNUE, SUITE 110  
ALAMEDA, CA 94501

JOB NO: 6163-1

DATE: 12/22/94

LOG OF BORING B11  
Redwood Road Expansion  
Phase II Site Assessment  
Castro Valley, CA

Environmental Control Associates, Inc. Geoprobe Sampler.	HNu (ppm)	SAMPLE #	Sample Interval	Depth (feet)	EQUIPMENT: Pneumatic Sampler LOGGED BY: M. Kaltreider PROJECT: Redwood Road START DATE: 12/6/94
<u>Munsell Color Scale</u>  (10YR - 2/2)  (Gley 5GY - 4/1)  (2.5Y - 4/3)	0	B12-4	0 - 2	0 - 2	Asphalt/Baseroack: sandy gravel.
	0	B12-6	2 - 4	2 - 4	Poor recovery, no sample collected. Brown sandy clay (CL) with 15% fine grain sand, slight mottling, plastic, soft, very moist.
	0	B12-6	4 - 6	4 - 6	Dark greenish grey mottled brown, sandy clay (CL) with 40% fine grain sand, stiff, plastic, moist.
	200	B12-8	6 - 8	6 - 8	Brown clayey sand (SC) with 50% fine grain sand, med. dense, moist.
				8 - 10 10 - 12 12 - 14 14 - 16 16 - 18 18 - 20 20 - 22 22 - 24 24 - 26 26 - 28	BOTTOM OF BORING @ 8 feet
ACC ENVIRONMENTAL CONSULTANTS 1000 ATLANTIC AVEUNUE, SUITE 110 ALAMEDA, CA 94501			JOB NO: 6163-1  DATE: 12/22/94		LOG OF BORING B12 Redwood Road Expansion Phase II Site Assessment Castro Valley, CA

Environmental Control Associates, Inc. Geoprobe Sampler.	HNu (ppm)	SAMPLE #	Sample Interval	Depth (feet)	EQUIPMENT: Pneumatic Sampler LOGGED BY: M. Kaltreider PROJECT: Redwood Road START DATE: 12/6/94
Munsell Color Scale  (10YR - 4/3)	0	B20-3		0	 Asphalt/ baserock: sandy gravel.
	0	B20-5		2	 Brown sandy clay (CL) with 15% sand, plastic, slight mottling, stiff, moist.
	0	B20-7		4	
	0	B20-9		6	 Mottling and sand content (35% fine grain sand), increases with depth.
	0	B20-9		8	
ACC ENVIRONMENTAL CONSULTANTS 1000 ATLANTIC AVEUNUE, SUITE 110 ALAMEDA, CA 94501	JOB NO: 6163-1			LOG OF BORING B20 Redwood Road Expansion Phase II Site Assessment Castro Valley, CA	
	DATE: 12/22/94				

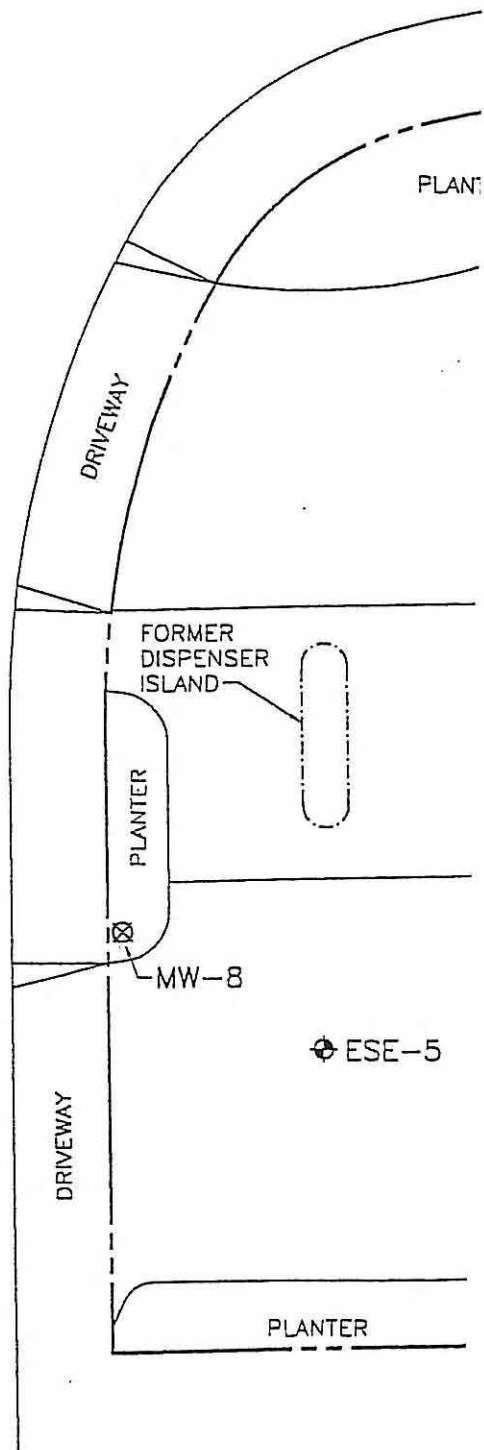
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1000 ATLANTIC AVEUNUE, SUITE 110  
ALAMEDA, CA 94501

JOB NO: 6163-1

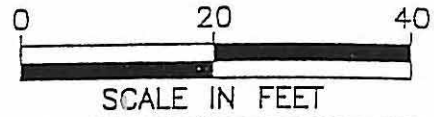
DATE: 12/22/94

LOG OF BORING B20  
Redwood Road Expansion  
Phase II Site Assessment  
Castro Valley, CA

REDWOOD ROAD



N



LEGEND

- ⊕ GROUNDWATER MONITORING WELL
- ⊗ DESTROYED WELL

SITE PLAN

BP OIL SERVICE STATION NO. 11105  
3519 CASTRO VALLEY BOULEVARD  
CASTRO VALLEY, CALIFORNIA

PROJECT NO. 10-138



ALISTO ENGINEERING GROUP  
WALNUT CREEK, CALIFORNIA

# GEOLOGIC LEGEND

<b>COARSE-GRAINED SOILS</b>	GRAVELS more than 1/2 of coarse fraction > No. 4 Sieve	LITTLE OR NO FINES		GW Well-graded gravels, gravel-sand mixtures, little or no fines
		LITTLE OR NO FINES		GP Poorly-graded gravels, gravel-sand mixtures
		APPRECIABLE NO FINES		GM Silty gravels, gravel-sand-silt mixtures
		APPRECIABLE NO FINES		GC Clayey gravels, gravel-sand-clay mixtures
	SANDS more than 1/2 of coarse fraction < No. 4 Sieve	LITTLE OR NO FINES		SW Well-graded sands, gravelly sands, little or no fines
		LITTLE OR NO FINES		SP Poorly-graded sands, gravelly sands, little or no fines
		APPRECIABLE NO FINES		SM Silty sands, sand-silt mixtures
		APPRECIABLE NO FINES		SC Clayey sands, sand-clay mixtures
<b>FINE-GRAINED SOILS</b>	SILTS AND CLAYS Liquid limit < 50		ML Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity	
			CL Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays	
			OL Organic silts and organic silty clays of low plasticity	
	SILTS AND CLAYS Liquid limit > 50		MH Inorganic silts, micaceous or diatomoceous fine sandy or silty soils, elastic silts	
			CH Inorganic clays of high plasticity, fat clays	
			OH Organic clays of medium to high plasticity, organic silts	
<b>HIGHLY ORGANIC SOILS</b>			Pt Peat and other highly organic soils	

### SYMBOL LEGEND:

- Cement
- Sand
- Bentonite
- Driven Interval of Soil Sample
- Sample preserved for possible analysis
- No sample recovered
- Stabilized water level
- Groundwater level encountered during drilling

### LEGEND TO BORING LOGS

BP OIL SERVICE STATION NO. 11105  
3519 CASTRO VALLEY BOULEVARD  
CASTRO VALLEY, CALIFORNIA

PROJECT NO. 10-138

**ALISTO ENGINEERING GROUP**  
WALNUT CREEK, CALIFORNIA



ALISTO ENGINEERING GROUP  
WALNUT CREEK, CALIFORNIA

# LOG OF BORING MW-6

Page 1 of 1

SEE SITE PLAN

ALISTO PROJECT NO: 10-138-03

DATE DRILLED: 07/18/95

CLIENT: BP Oil Company

LOCATION: 3519 Castro Valley Boulevard, Castro Valley, CA.

DRILLING METHOD: Hollow-stem auger (8"); 2" split-spoon sampler

DRILLING COMPANY: Soils Exploration Svcs. CASING ELEVATION: 179.24 MSL

LOGGED BY: C. Ladd

APPROVED BY: Al Sevilla

BLOWS/6 IN.	PTD VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
						SM	Planter
12,18,18	1.4		5			ML	sandy SILT: brown, dry. Observed from cuttings.
20,43,24	1.7		10				Same: medium brown mottled with Fe oxide stain to 25%, damp, hard; root traces to approximately 15%; minor fines.
18,18,22	1.1		15				Same: at 15 feet.
12,15,17	1.0		20			CL	silty CLAY: brown/gray, damp, hard.
10,8,7	0		25			SM	At 22 feet, observed water on auger. silty SAND: multi-color browns, saturated, medium dense; fine- to medium-grained sand.
			30			ML	clayey SILT: brown, wet; minor fines.
11,10,13	0					CL	silty-CLAY: brown, moist, very stiff; minor fines.
							Stabilized groundwater measured on July 28, 1995.



ALISTO ENGINEERING GROUP  
WALNUT CREEK, CALIFORNIA

# LOG OF BORING <sup>MW-7</sup>~~MW-7~~

Page 1 of 1

SEE SITE PLAN

ALISTO PROJECT NO: 10-138-03

DATE DRILLED: 07/18/95

CLIENT: BP Oil Company

LOCATION: 3519 Castro Valley Boulevard, Castro Valley, CA.

DRILLING METHOD: Hollow-stem auger (8"); 2" split-spoon sampler

DRILLING COMPANY: Soils Exploration Svcs. CASING ELEVATION: 178.55 MSL

LOGGED BY: C. Ladd

APPROVED BY: Al Sevilla

BLOWS/6 IN.	PTD VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
						ML	10" Concrete
15,18,14	10.0		5			ML	clayey SILT: dark brown, damp, very stiff; Fe oxide stain to approximately 5%.
14,23,17	10.0		10			CL	silty CLAY: brown/gray, damp, hard; Fe oxide stain to approximately 10%; rootlets to 10%; very fine-grained minor fines.
			15			ML	clayey SILT: red/brown, damp, hard; Fe oxide stain and rootlets; some fine-grained sand; occasional subrounded gravel to 1/4"-diameter.
15,20,24	9.7		15			CL	silty CLAY: brown, damp, hard; Fe oxide stain; occasional subrounded gravel to 1/4"-diameter; minor fines.
17,17,18	8.1		20			CL	CLAY: brown/gray, wet, hard; rootlets to 5%; Fe oxide stain to approximately 3%; minor fines.
11,11,15	0		25			SM	silty SAND: brown, wet, medium dense; fine-grained sand.
						SC	clayey SAND: brown/gray, wet to saturated, medium dense; fine- to medium-grained sand; minor fines.
9,10,13	0	30				CL	silty CLAY: brown/gray, moist, very stiff; some very fine-grained sand.
							Stabilized groundwater measured on July 28, 1995.



ALISTO ENGINEERING GROUP  
WALNUT CREEK, CALIFORNIA

# LOG OF BORING

MW-8

SEE SITE PLAN

ALISTO PROJECT NO: 10-138-03      DATE DRILLED: 07/19/95  
 CLIENT: BP Oil Company  
 LOCATION: 3519 Castro Valley Boulevard, Castro Valley, CA.  
 DRILLING METHOD: Hollow-stem auger (8"); 2" split-spoon sampler  
 DRILLING COMPANY: Soils Exploration Svcs.      CASING ELEVATION: 176.34 'MSL  
 LOGGED BY: C. Ladd      APPROVED BY: Al Sevilla

BLOWS/6 IN.	PTD VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	
							Planter	
9,11,10	8.8					CL	black, damp, very stiff; Fe oxide stain to 3%; rootlets to 5%.	
7,9,11	8.0					ML	brown, damp, very stiff; Fe oxide stain and root traces.	
13,15,18	329							Same: gray, damp, very stiff; minor fines.
20,24,28	310							Same: red/brown mottled gray, damp, hard; root traces present; minor fines.
15,21,22	51							Same: at 8.5 feet.
20,17,23	4.8						CL	brown mottled gray, damp, hard.
18,18,23	4.4						SM ML	(dense): red/brown, damp to slightly moist, dense; fine- to medium-grained sand; <1% rootlets.
12,18,22	4.0							at 13.5 feet, light brown to brown, damp, hard; rootlets present; minor fines.
15,15,19	4.0							Same: at 15.5 feet, mottled light brown and red.
10,14,12	4.1						SM	red/brown, wet to saturated, medium dense; fine- to medium-grained sand; <1% root traces.
18,18,20	3.5					SC	brown, wet, very stiff; root traces 5%.	
18,21,20	4.0						brown, damp, hard; rootlets to approximately 40%; minor fines.	
							brown, damp, hard; some fine- to medium-grained sand.	
			25				Stabilized groundwater measured on July 28, 1995.	
			30					





SEE SITE PLAN

ALISTO PROJECT NO: 10-138-03      DATE DRILLED: 07/19/95  
 CLIENT: BP Oil Company  
 LOCATION: 3519 Castro Valley Boulevard, Castro Valley, CA.  
 DRILLING METHOD: Hollow-stem auger (8"); 2" split-spoon sampler  
 DRILLING COMPANY: Soils Exploration Svcs.      CASING ELEVATION: 176.34 'MSL  
 LOGGED BY: C. Ladd      APPROVED BY: Al Sevilla

BLOWS/6 IN.	PID VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	
							Planter	
9,11,10	8.8						CL	silty CLAY: black, damp, very stiff; Fe oxide stain to 3%; rootlets to 5%.
7,9,11	8.0						ML	clayey SILT: brown, damp, very stiff; Fe oxide stain and root traces.
13,15,16	329			5				Same: gray, damp, very stiff; minor fines.
20,24,28	310							Same: red/brown mottled gray, damp, hard; root traces present; minor fines.
15,21,22	51			10				Same: at 9.5 feet.
20,17,23	4.8						CL	silty CLAY: brown mottled gray, damp, hard.
18,18,23	4.4						SM ML	silty SAND (lense): red/brown, damp to slightly moist, dense; fine- to medium-grained sand; <1% rootlets. clayey SILT: at 13.5 feet, light brown to brown, damp, hard; rootlets present; minor fines.
12,18,22	4.0			15				Same: at 15.5 feet, mottled light brown and red.
15,15,19	4.0							Same: at 17.5 feet.
10,14,12	4.1			20			SM SC	silty SAND: red/brown, wet to saturated, medium dense; fine- to medium-grained sand; <1% root traces. clayey SILT: brown, wet, very stiff; root traces 5%.
18,18,20	3.5							silty CLAY: brown, damp, hard; rootlets to approximately 40%; minor fines.
18,21,20	4.0							clayey SILT: brown, damp, hard; some fine- to medium-grained sand.
				25				Stabilized groundwater measured on July 28, 1995.
				30				



GEOLOGIC LOG OF BOREHOLE TWB-1

Boring Location:  
See Site Map.

Project: 2762  
Site Location: 5516 Castro Valley Blvd  
Castro Valley CA  
Drilling Method: DPT  
Driller: Vironex  
Logged By: E. Jennings

Date Drilled: Dec. 2, 2003  
Casing Elevation: NA  
Depth to 1st  
Groundwater: 20-23 ft  
Approved By: M Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS.	GEOLOGIC DESCRIPTION	SAMPLED		GW LEVEL	WELL DIAGRAM
					core	split spoon		
				4" concrete over 6" base rock.				NO TEMPORARY WELL CASING INSTALLED
			CL	Hand augered cutting.				
	5		CL	SILTY CLAY: dark brown; soft; non plastic to slightly plastic; low to medium permeability (LEK-MEK). No petroleum hydrocarbon (PHC) odor.				
				As above becoming light grayish brown w/ some reddish brown staining; soft to medium stiff. LEK.				
	10			2 to 4" stringer of fine sand and gravelly silt clay lense at 10.5'.				
			CL	SILTY CLAY w/ some Fine Sand: light grayish brown to reddish brown; soft to medium stiff; damp; <30% fine sand. LEK-MEK. No PHC odor.				
	15			As above becoming moist with depth.				
	20		ML-SM	SANDY SILT/SILTY SAND w/ some Clay: reddish brown; medium dense; moist; 40-60% fines sand. MEK. No PHC odor.				
			CL/ ML-SM	SILTY CLAY interbedded w/ Sandy Silt/Silty Sand: reddish brown and light grayish brown; moist to wet; w/ trace gravel fragments				
	25							



GEOLOGIC LOG OF BOREHOLE TWB-1

Boring Location:

See Site Map.

Project: 2552  
 Site Location: 5519 Castro Valley Blvd  
 Castro Valley CA  
 Drilling Method: DPT  
 Driller: Vironex  
 Logged By: E Jennings

Date Drilled: Dec. 2, 2003  
 Casing Elevation: NA  
 Depth to 1st  
 Groundwater: 20-23 ft  
 Approved By: M Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS.	GEOLOGIC DESCRIPTION	SAMPLED		GW LEVEL	WELL DIAGRAM
					core	split spoon		
	30			No recovery				
	35							
	40							
	45							
	50			Total Depth: 30 ft bgs. First encountered groundwater: 20-23 ft bgs. Hand augered to 5 ft bgs to clear utilities.				



GEOLOGIC LOG OF BOREHOLE TWB-2

Boring Location:  
See Site Map.

Project: 2762  
Site Location: 5516 Castro Valley Blvd  
Castro Valley CA  
Drilling Method: DPT  
Driller: Vironex  
Logged By: E. Jennings

Date Drilled: Dec. 2, 2003  
Casing Elevation: NA  
Depth to 1st  
Groundwater: 21-23 ft  
Approved By: M Sepehr

DEPTH	GRAPHIC LOG	SOIL CLASS.	GEOLOGIC DESCRIPTION	SAMPLED		GW LEVEL	WELL DIAGRAM
				core	split spoon		
			4" concrete over 6" base rock.				NO TEMPORARY WELL CASING INSTALLED
		CL	Hand augered cutting.				
5		CL	SILTY CLAY w/ some Fine Sand; dark brown to reddish brown; soft to medium stiff; damp; non plastic; <15% fine sand; low to medium estimated permeability (LEK-MEK). No petroleum hydrocarbon (PHC) odor.				
10			As above becoming stiff to very stiff; slightly plastic.				
15			As above becoming very stiff to hard; moist with depth.				
20		CL	SILTY CLAY: brown; soft to stiff; moist; slightly plastic to plastic. LEK-MEK. No PHC odor.				
25		ML-SM	SANDY SILT/SILTY SAND w/ some Clay: brown to reddish brown; medium dense; 40-60% fine sand. MEK. No PHC odor.			▼	

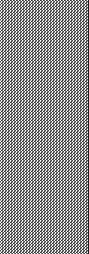



GEOLOGIC LOG OF BOREHOLE TWB-2

Boring Location:  
  
See Site Map.

Project: 2552  
 Site Location: 5519 Castro Valley Blvd  
 Castro Valley CA  
 Drilling Method: DPT  
 Driller: Vironex  
 Logged By: E Jennings

Date Drilled: Dec. 2, 2003  
 Casing Elevation: NA  
 Depth to 1st  
 Groundwater: 20-23 ft  
 Approved By: M Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS.	GEOLOGIC DESCRIPTION	SAMPLED		GW LEVEL	WELL DIAGRAM
					core	split spoon		
	30		CL	SILTY CLAY w/ some Fine Sand: brown; soft to medium stiff; moist; plastic; <30% fine sand. MEK. No PHC odor.				
	35							
	40							
	45							
	50							

Total Depth: 30 ft bgs.  
 First encountered groundwater: 21-23 ft bgs.  
 Hand augered to 5 ft bgs to clear utilities.



GEOLOGIC LOG OF BOREHOLE TWB-3

Boring Location:  
See Site Map.

Project: 2762  
Site Location: 5516 Castro Valley Blvd  
Castro Valley CA  
Drilling Method: DPT  
Driller: Vironex  
Logged By: E. Jennings

Date Drilled: Dec. 2, 2003  
Casing Elevation: NA  
Depth to 1st  
Groundwater: 23 ft  
Approved By: M Sepehr

DEPTH	GRAPHIC LOG	SOIL CLASS.	GEOLOGIC DESCRIPTION	SAMPLED		GW LEVEL	WELL DIAGRAM
				core	split spoon		
			4" concrete over 6" base rock.				NO TEMPORARY WELL CASING INSTALLED
		CL	Hand augered cutting.				
5		CL	SILTY CLAY w/ some Fine Sand: brown to reddish brown; soft to medium stiff; damp; non plastic to slightly plastic; <30% fine sand. Low to medium estimated permeability (LEK-MEK). No petroleum hydrocarbon (PHC) odor.				
10			As above becoming moist with depth; plastic.				
15			As above becoming soft and moist with depth.				
			2" stringer of fine sand and gravelly, silty clay lense at 17.5'.				
20		CL	SILTY CLAY: reddish brown; stiff to very stiff; moist; plastic. LEK. No PHC odor.				
			As above becoming dark reddish brown to reddish brown; soft to medium stiff; plastic. LEK-MEK. No PHC odor.				
25			As above becoming reddish brown to brown.				



GEOLOGIC LOG OF BOREHOLE TWB-3

Boring Location:

See Site Map.

Project: 2552  
 Site Location: 5519 Castro Valley Blvd  
 Castro Valley CA  
 Drilling Method: DPT  
 Driller: Vironex  
 Logged By: E Jennings

Date Drilled: Dec. 2, 2003  
 Casing Elevation: NA  
 Depth to 1st  
 Groundwater: 23 ft  
 Approved By: M Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS.	GEOLOGIC DESCRIPTION	SAMPLED		GW LEVEL	WELL DIAGRAM
					core	split spoon		
	30		CL	SILTY CLAY: reddish brown to brown; very soft to soft; moist to saturated; MEK-HEK. No PHC odor.				
	35							
	40							
	45							
	50							

Total Depth: 30 ft bgs.  
 First encountered groundwater: 23 ft bgs.  
 Hand augered to 5 ft bgs to clear utilities.



GEOLOGIC LOG OF BOREHOLE TWB-4

Boring Location:  
See Site Map.

Project: 2762  
Site Location: 5516 Castro Valley Blvd  
Castro Valley CA  
Drilling Method: DPT  
Driller: Vironex  
Logged By: E. Jennings

Date Drilled: Dec. 2, 2003  
Casing Elevation: NA  
Depth to 1st  
Groundwater: 25-28 ft  
Approved By: M Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS.	GEOLOGIC DESCRIPTION	SAMPLED		GW LEVEL	WELL DIAGRAM
					core	split spoon		
				4" concrete over 6" base rock.				NO TEMPORARY WELL CASING INSTALLED
			CL	Hand augured cutting.				
	0 5		CL	CLAYEY SILT/SILTY CLAY w/ some Sand: brown; medium stiff; damp; slightly plastic. Low to medium estimated permeability (LEK-MEK). No petroleum hydrocarbon (PHC) odor.				
	80 10			As above becoming brown to grayish brown; medium stiff to very stiff. LEK. Moderate PHC odor.				
	10 15		CL	SILTY CLAY: brown; stiff; damp; plastic. LEK. No PHC odor.				
	4 20			6" stringer of fine sand and gravelly, silty clay lense at 18'.				
	0 3			6" stringer of sand and gravelly, silty clay lense at 21'.				
	0 25			As above becoming soft to medium stiff; increasing moisture with depth.				





GEOLOGIC LOG OF BOREHOLE TWB-4

Boring Location:

See Site Map.

Project: 2552  
 Site Location: 5519 Castro Valley Blvd  
 Castro Valley CA  
 Drilling Method: DPT  
 Driller: Vironex  
 Logged By: E Jennings

Date Drilled: Dec. 2, 2003  
 Casing Elevation: NA  
 Depth to 1st  
 Groundwater: 25-28 ft  
 Approved By: M Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS.	GEOLOGIC DESCRIPTION	core	SAMPLED split spoon	GW LEVEL	WELL DIAGRAM
	30		CL	SILTY CLAY: brown; soft; moist; plastic. LEK-MEK. No PHC odor.				
	35							
	40							
	45							
	50			Total Depth: 30 ft bgs. First encountered groundwater: 25-28 ft bgs. Hand augered to 5 ft bgs to clear utilities.				



GEOLOGIC LOG OF BOREHOLE TWB-5

Boring Location:  
See Site Map.

Project: 2762  
Site Location: 5516 Castro Valley Blvd  
Castro Valley CA  
Drilling Method: DPT  
Driller: Vironex  
Logged By: E. Jennings

Date Drilled: Dec. 2, 2003  
Casing Elevation: NA  
Depth to 1st  
Groundwater: 17 ft  
Approved By: M Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS.	GEOLOGIC DESCRIPTION	SAMPLED		GW LEVEL	WELL DIAGRAM
					core	split spoon		
				4" concrete over 6" base rock.				NO TEMPORARY WELL CASING INSTALLED
			CL	Hand augured cutting.				
0	5		CL	CLAYEY SILT/SILTY CLAY: grayish brown; medium stiff; damp; slightly plastic; low estimated permeability (LEK). No petroleum hydrocarbon (PHC) odor.				
191	10			As above w/ strong PHC odor.				
				As above becoming reddish brown; stiff to very stiff. Strong PHC odor.				
				As above becoming grayish brown; soft to medium stiff; moist. Slight PHC odor.				
0	15		CL	SILTY CLAY w/ some Fine Sand: reddish brown; soft to medium stiff; moist to wet; <20% fine sand. LEK. Slight PHC odor.				
				2-4" stringer of fine sand and gravelly, silty clay lense; well sorted and poorly graded.				
0	20			As above becoming medium stiff to very stiff.				
0	25			As above becoming soft; saturated. MEK-HEK.				



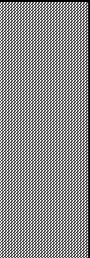


GEOLOGIC LOG OF BOREHOLE TWB-5

Boring Location:

See Site Map.

Project: 2552  
 Site Location: 5519 Castro Valley Blvd  
 Castro Valley CA  
 Drilling Method: DPT  
 Driller: Vironex  
 Logged By: E Jennings

Date Drilled: Dec. 2, 2003  
 Casing Elevation: NA  
 Depth to 1st  
 Groundwater: 25-28 ft  
 Approved By: M Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS.	GEOLOGIC DESCRIPTION	core	SAMPLED	split spoon	GW LEVEL	WELL DIAGRAM
	30		CL	SILTY CLAYw/ some Fine Sand: reddish brown; soft to medium stiff; wet to saturated; <30% fine sand. MEK-HEK. No PHC odor.					
	35								
	40								
	45								
	50								

Total Depth: 30 ft bgs.  
 First encountered groundwater: 17 ft bgs.  
 Hand augered to 5 ft bgs to clear utilities.



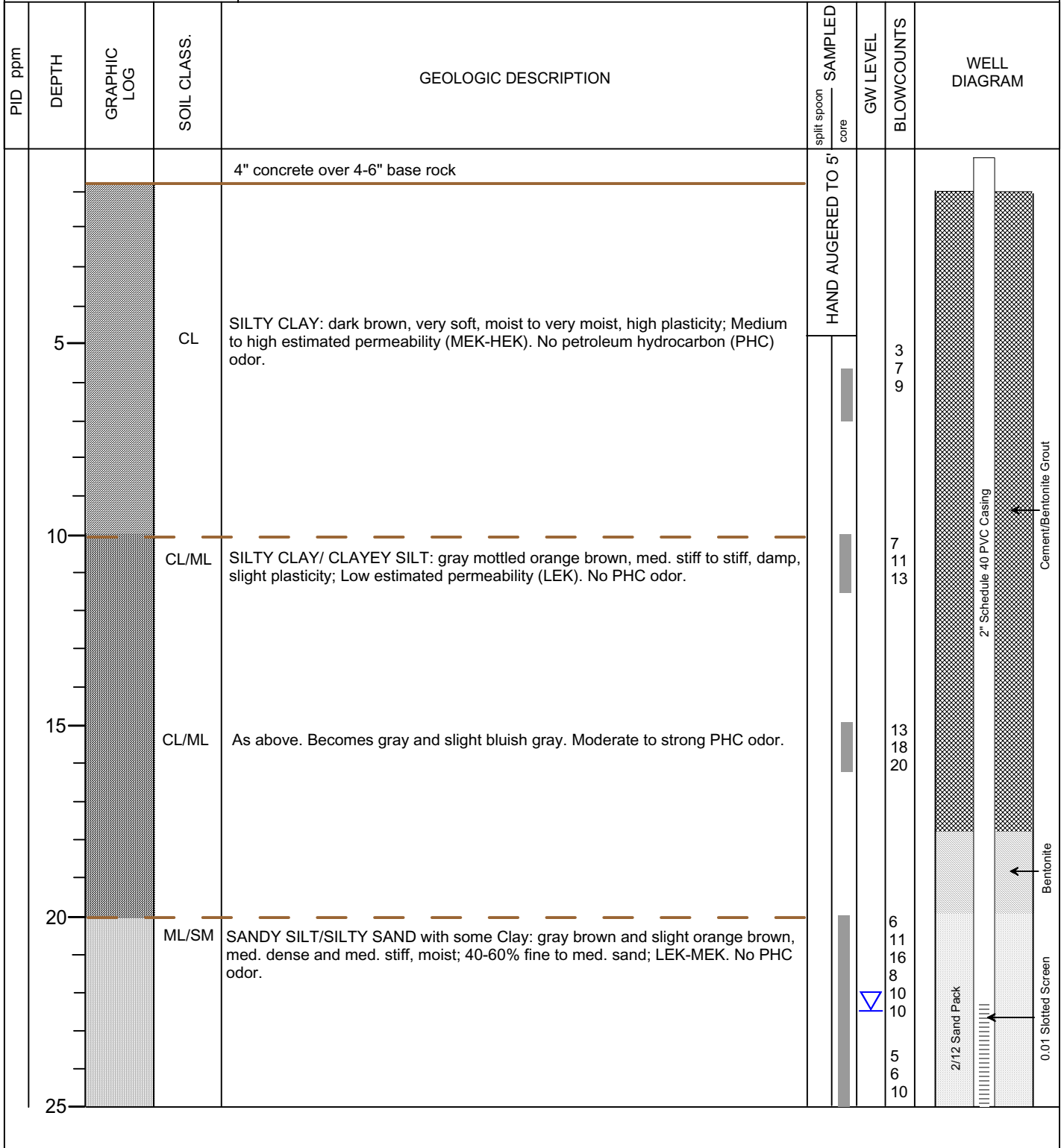
GEOLOGIC LOG OF BOREHOLE SOMA-1

BORING LOCATION

SEE SITE MAP

PROJECT: 2762  
 SITE LOCATION: 3519 Castro Valley Blvd  
 Castro Valley, CA  
 DRILLING METHOD: Hollow Stem Auger.  
 DRILLER: Gregg Drilling & Testing  
 LOGGED BY: E Jennings

DATE DRILLED: June 10, 2004  
 CASING ELEVATION:  
 DEPTH TO 1ST GW: 22'  
 APPROVED BY: M Sepehr









GEOLOGIC LOG OF BOREHOLE SOMA-3

BORING LOCATION

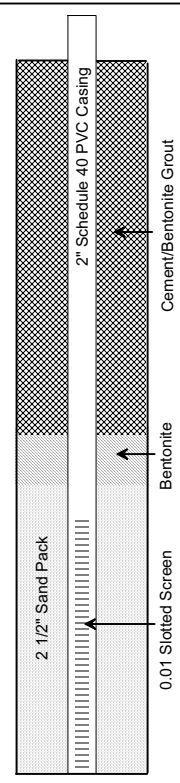
SEE SITE MAP

PROJECT: 2762  
 SITE LOCATION: 3519 Castro Valley Blvd  
 Castro Valley, CA  
 DRILLING METHOD: Hollow Stem Auger.  
 DRILLER: Gregg Drilling & Testing  
 LOGGED BY: E Jennings

DATE DRILLED: June 10, 2004  
 CASING ELEVATION:  
 DEPTH TO 1ST GW: Approx 12'  
 APPROVED BY: M Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS.	GEOLOGIC DESCRIPTION	split spoon core	SAMPLED	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
			CL	4" concrete over 4-6" base rock					
	5		CL	SILTY CLAY with some FINE SAND: gray brown mottled orange brown, med. stiff dense, moist slightly plastic; <30% fine sand; Low estimated permeability (LEK). No petroleum hydrocarbon (PHC) odor.				7 7 8	
	10			As above. Reddish brown and moist with depth.				9 8 9	
	15		SM	FINE SILTY SAND: reddish brown slightly mottled gray, med. dense, very moist to wet; 40-60% very fine to fine sand; High estimated permeability (HEK). No PHC odor.				5 5 6	
				TOTAL DEPTH 15'					
				Groundwater first encountered at 12' and stabilized at 9.90'					

HAND AUGERED TO 5'





GEOLOGIC LOG OF BOREHOLE SOMA-4

BORING LOCATION

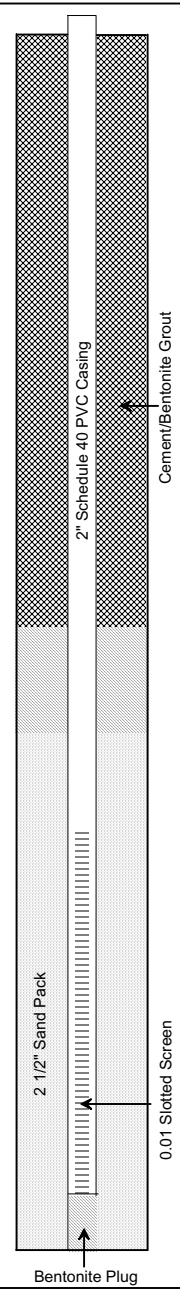
SEE SITE MAP

PROJECT: 2762  
 SITE LOCATION: 3519 Castro Valley Blvd  
 Castro Valley, CA  
 DRILLING METHOD: Hollow Stem Auger.  
 DRILLER: Gregg Drilling & Testing  
 LOGGED BY: E Jennings

DATE DRILLED: June 10, 2004  
 CASING ELEVATION:  
 DEPTH TO 1ST GW: Approx 16'-17'  
 APPROVED BY: M Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS.	GEOLOGIC DESCRIPTION	SAMPLING METHOD	SAMPLED	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
				4" concrete over 4-6" base rock		HAND AUGERED TO 5'			
	5		SM	FINE SILTY SAND with some CLAY: gray to grayish brown mottled orange brown, med. dense, damp to moist; 40-60% fine sand; Low to med. estimated permeability (LEK). No petroleum hydrocarbon (PHC) odor.				26 50	
	10		SM/CL	SILTY SAND/ SILTY CLAY: reddish brown, dense and med. stiff, damp; LEK. Slight PHC odor.				11 14 23	
	15		CL	SILTY CLAY: brown, med. stiff to stiff, damp to moist, slightly plastic; LEK. No PHC odor.				9 9 9	
	20		SM	SILTY SAND with some CLAY: gray and slight yellow brown, med. dense, very moist to wet; <60% fine sand; MEK to high estimated permeability (HEK). No PHC odor.				7 11	
	25		SM/ML	SILTY SAND/ SANDY SILT: gray brown slightly mottled orange, med. dense, wet to saturated; 40-60% fine sand; MEK-HEK. No PHC odor.				6 8 8	
	25		CL	SILTY CLAY with some SAND: gray brown slightly mottled orange brown, med. stiff, moist; LEK-MEK. No PHC odor.					
				TOTAL DEPTH 24.5'					

Groundwater first encountered at 16-17' and stabilized at 9.32'





# **APPENDIX D**

## **Well Development Log and Waste Manifests**



# NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No. <i>None</i>		Manifest Document No. <i>20706-01</i>	2. Page 1 of <i>1</i>				
3. Generator's Name and Mailing Address <i>Muzina Shakeri 3519 Castro Valley Blvd Castro Valley, Ca 94546</i>									
4. Generator's Phone ( )									
5. Transporter 1 Company Name <i>Advanced Chemical Transport, Inc</i>		6. US EPA ID Number <i>CA 600 007 0546</i>		A. State Transporter's ID					
7. Transporter 2 Company Name		8. US EPA ID Number		B. Transporter 1 Phone <i>(415) 318 5050</i>					
9. Designated Facility Name and Site Address <i>US Ecology Nevada Inc PO Box 578, Hwy 95, 11 Miles S Beatty Beatty, NV 89003</i>		10. US EPA ID Number <i>NV 1030010007</i>		C. State Transporter's ID					
				D. Transporter 2 Phone					
				E. State Facility's ID					
				F. Facility's Phone <i>(702) 239-3943</i>					
11. WASTE DESCRIPTION			12. Containers		13. Total Quantity	14. Unit Wt./Vol.			
			No.	Type					
			a.	<i>Non Hazardous Solid (soil Cutting)</i>			<i>2</i>	<i>200</i>	<i>100</i>
			b.						
			c.						
d.									
G. Additional Descriptions for Materials Listed Above <i>MMU Profile Project #20706</i>			H. Handling Codes for Wastes Listed Above						
15. Special Handling Instructions and Additional Information									
<b>16. GENERATOR'S CERTIFICATION:</b> I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.									
Printed/Typed Name <i>Elena Manzo</i>				Signature <i>[Signature]</i>		Date Month Day Year <i>09   25   09</i>			
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature <i>[Signature]</i>		Date Month Day Year <i>09   25   09</i>			
18. Transporter 2 Acknowledgement of Receipt of Materials				Signature		Date			
Printed/Typed Name				Signature		Month Day Year			
19. Discrepancy Indication Space									
20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.									
Printed/Typed Name				Signature		Date Month Day Year			

NON-HAZARDOUS WASTE

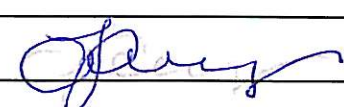
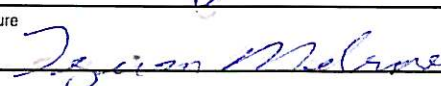
GENERATOR

TRANSPORTER

FACILITY

# NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No. <p style="text-align: center;">None</p>	Manifest Document No. <p style="text-align: center;">20706-02</p>	2. Page 1 of 1
3. Generator's Name and Mailing Address <p style="text-align: center;">Mirajim Shakoeri 3519 Castro Valley Blvd Castro Valley, Ca. 94546</p>				
4. Generator's Phone (5-754) 5000				
5. Transporter 1 Company Name <p style="text-align: center;">Advanced Chemical Transport, Inc</p>	6. US EPA ID Number <p style="text-align: center;">CAR000070540</p>	A. State Transporter's ID		
7. Transporter 2 Company Name		B. Transporter 1 Phone <p style="text-align: center;">(415) 340-2000</p>		
9. Designated Facility Name and Site Address <p style="text-align: center;">Evergreen Oil, Inc 6080 Smith Ave Newark, Ca 94500</p>		8. US EPA ID Number	C. State Transporter's ID	
		D. Transporter 2 Phone		E. State Facility's ID
		10. US EPA ID Number <p style="text-align: center;">CAD980887418</p>		F. Facility's Phone <p style="text-align: center;">(510) 795-4400</p>
11. WASTE DESCRIPTION		12. Containers	13. Total Quantity	14. Unit Wt./Vol.
a. Non Hazardous Liquid (purge Water)		No. Type		
		2 LM	80	0
b.				
c.				
d.				
G. Additional Descriptions for Materials Listed Above <p style="text-align: center;">MME-9411002 [2xCO2] Profile- Project #20706</p>		H. Handling Codes for Wastes Listed Above		
15. Special Handling Instructions and Additional Information				
<b>16. GENERATOR'S CERTIFICATION:</b> I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.				
Printed/Typed Name <p style="text-align: center;">Elena Manzo</p>		Signature 	Date Month Day Year <p style="text-align: center;">09   25   09</p>	
17. Transporter 1 Acknowledgement of Receipt of Materials				
Printed/Typed Name <p style="text-align: center;">Tyman Melrose</p>		Signature 	Date Month Day Year <p style="text-align: center;">09   25   09</p>	
18. Transporter 2 Acknowledgement of Receipt of Materials				
Printed/Typed Name		Signature	Date Month Day Year	
19. Discrepancy Indication Space				
20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.				
Printed/Typed Name		Signature	Date Month Day Year	

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY

# **APPENDIX E**

## **Well Survey Data**

**Ben Harrington PLS**

**Land Surveying & Mapping**

2278 Larkey Lane, Walnut Creek, Ca. 94596 Phone (925)935-7228 Fax (925)935-5118  
Cel (925)788-7359 E-Mail (ben5132@pacbell.net)

Soma Environmental Engineering  
6620 Owens Dr  
Suite A  
Pleasanton Ca. 94588

Sept 04, 2009

Attn: Elena  
Job # 2903

Ref: 3519 Castro Valley Blvd. Castro Valley Ca.

**HORIZONTAL CONTROL, NAD 88:**

Survey based previous survey dated 6/21/04 by Kier & Wright Surveyors on California  
Coordinate System, Zone 3, NAD 83.

ESE-1 NOTCH IN TOP OF 2" PVC, NORTH 2,079,361.15 EAST 6,106,465.13 LAT.  
N37°41'42.17112" W122°04'24.07899", NAVD 88, ELEV.180.24.

ESE-2 NOTCH IN TOP OF 2" PVC, NORTH 2,079,361.30 EAST 6,106,501.97, LAT.  
N37°41'42.07873" W122°04'23.62071", NAVD 88, ELEV. 180.79.

GPS: TRIMBLE 5800, LEICA TCA 1800, 1" HORZ. & VERT.

EPOCH DATE 2007.00

OBSERVATION: EPOCH=180.

FIELD SURVEY: 9-04-09.

Ben Harrington  
PLS 5132





# **APPENDIX F**

## **Laboratory Analytical Report and Chain of Custody Form**





Laboratory Job Number 214303
ANALYTICAL REPORT

SOMA Environmental Engineering Inc.
6620 Owens Dr.
Pleasanton, CA 94588

Project : 2762
Location : 3519 Castro Valley Blvd, Castro Valle
Level : II

Table with 4 columns: Sample ID, Lab ID, Sample ID, Lab ID. Lists various sample and lab identifiers such as DP-1@7FT, DP-5@6FT, SOMA-5@11FT, etc.

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: [Handwritten Signature]
Project Manager

Date: 09/01/2009

## CASE NARRATIVE

Laboratory number: 214303  
Client: SOMA Environmental Engineering Inc.  
Project: 2762  
Location: 3519 Castro Valley Blvd, Castro Valle  
Request Date: 08/20/09  
Samples Received: 08/20/09

This data package contains sample and QC results for eighteen soil samples and seven water samples, requested for the above referenced project on 08/20/09. The samples were received cold and intact.

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

Matrix spikes QC508755, QC508756 (batch 154127) were not reported because the parent sample was reanalyzed in another batch. High surrogate recoveries were observed for bromofluorobenzene (FID) and trifluorotoluene (FID) in a number of samples, due to interference from coeluting hydrocarbon peaks. No other analytical problems were encountered.

### TPH-Extractables by GC (EPA 8015B) Water:

High surrogate recovery was observed for o-terphenyl in the method blank for batch 154119; no target analytes were detected in the sample. No other analytical problems were encountered.

### TPH-Extractables by GC (EPA 8015B) Soil:

No analytical problems were encountered.

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

DP-2 (lab # 214303-043), DP-3 (lab # 214303-044), and DP-4 (lab # 214303-045) had pH greater than 2. DP-1 (lab # 214303-042) had multiple vials combined due to sediment. DP-2 (lab # 214303-043) had multiple vials combined due to sediment. DP-3 (lab # 214303-044) had multiple vials combined due to sediment. DP-5 (lab # 214303-046) had multiple vials combined due to sediment. DP-6 (lab # 214303-047) had multiple vials combined due to sediment. DP-7 (lab # 214303-048) had multiple vials combined due to sediment. No other analytical problems were encountered.

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

Matrix spikes were not performed for this analysis in batch 154291 due to insufficient sample amount. High surrogate recovery was observed for bromofluorobenzene in DP-1@14FT (lab # 214303-003). No other analytical problems were encountered.



# CHAIN OF CUSTODY

**Curtis & Tompkins, Ltd**  
 Analytical Laboratory Since 1878  
 2323 Fifth Street  
 Berkeley, CA 94710  
 (510)486-0900 Phone  
 (510)486-0532 Fax

## Analyses

LOGIN # 214303

Sampler: Lizzie Hightower

Report To: Joyce Bobek

Company: SOMA Environmental

Telephone: 925-734-6400

Fax: 925-734-6401

Project No: 2762

Project Name: 3519 Castro Valley Blvd, Castro Valley

Turnaround Time: Standard

Lab No.	Sample ID.	Sampling Date	Time	Matrix			# of Containers	Preservative			
				Soil	Water	Waste		HCL	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICE
14	DP-3 @ 6 ft	8/17/09	12:18	*			6-inch sleeve				*
15	DP-3 @ 8 ft		12:30	*			6-inch sleeve				*
16	DP-3 @ 12 ft		12:45	*			6-inch sleeve				*
17	DP-3 @ 15 ft		13:04	*			6-inch sleeve				*
18	DP-3 @ 17 ft		13:18	*			6-inch sleeve				*
19	DP-3 @ 22 ft		14:13	*			6-inch sleeve				*
20	DP-4 @ 6 ft		09:27	*			6-inch sleeve				*
21	DP-4 @ 10 ft		09:55	*			6-inch sleeve				*
22	DP-4 @ 14 ft		10:16	*			6-inch sleeve				*
23	DP-4 @ 23 ft		10:49	*			6-inch sleeve				*
24	DP-4 @ 29 ft		11:07	*			6-inch sleeve				*
25	DP-5 @ 6 ft	8/18/09	13:16	*			6-inch sleeve				*
26	DP-5 @ 12 ft		13:28	*			6-inch sleeve				*

TPH-g, TPH-d Method 8015D	BTEX, MtBE Method 8260B	VOCs, Gas Ox, Pb Scavengers Method 8260B (Full List)																		
*	*	*																		
*	*	*																		
*	*	*																		
*	*	*																		
*	*	*																		
*	*	*																		
*	*	*																		
*	*	*																		
*	*	*																		
*	*	*																		
*	*	*																		
*	*	*																		

Notes: **EDF OUTPUT REQUIRED**

RELINQUISHED BY:

*E. Hightower* 8/19/09 14:36 DATE/TIME

*Joyce Bobek* 8/20/09 9:35 DATE/TIME

DATE/TIME

RECEIVED BY:

*Joyce Bobek* 8/19/09 14:36 DATE/TIME

*[Signature]* 8/20/09 9:35 DATE/TIME

DATE/TIME



# CHAIN OF CUSTODY

**Curtis & Tompkins, Ltd**  
 Analytical Laboratory Since 1878  
 2323 Fifth Street  
 Berkeley, CA 94710  
 (510)486-0900 Phone  
 (510)486-0532 Fax

LOGIN # 214303

**Analyses**

**Project No:** 2762  
**Project Name:** 3519 Castro Valley Blvd, Castro Valley  
**Turnaround Time:** Standard

**Sampler:** Lizzie Hightower  
**Report To:** Joyce Bobek  
**Company:** SOMA Environmental  
**Telephone:** 925-734-6400  
**Fax:** 925-734-6401

Lab No.	Sample ID.	Sampling Date	Time	Matrix			# of Containers	Preservative			
				Soil	Water	Waste		HCL	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICE
40	SOMA-5 @ 11 ft	8/18/09	16:56	*			6-inch sleeve				*
41	SOMA-5 @ 12.5 ft	↓	17:08	*			6-inch sleeve				*
42	DP-1	8/18/09	15:35	*			4 VOAS	*			*
43	DP-2	8/17/09	16:20	*			4 VOAS	*			*
44	DP-3	↓	13:25	*			4 VOAS	*			*
45	DP-4	↓	14:26	*			4 VOAS	*			*
46	DP-5	8/18/09	15:10	*			4 VOAS	*			*
47	DP-6	↓	14:57	*			4 VOAS	*			*
48	DP-7	↓	14:50	*			4 VOAS	*			*

TPH-g, TPH-d Method 8015D	BTEX, MtBE Method 8260B	VOCs, Gas Ox, Pb Scavengers Method 8260B (Full List)	TPHg, BTEX, MtBE 8260B	Gasoline Oxygenates & Lead Scavengers	Ethanol	TFH-Diesel & motor oil
*	*	*				
*	*	*				
			*	*	*	X
			*	*	*	X
			*	*	*	X
			*	*	*	X
			*	*	*	X
			*	*	*	X

**Notes:** EDF OUTPUT REQUIRED

**RELINQUISHED BY:**  
 E. Hightower 8/19/09 14:36 DATE/TIME  
 Joyce Bobek 8/20/09 9:35 DATE/TIME

**RECEIVED BY:**  
 Joyce Bobek 8/19/09 14:36 DATE/TIME  
 L. Hightower 8/20/09 9:35 DATE/TIME

258-4437

COOLER RECEIPT CHECKLIST



Curtis & Tompkins, Ltd.

Login # 214303 Date Received 8/20/09 Number of coolers 2
Client SOMA ENV. Project 3519 CASTRO VALLEY BLVD, CASTRO VALLEY

Date Opened 8/20/09 By (print) M. VILLANUEVA (sign) [Signature]
Date Logged in [check] By (print) [check] (sign) [check]

1. Did cooler come with a shipping slip (airbill, etc) YES NO
Shipping info

2A. Were custody seals present? ... YES (circle) on cooler on samples NO
How many Name Date

2B. Were custody seals intact upon arrival? YES NO N/A

3. Were custody papers dry and intact when received? YES NO

4. Were custody papers filled out properly (ink, signed, etc)? YES NO

5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO

6. Indicate the packing in cooler: (if other, describe)

- Bubble Wrap, Foam blocks, Bags, None, Cloth material, Cardboard, Styrofoam, Paper towels

7. Temperature documentation:

Type of ice used: Wet Blue/Gel None Temp(C)

Samples Received on ice & cold without a temperature blank

Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES NO

If YES, what time were they transferred to freezer?

9. Did all bottles arrive unbroken/unopened? YES NO

10. Are samples in the appropriate containers for indicated tests? YES NO

11. Are sample labels present, in good condition and complete? YES NO

12. Do the sample labels agree with custody papers? YES NO

13. Was sufficient amount of sample sent for tests requested? YES NO

14. Are the samples appropriately preserved? YES NO N/A

15. Are bubbles > 6mm absent in VOA samples? YES NO N/A

16. Was the client contacted concerning this sample delivery? YES NO

If YES, Who was called? By Date:

COMMENTS

REC'D 1- 1L AMB EACH WATER SAMPLES, NO ANALYSIS ON COC FOR THESE CONTAINERS

Total Volatile Hydrocarbons		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8015B
Matrix:	Soil	Basis: as received
Units:	mg/Kg	Received: 08/20/09

Field ID:	DP-1@11FT	Batch#:	154227
Type:	SAMPLE	Sampled:	08/18/09
Lab ID:	214303-002	Analyzed:	08/26/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	6.1 Y	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	105	54-152
Bromofluorobenzene (FID)	203 *	50-152

Field ID:	DP-1@14FT	Batch#:	154127
Type:	SAMPLE	Sampled:	08/18/09
Lab ID:	214303-003	Analyzed:	08/22/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	25 Y	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	543 *	54-152
Bromofluorobenzene (FID)	882 *	50-152

Field ID:	DP-1@17FT	Batch#:	154127
Type:	SAMPLE	Sampled:	08/18/09
Lab ID:	214303-005	Analyzed:	08/22/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	1.1

Surrogate	%REC	Limits
Trifluorotoluene (FID)	98	54-152
Bromofluorobenzene (FID)	106	50-152

Field ID:	DP-2@8FT	Batch#:	154127
Type:	SAMPLE	Sampled:	08/17/09
Lab ID:	214303-008	Analyzed:	08/22/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	1.4 Y	0.93

Surrogate	%REC	Limits
Trifluorotoluene (FID)	103	54-152
Bromofluorobenzene (FID)	101	50-152

\*= Value outside of QC limits; see narrative  
 Y= Sample exhibits chromatographic pattern which does not resemble standard  
 ND= Not Detected  
 RL= Reporting Limit



Total Volatile Hydrocarbons		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8015B
Matrix:	Soil	Basis: as received
Units:	mg/Kg	Received: 08/20/09

Field ID:	DP-2@12FT	Batch#:	154127
Type:	SAMPLE	Sampled:	08/17/09
Lab ID:	214303-010	Analyzed:	08/22/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	1.3 Y	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	147	54-152
Bromofluorobenzene (FID)	115	50-152

Field ID:	DP-3@12FT	Batch#:	154227
Type:	SAMPLE	Sampled:	08/17/09
Lab ID:	214303-016	Analyzed:	08/26/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	106	54-152
Bromofluorobenzene (FID)	99	50-152

Field ID:	DP-4@6FT	Batch#:	154127
Type:	SAMPLE	Sampled:	08/17/09
Lab ID:	214303-020	Analyzed:	08/22/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	1.1

Surrogate	%REC	Limits
Trifluorotoluene (FID)	87	54-152
Bromofluorobenzene (FID)	88	50-152

Field ID:	DP-4@14FT	Batch#:	154127
Type:	SAMPLE	Sampled:	08/17/09
Lab ID:	214303-022	Analyzed:	08/22/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	0.93

Surrogate	%REC	Limits
Trifluorotoluene (FID)	91	54-152
Bromofluorobenzene (FID)	93	50-152

\*= Value outside of QC limits; see narrative  
 Y= Sample exhibits chromatographic pattern which does not resemble standard  
 ND= Not Detected  
 RL= Reporting Limit

Total Volatile Hydrocarbons		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8015B
Matrix:	Soil	Basis: as received
Units:	mg/Kg	Received: 08/20/09

Field ID:	DP-5@12FT	Batch#:	154127
Type:	SAMPLE	Sampled:	08/18/09
Lab ID:	214303-026	Analyzed:	08/23/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	38	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	273 *	54-152
Bromofluorobenzene (FID)	294 *	50-152

Field ID:	DP-5@14FT	Batch#:	154127
Type:	SAMPLE	Sampled:	08/18/09
Lab ID:	214303-027	Analyzed:	08/23/09
Diln Fac:	50.00		

Analyte	Result	RL
Gasoline C7-C12	91	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	98	54-152
Bromofluorobenzene (FID)	97	50-152

Field ID:	DP-5@20FT	Batch#:	154227
Type:	SAMPLE	Sampled:	08/18/09
Lab ID:	214303-029	Analyzed:	08/26/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	26	1.1

Surrogate	%REC	Limits
Trifluorotoluene (FID)	117	54-152
Bromofluorobenzene (FID)	178 *	50-152

Field ID:	DP-6@12FT	Batch#:	154227
Type:	SAMPLE	Sampled:	08/18/09
Lab ID:	214303-031	Analyzed:	08/26/09
Diln Fac:	50.00		

Analyte	Result	RL
Gasoline C7-C12	96	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	145	54-152
Bromofluorobenzene (FID)	112	50-152

\*= Value outside of QC limits; see narrative  
 Y= Sample exhibits chromatographic pattern which does not resemble standard  
 ND= Not Detected  
 RL= Reporting Limit

Total Volatile Hydrocarbons		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8015B
Matrix:	Soil	Basis: as received
Units:	mg/Kg	Received: 08/20/09

Field ID:	DP-6@14FT	Batch#:	154227
Type:	SAMPLE	Sampled:	08/18/09
Lab ID:	214303-032	Analyzed:	08/26/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	1.5	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	107	54-152
Bromofluorobenzene (FID)	100	50-152

Field ID:	DP-6@17FT	Batch#:	154227
Type:	SAMPLE	Sampled:	08/18/09
Lab ID:	214303-033	Analyzed:	08/26/09
Diln Fac:	50.00		

Analyte	Result	RL
Gasoline C7-C12	75	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	114	54-152
Bromofluorobenzene (FID)	101	50-152

Field ID:	DP-7@12FT	Batch#:	154127
Type:	SAMPLE	Sampled:	08/18/09
Lab ID:	214303-035	Analyzed:	08/22/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	0.97

Surrogate	%REC	Limits
Trifluorotoluene (FID)	86	54-152
Bromofluorobenzene (FID)	87	50-152

Field ID:	DP-7@14FT	Batch#:	154127
Type:	SAMPLE	Sampled:	08/18/09
Lab ID:	214303-036	Analyzed:	08/22/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	0.94

Surrogate	%REC	Limits
Trifluorotoluene (FID)	80	54-152
Bromofluorobenzene (FID)	80	50-152

\*= Value outside of QC limits; see narrative  
 Y= Sample exhibits chromatographic pattern which does not resemble standard  
 ND= Not Detected  
 RL= Reporting Limit

Total Volatile Hydrocarbons		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8015B
Matrix:	Soil	Basis: as received
Units:	mg/Kg	Received: 08/20/09

Field ID: SOMA-5@11FT      Batch#: 154227  
 Type: SAMPLE      Sampled: 08/18/09  
 Lab ID: 214303-040      Analyzed: 08/26/09  
 Diln Fac: 50.00

Analyte	Result	RL
Gasoline C7-C12	380	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	114	54-152
Bromofluorobenzene (FID)	142	50-152

Field ID: SOMA-5@12.5FT      Batch#: 154127  
 Type: SAMPLE      Sampled: 08/18/09  
 Lab ID: 214303-041      Analyzed: 08/23/09  
 Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	28	1.1

Surrogate	%REC	Limits
Trifluorotoluene (FID)	140	54-152
Bromofluorobenzene (FID)	110	50-152

Type: BLANK      Batch#: 154127  
 Lab ID: QC508753      Analyzed: 08/22/09  
 Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	82	54-152
Bromofluorobenzene (FID)	82	50-152

Type: BLANK      Batch#: 154227  
 Lab ID: QC509184      Analyzed: 08/25/09  
 Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	102	54-152
Bromofluorobenzene (FID)	92	50-152

\*= Value outside of QC limits; see narrative  
 Y= Sample exhibits chromatographic pattern which does not resemble standard  
 ND= Not Detected  
 RL= Reporting Limit

## Batch QC Report

Total Volatile Hydrocarbons				
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle	
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B	
Project#:	2762	Analysis:	EPA 8015B	
Type:	LCS	Diln Fac:	1.000	
Lab ID:	QC509187	Batch#:	154227	
Matrix:	Soil	Analyzed:	08/25/09	
Units:	mg/Kg			

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	5.000	5.016	100	77-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	118	54-152
Bromofluorobenzene (FID)	127	50-152

Batch QC Report

Total Volatile Hydrocarbons					
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle		
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B		
Project#:	2762	Analysis:	EPA 8015B		
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000		
MSS Lab ID:	214351-001	Batch#:	154227		
Matrix:	Soil	Sampled:	08/21/09		
Units:	mg/Kg	Received:	08/21/09		
Basis:	as received	Analyzed:	08/25/09		

Type: MS Lab ID: QC509188

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.1546	9.804	8.532	85	31-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	126	54-152
Bromofluorobenzene (FID)	120	50-152

Type: MSD Lab ID: QC509189

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.20	6.997	67	31-120	24	34

Surrogate	%REC	Limits
Trifluorotoluene (FID)	120	54-152
Bromofluorobenzene (FID)	109	50-152

RPD= Relative Percent Difference

## Batch QC Report

Total Volatile Hydrocarbons			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8015B
Matrix:	Soil	Diln Fac:	1.000
Units:	mg/Kg	Batch#:	154127

Type: BS Analyzed: 08/22/09  
 Lab ID: QC509262

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	5.000	4.593	92	77-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	118	54-152
Bromofluorobenzene (FID)	107	50-152

Type: BSD Analyzed: 08/23/09  
 Lab ID: QC509263

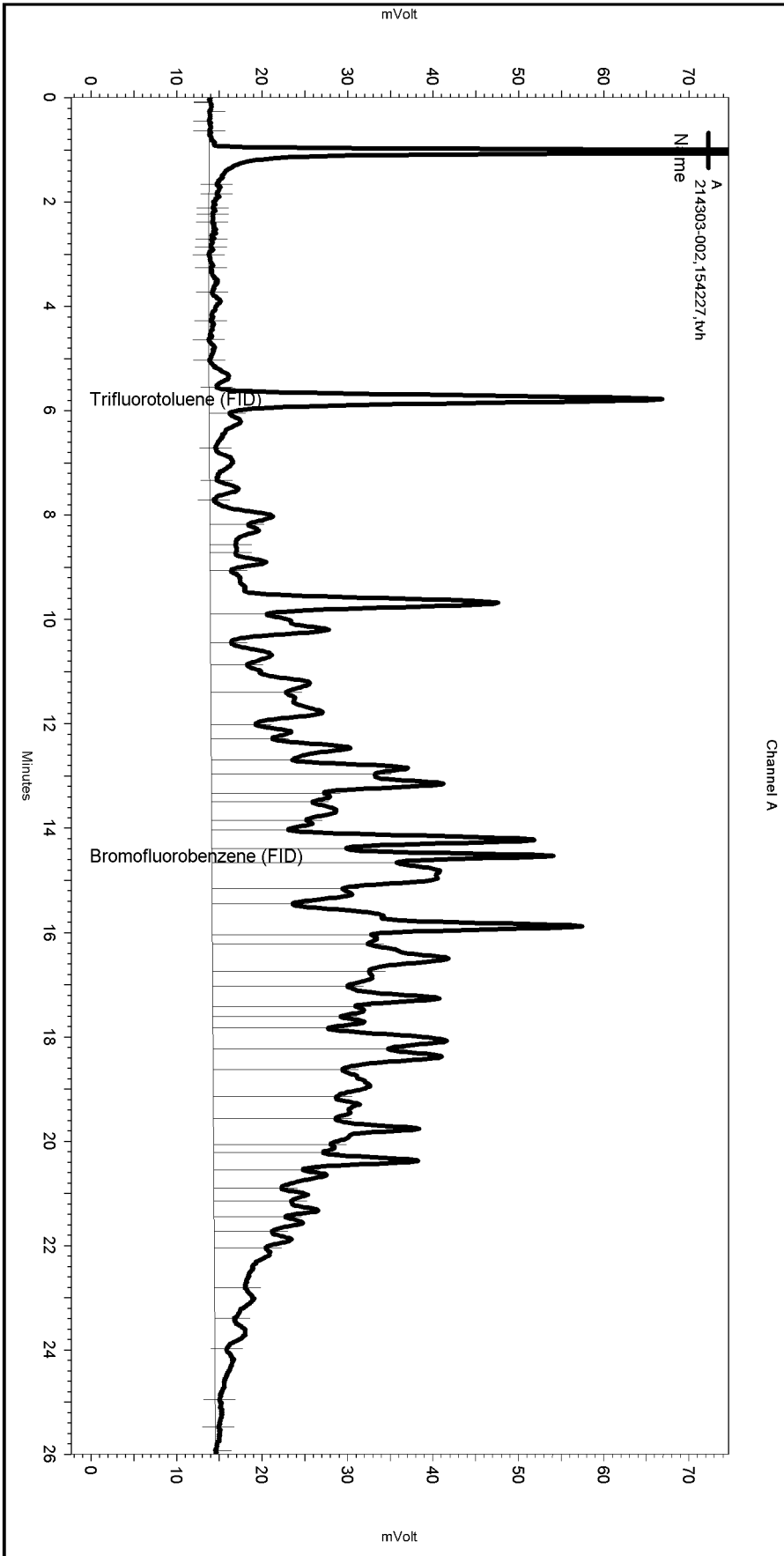
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.00	8.999	90	77-120	2	21

Surrogate	%REC	Limits
Trifluorotoluene (FID)	129	54-152
Bromofluorobenzene (FID)	128	50-152

RPD= Relative Percent Difference

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC04\Sequence\237.seq  
 Sample Name: 214303-002,154227,tvh  
 Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\237\_035  
 Instrument: GC04 Vial: N/A Operator: lims2k3\tvh3  
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\TVHBTXE219.met

Software Version 3.1.7  
 Run Date: 8/26/2009 12:34:23 PM  
 Analysis Date: 8/26/2009 1:03:51 PM  
 Sample Amount: 1 Multiplier: 1  
 Vial & pH or Core ID: a



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 --< General Method Parameters >-----  
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No items selected for this section

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 --< A >-----  
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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

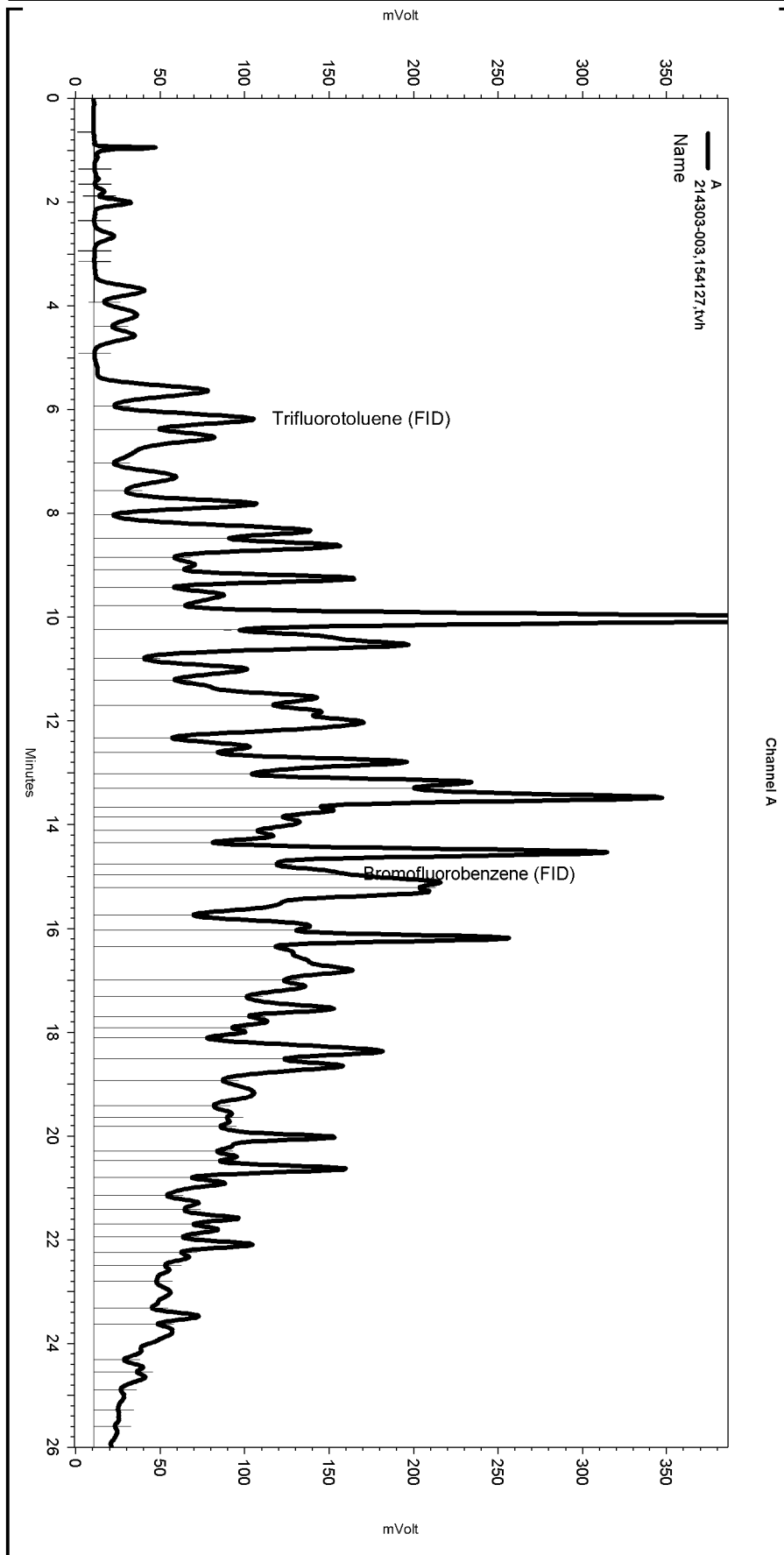
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 Sample Name: 214303-003,154127,tvh  
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\234\_012  
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)  
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\TVHBTX188.met

Software Version 3.1.7  
 Run Date: 8/22/2009 3:56:27 PM  
 Analysis Date: 8/25/2009 8:06:06 AM  
 Sample Amount: 0.96 Multiplier: 0.96  
 Vial & pH or Core ID: a



---< General Method Parameters >---

No items selected for this section

---< A >---

No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

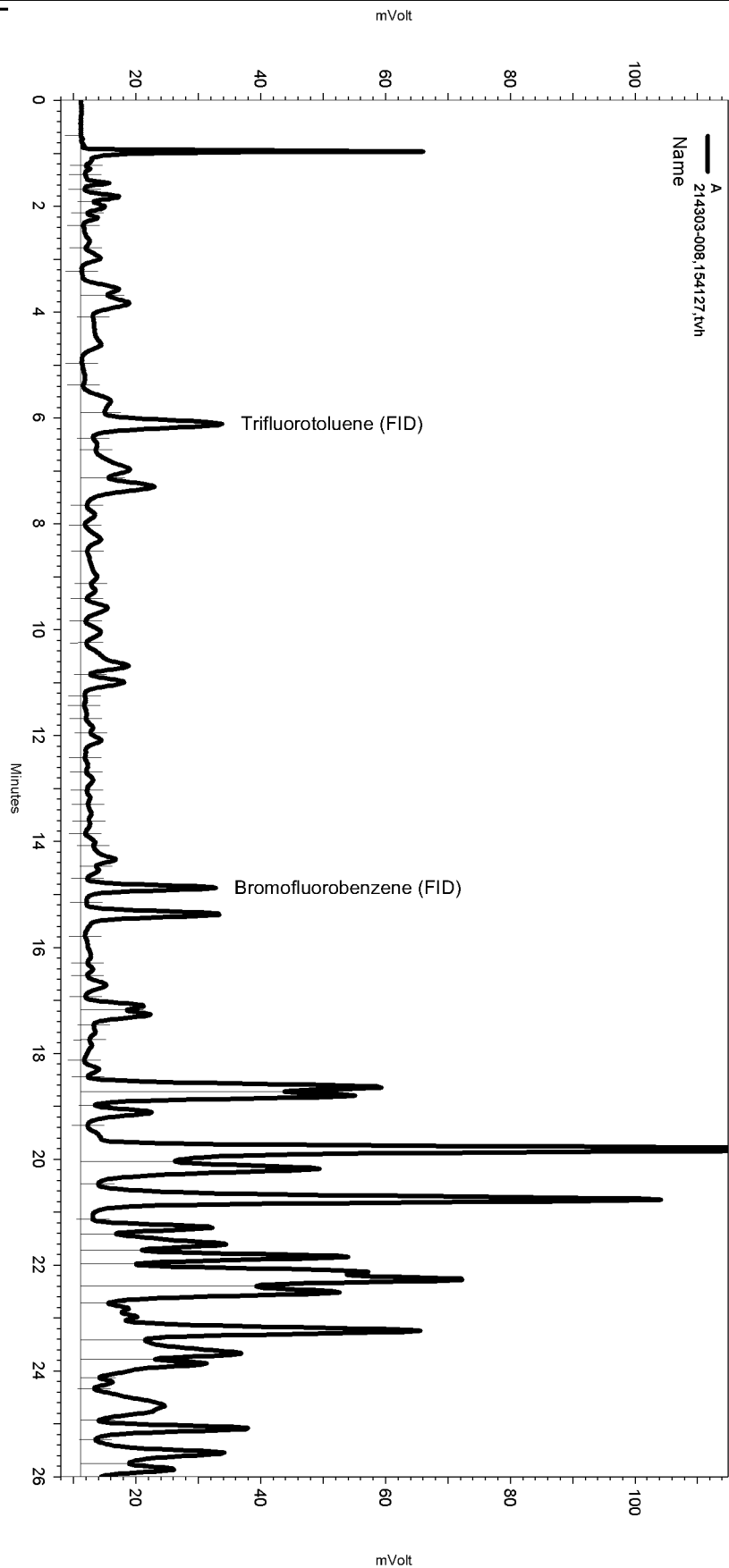
Manual Integration Fixes

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Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Lowest Point Horizontal Baseline	0	26.017	0
Yes	Split Peak	14.97	0	0

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 Sample Name: 214303-008,154127,tvh  
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\234\_006  
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)  
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\TVHBTX188.met

Software Version 3.1.7  
 Run Date: 8/22/2009 11:02:35 AM  
 Analysis Date: 8/26/2009 9:43:58 AM  
 Sample Amount: 1.07 Multiplier: 1.07  
 Vial & pH or Core ID: a



---< General Method Parameters >---

No items selected for this section

---< A >---

No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

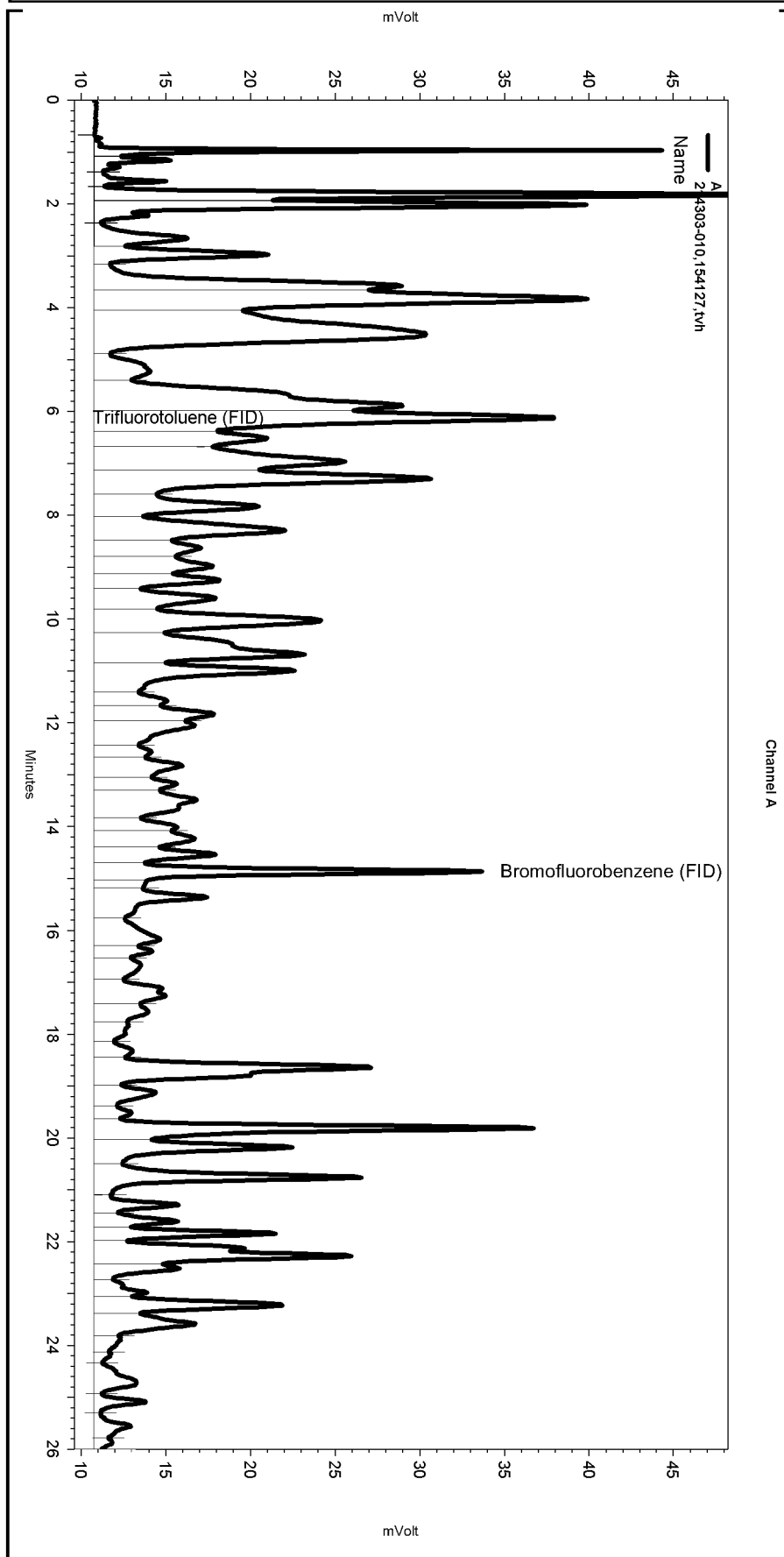
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\234\_006

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Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\234.seq  
 Sample Name: 214303-010,154127,tvh  
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\234\_014  
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)  
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\TVHBTX188.met

Software Version 3.1.7  
 Run Date: 8/22/2009 5:11:40 PM  
 Analysis Date: 8/26/2009 9:46:28 AM  
 Sample Amount: 0.96 Multiplier: 0.96  
 Vial & pH or Core ID: a



---< General Method Parameters >---

No items selected for this section

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Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

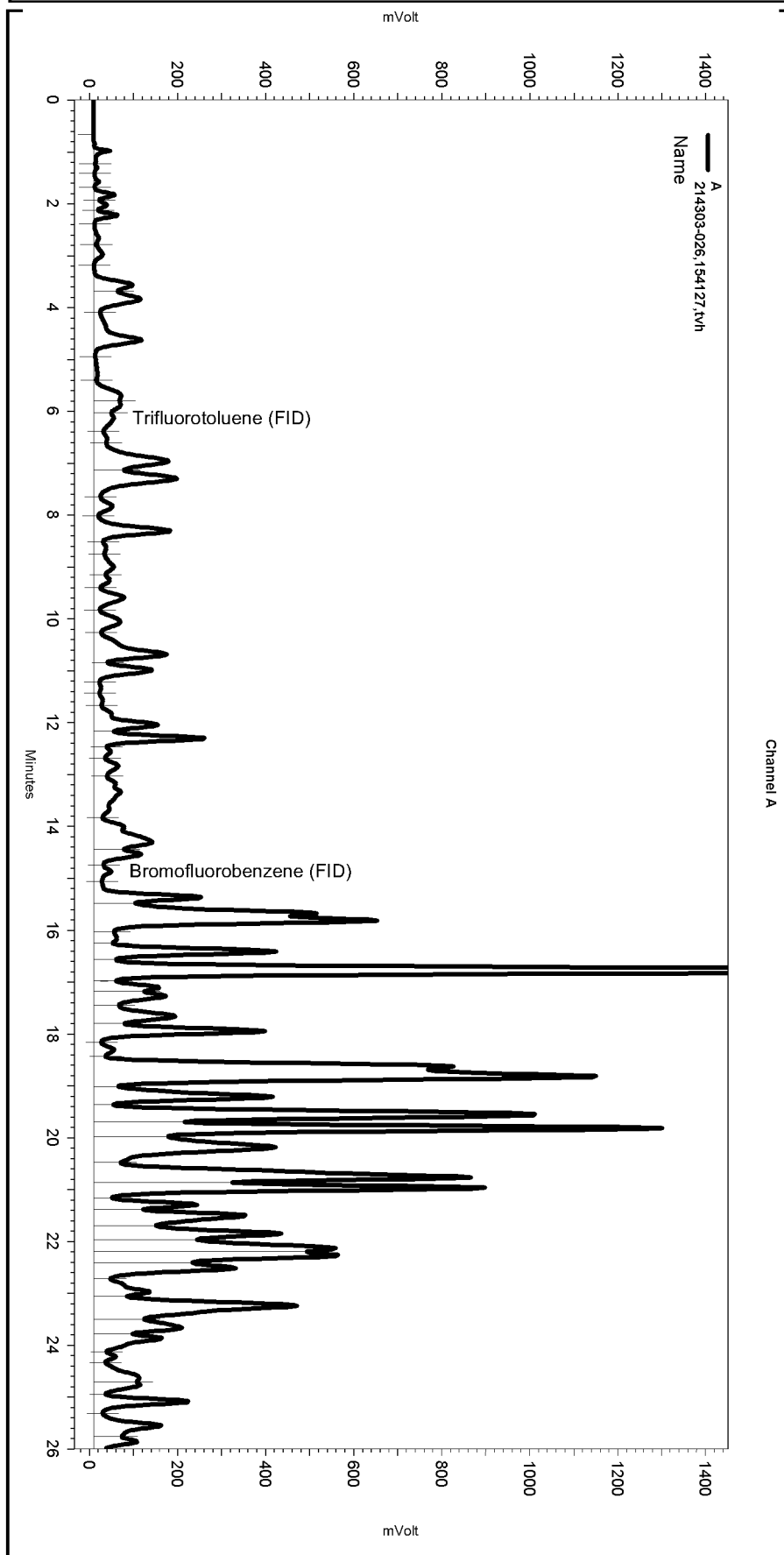
Manual Integration Fixes

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Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Lowest Point Horizontal Baseli	0	26.017	0
Yes	Split Peak	15.03	0	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\234.seq  
 Sample Name: 214303-026,154127,tvh  
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\234\_028  
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)  
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\TVHBTXE188.MET

Software Version 3.1.7  
 Run Date: 8/23/2009 1:57:48 AM  
 Analysis Date: 8/26/2009 9:52:01 AM  
 Sample Amount: 0.99 Multiplier: 0.99  
 Vial & pH or Core ID: a



---< General Method Parameters >---

No items selected for this section

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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

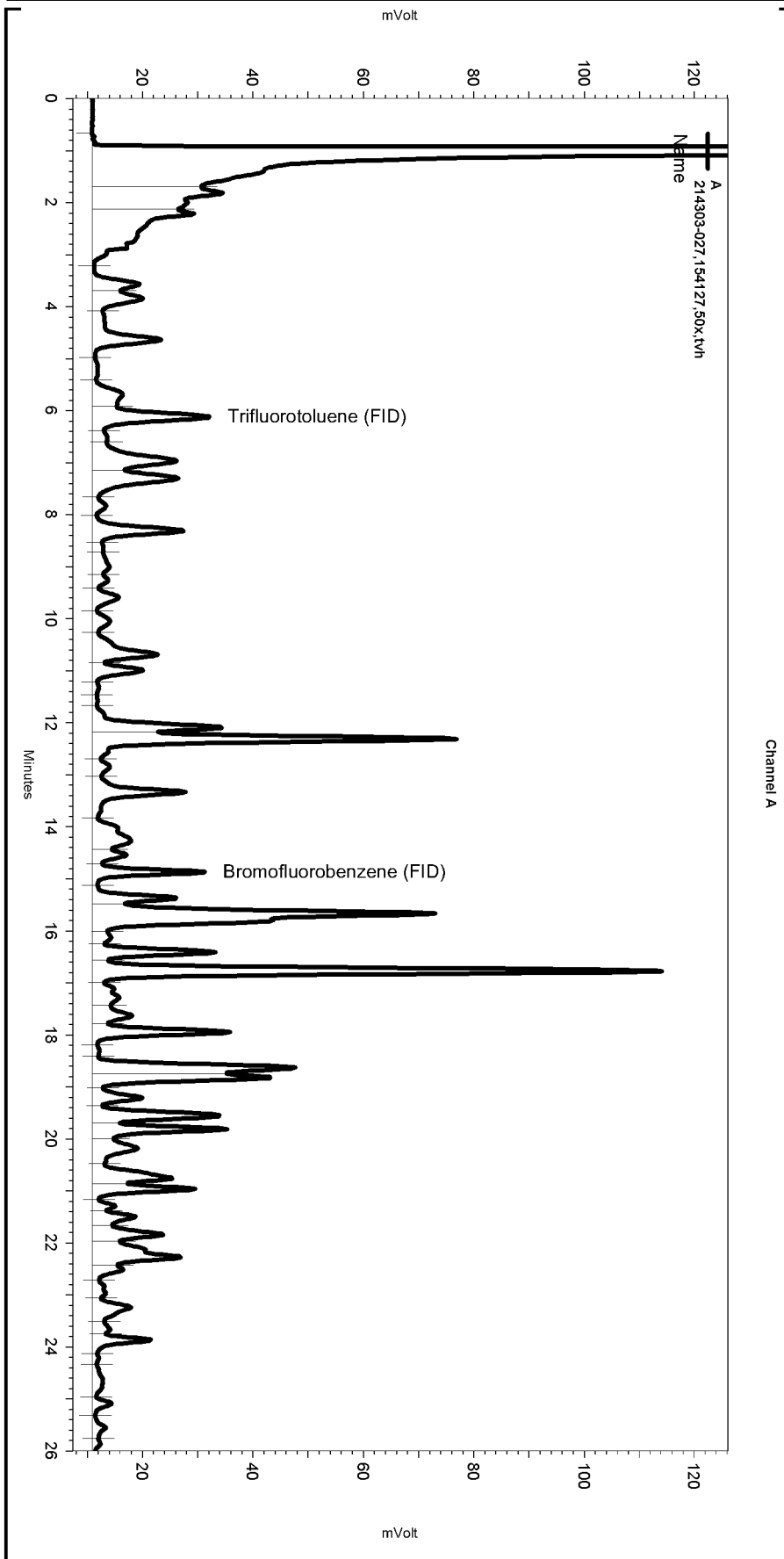
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\234\_028

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Lowest Point Horizontal Baseli	0.536	26.017	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\234.seq  
 Sample Name: 214303-027,154127,50x,tvh  
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\234\_030  
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)  
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\tvhbtxe188.met

Software Version 3.1.7  
 Run Date: 8/23/2009 3:13:00 AM  
 Analysis Date: 8/26/2009 9:55:14 AM  
 Sample Amount: 1 Multiplier: 1  
 Vial & pH or Core ID: a



---< General Method Parameters >---

No items selected for this section

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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

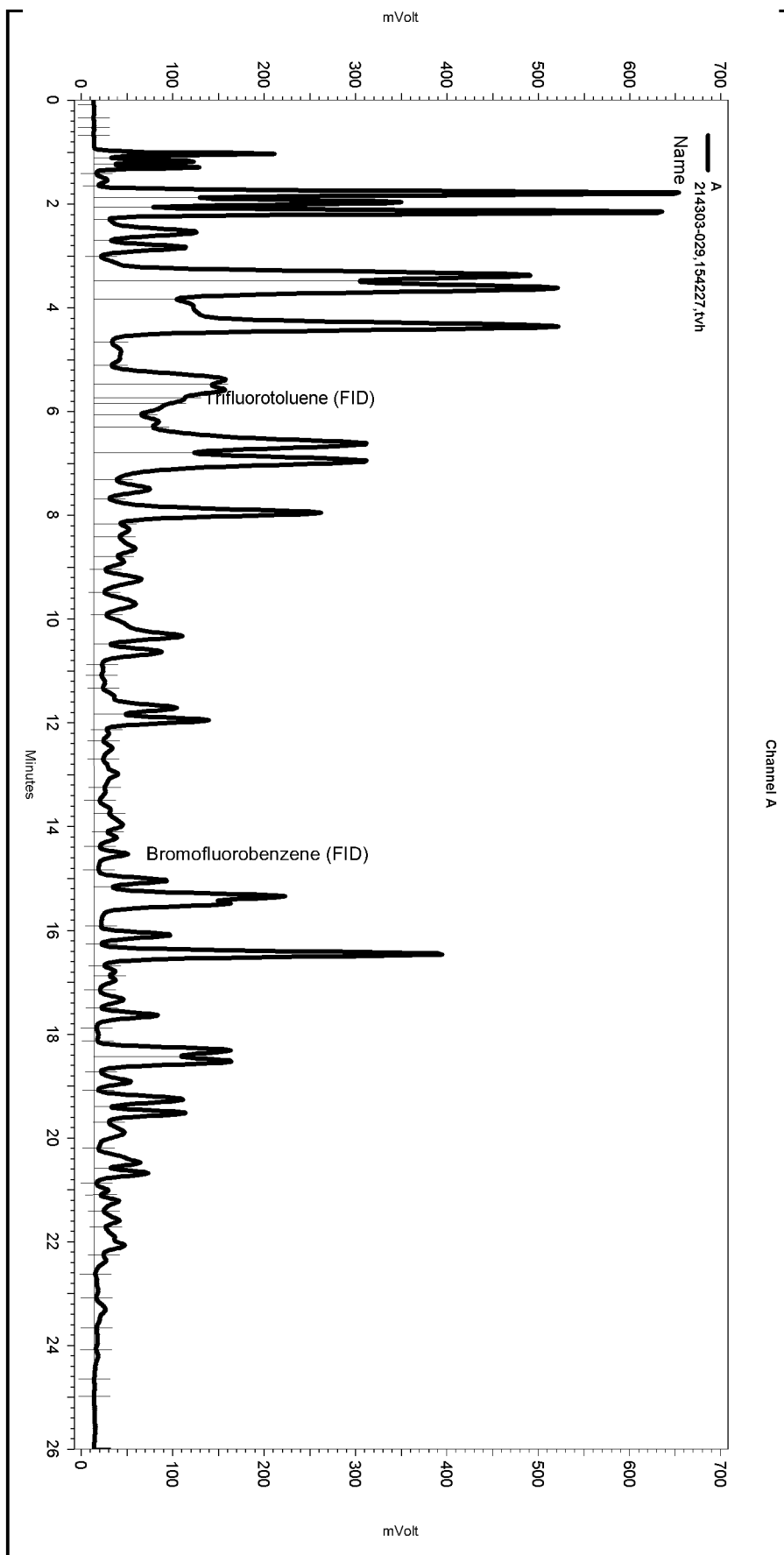
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\234\_030

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Lowest Point Horizontal Baseline	0	26.017	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC04\Sequence\237.seq  
 Sample Name: 214303-029,154227,tvh  
 Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\237\_032  
 Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)  
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe219.met

Software Version 3.1.7  
 Run Date: 8/26/2009 10:31:24 AM  
 Analysis Date: 8/26/2009 11:40:55 AM  
 Sample Amount: 0.93 Multiplier: 0.93  
 Vial & pH or Core ID: a



---< General Method Parameters >---

No items selected for this section

---< A >---

No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

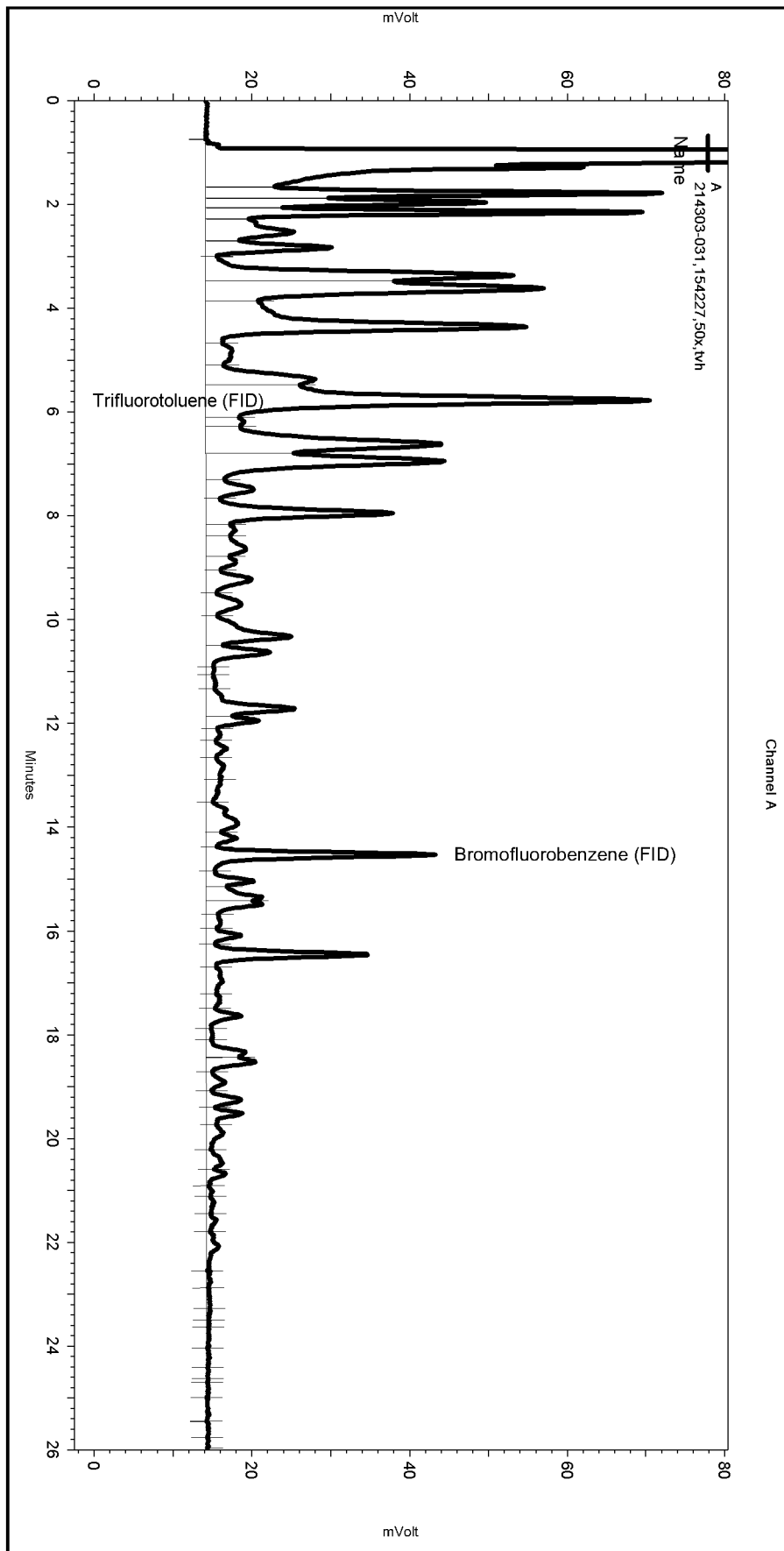
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\237\_032

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	5.73	0	0
Yes	Split Peak	5.855	0	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC04\Sequence\237.seq  
 Sample Name: 214303-031,154227,50x,tvh  
 Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\237\_023  
 Instrument: GC04 Vial: N/A Operator: lims2k3\tvh3  
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe219.met

Software Version 3.1.7  
 Run Date: 8/26/2009 4:53:04 AM  
 Analysis Date: 8/26/2009 5:22:32 AM  
 Sample Amount: 1 Multiplier: 1  
 Vial & pH or Core ID: a



-----< General Method Parameters >-----

No items selected for this section

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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

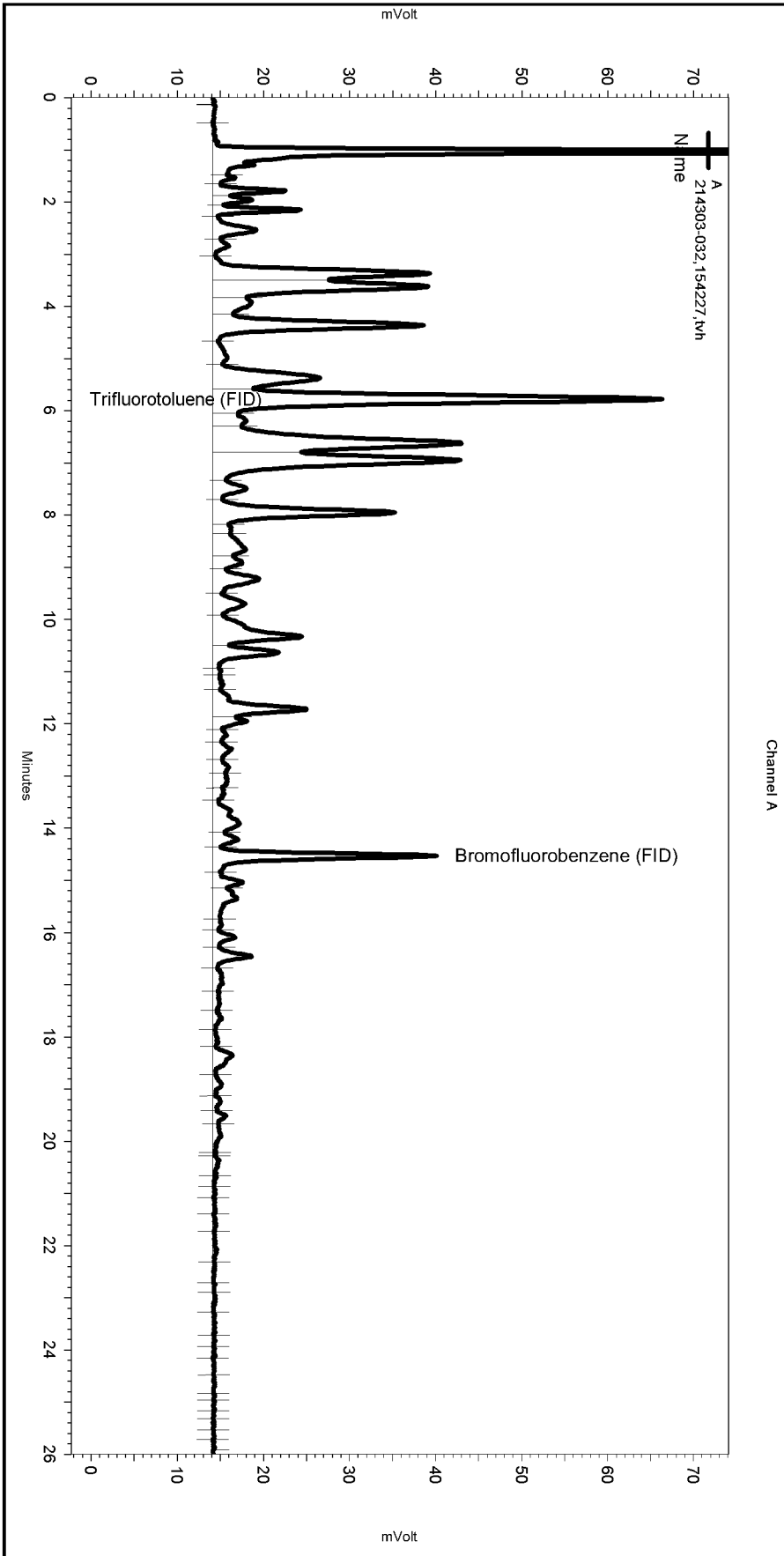
Manual Integration Fixes

Data File: C:\Documents and Settings\All Users\Application Data\ChromatographySystem\Recovery Data\Instrument.10047\237\_023\_92DC.tmp

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
None				

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC04\Sequence\237.seq  
 Sample Name: 214303-032,154227,tvh  
 Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\237\_031  
 Instrument: GC04 Vial: N/A Operator: lims2k3\tvh3  
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe219.met

Software Version 3.1.7  
 Run Date: 8/26/2009 9:53:51 AM  
 Analysis Date: 8/26/2009 10:23:20 AM  
 Sample Amount: 0.98 Multiplier: 0.98  
 Vial & pH or Core ID: a



---< General Method Parameters >---

No items selected for this section

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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

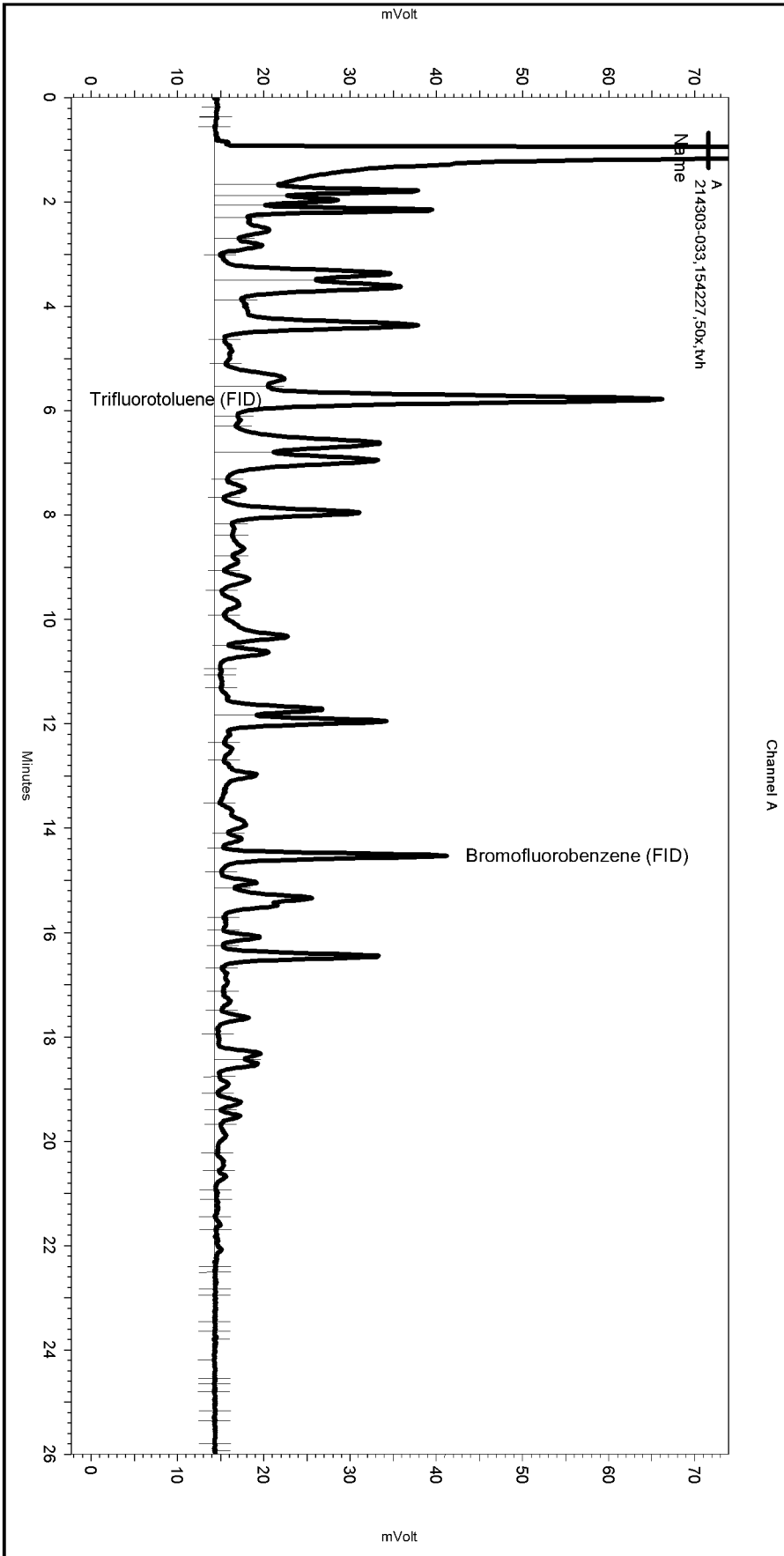
Data File: C:\Documents and Settings\All Users\Application Data\ChromatographySystem\Recovery Data\Instrument.10047\237\_031\_92E4.tmp

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
None				



Sequence File: \\Lims\gdrive\ezchrom\Projects\GC04\Sequence\237.seq  
 Sample Name: 214303-033,154227,50x,tvh  
 Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\237\_027  
 Instrument: GC04 Vial: N/A Operator: lims2k3\tvh3  
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\TVHBTXE219.met

Software Version 3.1.7  
 Run Date: 8/26/2009 7:23:19 AM  
 Analysis Date: 8/26/2009 7:52:49 AM  
 Sample Amount: 1 Multiplier: 1  
 Vial & pH or Core ID: a



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 --< General Method Parameters >-----  
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No items selected for this section

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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

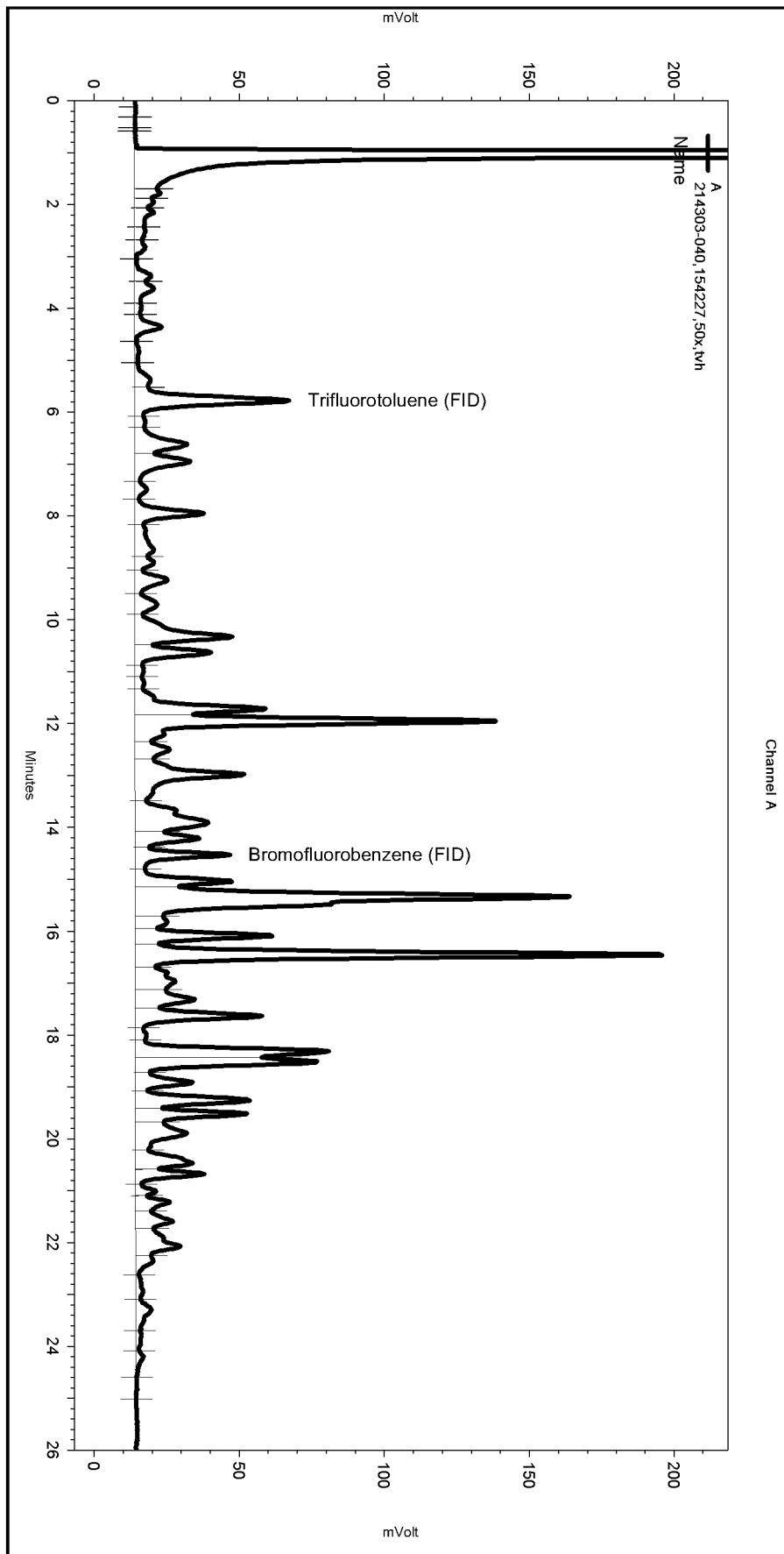
Manual Integration Fixes

Data File: C:\Documents and Settings\All Users\Application  
 Data\ChromatographySystem\Recovery  
 Data\Instrument.10047\237\_027\_92E0.tmp

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
None				

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC04\Sequence\237.seq  
 Sample Name: 214303-040,154227,50x,tvh  
 Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\237\_022  
 Instrument: GC04 Vial: N/A Operator: lims2k3\tvh3  
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe219.met

Software Version 3.1.7  
 Run Date: 8/26/2009 4:15:29 AM  
 Analysis Date: 8/26/2009 4:44:56 AM  
 Sample Amount: 1 Multiplier: 1  
 Vial & pH or Core ID: a



-----< General Method Parameters >-----

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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

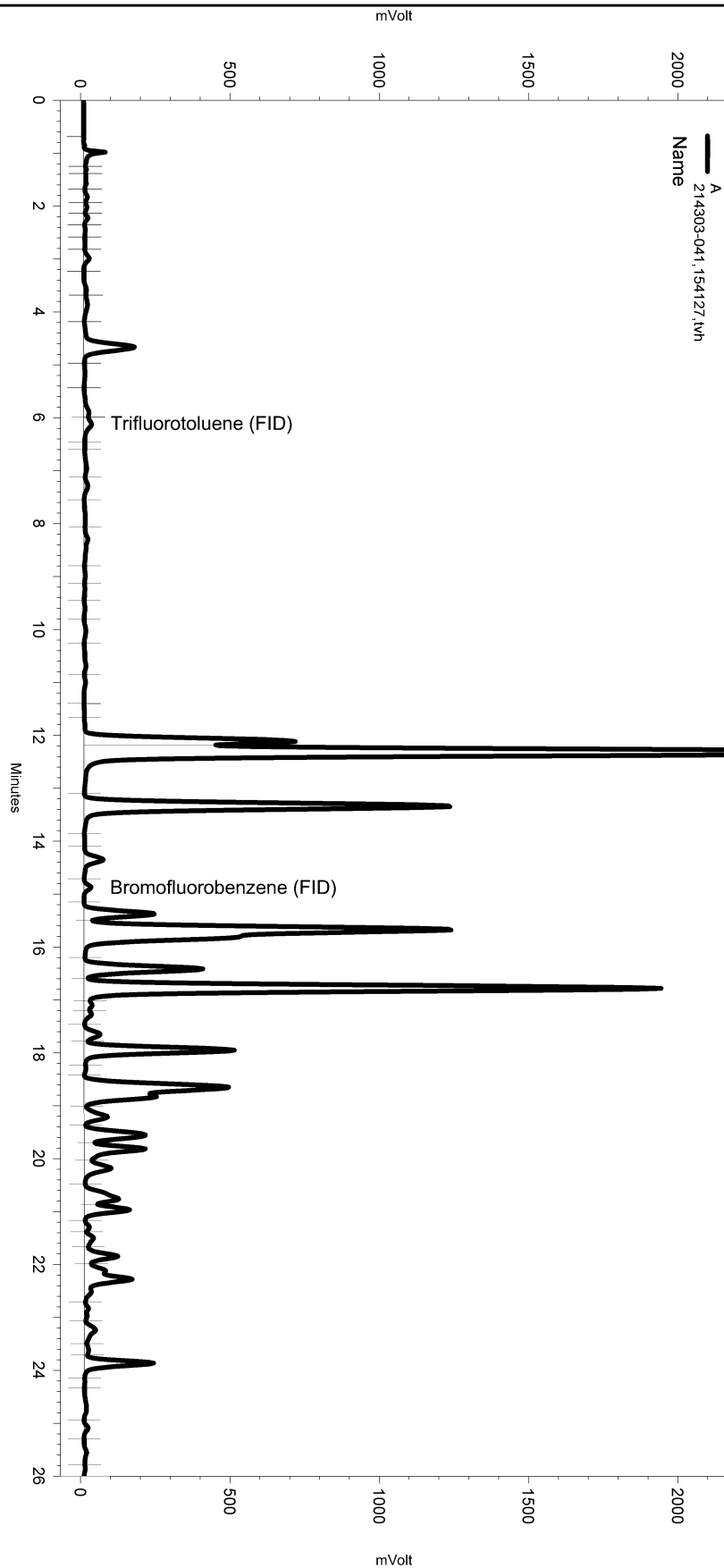
Manual Integration Fixes

Data File: C:\Documents and Settings\All Users\Application Data\ChromatographySystem\Recovery Data\Instrument.10047\237\_022\_92DB.tmp

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
None				

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\234.seq  
 Sample Name: 214303-041,154127,tvh  
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\234\_025  
 Instrument: GC19 Vial: N/A Operator: lims2k3\tvh3  
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\tvhbx188.met

Software Version 3.1.7  
 Run Date: 8/23/2009 12:05:07 AM  
 Analysis Date: 8/23/2009 12:34:15 AM  
 Sample Amount: 0.9 Multiplier: 0.9  
 Vial & pH or Core ID: a



Channel A

---< General Method Parameters >-----

No items selected for this section

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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

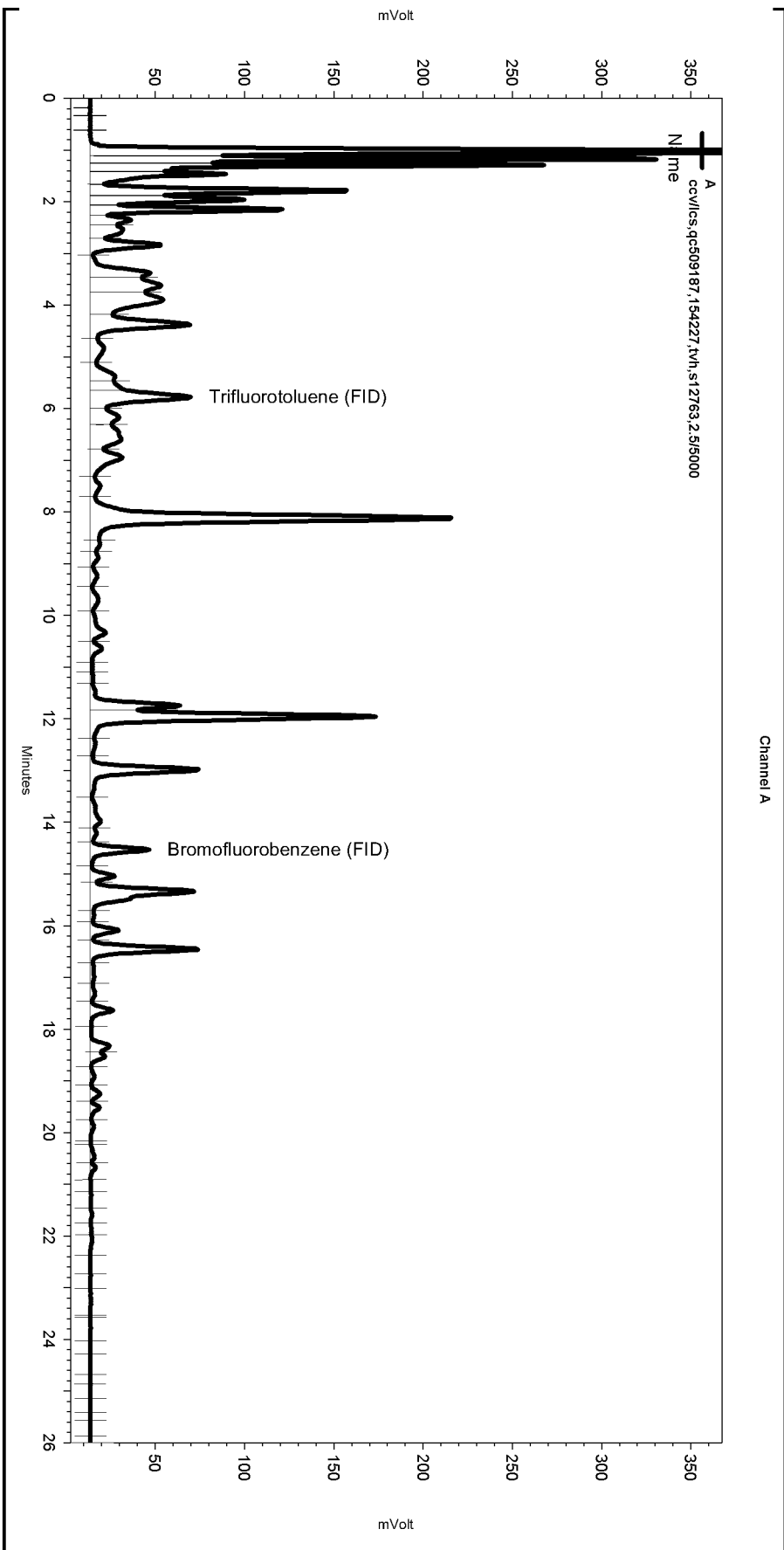
Manual Integration Fixes

Data File: C:\Documents and Settings\All Users\Application Data\ChromatographySystem\Recovery Data\Instrument.10050\234\_025\_E344.tmp

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
None				

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC04\Sequence\237.seq  
 Sample Name: ccv\lcs,qc509187,154227,tvh,s12763,2.5/5000  
 Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\237\_002  
 Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lms2k3\tvh2)  
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe219.met

Software Version 3.1.7  
 Run Date: 8/25/2009 3:19:07 PM  
 Analysis Date: 8/26/2009 9:04:00 AM  
 Sample Amount: 1 Multiplier: 1  
 Vial & pH or Core ID: {Data Description}



---< General Method Parameters >---

No items selected for this section

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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\237\_002

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	5.65	0	0

Total Extractable Hydrocarbons			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2762	Analysis:	EPA 8015B
Matrix:	Water	Diln Fac:	1.000
Units:	ug/L	Received:	08/20/09

Field ID:	DP-1	Sampled:	08/18/09
Type:	SAMPLE	Prepared:	08/21/09
Lab ID:	214303-042	Analyzed:	08/24/09
Batch#:	154119		

Analyte	Result	RL
Diesel C10-C24	140 Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	85	61-127

Field ID:	DP-2	Sampled:	08/17/09
Type:	SAMPLE	Prepared:	08/21/09
Lab ID:	214303-043	Analyzed:	08/24/09
Batch#:	154119		

Analyte	Result	RL
Diesel C10-C24	340 Y	50
Motor Oil C24-C36	410	300

Surrogate	%REC	Limits
o-Terphenyl	81	61-127

Field ID:	DP-3	Sampled:	08/17/09
Type:	SAMPLE	Prepared:	08/21/09
Lab ID:	214303-044	Analyzed:	08/25/09
Batch#:	154119		

Analyte	Result	RL
Diesel C10-C24	330 Y	50
Motor Oil C24-C36	360	300

Surrogate	%REC	Limits
o-Terphenyl	101	61-127

Field ID:	DP-4	Sampled:	08/17/09
Type:	SAMPLE	Prepared:	08/21/09
Lab ID:	214303-045	Analyzed:	08/25/09
Batch#:	154119		

Analyte	Result	RL
Diesel C10-C24	980 Y	50
Motor Oil C24-C36	570	300

Surrogate	%REC	Limits
o-Terphenyl	127	61-127

\*= Value outside of QC limits; see narrative  
 Y= Sample exhibits chromatographic pattern which does not resemble standard  
 ND= Not Detected  
 RL= Reporting Limit





Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2762	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	154119
Units:	ug/L	Prepared:	08/21/09
Diln Fac:	1.000	Analyzed:	08/24/09

Type: BS Cleanup Method: EPA 3630C  
 Lab ID: QC508726

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,082	83	50-120

Surrogate	%REC	Limits
o-Terphenyl	88	61-127

Type: BSD Cleanup Method: EPA 3630C  
 Lab ID: QC508727

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,290	92	50-120	10	37

Surrogate	%REC	Limits
o-Terphenyl	100	61-127

RPD= Relative Percent Difference



## Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C
Project#:	2762	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	154170
Units:	ug/L	Prepared:	08/24/09
Diln Fac:	1.000	Analyzed:	08/26/09

Type: BS Cleanup Method: EPA 3630C  
 Lab ID: QC508952

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,536	101	50-120

Surrogate	%REC	Limits
o-Terphenyl	117	61-127

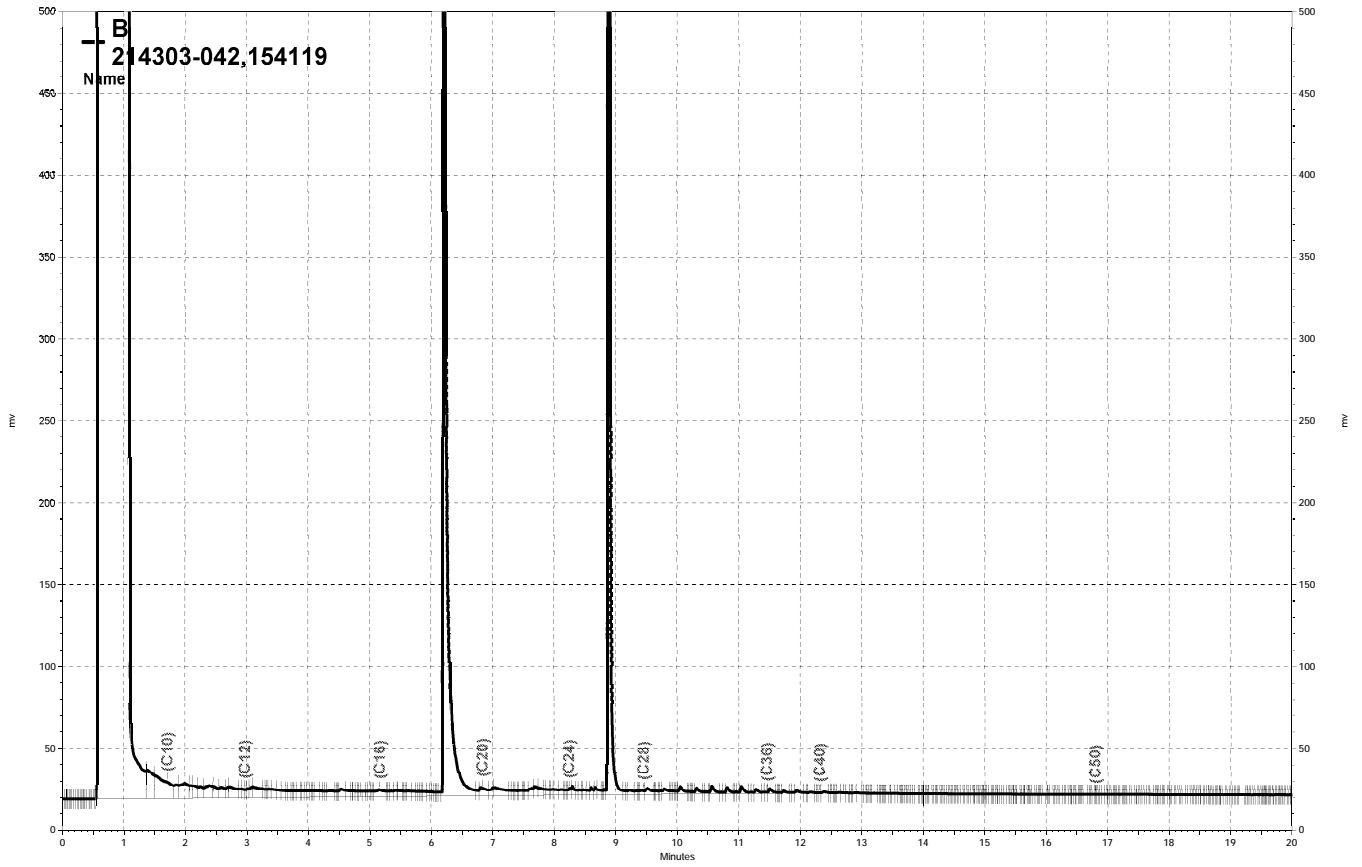
Type: BSD Cleanup Method: EPA 3630C  
 Lab ID: QC508953

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,487	99	50-120	2	37

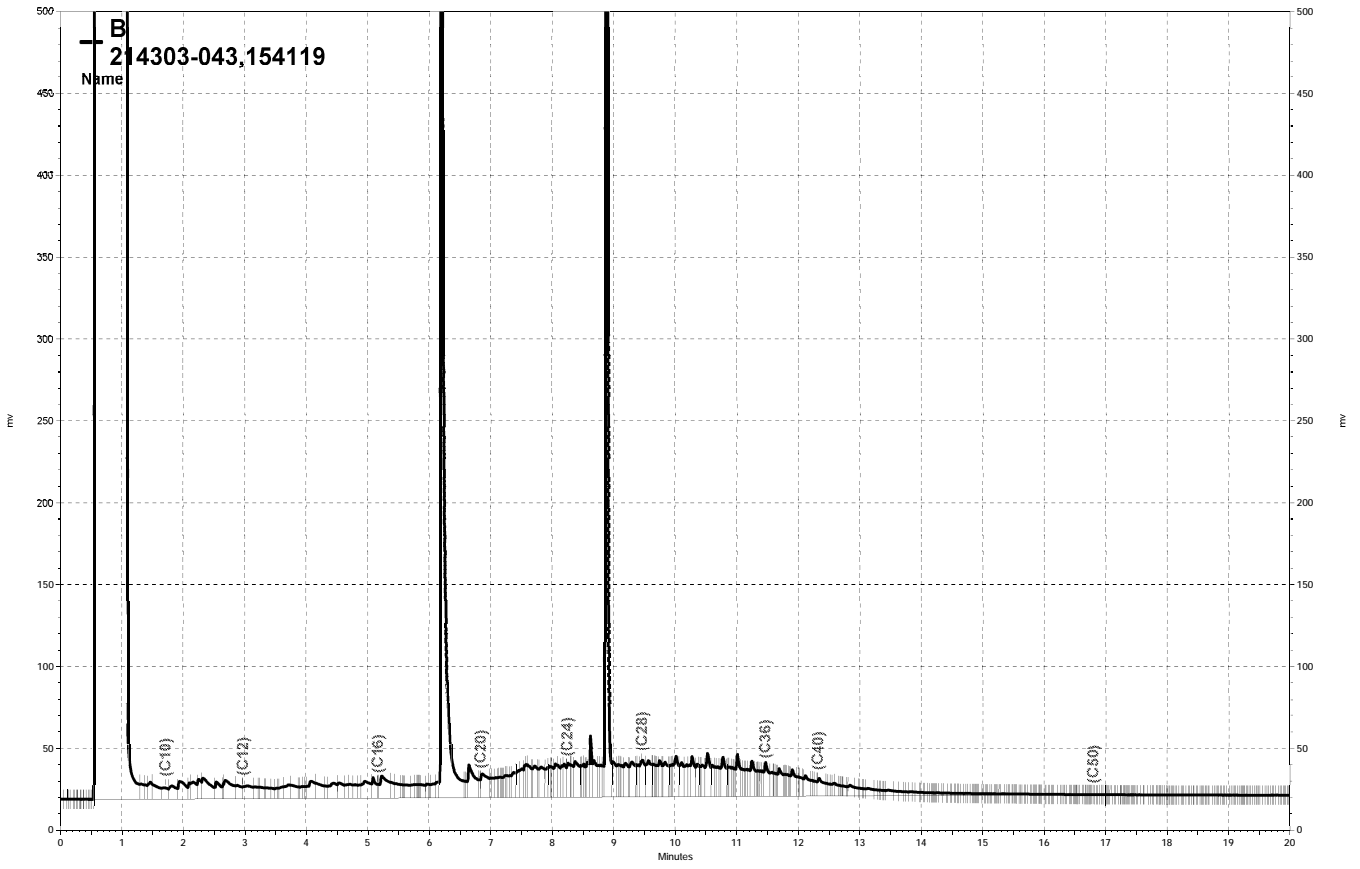
  

Surrogate	%REC	Limits
o-Terphenyl	114	61-127

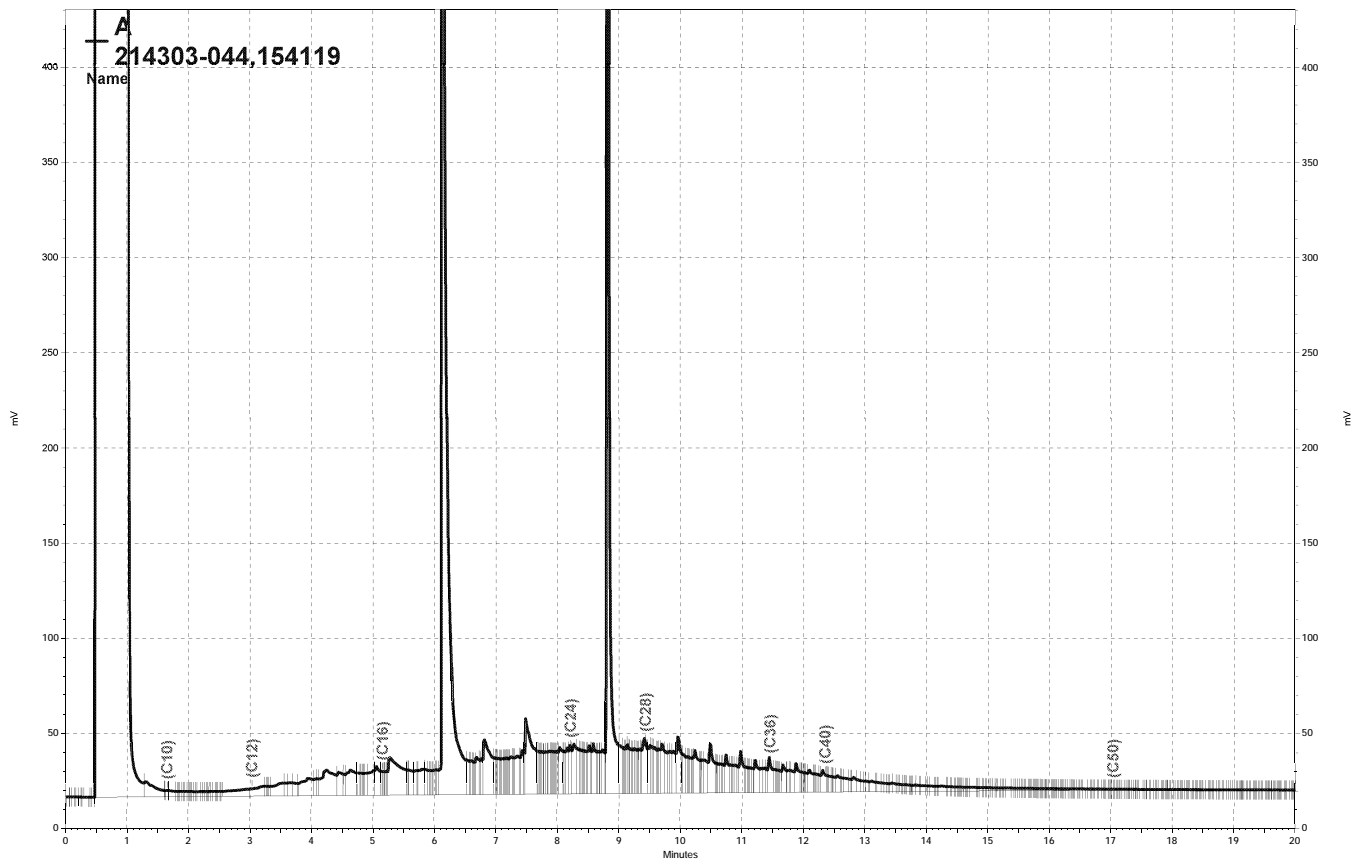
RPD= Relative Percent Difference



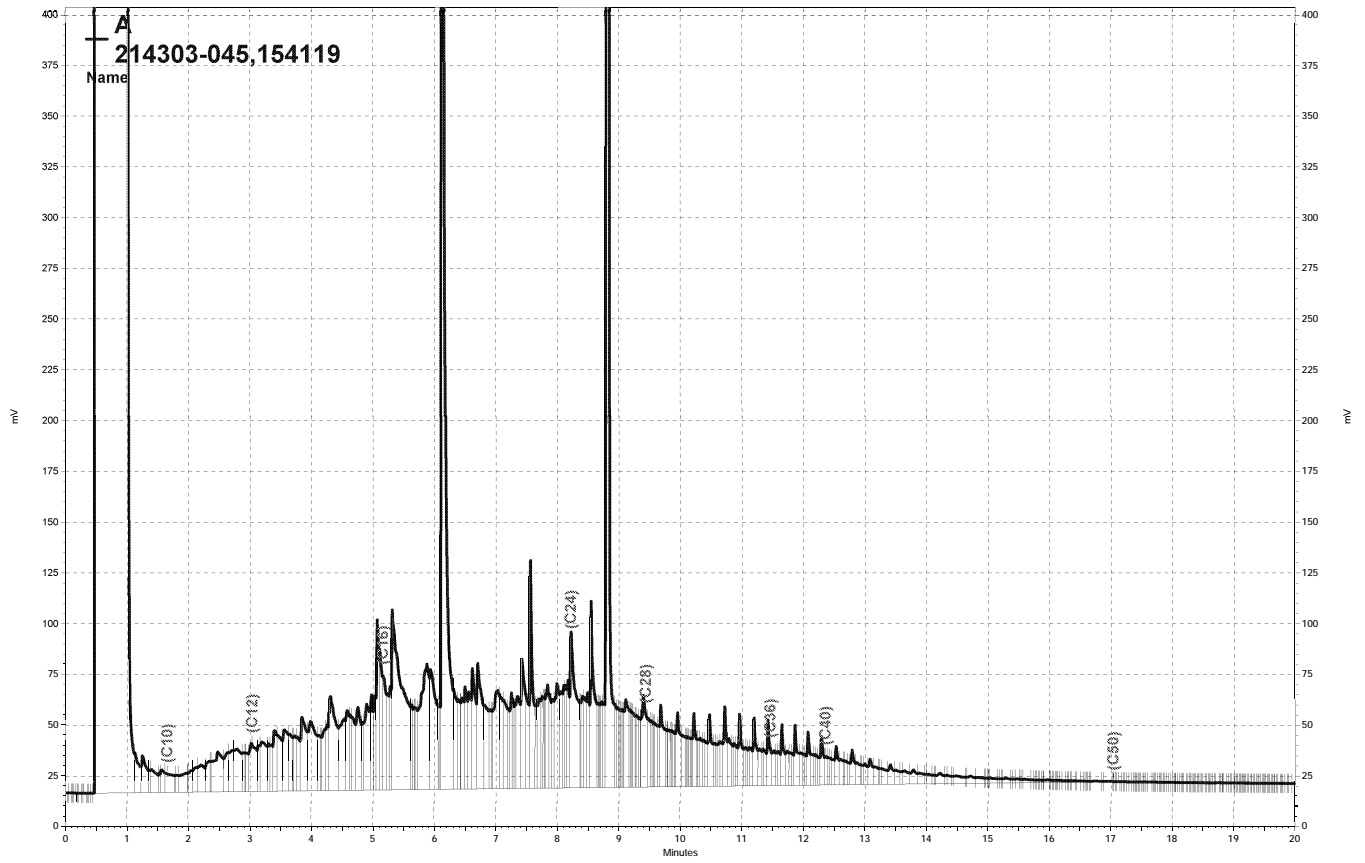
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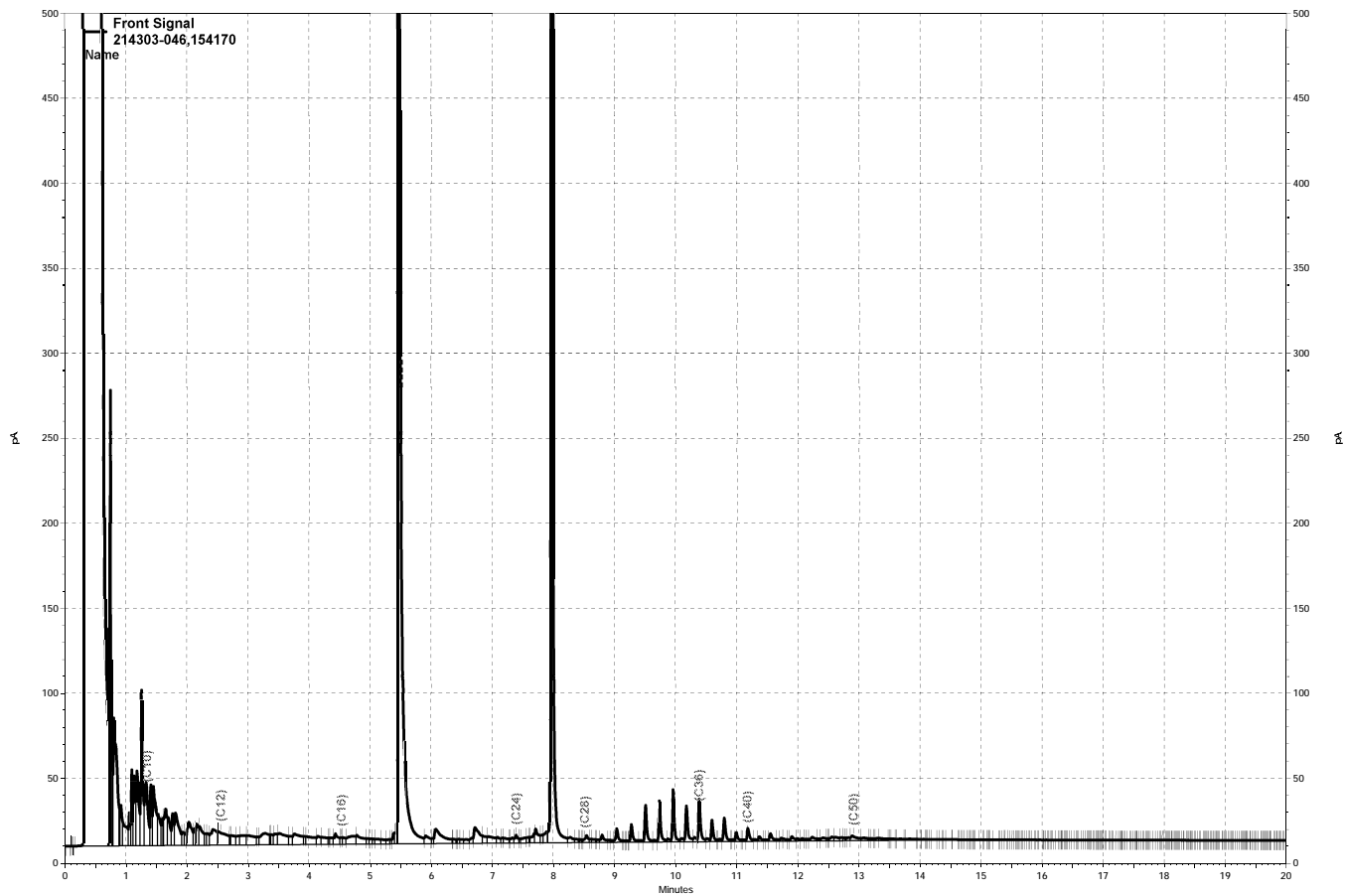
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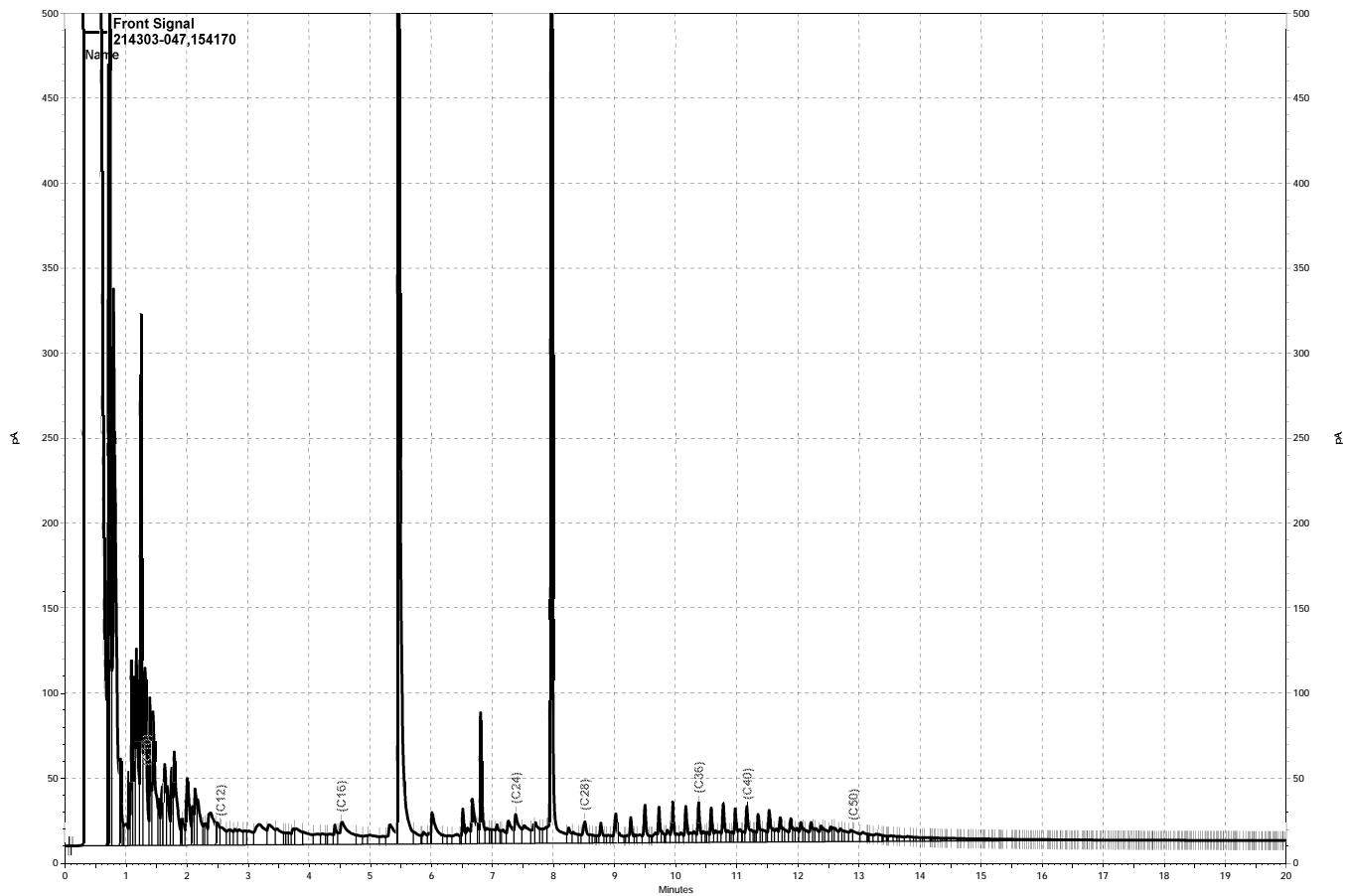
— \\Lims\gdrive\ezchrom\Projects\GC17A\Data\237a019, A



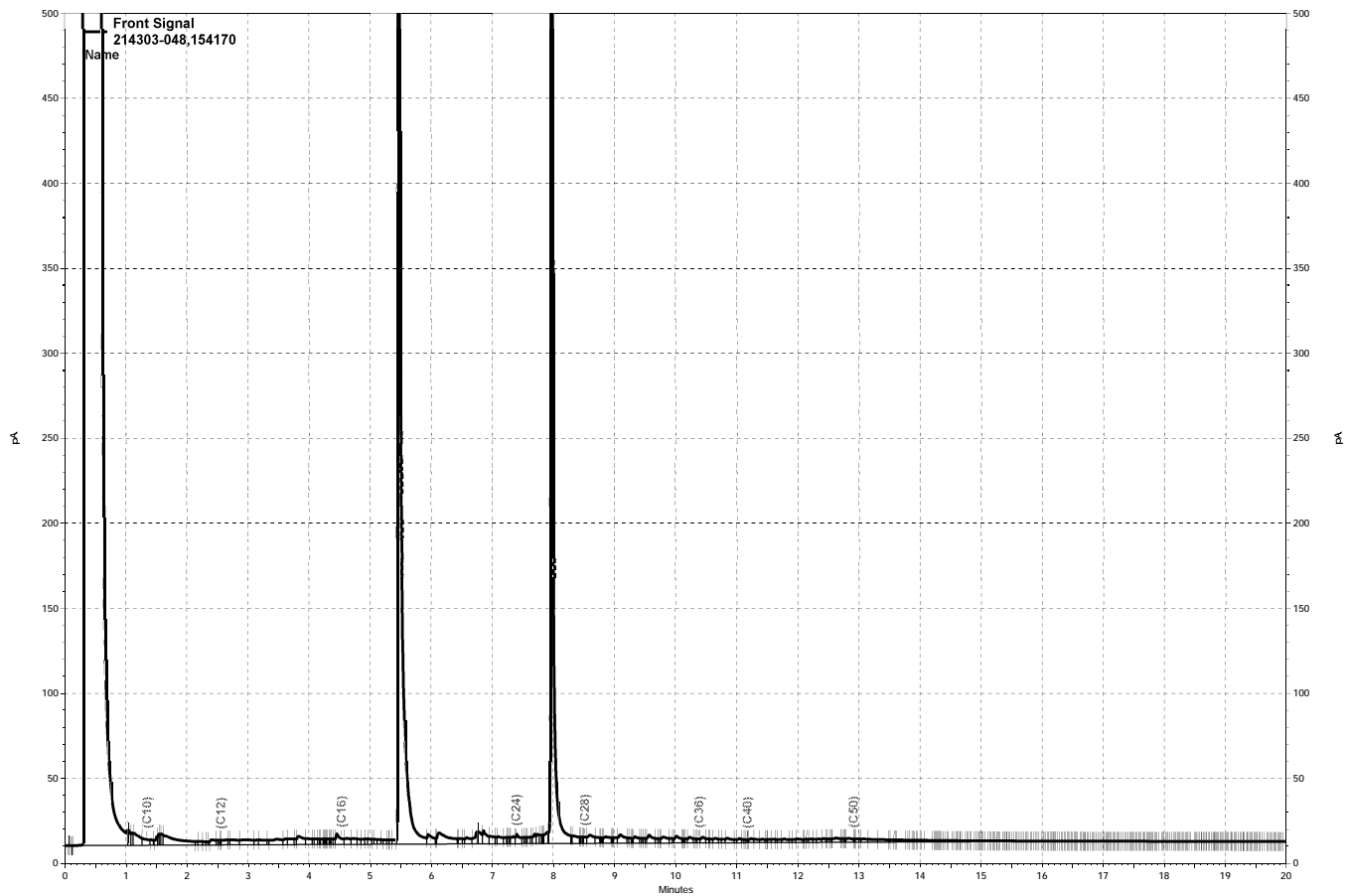
— \\Lims\gdrive\ezchrom\Projects\GC17A\Data\237a020, A



— G:\ezchrom\Projects\GC27\Data\237a010.dat, Front Signal

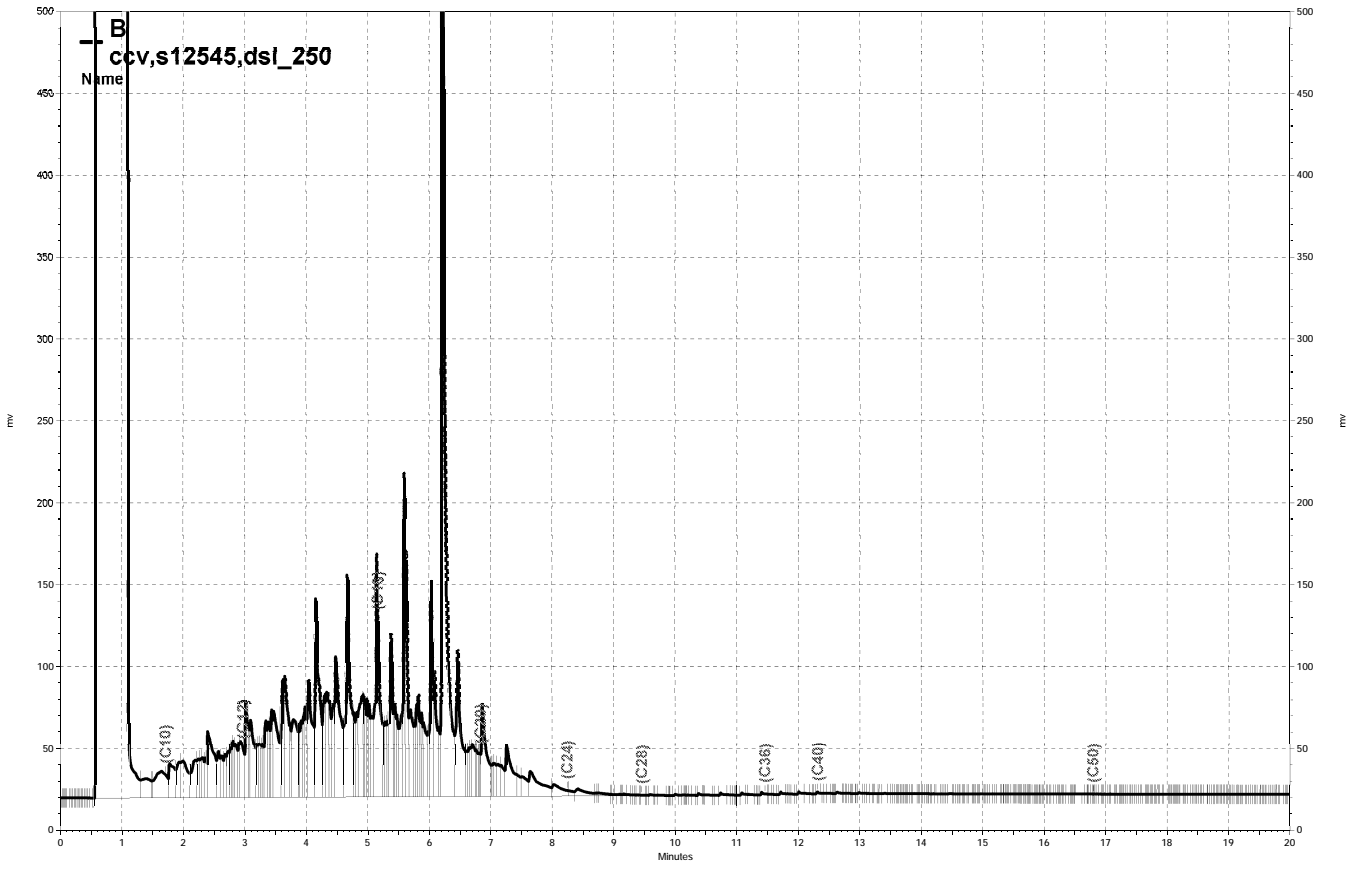


— G:\ezchrom\Projects\GC27\Data\237a011.dat, Front Signal

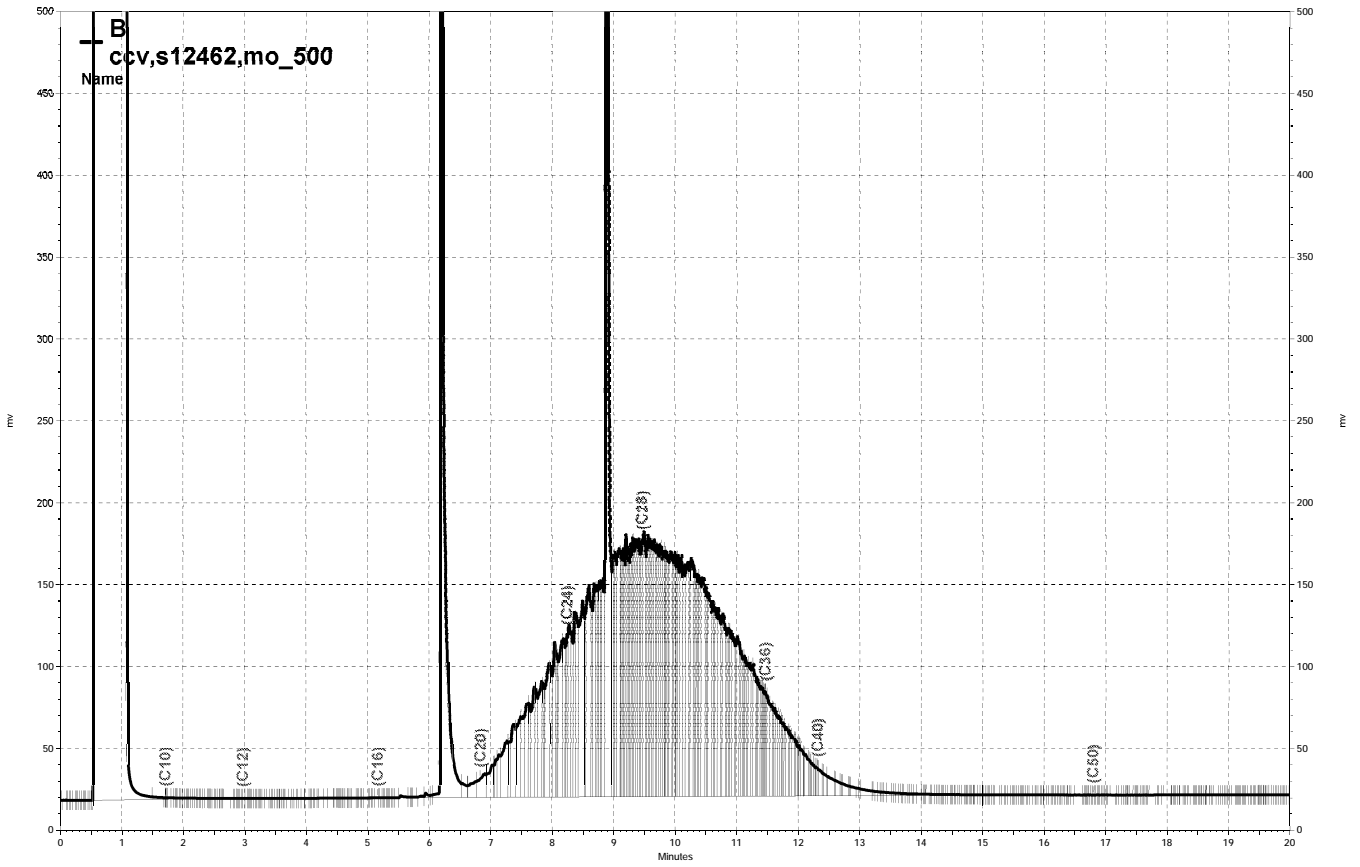


— G:\ezchrom\Projects\GC27\Data\237a020.dat, Front Signal





\\Lims\gdrive\ezchrom\Projects\GC15B\Data\235b037, B



— \\Lims\gdrive\ezchrom\Projects\GC15B\Data\235b038, B

Total Extractable Hydrocarbons			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	SHAKER TABLE
Project#:	2762	Analysis:	EPA 8015B
Matrix:	Soil	Diln Fac:	1.000
Units:	mg/Kg	Received:	08/20/09
Basis:	as received		

Field ID:	DP-1@11FT	Sampled:	08/18/09
Type:	SAMPLE	Prepared:	08/28/09
Lab ID:	214303-002	Analyzed:	08/29/09
Batch#:	154349		

Analyte	Result	RL
Diesel C10-C24	48 Y	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	85	53-133

Field ID:	DP-1@14FT	Sampled:	08/18/09
Type:	SAMPLE	Prepared:	08/24/09
Lab ID:	214303-003	Analyzed:	08/26/09
Batch#:	154154		

Analyte	Result	RL
Diesel C10-C24	35 Y	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	71	53-133

Field ID:	DP-1@17FT	Sampled:	08/18/09
Type:	SAMPLE	Prepared:	08/24/09
Lab ID:	214303-005	Analyzed:	08/26/09
Batch#:	154154		

Analyte	Result	RL
Diesel C10-C24	1.9 Y	0.99
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	73	53-133

Field ID:	DP-2@8FT	Sampled:	08/17/09
Type:	SAMPLE	Prepared:	08/24/09
Lab ID:	214303-008	Analyzed:	08/26/09
Batch#:	154154		

Analyte	Result	RL
Diesel C10-C24	4.3 Y	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	76	53-133

Y= Sample exhibits chromatographic pattern which does not resemble standard  
 ND= Not Detected  
 RL= Reporting Limit

Total Extractable Hydrocarbons		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: SHAKER TABLE
Project#:	2762	Analysis: EPA 8015B
Matrix:	Soil	Diln Fac: 1.000
Units:	mg/Kg	Received: 08/20/09
Basis:	as received	

Field ID:	DP-2@12FT	Sampled:	08/17/09
Type:	SAMPLE	Prepared:	08/24/09
Lab ID:	214303-010	Analyzed:	08/26/09
Batch#:	154154		

Analyte	Result	RL
Diesel C10-C24	1.6 Y	0.99
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	79	53-133

Field ID:	DP-3@12FT	Sampled:	08/17/09
Type:	SAMPLE	Prepared:	08/24/09
Lab ID:	214303-016	Analyzed:	08/26/09
Batch#:	154154		

Analyte	Result	RL
Diesel C10-C24	ND	0.99
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	68	53-133

Field ID:	DP-4@6FT	Sampled:	08/17/09
Type:	SAMPLE	Prepared:	08/24/09
Lab ID:	214303-020	Analyzed:	08/26/09
Batch#:	154154		

Analyte	Result	RL
Diesel C10-C24	ND	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	72	53-133

Field ID:	DP-4@14FT	Sampled:	08/17/09
Type:	SAMPLE	Prepared:	08/24/09
Lab ID:	214303-022	Analyzed:	08/26/09
Batch#:	154154		

Analyte	Result	RL
Diesel C10-C24	ND	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	65	53-133

Y= Sample exhibits chromatographic pattern which does not resemble standard  
 ND= Not Detected  
 RL= Reporting Limit

Total Extractable Hydrocarbons		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: SHAKER TABLE
Project#:	2762	Analysis: EPA 8015B
Matrix:	Soil	Diln Fac: 1.000
Units:	mg/Kg	Received: 08/20/09
Basis:	as received	

Field ID:	DP-5@12FT	Sampled:	08/18/09
Type:	SAMPLE	Prepared:	08/24/09
Lab ID:	214303-026	Analyzed:	08/26/09
Batch#:	154154		

Analyte	Result	RL
Diesel C10-C24	16 Y	0.99
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	67	53-133

Field ID:	DP-5@14FT	Sampled:	08/18/09
Type:	SAMPLE	Prepared:	08/24/09
Lab ID:	214303-027	Analyzed:	08/26/09
Batch#:	154154		

Analyte	Result	RL
Diesel C10-C24	51 Y	0.99
Motor Oil C24-C36	22	5.0

Surrogate	%REC	Limits
o-Terphenyl	73	53-133

Field ID:	DP-5@20FT	Sampled:	08/18/09
Type:	SAMPLE	Prepared:	08/24/09
Lab ID:	214303-029	Analyzed:	08/26/09
Batch#:	154154		

Analyte	Result	RL
Diesel C10-C24	8.1 Y	0.99
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	68	53-133

Field ID:	DP-6@12FT	Sampled:	08/18/09
Type:	SAMPLE	Prepared:	08/24/09
Lab ID:	214303-031	Analyzed:	08/26/09
Batch#:	154154		

Analyte	Result	RL
Diesel C10-C24	2.6 Y	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	69	53-133

Y= Sample exhibits chromatographic pattern which does not resemble standard  
 ND= Not Detected  
 RL= Reporting Limit

Total Extractable Hydrocarbons		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: SHAKER TABLE
Project#:	2762	Analysis: EPA 8015B
Matrix:	Soil	Diln Fac: 1.000
Units:	mg/Kg	Received: 08/20/09
Basis:	as received	

Field ID:	DP-6@14FT	Sampled:	08/18/09
Type:	SAMPLE	Prepared:	08/24/09
Lab ID:	214303-032	Analyzed:	08/26/09
Batch#:	154154		

Analyte	Result	RL
Diesel C10-C24	3.9 Y	0.99
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	74	53-133

Field ID:	DP-6@17FT	Sampled:	08/18/09
Type:	SAMPLE	Prepared:	08/24/09
Lab ID:	214303-033	Analyzed:	08/26/09
Batch#:	154154		

Analyte	Result	RL
Diesel C10-C24	9.9	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	69	53-133

Field ID:	DP-7@12FT	Sampled:	08/18/09
Type:	SAMPLE	Prepared:	08/24/09
Lab ID:	214303-035	Analyzed:	08/26/09
Batch#:	154154		

Analyte	Result	RL
Diesel C10-C24	ND	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	58	53-133

Field ID:	DP-7@14FT	Sampled:	08/18/09
Type:	SAMPLE	Prepared:	08/24/09
Lab ID:	214303-036	Analyzed:	08/26/09
Batch#:	154154		

Analyte	Result	RL
Diesel C10-C24	ND	0.99
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	55	53-133

Y= Sample exhibits chromatographic pattern which does not resemble standard  
 ND= Not Detected  
 RL= Reporting Limit

Total Extractable Hydrocarbons		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: SHAKER TABLE
Project#:	2762	Analysis: EPA 8015B
Matrix:	Soil	Diln Fac: 1.000
Units:	mg/Kg	Received: 08/20/09
Basis:	as received	

Field ID: SOMA-5@11FT      Sampled: 08/18/09  
 Type: SAMPLE      Prepared: 08/24/09  
 Lab ID: 214303-040      Analyzed: 08/26/09  
 Batch#: 154154

Analyte	Result	RL
Diesel C10-C24	31 Y	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	65	53-133

Field ID: SOMA-5@12.5FT      Sampled: 08/18/09  
 Type: SAMPLE      Prepared: 08/24/09  
 Lab ID: 214303-041      Analyzed: 08/26/09  
 Batch#: 154154

Analyte	Result	RL
Diesel C10-C24	2.6 Y	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	70	53-133

Type: BLANK      Prepared: 08/24/09  
 Lab ID: QC508889      Analyzed: 08/25/09  
 Batch#: 154154

Analyte	Result	RL
Diesel C10-C24	ND	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	92	53-133

Type: BLANK      Prepared: 08/28/09  
 Lab ID: QC509709      Analyzed: 08/28/09  
 Batch#: 154349

Analyte	Result	RL
Diesel C10-C24	ND	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	113	53-133

Y= Sample exhibits chromatographic pattern which does not resemble standard  
 ND= Not Detected  
 RL= Reporting Limit

## Batch QC Report

Total Extractable Hydrocarbons				
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle	
Client:	SOMA Environmental Engineering Inc.	Prep:	SHAKER TABLE	
Project#:	2762	Analysis:	EPA 8015B	
Type:	LCS	Diln Fac:	1.000	
Lab ID:	QC508890	Batch#:	154154	
Matrix:	Soil	Prepared:	08/24/09	
Units:	mg/Kg	Analyzed:	08/25/09	

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.55	47.93	97	52-128

Surrogate	%REC	Limits
o-Terphenyl	95	53-133



## Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	SHAKER TABLE
Project#:	2762	Analysis:	EPA 8015B
Field ID:	DP-2@12FT	Batch#:	154154
MSS Lab ID:	214303-010	Sampled:	08/17/09
Matrix:	Soil	Received:	08/20/09
Units:	mg/Kg	Prepared:	08/24/09
Basis:	as received	Analyzed:	08/26/09
Diln Fac:	1.000		

Type: MS Lab ID: QC508891

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	1.638	49.60	38.40	74	33-145

Surrogate	%REC	Limits
o-Terphenyl	81	53-133

Type: MSD Lab ID: QC508892

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	49.66	36.59	70	33-145	5	44

Surrogate	%REC	Limits
o-Terphenyl	75	53-133

RPD= Relative Percent Difference

## Batch QC Report

Total Extractable Hydrocarbons				
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle	
Client:	SOMA Environmental Engineering Inc.	Prep:	SHAKER TABLE	
Project#:	2762	Analysis:	EPA 8015B	
Type:	LCS	Diln Fac:	1.000	
Lab ID:	QC509710	Batch#:	154349	
Matrix:	Soil	Prepared:	08/28/09	
Units:	mg/Kg	Analyzed:	08/28/09	

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.78	37.30	75	52-128

Surrogate	%REC	Limits
o-Terphenyl	79	53-133

Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	SHAKER TABLE
Project#:	2762	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	154349
MSS Lab ID:	214215-009	Sampled:	08/14/09
Matrix:	Soil	Received:	08/14/09
Units:	mg/Kg	Prepared:	08/28/09
Basis:	as received	Analyzed:	08/28/09
Diln Fac:	1.000		

Type: MS Lab ID: QC509711

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	1.150	49.98	33.45	65	33-145

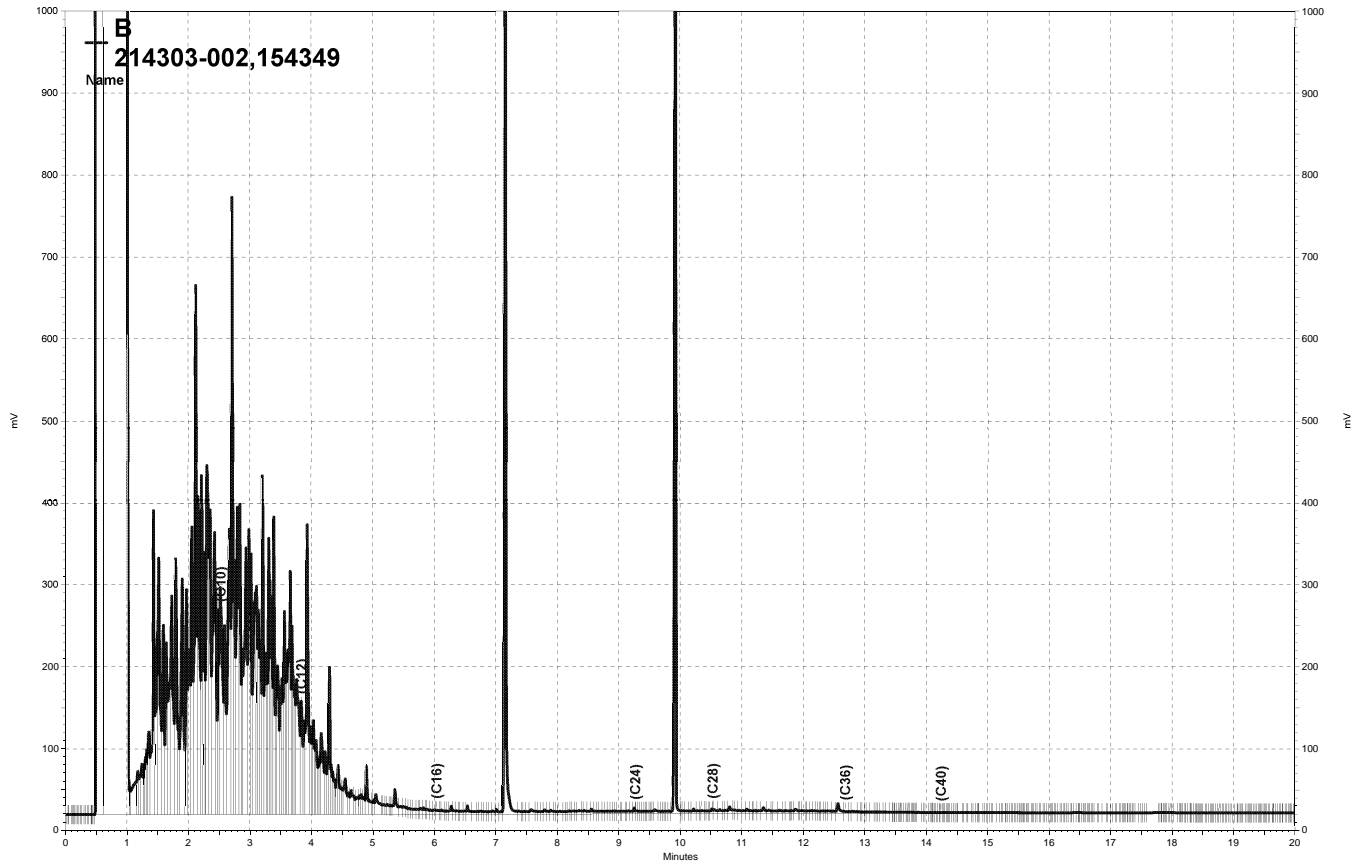
Surrogate	%REC	Limits
o-Terphenyl	70	53-133

Type: MSD Lab ID: QC509712

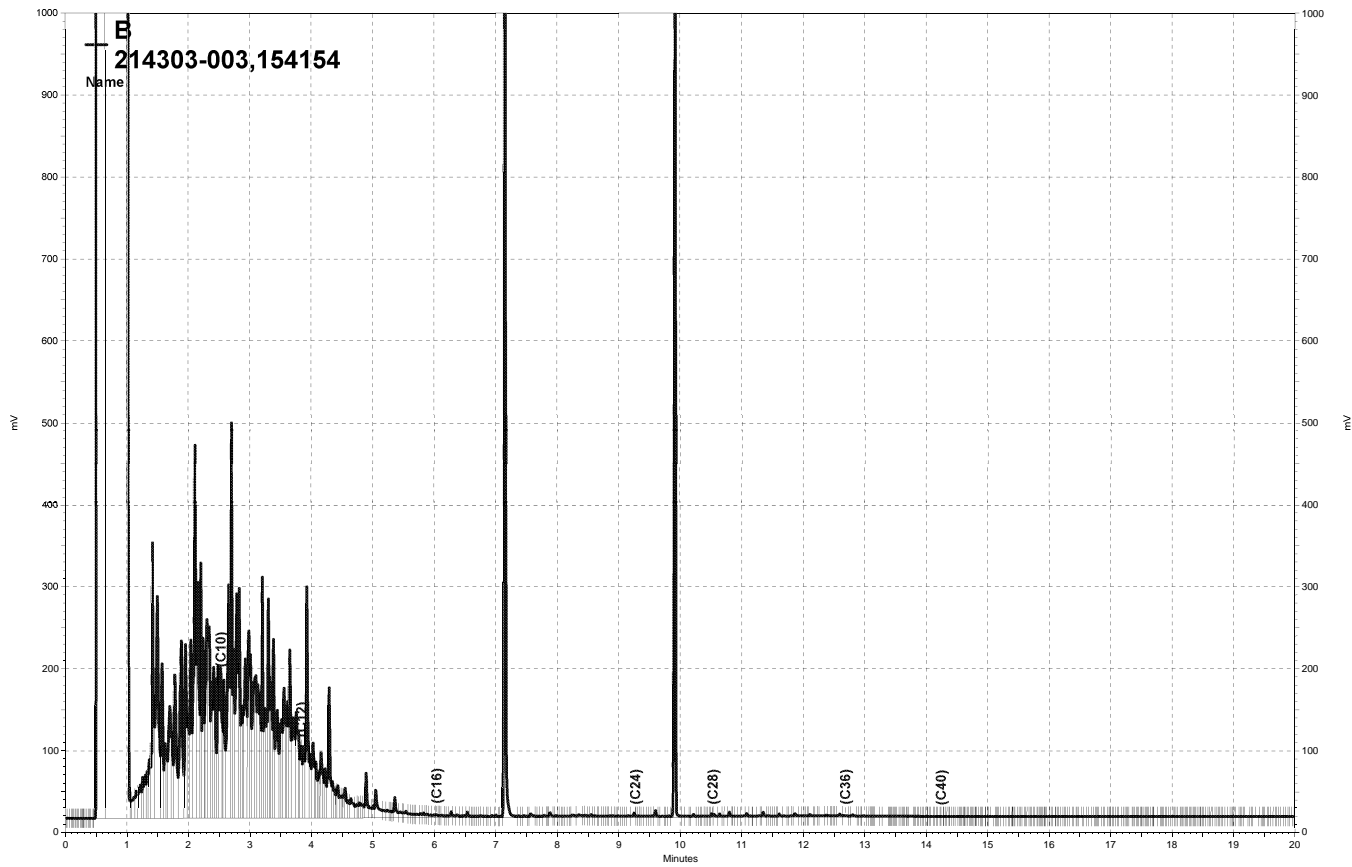
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	49.94	37.02	72	33-145	10	44

Surrogate	%REC	Limits
o-Terphenyl	76	53-133

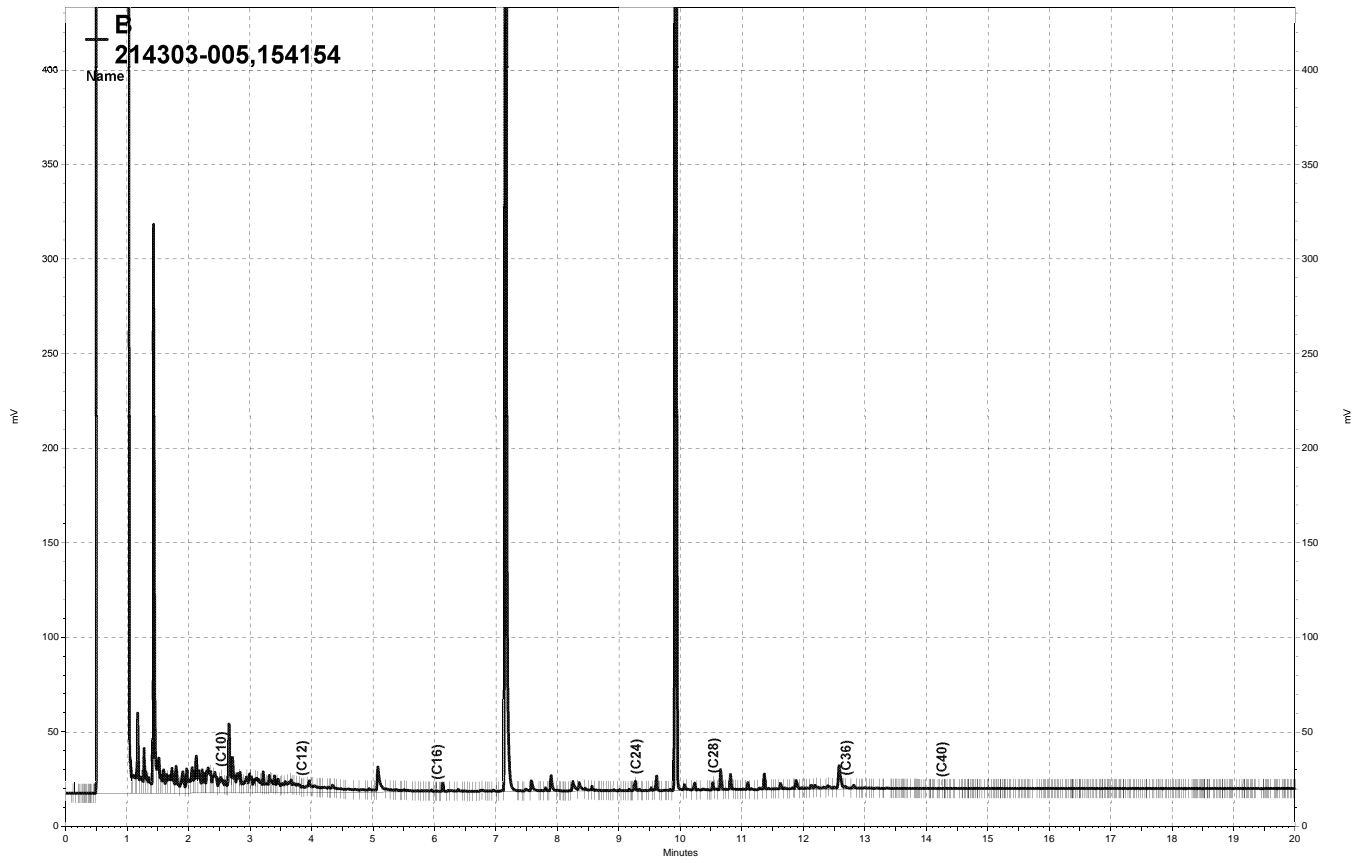
RPD= Relative Percent Difference



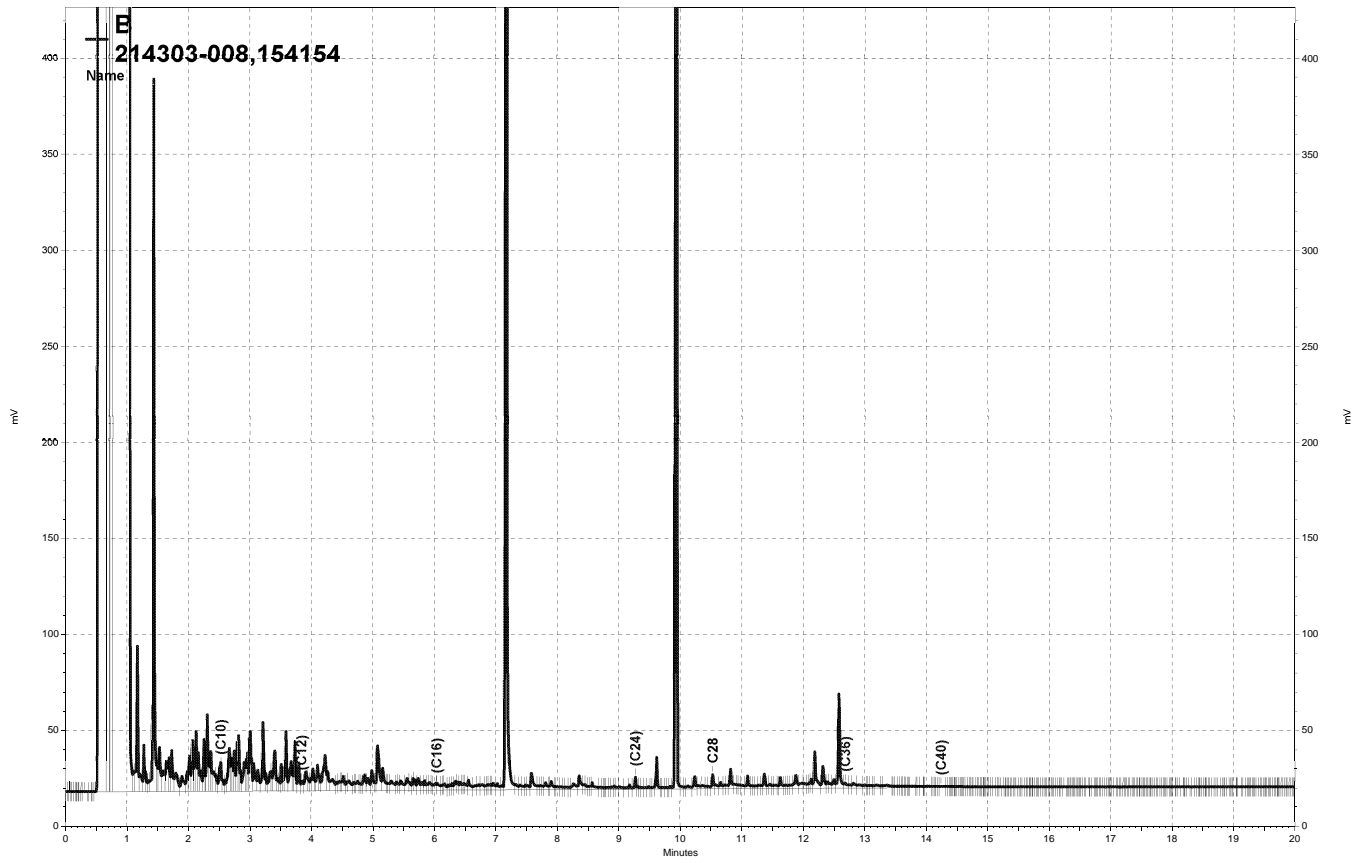
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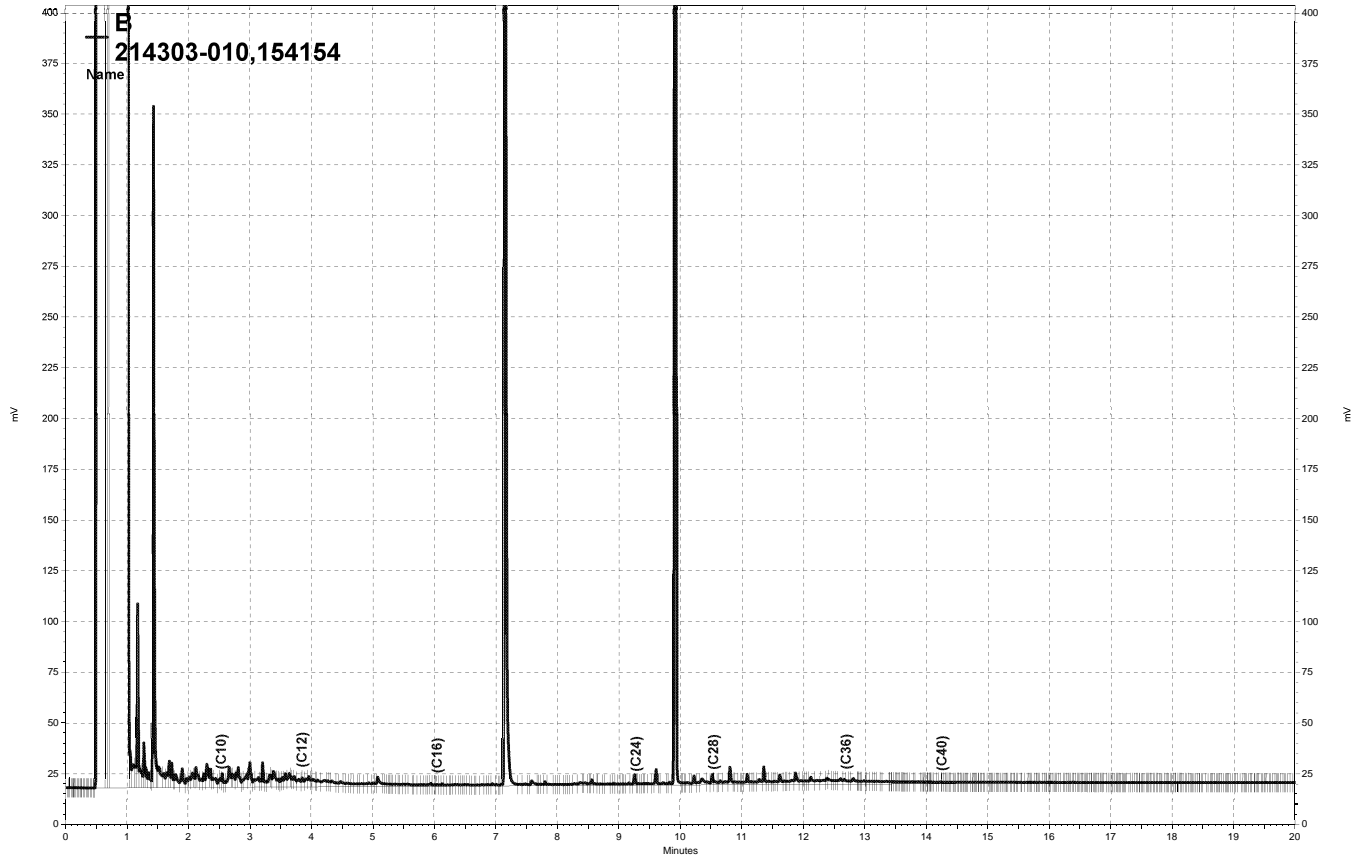
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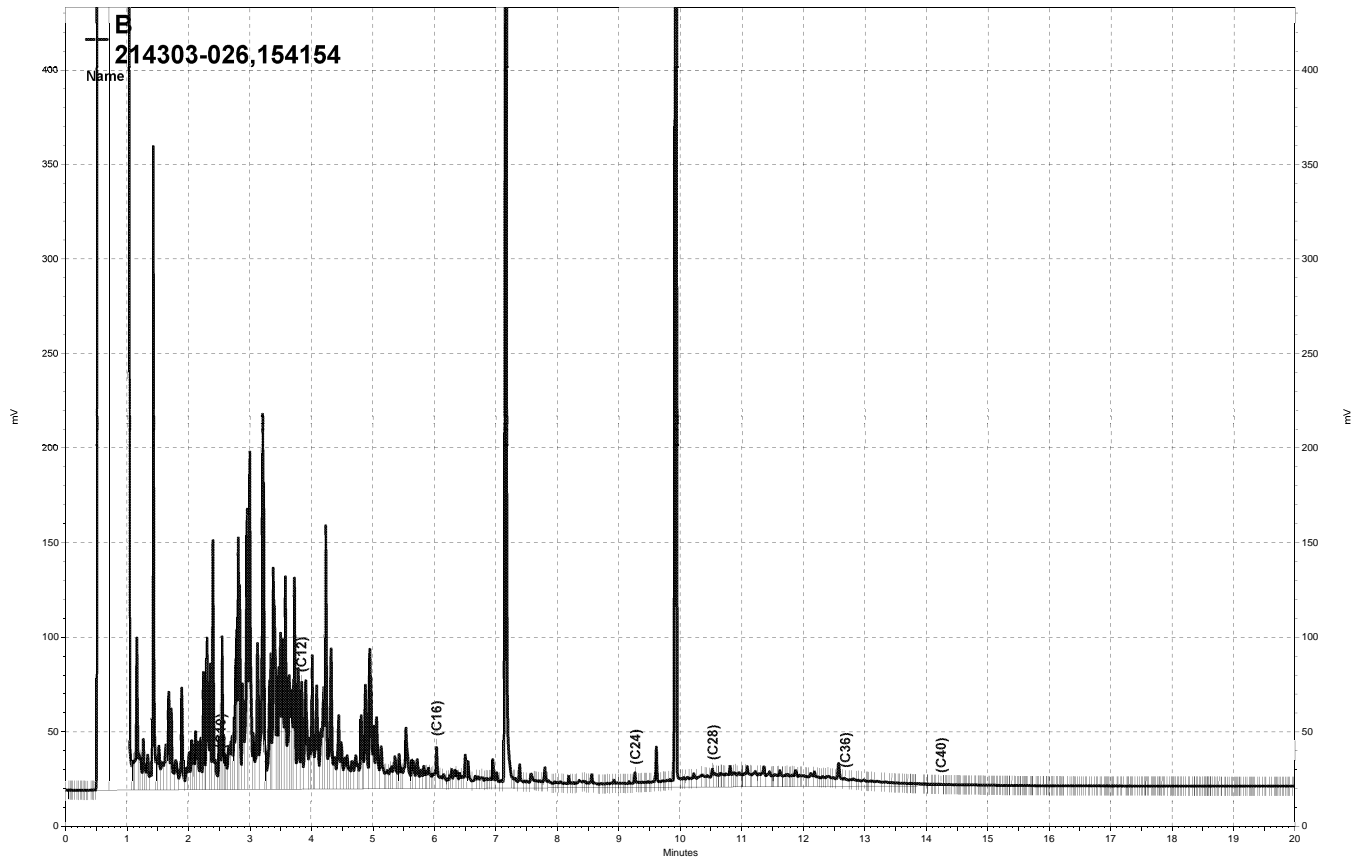


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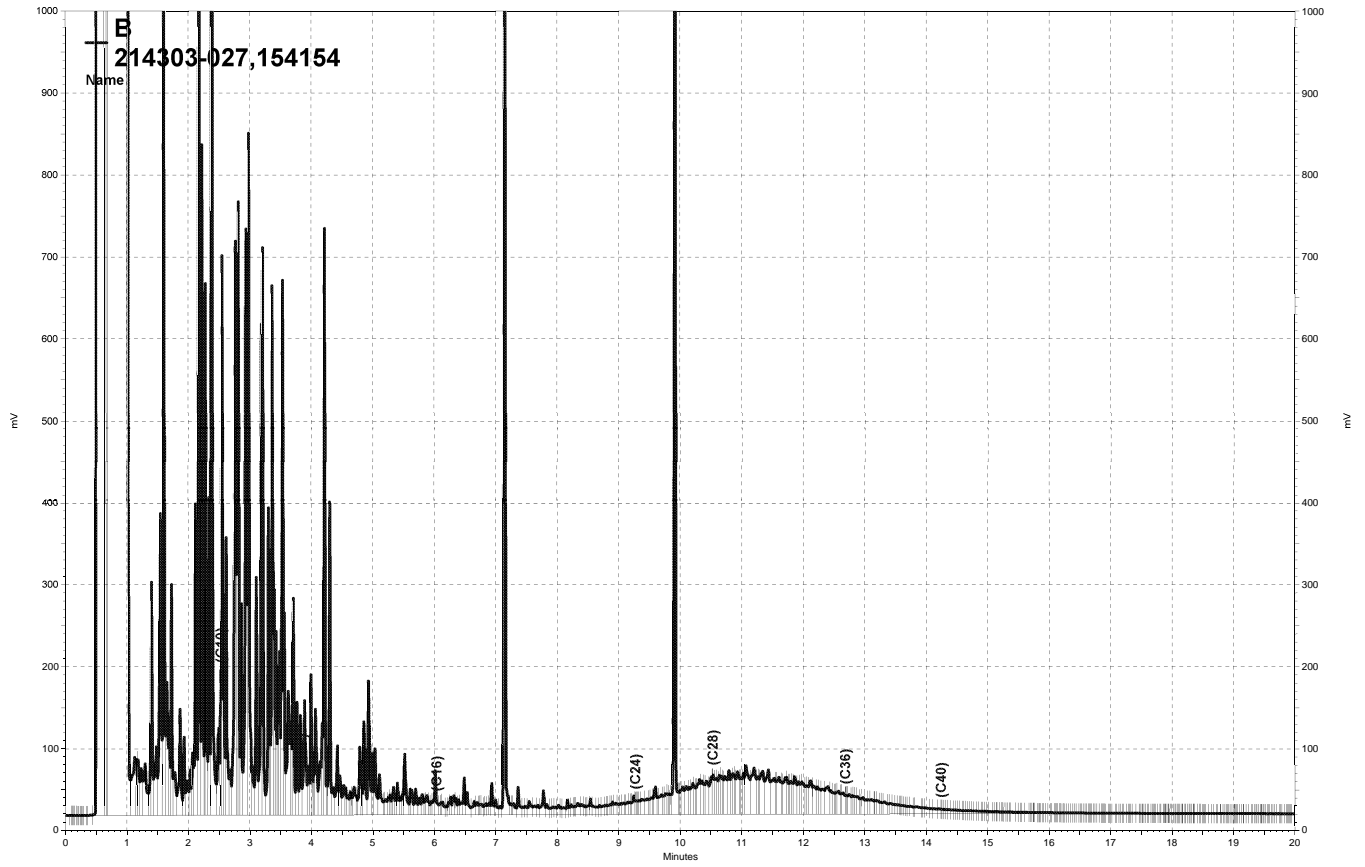


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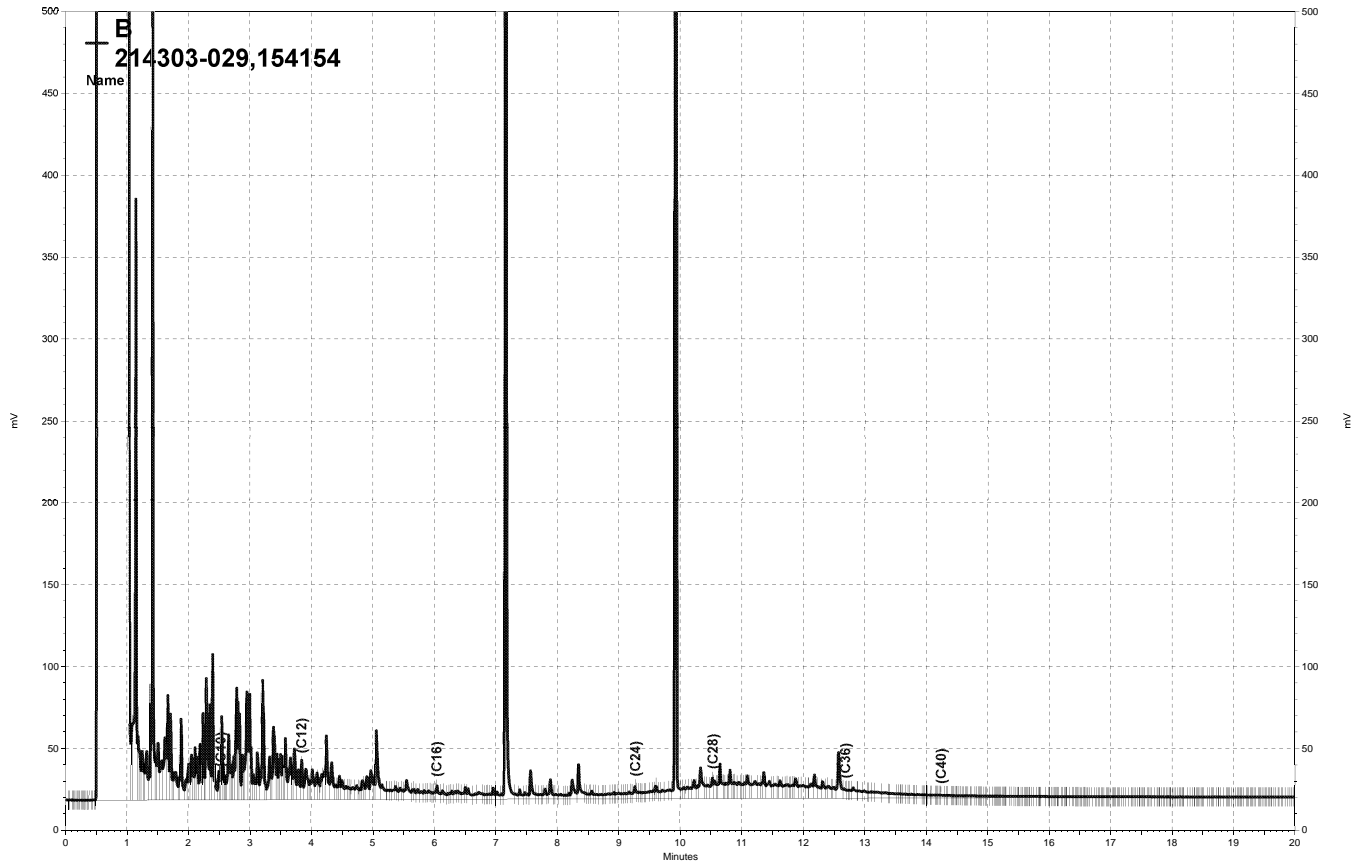




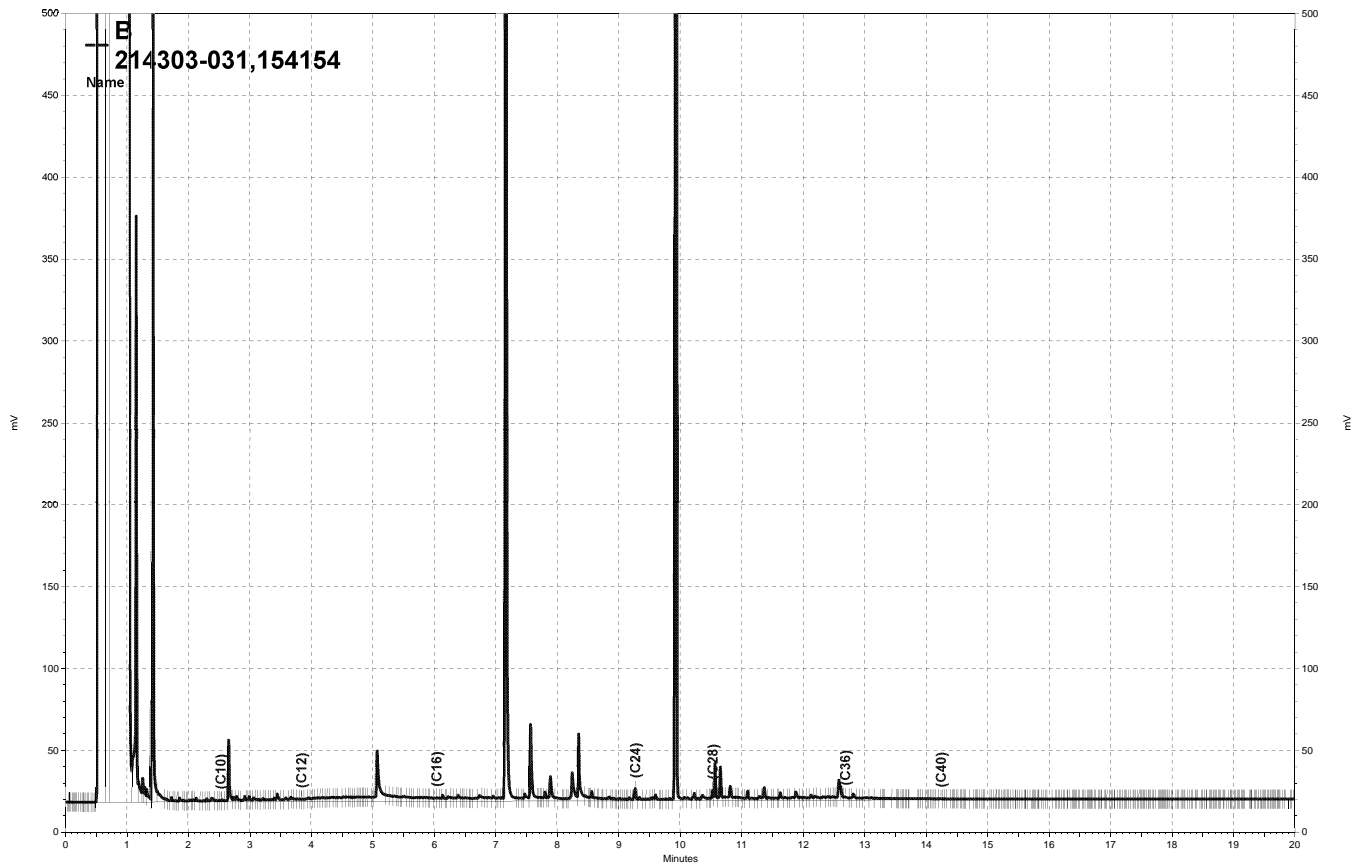
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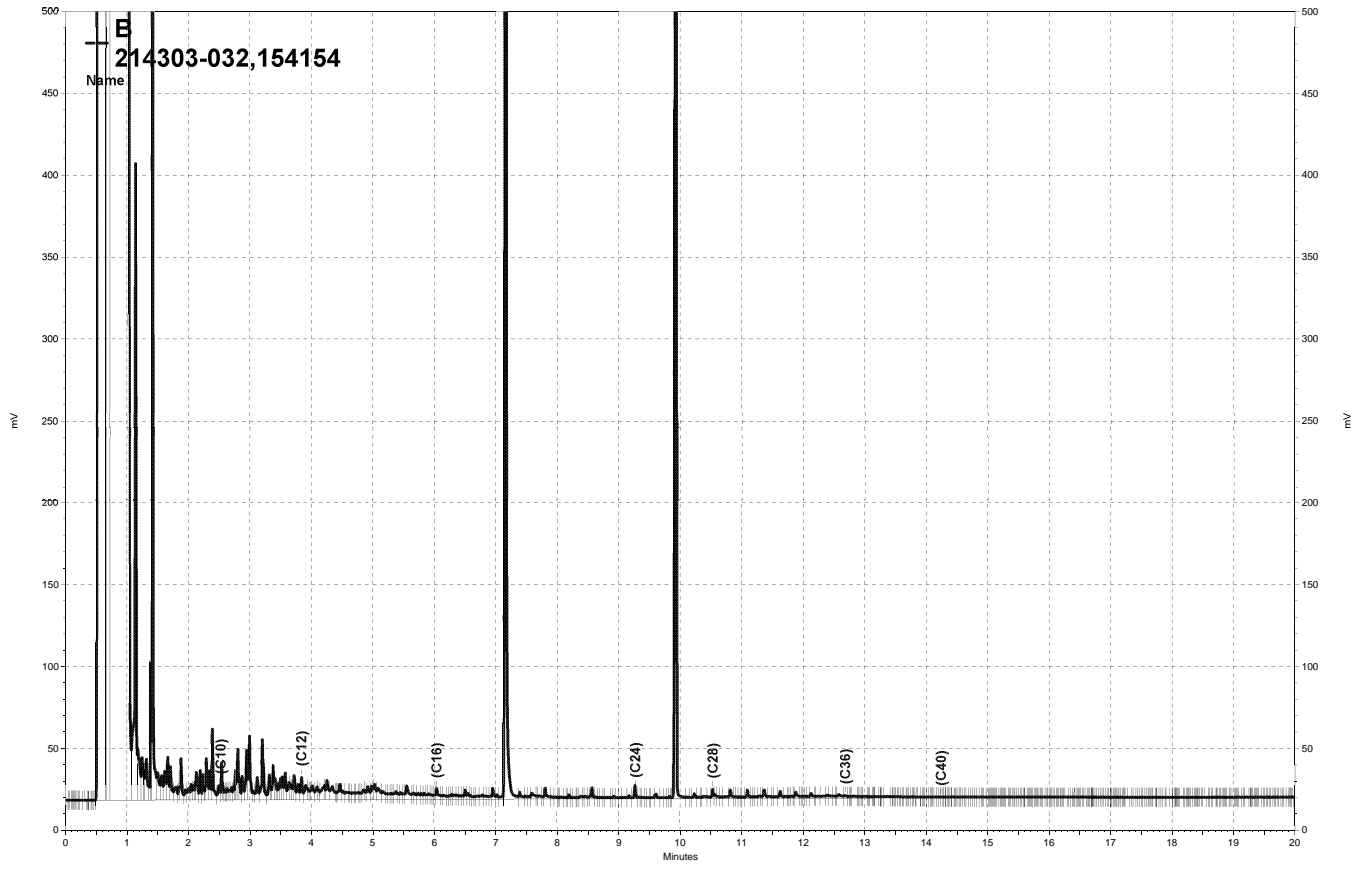
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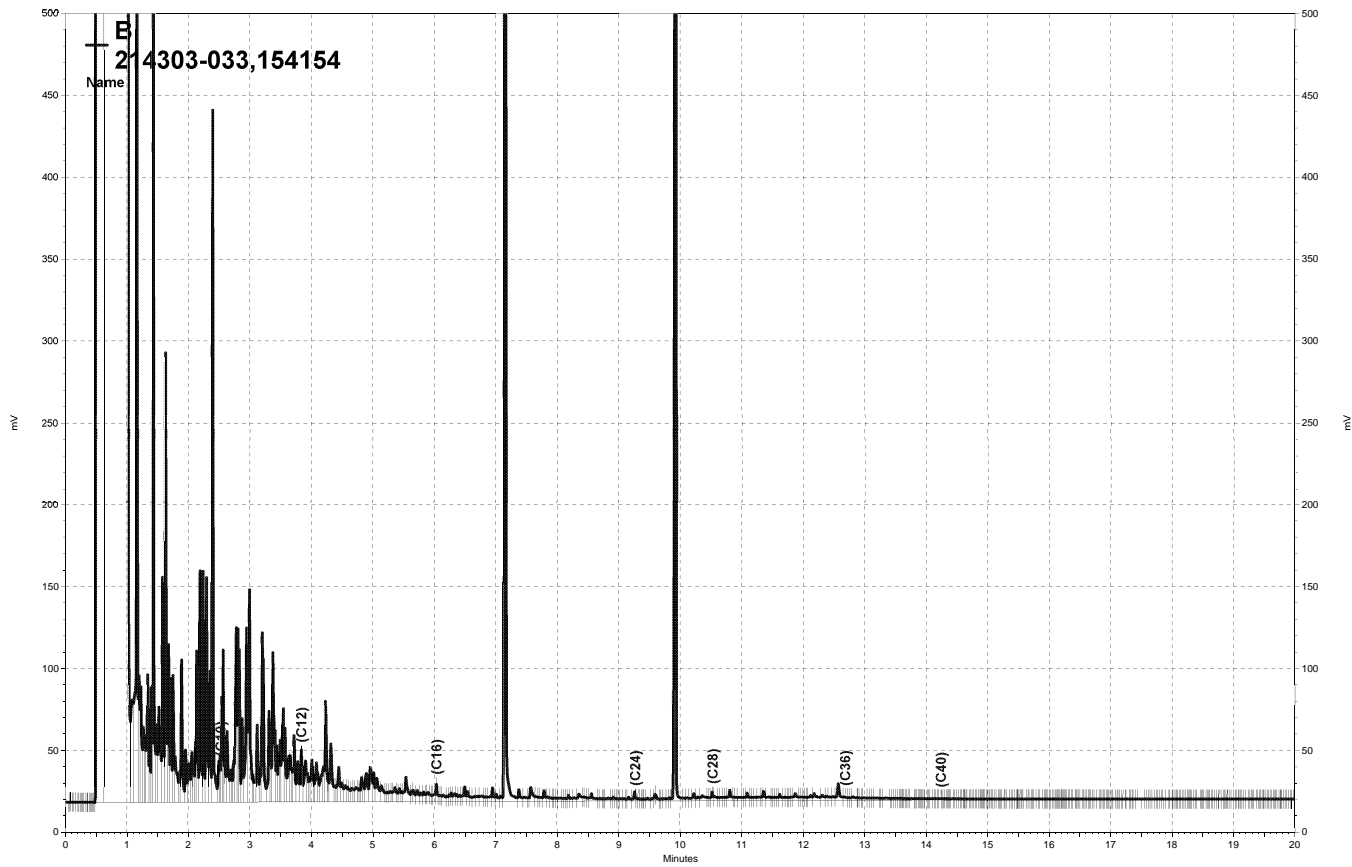
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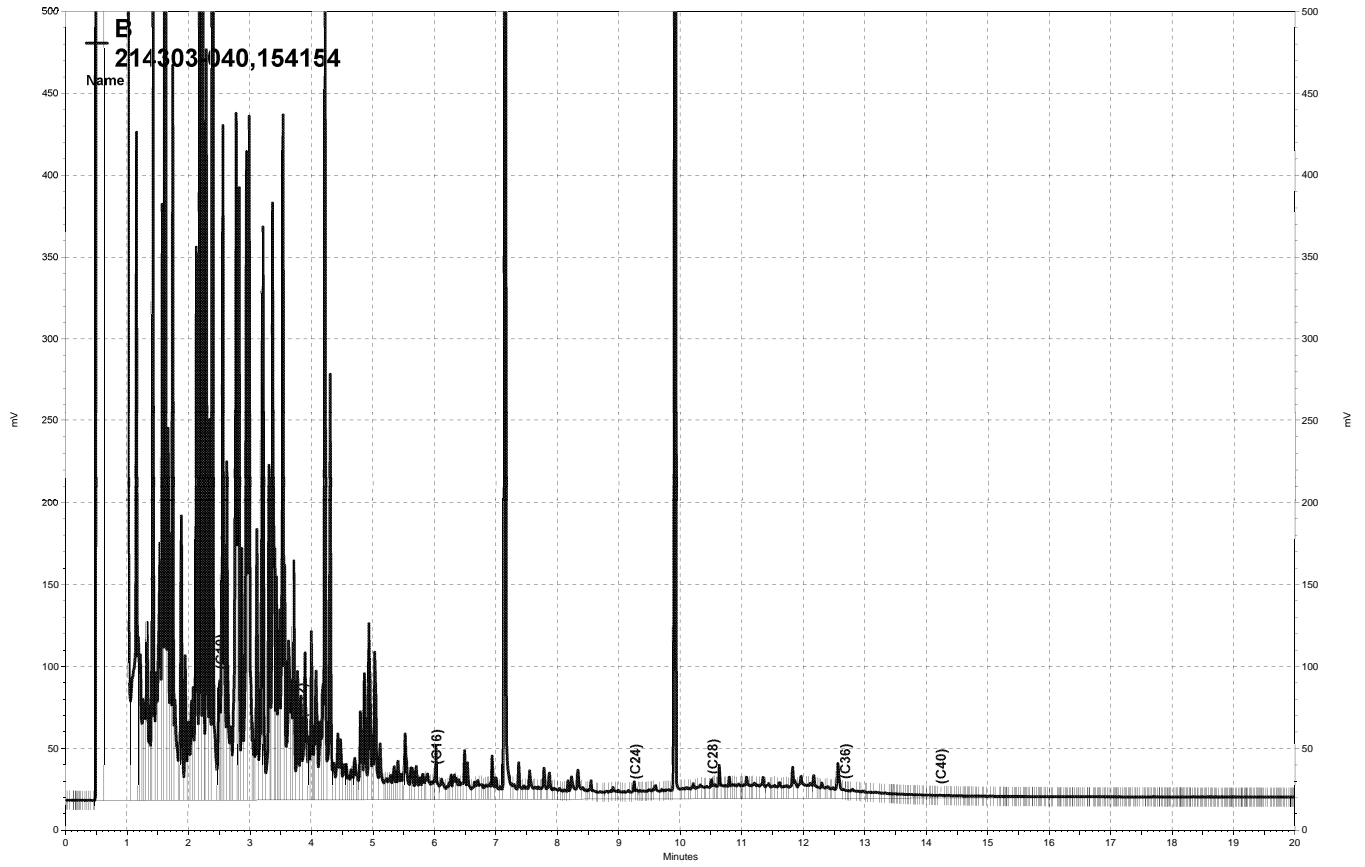
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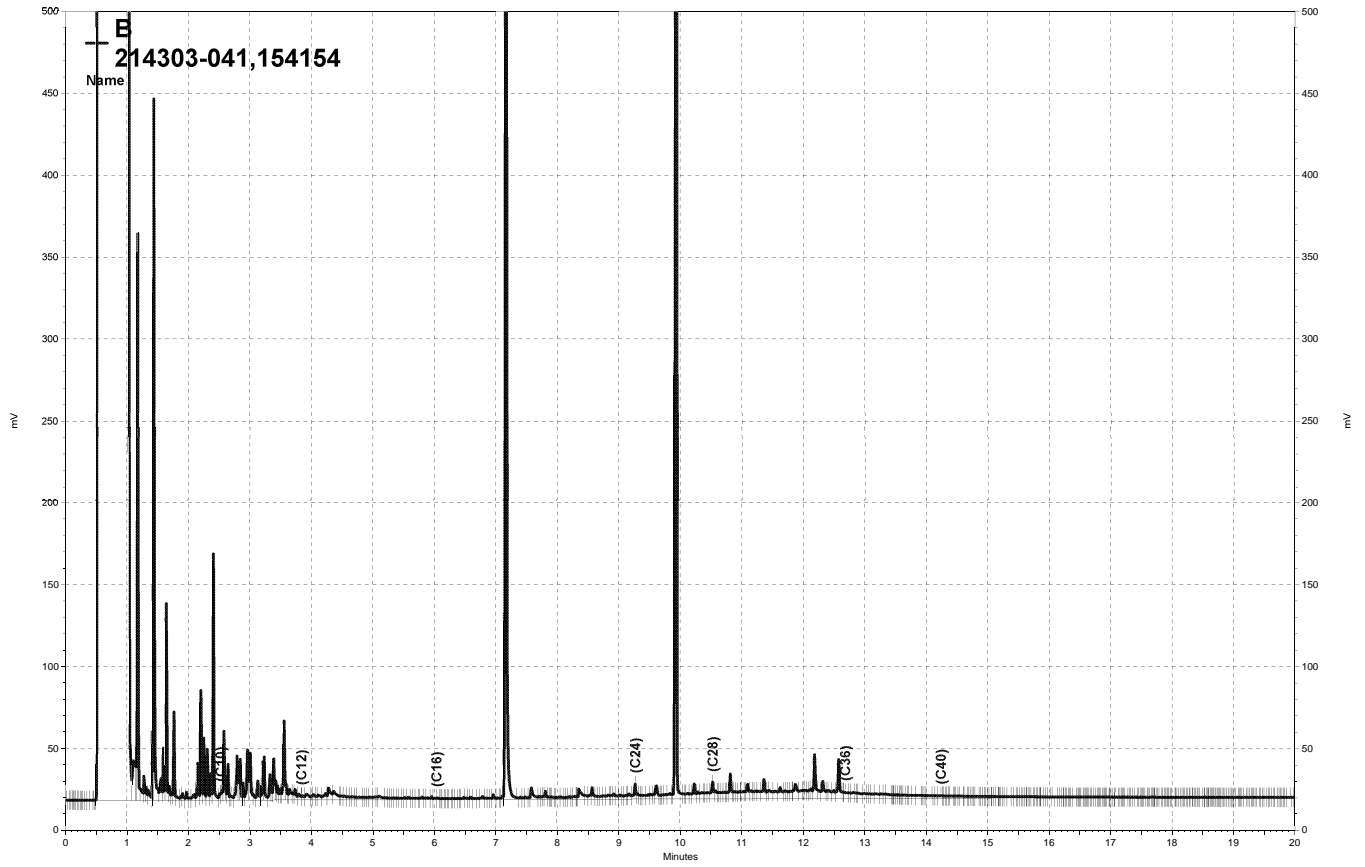
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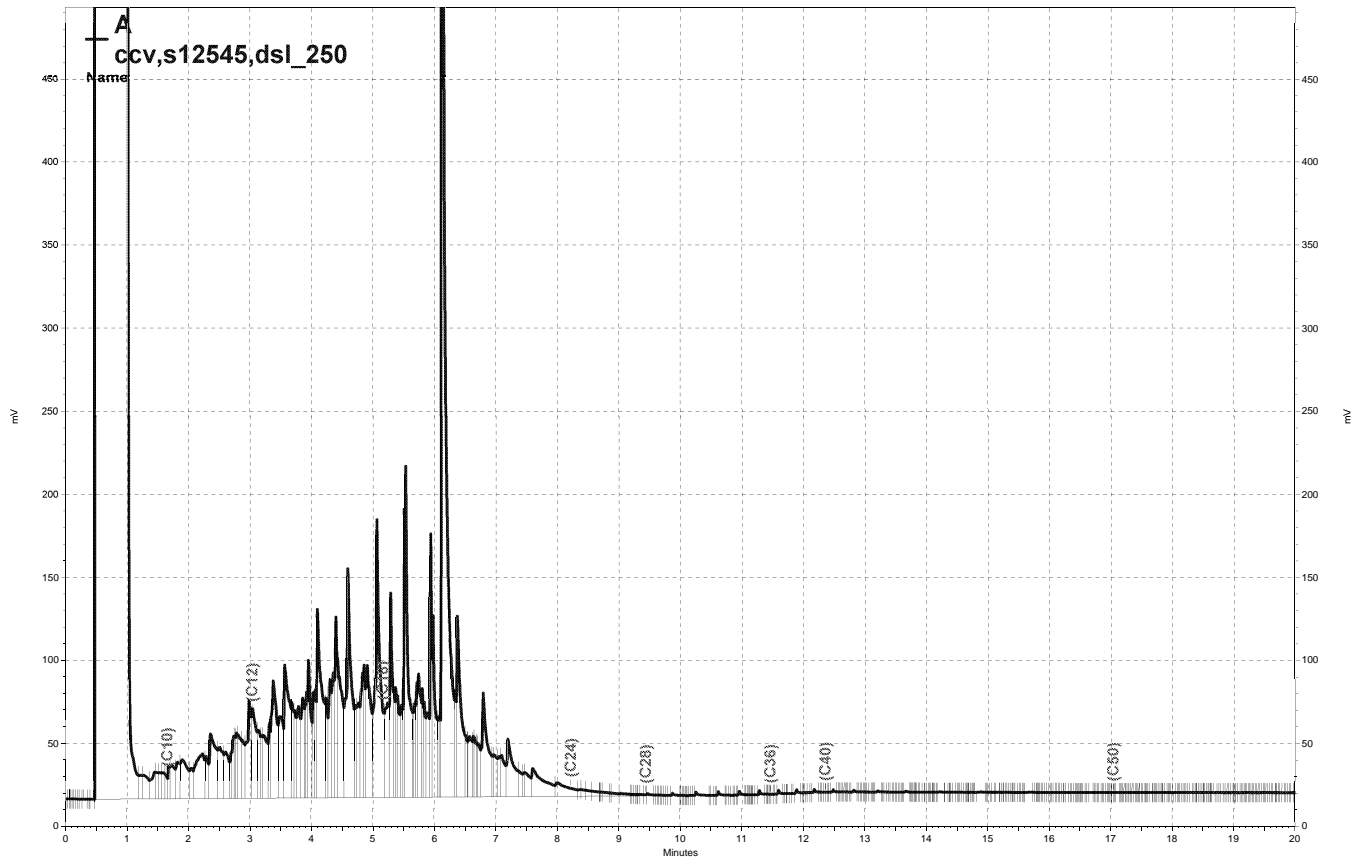


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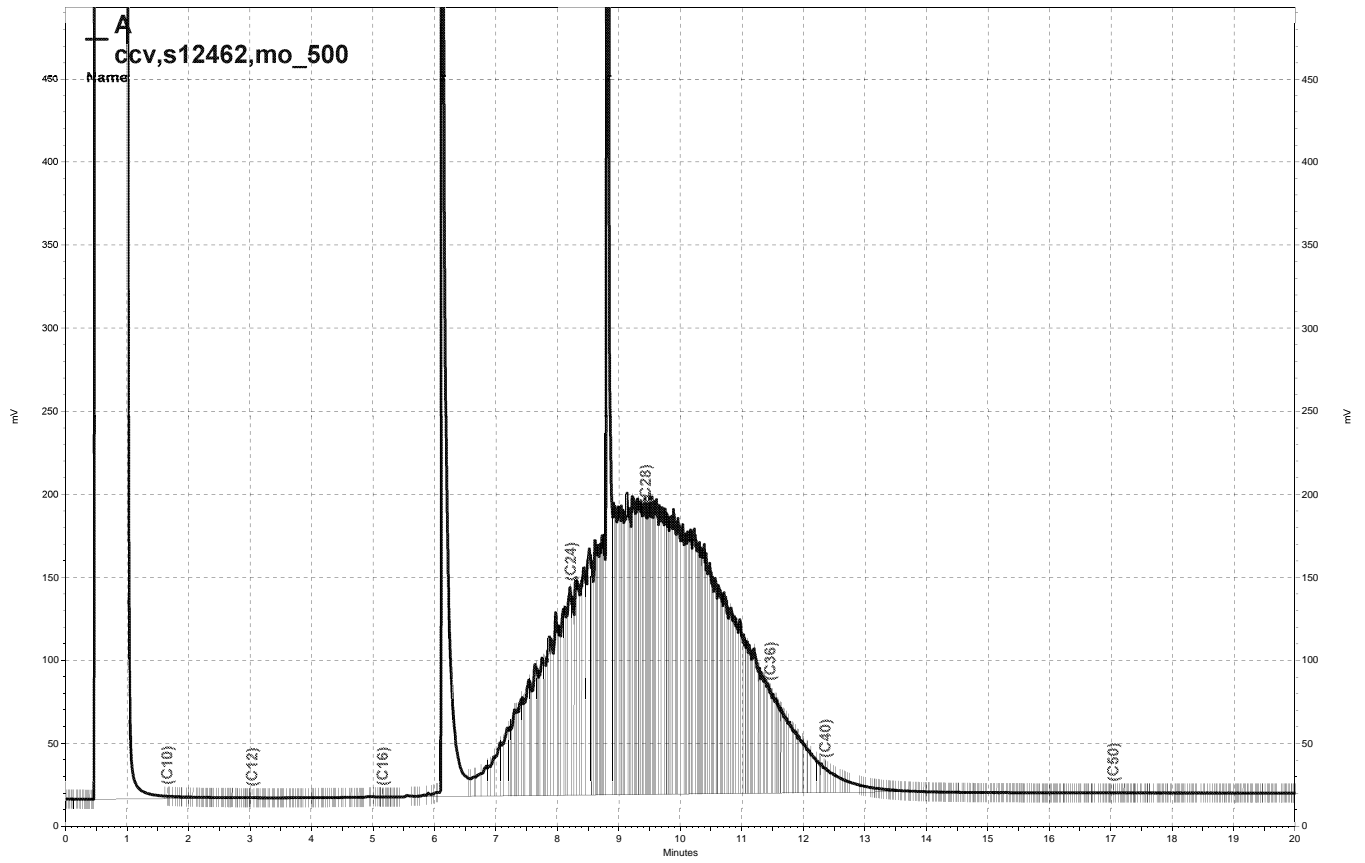


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Gasoline by GC/MS		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Field ID:	DP-1	Batch#: 154248
Lab ID:	214303-042	Sampled: 08/18/09
Matrix:	Water	Received: 08/20/09
Units:	ug/L	Analyzed: 08/26/09
Diln Fac:	1.000	

Analyte	Result	RL
Gasoline C7-C12	210 Y	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	117	80-122
1,2-Dichloroethane-d4	114	77-137
Toluene-d8	93	80-120
Bromofluorobenzene	106	80-125

Y= Sample exhibits chromatographic pattern which does not resemble standard  
 ND= Not Detected  
 RL= Reporting Limit

Gasoline by GC/MS		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Field ID:	DP-2	Batch#: 154193
Lab ID:	214303-043	Sampled: 08/17/09
Matrix:	Water	Received: 08/20/09
Units:	ug/L	Analyzed: 08/25/09
Diln Fac:	1.000	

Analyte	Result	RL
Gasoline C7-C12	130	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	3.7	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	115	80-122
1,2-Dichloroethane-d4	113	77-137
Toluene-d8	92	80-120
Bromofluorobenzene	104	80-125

ND= Not Detected  
 RL= Reporting Limit

Gasoline by GC/MS		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Field ID:	DP-3	Batch#: 154193
Lab ID:	214303-044	Sampled: 08/17/09
Matrix:	Water	Received: 08/20/09
Units:	ug/L	Analyzed: 08/25/09
Diln Fac:	1.000	

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	1.9	0.50
1,2-Dichloroethane	0.55	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	116	80-122
1,2-Dichloroethane-d4	113	77-137
Toluene-d8	92	80-120
Bromofluorobenzene	105	80-125

ND= Not Detected  
 RL= Reporting Limit

Gasoline by GC/MS		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Field ID:	DP-4	Batch#: 154193
Lab ID:	214303-045	Sampled: 08/17/09
Matrix:	Water	Received: 08/20/09
Units:	ug/L	Analyzed: 08/25/09
Diln Fac:	1.000	

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	0.76	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	114	80-122
1,2-Dichloroethane-d4	114	77-137
Toluene-d8	92	80-120
Bromofluorobenzene	106	80-125

ND= Not Detected  
 RL= Reporting Limit

Gasoline by GC/MS		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Field ID:	DP-5	Batch#: 154248
Lab ID:	214303-046	Sampled: 08/18/09
Matrix:	Water	Received: 08/20/09
Units:	ug/L	Analyzed: 08/26/09
Diln Fac:	1.000	

Analyte	Result	RL
Gasoline C7-C12	640	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	4.8	0.50
1,2-Dichloroethane	ND	0.50
Benzene	8.9	0.50
Toluene	1.6	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	18	0.50
m,p-Xylenes	60	0.50
o-Xylene	11	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	116	80-122
1,2-Dichloroethane-d4	113	77-137
Toluene-d8	92	80-120
Bromofluorobenzene	106	80-125

ND= Not Detected  
 RL= Reporting Limit

Gasoline by GC/MS		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Field ID:	DP-6	Batch#: 154248
Lab ID:	214303-047	Sampled: 08/18/09
Matrix:	Water	Received: 08/20/09
Units:	ug/L	Analyzed: 08/26/09
Diln Fac:	1.000	

Analyte	Result	RL
Gasoline C7-C12	1,600	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	18	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	71	0.50
m,p-Xylenes	140	0.50
o-Xylene	46	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	115	80-122
1,2-Dichloroethane-d4	108	77-137
Toluene-d8	92	80-120
Bromofluorobenzene	102	80-125

ND= Not Detected  
 RL= Reporting Limit



Gasoline by GC/MS		
Lab #: 214303	Location: 3519 Castro Valley Blvd, Castro Valle	
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B	
Project#: 2762	Analysis: EPA 8260B	
Field ID: DP-7	Batch#: 154193	
Lab ID: 214303-048	Sampled: 08/18/09	
Matrix: Water	Received: 08/20/09	
Units: ug/L	Analyzed: 08/25/09	
Diln Fac: 1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	117	80-122
1,2-Dichloroethane-d4	115	77-137
Toluene-d8	92	80-120
Bromofluorobenzene	107	80-125

ND= Not Detected  
 RL= Reporting Limit

**Batch QC Report**

<b>Gasoline by GC/MS</b>		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Type:	BLANK	Diln Fac: 1.000
Lab ID:	QC509052	Batch#: 154193
Matrix:	Water	Analyzed: 08/25/09
Units:	ug/L	

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	114	80-122
1,2-Dichloroethane-d4	113	77-137
Toluene-d8	93	80-120
Bromofluorobenzene	104	80-125

ND= Not Detected  
 RL= Reporting Limit

**Batch QC Report**

Gasoline by GC/MS			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	154193
Units:	ug/L	Analyzed:	08/25/09
Diln Fac:	1.000		

Type: BS Lab ID: QC509053

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	106.3	128.8	121	55-151
Isopropyl Ether (DIPE)	21.25	24.33	114	65-131
Ethyl tert-Butyl Ether (ETBE)	21.25	23.01	108	75-128
Methyl tert-Amyl Ether (TAME)	21.25	19.60	92	80-121
MTBE	21.25	21.48	101	73-122
1,2-Dichloroethane	21.25	23.71	112	73-141
Benzene	21.25	19.86	93	80-120
Toluene	21.25	20.22	95	80-120
1,2-Dibromoethane	21.25	21.66	102	80-120
Ethylbenzene	21.25	20.85	98	80-121
m,p-Xylenes	42.50	44.97	106	80-122
o-Xylene	21.25	21.66	102	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	112	80-122
1,2-Dichloroethane-d4	104	77-137
Toluene-d8	92	80-120
Bromofluorobenzene	101	80-125

Type: BSD Lab ID: QC509054

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	106.3	143.7	135	55-151	11	21
Isopropyl Ether (DIPE)	21.25	25.66	121	65-131	5	20
Ethyl tert-Butyl Ether (ETBE)	21.25	24.14	114	75-128	5	20
Methyl tert-Amyl Ether (TAME)	21.25	20.40	96	80-121	4	20
MTBE	21.25	22.42	105	73-122	4	20
1,2-Dichloroethane	21.25	24.06	113	73-141	1	20
Benzene	21.25	19.69	93	80-120	1	20
Toluene	21.25	19.73	93	80-120	2	20
1,2-Dibromoethane	21.25	21.81	103	80-120	1	20
Ethylbenzene	21.25	20.54	97	80-121	2	20
m,p-Xylenes	42.50	44.02	104	80-122	2	20
o-Xylene	21.25	21.50	101	80-120	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	113	80-122
1,2-Dichloroethane-d4	105	77-137
Toluene-d8	92	80-120
Bromofluorobenzene	99	80-125

RPD= Relative Percent Difference

## Batch QC Report

Gasoline by GC/MS			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	154193
Units:	ug/L	Analyzed:	08/25/09
Diln Fac:	1.000		

Type: BS Lab ID: QC509055

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	800.0	835.4	104	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	114	80-122
1,2-Dichloroethane-d4	110	77-137
Toluene-d8	92	80-120
Bromofluorobenzene	103	80-125

Type: BSD Lab ID: QC509056

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	800.0	794.9	99	80-120	5	20

Surrogate	%REC	Limits
Dibromofluoromethane	113	80-122
1,2-Dichloroethane-d4	109	77-137
Toluene-d8	92	80-120
Bromofluorobenzene	102	80-125

RPD= Relative Percent Difference

**Batch QC Report**

<b>Gasoline by GC/MS</b>		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Type:	BLANK	Diln Fac: 1.000
Lab ID:	QC509287	Batch#: 154248
Matrix:	Water	Analyzed: 08/26/09
Units:	ug/L	

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	116	80-122
1,2-Dichloroethane-d4	115	77-137
Toluene-d8	92	80-120
Bromofluorobenzene	106	80-125

ND= Not Detected  
 RL= Reporting Limit

**Batch QC Report**

Gasoline by GC/MS			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	154248
Units:	ug/L	Analyzed:	08/26/09
Diln Fac:	1.000		

Type: BS Lab ID: QC509288

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	118.8	151.2	127	55-151
Isopropyl Ether (DIPE)	23.75	27.45	116	65-131
Ethyl tert-Butyl Ether (ETBE)	23.75	26.20	110	75-128
Methyl tert-Amyl Ether (TAME)	23.75	21.81	92	80-121
MTBE	23.75	24.72	104	73-122
1,2-Dichloroethane	23.75	26.58	112	73-141
Benzene	23.75	21.51	91	80-120
Toluene	23.75	22.45	95	80-120
1,2-Dibromoethane	23.75	24.06	101	80-120
Ethylbenzene	23.75	22.52	95	80-121
m,p-Xylenes	47.50	49.98	105	80-122
o-Xylene	23.75	23.87	101	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	113	80-122
1,2-Dichloroethane-d4	103	77-137
Toluene-d8	92	80-120
Bromofluorobenzene	100	80-125

Type: BSD Lab ID: QC509289

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	118.8	151.9	128	55-151	0	21
Isopropyl Ether (DIPE)	23.75	27.23	115	65-131	1	20
Ethyl tert-Butyl Ether (ETBE)	23.75	25.82	109	75-128	1	20
Methyl tert-Amyl Ether (TAME)	23.75	21.84	92	80-121	0	20
MTBE	23.75	24.66	104	73-122	0	20
1,2-Dichloroethane	23.75	26.63	112	73-141	0	20
Benzene	23.75	21.09	89	80-120	2	20
Toluene	23.75	21.35	90	80-120	5	20
1,2-Dibromoethane	23.75	24.15	102	80-120	0	20
Ethylbenzene	23.75	22.05	93	80-121	2	20
m,p-Xylenes	47.50	47.32	100	80-122	5	20
o-Xylene	23.75	23.12	97	80-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	113	80-122
1,2-Dichloroethane-d4	104	77-137
Toluene-d8	93	80-120
Bromofluorobenzene	100	80-125

RPD= Relative Percent Difference

## Batch QC Report

Gasoline by GC/MS			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	154248
Units:	ug/L	Analyzed:	08/26/09
Diln Fac:	1.000		

Type: BS Lab ID: QC509290

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	750.0	768.7	102	80-120

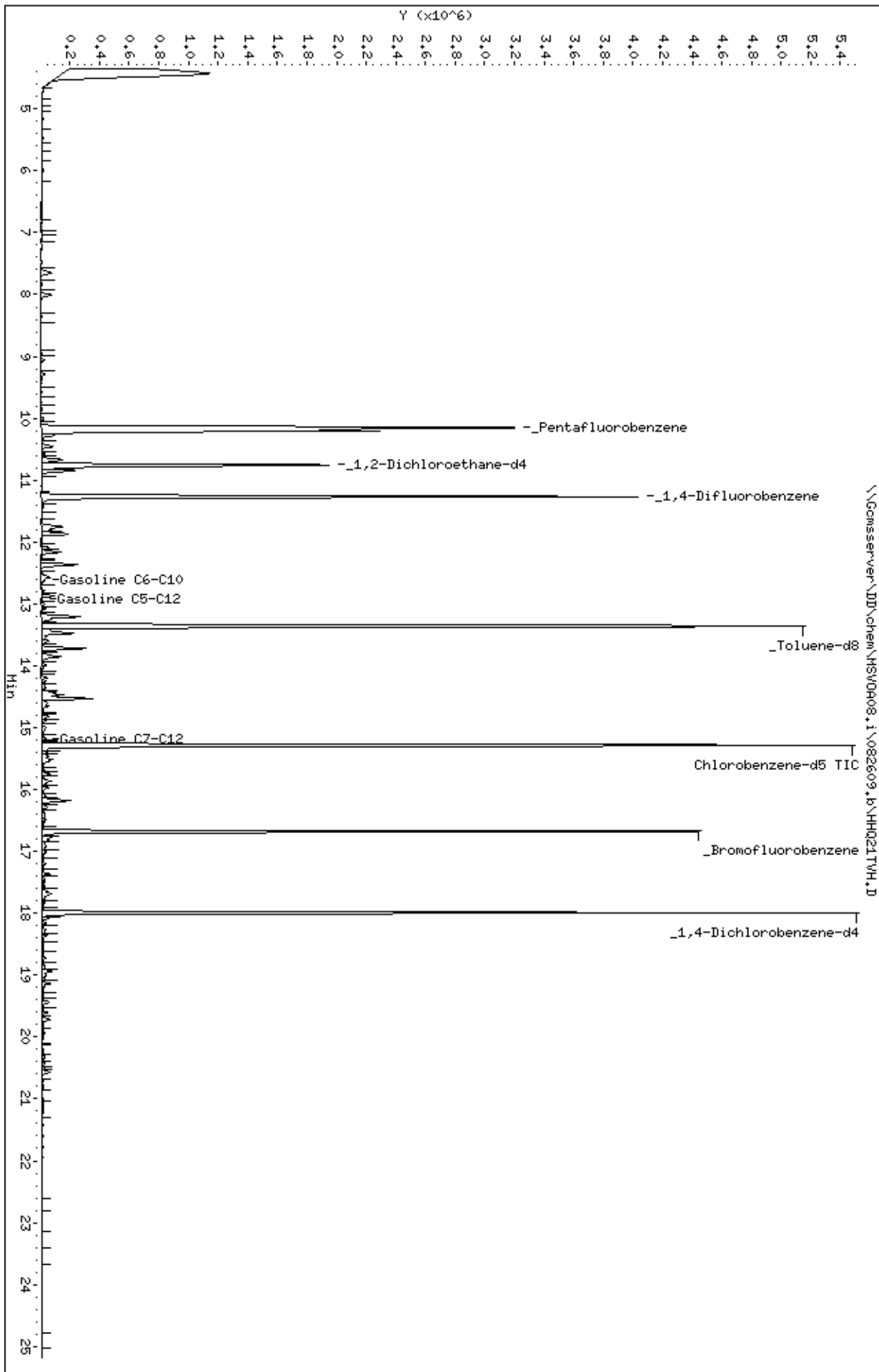
Surrogate	%REC	Limits
Dibromofluoromethane	113	80-122
1,2-Dichloroethane-d4	111	77-137
Toluene-d8	93	80-120
Bromofluorobenzene	101	80-125

Type: BSD Lab ID: QC509291

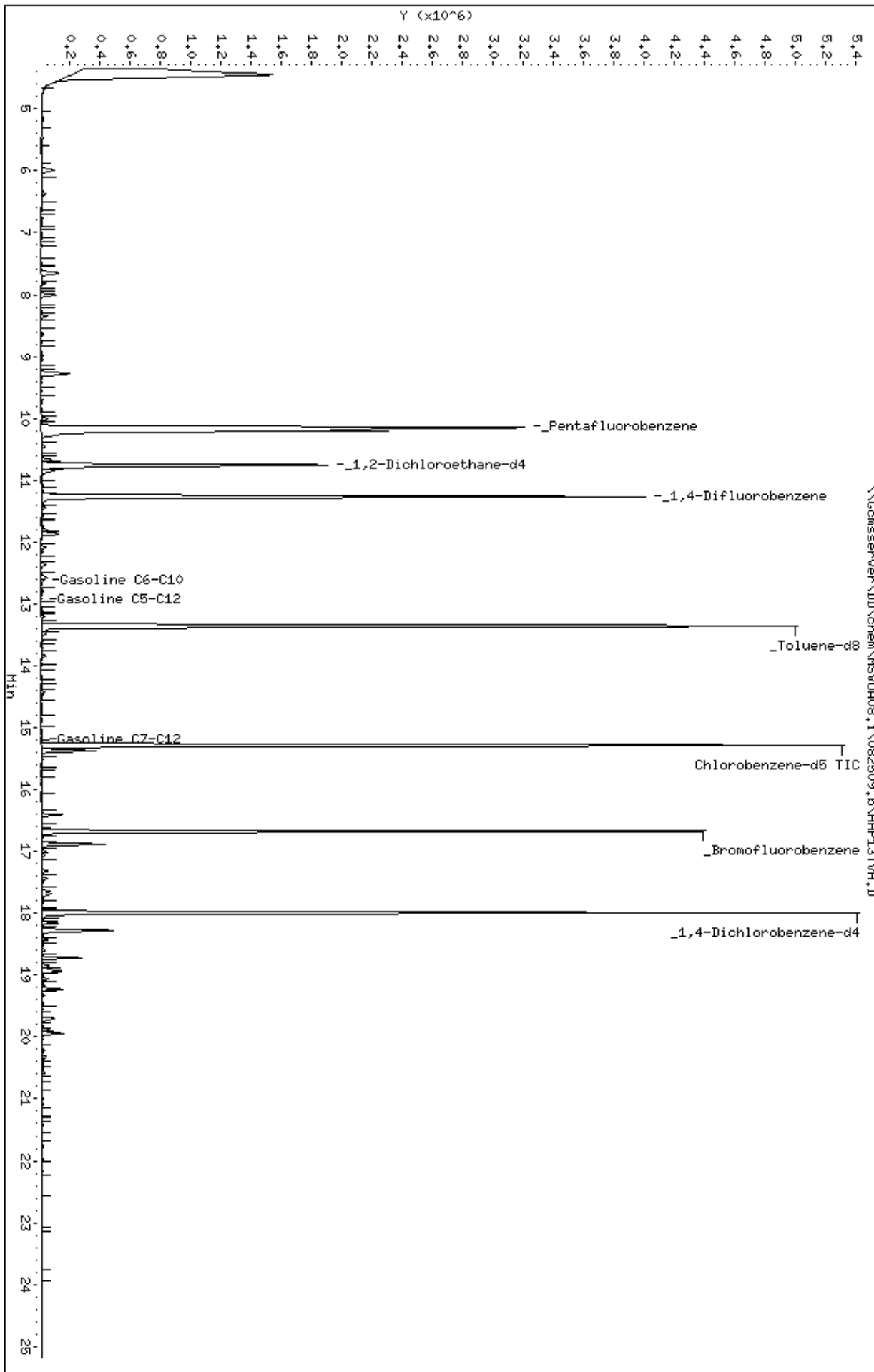
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	750.0	740.4	99	80-120	4	20

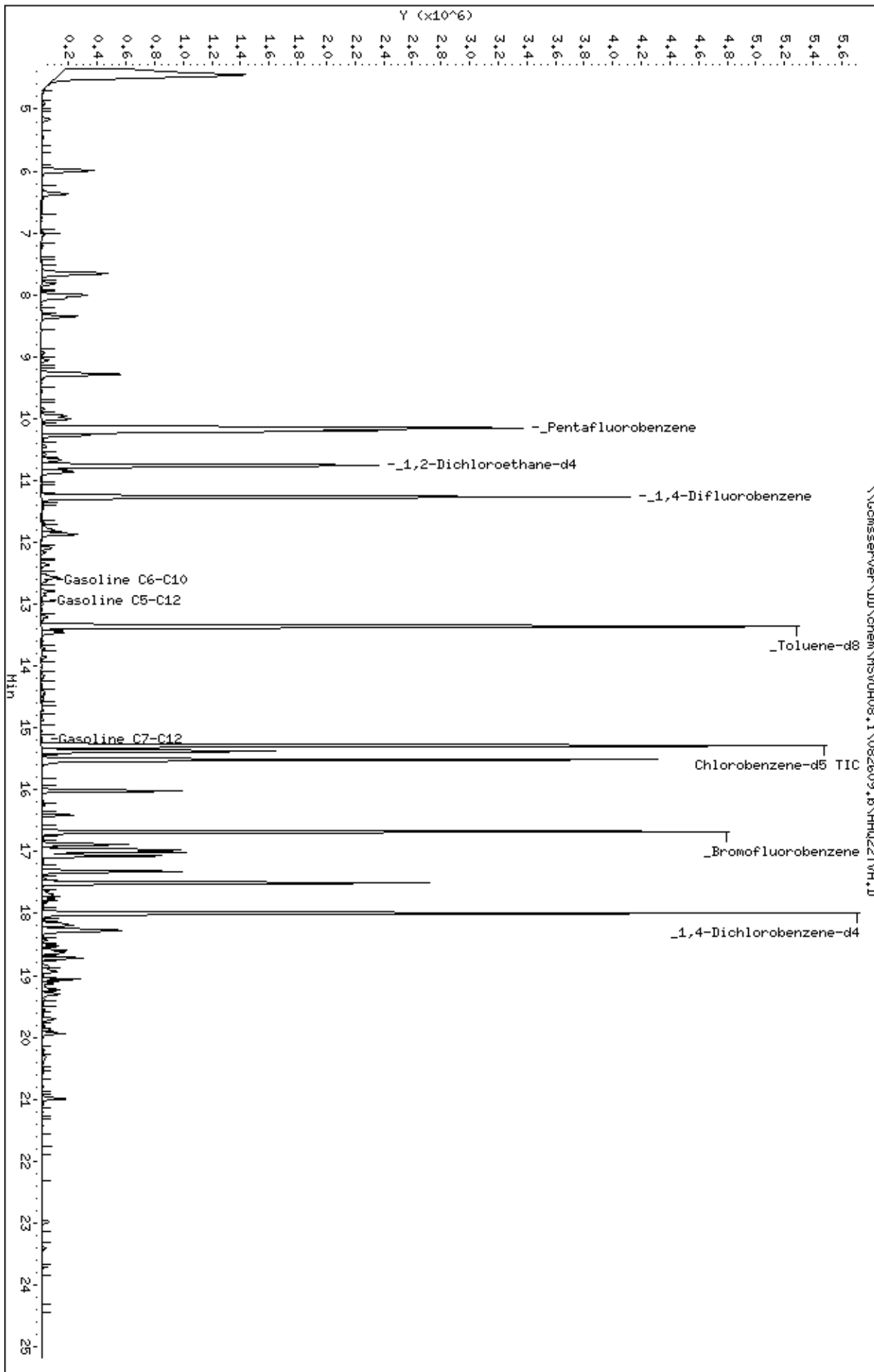
Surrogate	%REC	Limits
Dibromofluoromethane	114	80-122
1,2-Dichloroethane-d4	111	77-137
Toluene-d8	92	80-120
Bromofluorobenzene	105	80-125

RPD= Relative Percent Difference



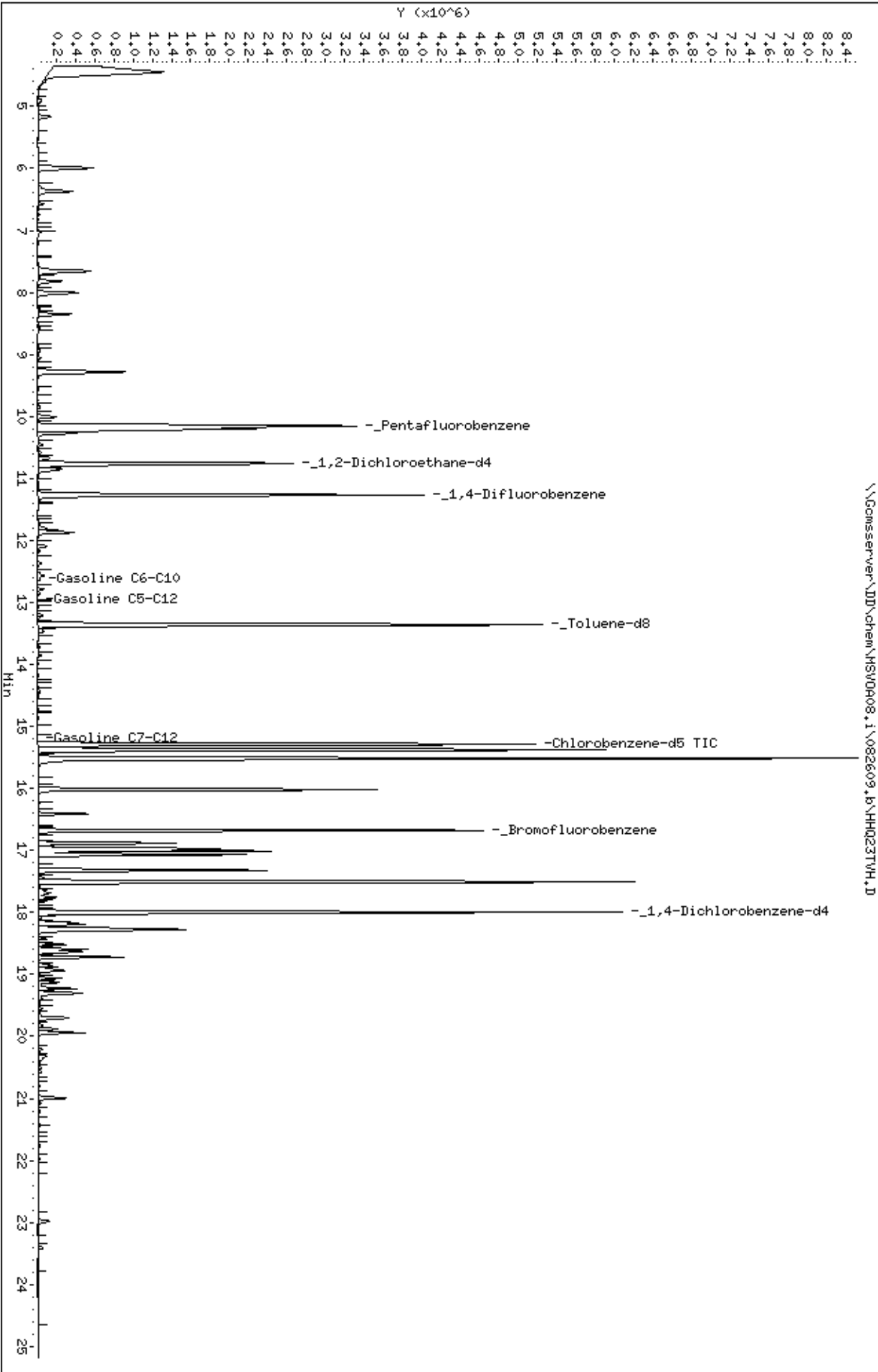


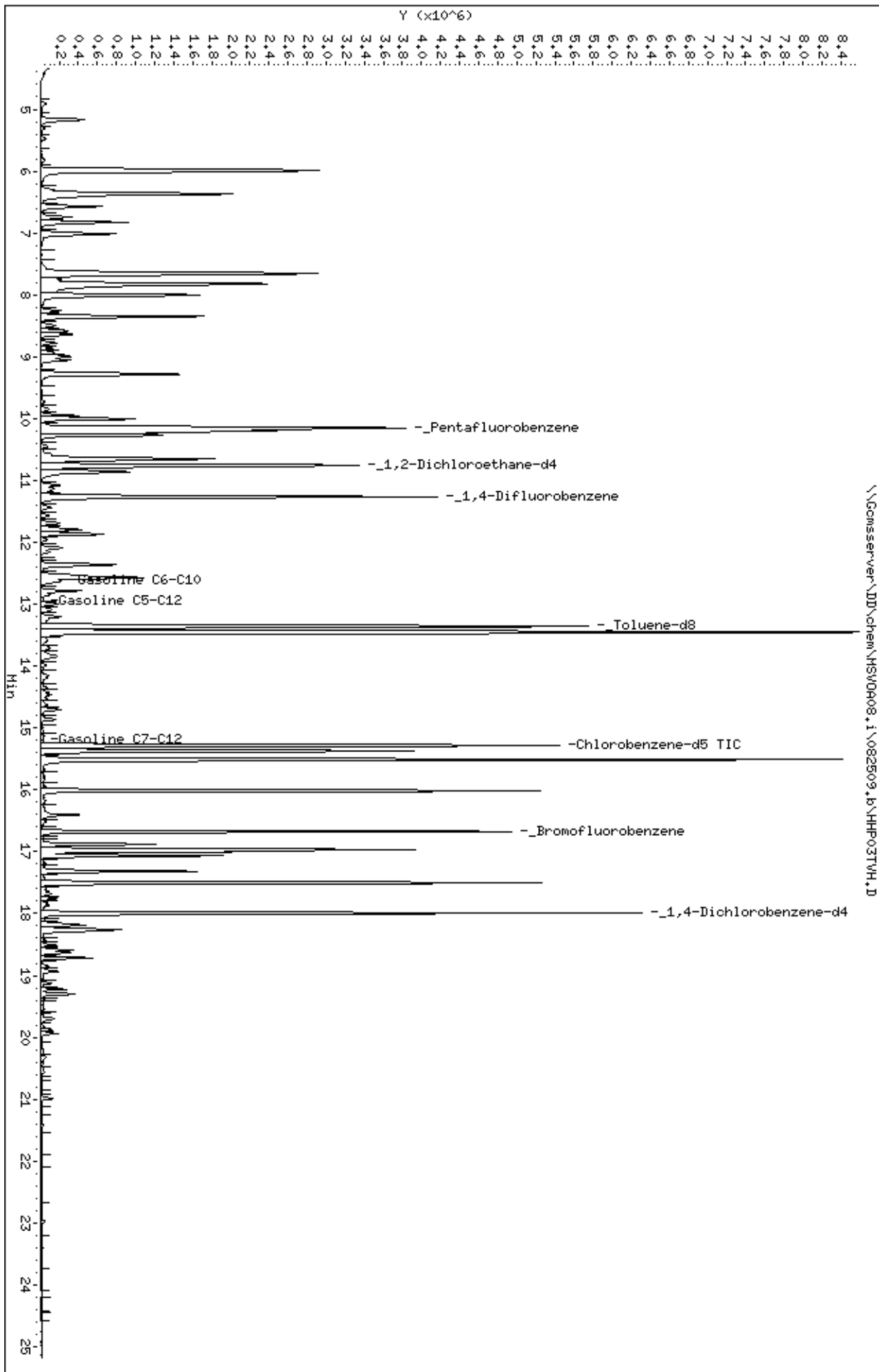




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 Client ID: DYNH P&T  
 Sample Info: S,214303-047  
 Column phase:

Instrument: HSV0R08.i  
 Operator: voo  
 Column diameter: 2.00





Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	DP-1@11FT	Diln Fac:	0.9843
Lab ID:	214303-002	Batch#:	154152
Matrix:	Soil	Sampled:	08/18/09
Units:	ug/Kg	Received:	08/20/09
Basis:	as received	Analyzed:	08/24/09

Analyte	Result	RL
Freon 12	ND	9.8
tert-Butyl Alcohol (TBA)	ND	98
Chloromethane	ND	9.8
Isopropyl Ether (DIPE)	ND	4.9
Vinyl Chloride	ND	9.8
Bromomethane	ND	9.8
Ethyl tert-Butyl Ether (ETBE)	ND	4.9
Chloroethane	ND	9.8
Methyl tert-Amyl Ether (TAME)	ND	4.9
Trichlorofluoromethane	ND	4.9
Acetone	ND	20
Freon 113	ND	4.9
1,1-Dichloroethene	ND	4.9
Methylene Chloride	ND	20
Carbon Disulfide	ND	4.9
MTBE	ND	4.9
trans-1,2-Dichloroethene	ND	4.9
Vinyl Acetate	ND	49
1,1-Dichloroethane	ND	4.9
2-Butanone	ND	9.8
cis-1,2-Dichloroethene	ND	4.9
2,2-Dichloropropane	ND	4.9
Chloroform	ND	4.9
Bromochloromethane	ND	4.9
1,1,1-Trichloroethane	ND	4.9
1,1-Dichloropropene	ND	4.9
Carbon Tetrachloride	ND	4.9
1,2-Dichloroethane	ND	4.9
Benzene	ND	4.9
Trichloroethene	ND	4.9
1,2-Dichloropropane	ND	4.9
Bromodichloromethane	ND	4.9
Dibromomethane	ND	4.9
4-Methyl-2-Pentanone	ND	9.8
cis-1,3-Dichloropropene	ND	4.9
Toluene	ND	4.9
trans-1,3-Dichloropropene	ND	4.9
1,1,2-Trichloroethane	ND	4.9
2-Hexanone	ND	9.8
1,3-Dichloropropane	ND	4.9
Tetrachloroethene	ND	4.9
Dibromochloromethane	ND	4.9
1,2-Dibromoethane	ND	4.9
Chlorobenzene	ND	4.9
1,1,1,2-Tetrachloroethane	ND	4.9
Ethylbenzene	ND	4.9
m,p-Xylenes	ND	4.9
o-Xylene	ND	4.9
Styrene	ND	4.9
Bromoform	ND	4.9
Isopropylbenzene	ND	4.9
1,1,2,2-Tetrachloroethane	ND	4.9
1,2,3-Trichloropropane	ND	4.9
Propylbenzene	ND	4.9

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Field ID:	DP-1@11FT	Diln Fac: 0.9843
Lab ID:	214303-002	Batch#: 154152
Matrix:	Soil	Sampled: 08/18/09
Units:	ug/Kg	Received: 08/20/09
Basis:	as received	Analyzed: 08/24/09

Analyte	Result	RL
Bromobenzene	ND	4.9
1,3,5-Trimethylbenzene	ND	4.9
2-Chlorotoluene	ND	4.9
4-Chlorotoluene	ND	4.9
tert-Butylbenzene	ND	4.9
1,2,4-Trimethylbenzene	ND	4.9
sec-Butylbenzene	ND	4.9
para-Isopropyl Toluene	ND	4.9
1,3-Dichlorobenzene	ND	4.9
1,4-Dichlorobenzene	ND	4.9
n-Butylbenzene	ND	4.9
1,2-Dichlorobenzene	ND	4.9
1,2-Dibromo-3-Chloropropane	ND	4.9
1,2,4-Trichlorobenzene	ND	4.9
Hexachlorobutadiene	ND	4.9
Naphthalene	ND	4.9
1,2,3-Trichlorobenzene	ND	4.9

Surrogate	%REC	Limits
Dibromofluoromethane	92	71-128
1,2-Dichloroethane-d4	83	69-135
Toluene-d8	102	80-120
Bromofluorobenzene	103	77-131

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

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	DP-1@14FT	Diln Fac:	0.9653
Lab ID:	214303-003	Batch#:	154152
Matrix:	Soil	Sampled:	08/18/09
Units:	ug/Kg	Received:	08/20/09
Basis:	as received	Analyzed:	08/24/09

Analyte	Result	RL
Freon 12	ND	9.7
tert-Butyl Alcohol (TBA)	ND	97
Chloromethane	ND	9.7
Isopropyl Ether (DIPE)	ND	4.8
Vinyl Chloride	ND	9.7
Bromomethane	ND	9.7
Ethyl tert-Butyl Ether (ETBE)	ND	4.8
Chloroethane	ND	9.7
Methyl tert-Amyl Ether (TAME)	ND	4.8
Trichlorofluoromethane	ND	4.8
Acetone	ND	19
Freon 113	ND	4.8
1,1-Dichloroethene	ND	4.8
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.8
MTBE	ND	4.8
trans-1,2-Dichloroethene	ND	4.8
Vinyl Acetate	ND	48
1,1-Dichloroethane	ND	4.8
2-Butanone	ND	9.7
cis-1,2-Dichloroethene	ND	4.8
2,2-Dichloropropane	ND	4.8
Chloroform	ND	4.8
Bromochloromethane	ND	4.8
1,1,1-Trichloroethane	ND	4.8
1,1-Dichloropropene	ND	4.8
Carbon Tetrachloride	ND	4.8
1,2-Dichloroethane	ND	4.8
Benzene	ND	4.8
Trichloroethene	ND	4.8
1,2-Dichloropropane	ND	4.8
Bromodichloromethane	ND	4.8
Dibromomethane	ND	4.8
4-Methyl-2-Pentanone	ND	9.7
cis-1,3-Dichloropropene	ND	4.8
Toluene	ND	4.8
trans-1,3-Dichloropropene	ND	4.8
1,1,2-Trichloroethane	ND	4.8
2-Hexanone	ND	9.7
1,3-Dichloropropane	ND	4.8
Tetrachloroethene	ND	4.8
Dibromochloromethane	ND	4.8
1,2-Dibromoethane	ND	4.8
Chlorobenzene	ND	4.8
1,1,1,2-Tetrachloroethane	ND	4.8
Ethylbenzene	ND	4.8
m,p-Xylenes	ND	4.8
o-Xylene	ND	4.8
Styrene	ND	4.8
Bromoform	ND	4.8
Isopropylbenzene	ND	4.8
1,1,2,2-Tetrachloroethane	ND	4.8
1,2,3-Trichloropropane	ND	4.8

\*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

Volatile Organics		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Field ID:	DP-1@14FT	Diln Fac: 0.9653
Lab ID:	214303-003	Batch#: 154152
Matrix:	Soil	Sampled: 08/18/09
Units:	ug/Kg	Received: 08/20/09
Basis:	as received	Analyzed: 08/24/09

Analyte	Result	RL
Propylbenzene	ND	4.8
Bromobenzene	ND	4.8
1,3,5-Trimethylbenzene	ND	4.8
2-Chlorotoluene	ND	4.8
4-Chlorotoluene	ND	4.8
tert-Butylbenzene	ND	4.8
1,2,4-Trimethylbenzene	ND	4.8
sec-Butylbenzene	34	4.8
para-Isopropyl Toluene	ND	4.8
1,3-Dichlorobenzene	ND	4.8
1,4-Dichlorobenzene	ND	4.8
n-Butylbenzene	ND	4.8
1,2-Dichlorobenzene	ND	4.8
1,2-Dibromo-3-Chloropropane	ND	4.8
1,2,4-Trichlorobenzene	ND	4.8
Hexachlorobutadiene	ND	4.8
Naphthalene	ND	4.8
1,2,3-Trichlorobenzene	ND	4.8

Surrogate	%REC	Limits
Dibromofluoromethane	97	71-128
1,2-Dichloroethane-d4	82	69-135
Toluene-d8	89	80-120
Bromofluorobenzene	244 *	77-131

\*= Value outside of QC limits; see narrative  
 ND= Not Detected  
 RL= Reporting Limit



Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	DP-1@17FT	Diln Fac:	0.9804
Lab ID:	214303-005	Batch#:	154152
Matrix:	Soil	Sampled:	08/18/09
Units:	ug/Kg	Received:	08/20/09
Basis:	as received	Analyzed:	08/24/09

Analyte	Result	RL
Freon 12	ND	9.8
tert-Butyl Alcohol (TBA)	ND	98
Chloromethane	ND	9.8
Isopropyl Ether (DIPE)	ND	4.9
Vinyl Chloride	ND	9.8
Bromomethane	ND	9.8
Ethyl tert-Butyl Ether (ETBE)	ND	4.9
Chloroethane	ND	9.8
Methyl tert-Amyl Ether (TAME)	ND	4.9
Trichlorofluoromethane	ND	4.9
Acetone	ND	20
Freon 113	ND	4.9
1,1-Dichloroethene	ND	4.9
Methylene Chloride	ND	20
Carbon Disulfide	ND	4.9
MTBE	ND	4.9
trans-1,2-Dichloroethene	ND	4.9
Vinyl Acetate	ND	49
1,1-Dichloroethane	ND	4.9
2-Butanone	ND	9.8
cis-1,2-Dichloroethene	ND	4.9
2,2-Dichloropropane	ND	4.9
Chloroform	ND	4.9
Bromochloromethane	ND	4.9
1,1,1-Trichloroethane	ND	4.9
1,1-Dichloropropene	ND	4.9
Carbon Tetrachloride	ND	4.9
1,2-Dichloroethane	ND	4.9
Benzene	ND	4.9
Trichloroethene	ND	4.9
1,2-Dichloropropane	ND	4.9
Bromodichloromethane	ND	4.9
Dibromomethane	ND	4.9
4-Methyl-2-Pentanone	ND	9.8
cis-1,3-Dichloropropene	ND	4.9
Toluene	ND	4.9
trans-1,3-Dichloropropene	ND	4.9
1,1,2-Trichloroethane	ND	4.9
2-Hexanone	ND	9.8
1,3-Dichloropropane	ND	4.9
Tetrachloroethene	ND	4.9
Dibromochloromethane	ND	4.9
1,2-Dibromoethane	ND	4.9
Chlorobenzene	ND	4.9
1,1,1,2-Tetrachloroethane	ND	4.9
Ethylbenzene	ND	4.9
m,p-Xylenes	ND	4.9
o-Xylene	ND	4.9
Styrene	ND	4.9
Bromoform	ND	4.9
Isopropylbenzene	ND	4.9
1,1,2,2-Tetrachloroethane	ND	4.9
1,2,3-Trichloropropane	ND	4.9
Propylbenzene	ND	4.9

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Field ID:	DP-1@17FT	Diln Fac: 0.9804
Lab ID:	214303-005	Batch#: 154152
Matrix:	Soil	Sampled: 08/18/09
Units:	ug/Kg	Received: 08/20/09
Basis:	as received	Analyzed: 08/24/09

Analyte	Result	RL
Bromobenzene	ND	4.9
1,3,5-Trimethylbenzene	ND	4.9
2-Chlorotoluene	ND	4.9
4-Chlorotoluene	ND	4.9
tert-Butylbenzene	ND	4.9
1,2,4-Trimethylbenzene	ND	4.9
sec-Butylbenzene	ND	4.9
para-Isopropyl Toluene	ND	4.9
1,3-Dichlorobenzene	ND	4.9
1,4-Dichlorobenzene	ND	4.9
n-Butylbenzene	ND	4.9
1,2-Dichlorobenzene	ND	4.9
1,2-Dibromo-3-Chloropropane	ND	4.9
1,2,4-Trichlorobenzene	ND	4.9
Hexachlorobutadiene	ND	4.9
Naphthalene	ND	4.9
1,2,3-Trichlorobenzene	ND	4.9

Surrogate	%REC	Limits
Dibromofluoromethane	91	71-128
1,2-Dichloroethane-d4	83	69-135
Toluene-d8	104	80-120
Bromofluorobenzene	100	77-131

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	DP-2@8FT	Diln Fac:	0.9843
Lab ID:	214303-008	Batch#:	154246
Matrix:	Soil	Sampled:	08/17/09
Units:	ug/Kg	Received:	08/20/09
Basis:	as received	Analyzed:	08/27/09

Analyte	Result	RL
Freon 12	ND	9.8
tert-Butyl Alcohol (TBA)	ND	98
Chloromethane	ND	9.8
Isopropyl Ether (DIPE)	ND	4.9
Vinyl Chloride	ND	9.8
Bromomethane	ND	9.8
Ethyl tert-Butyl Ether (ETBE)	ND	4.9
Chloroethane	ND	9.8
Methyl tert-Amyl Ether (TAME)	ND	4.9
Trichlorofluoromethane	ND	4.9
Acetone	29	20
Freon 113	ND	4.9
1,1-Dichloroethene	ND	4.9
Methylene Chloride	ND	20
Carbon Disulfide	ND	4.9
MTBE	ND	4.9
trans-1,2-Dichloroethene	ND	4.9
Vinyl Acetate	ND	49
1,1-Dichloroethane	ND	4.9
2-Butanone	13	9.8
cis-1,2-Dichloroethene	ND	4.9
2,2-Dichloropropane	ND	4.9
Chloroform	ND	4.9
Bromochloromethane	ND	4.9
1,1,1-Trichloroethane	ND	4.9
1,1-Dichloropropene	ND	4.9
Carbon Tetrachloride	ND	4.9
1,2-Dichloroethane	ND	4.9
Benzene	ND	4.9
Trichloroethene	ND	4.9
1,2-Dichloropropane	ND	4.9
Bromodichloromethane	ND	4.9
Dibromomethane	ND	4.9
4-Methyl-2-Pentanone	ND	9.8
cis-1,3-Dichloropropene	ND	4.9
Toluene	ND	4.9
trans-1,3-Dichloropropene	ND	4.9
1,1,2-Trichloroethane	ND	4.9
2-Hexanone	ND	9.8
1,3-Dichloropropane	ND	4.9
Tetrachloroethene	ND	4.9
Dibromochloromethane	ND	4.9
1,2-Dibromoethane	ND	4.9
Chlorobenzene	ND	4.9
1,1,1,2-Tetrachloroethane	ND	4.9
Ethylbenzene	ND	4.9
m,p-Xylenes	ND	4.9
o-Xylene	ND	4.9
Styrene	ND	4.9
Bromoform	ND	4.9
Isopropylbenzene	13	4.9
1,1,2,2-Tetrachloroethane	ND	4.9
1,2,3-Trichloropropane	ND	4.9
Propylbenzene	60	4.9

ND= Not Detected  
 RL= Reporting Limit

<b>Volatile Organics</b>		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Field ID:	DP-2@8FT	Diln Fac: 0.9843
Lab ID:	214303-008	Batch#: 154246
Matrix:	Soil	Sampled: 08/17/09
Units:	ug/Kg	Received: 08/20/09
Basis:	as received	Analyzed: 08/27/09

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
Bromobenzene	ND	4.9
1,3,5-Trimethylbenzene	ND	4.9
2-Chlorotoluene	ND	4.9
4-Chlorotoluene	ND	4.9
tert-Butylbenzene	6.0	4.9
1,2,4-Trimethylbenzene	ND	4.9
sec-Butylbenzene	21	4.9
para-Isopropyl Toluene	ND	4.9
1,3-Dichlorobenzene	ND	4.9
1,4-Dichlorobenzene	ND	4.9
n-Butylbenzene	38	4.9
1,2-Dichlorobenzene	ND	4.9
1,2-Dibromo-3-Chloropropane	ND	4.9
1,2,4-Trichlorobenzene	ND	4.9
Hexachlorobutadiene	ND	4.9
Naphthalene	30	4.9
1,2,3-Trichlorobenzene	ND	4.9

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	88	71-128
1,2-Dichloroethane-d4	83	69-135
Toluene-d8	94	80-120
Bromofluorobenzene	105	77-131

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	DP-2@12FT	Diln Fac:	0.9434
Lab ID:	214303-010	Batch#:	154191
Matrix:	Soil	Sampled:	08/17/09
Units:	ug/Kg	Received:	08/20/09
Basis:	as received	Analyzed:	08/25/09

Analyte	Result	RL
Freon 12	ND	9.4
tert-Butyl Alcohol (TBA)	ND	94
Chloromethane	ND	9.4
Isopropyl Ether (DIPE)	ND	4.7
Vinyl Chloride	ND	9.4
Bromomethane	ND	9.4
Ethyl tert-Butyl Ether (ETBE)	ND	4.7
Chloroethane	ND	9.4
Methyl tert-Amyl Ether (TAME)	ND	4.7
Trichlorofluoromethane	ND	4.7
Acetone	ND	19
Freon 113	ND	4.7
1,1-Dichloroethene	ND	4.7
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.7
MTBE	ND	4.7
trans-1,2-Dichloroethene	ND	4.7
Vinyl Acetate	ND	47
1,1-Dichloroethane	ND	4.7
2-Butanone	ND	9.4
cis-1,2-Dichloroethene	ND	4.7
2,2-Dichloropropane	ND	4.7
Chloroform	ND	4.7
Bromochloromethane	ND	4.7
1,1,1-Trichloroethane	ND	4.7
1,1-Dichloropropene	ND	4.7
Carbon Tetrachloride	ND	4.7
1,2-Dichloroethane	ND	4.7
Benzene	ND	4.7
Trichloroethene	ND	4.7
1,2-Dichloropropane	ND	4.7
Bromodichloromethane	ND	4.7
Dibromomethane	ND	4.7
4-Methyl-2-Pentanone	ND	9.4
cis-1,3-Dichloropropene	ND	4.7
Toluene	ND	4.7
trans-1,3-Dichloropropene	ND	4.7
1,1,2-Trichloroethane	ND	4.7
2-Hexanone	ND	9.4
1,3-Dichloropropane	ND	4.7
Tetrachloroethene	ND	4.7
Dibromochloromethane	ND	4.7
1,2-Dibromoethane	ND	4.7
Chlorobenzene	ND	4.7
1,1,1,2-Tetrachloroethane	ND	4.7
Ethylbenzene	ND	4.7
m,p-Xylenes	ND	4.7
o-Xylene	ND	4.7
Styrene	ND	4.7
Bromoform	ND	4.7
Isopropylbenzene	ND	4.7
1,1,2,2-Tetrachloroethane	ND	4.7
1,2,3-Trichloropropane	ND	4.7
Propylbenzene	ND	4.7

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Field ID:	DP-2@12FT	Diln Fac: 0.9434
Lab ID:	214303-010	Batch#: 154191
Matrix:	Soil	Sampled: 08/17/09
Units:	ug/Kg	Received: 08/20/09
Basis:	as received	Analyzed: 08/25/09

Analyte	Result	RL
Bromobenzene	ND	4.7
1,3,5-Trimethylbenzene	ND	4.7
2-Chlorotoluene	ND	4.7
4-Chlorotoluene	ND	4.7
tert-Butylbenzene	ND	4.7
1,2,4-Trimethylbenzene	ND	4.7
sec-Butylbenzene	ND	4.7
para-Isopropyl Toluene	ND	4.7
1,3-Dichlorobenzene	ND	4.7
1,4-Dichlorobenzene	ND	4.7
n-Butylbenzene	ND	4.7
1,2-Dichlorobenzene	ND	4.7
1,2-Dibromo-3-Chloropropane	ND	4.7
1,2,4-Trichlorobenzene	ND	4.7
Hexachlorobutadiene	ND	4.7
Naphthalene	ND	4.7
1,2,3-Trichlorobenzene	ND	4.7

Surrogate	%REC	Limits
Dibromofluoromethane	90	71-128
1,2-Dichloroethane-d4	90	69-135
Toluene-d8	96	80-120
Bromofluorobenzene	94	77-131

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	DP-3@12FT	Diln Fac:	0.9709
Lab ID:	214303-016	Batch#:	154152
Matrix:	Soil	Sampled:	08/17/09
Units:	ug/Kg	Received:	08/20/09
Basis:	as received	Analyzed:	08/24/09

Analyte	Result	RL
Freon 12	ND	9.7
tert-Butyl Alcohol (TBA)	ND	97
Chloromethane	ND	9.7
Isopropyl Ether (DIPE)	ND	4.9
Vinyl Chloride	ND	9.7
Bromomethane	ND	9.7
Ethyl tert-Butyl Ether (ETBE)	ND	4.9
Chloroethane	ND	9.7
Methyl tert-Amyl Ether (TAME)	ND	4.9
Trichlorofluoromethane	ND	4.9
Acetone	35	19
Freon 113	ND	4.9
1,1-Dichloroethene	ND	4.9
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.9
MTBE	ND	4.9
trans-1,2-Dichloroethene	ND	4.9
Vinyl Acetate	ND	49
1,1-Dichloroethane	ND	4.9
2-Butanone	ND	9.7
cis-1,2-Dichloroethene	ND	4.9
2,2-Dichloropropane	ND	4.9
Chloroform	ND	4.9
Bromochloromethane	ND	4.9
1,1,1-Trichloroethane	ND	4.9
1,1-Dichloropropene	ND	4.9
Carbon Tetrachloride	ND	4.9
1,2-Dichloroethane	ND	4.9
Benzene	ND	4.9
Trichloroethene	ND	4.9
1,2-Dichloropropane	ND	4.9
Bromodichloromethane	ND	4.9
Dibromomethane	ND	4.9
4-Methyl-2-Pentanone	ND	9.7
cis-1,3-Dichloropropene	ND	4.9
Toluene	ND	4.9
trans-1,3-Dichloropropene	ND	4.9
1,1,2-Trichloroethane	ND	4.9
2-Hexanone	ND	9.7
1,3-Dichloropropane	ND	4.9
Tetrachloroethene	ND	4.9
Dibromochloromethane	ND	4.9
1,2-Dibromoethane	ND	4.9
Chlorobenzene	ND	4.9
1,1,1,2-Tetrachloroethane	ND	4.9
Ethylbenzene	ND	4.9
m,p-Xylenes	ND	4.9
o-Xylene	ND	4.9
Styrene	ND	4.9
Bromoform	ND	4.9
Isopropylbenzene	ND	4.9
1,1,2,2-Tetrachloroethane	ND	4.9
1,2,3-Trichloropropane	ND	4.9
Propylbenzene	ND	4.9

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Field ID:	DP-3@12FT	Diln Fac: 0.9709
Lab ID:	214303-016	Batch#: 154152
Matrix:	Soil	Sampled: 08/17/09
Units:	ug/Kg	Received: 08/20/09
Basis:	as received	Analyzed: 08/24/09

Analyte	Result	RL
Bromobenzene	ND	4.9
1,3,5-Trimethylbenzene	ND	4.9
2-Chlorotoluene	ND	4.9
4-Chlorotoluene	ND	4.9
tert-Butylbenzene	ND	4.9
1,2,4-Trimethylbenzene	ND	4.9
sec-Butylbenzene	ND	4.9
para-Isopropyl Toluene	ND	4.9
1,3-Dichlorobenzene	ND	4.9
1,4-Dichlorobenzene	ND	4.9
n-Butylbenzene	ND	4.9
1,2-Dichlorobenzene	ND	4.9
1,2-Dibromo-3-Chloropropane	ND	4.9
1,2,4-Trichlorobenzene	ND	4.9
Hexachlorobutadiene	ND	4.9
Naphthalene	ND	4.9
1,2,3-Trichlorobenzene	ND	4.9

Surrogate	%REC	Limits
Dibromofluoromethane	94	71-128
1,2-Dichloroethane-d4	79	69-135
Toluene-d8	99	80-120
Bromofluorobenzene	97	77-131

ND= Not Detected  
 RL= Reporting Limit



Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	DP-4@6FT	Diln Fac:	0.9785
Lab ID:	214303-020	Batch#:	154152
Matrix:	Soil	Sampled:	08/17/09
Units:	ug/Kg	Received:	08/20/09
Basis:	as received	Analyzed:	08/24/09

Analyte	Result	RL
Freon 12	ND	9.8
tert-Butyl Alcohol (TBA)	ND	98
Chloromethane	ND	9.8
Isopropyl Ether (DIPE)	ND	4.9
Vinyl Chloride	ND	9.8
Bromomethane	ND	9.8
Ethyl tert-Butyl Ether (ETBE)	ND	4.9
Chloroethane	ND	9.8
Methyl tert-Amyl Ether (TAME)	ND	4.9
Trichlorofluoromethane	ND	4.9
Acetone	ND	20
Freon 113	ND	4.9
1,1-Dichloroethene	ND	4.9
Methylene Chloride	ND	20
Carbon Disulfide	ND	4.9
MTBE	ND	4.9
trans-1,2-Dichloroethene	ND	4.9
Vinyl Acetate	ND	49
1,1-Dichloroethane	ND	4.9
2-Butanone	ND	9.8
cis-1,2-Dichloroethene	ND	4.9
2,2-Dichloropropane	ND	4.9
Chloroform	ND	4.9
Bromochloromethane	ND	4.9
1,1,1-Trichloroethane	ND	4.9
1,1-Dichloropropene	ND	4.9
Carbon Tetrachloride	ND	4.9
1,2-Dichloroethane	ND	4.9
Benzene	ND	4.9
Trichloroethene	ND	4.9
1,2-Dichloropropane	ND	4.9
Bromodichloromethane	ND	4.9
Dibromomethane	ND	4.9
4-Methyl-2-Pentanone	ND	9.8
cis-1,3-Dichloropropene	ND	4.9
Toluene	ND	4.9
trans-1,3-Dichloropropene	ND	4.9
1,1,2-Trichloroethane	ND	4.9
2-Hexanone	ND	9.8
1,3-Dichloropropane	ND	4.9
Tetrachloroethene	ND	4.9
Dibromochloromethane	ND	4.9
1,2-Dibromoethane	ND	4.9
Chlorobenzene	ND	4.9
1,1,1,2-Tetrachloroethane	ND	4.9
Ethylbenzene	ND	4.9
m,p-Xylenes	ND	4.9
o-Xylene	ND	4.9
Styrene	ND	4.9
Bromoform	ND	4.9
Isopropylbenzene	ND	4.9
1,1,2,2-Tetrachloroethane	ND	4.9
1,2,3-Trichloropropane	ND	4.9
Propylbenzene	ND	4.9

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Field ID:	DP-4@6FT	Diln Fac: 0.9785
Lab ID:	214303-020	Batch#: 154152
Matrix:	Soil	Sampled: 08/17/09
Units:	ug/Kg	Received: 08/20/09
Basis:	as received	Analyzed: 08/24/09

Analyte	Result	RL
Bromobenzene	ND	4.9
1,3,5-Trimethylbenzene	ND	4.9
2-Chlorotoluene	ND	4.9
4-Chlorotoluene	ND	4.9
tert-Butylbenzene	ND	4.9
1,2,4-Trimethylbenzene	ND	4.9
sec-Butylbenzene	ND	4.9
para-Isopropyl Toluene	ND	4.9
1,3-Dichlorobenzene	ND	4.9
1,4-Dichlorobenzene	ND	4.9
n-Butylbenzene	ND	4.9
1,2-Dichlorobenzene	ND	4.9
1,2-Dibromo-3-Chloropropane	ND	4.9
1,2,4-Trichlorobenzene	ND	4.9
Hexachlorobutadiene	ND	4.9
Naphthalene	ND	4.9
1,2,3-Trichlorobenzene	ND	4.9

Surrogate	%REC	Limits
Dibromofluoromethane	95	71-128
1,2-Dichloroethane-d4	80	69-135
Toluene-d8	105	80-120
Bromofluorobenzene	95	77-131

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	DP-4@14FT	Diln Fac:	0.9980
Lab ID:	214303-022	Batch#:	154152
Matrix:	Soil	Sampled:	08/17/09
Units:	ug/Kg	Received:	08/20/09
Basis:	as received	Analyzed:	08/24/09

Analyte	Result	RL
Freon 12	ND	10
tert-Butyl Alcohol (TBA)	ND	100
Chloromethane	ND	10
Isopropyl Ether (DIPE)	ND	5.0
Vinyl Chloride	ND	10
Bromomethane	ND	10
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
Chloroethane	ND	10
Methyl tert-Amyl Ether (TAME)	ND	5.0
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Field ID:	DP-4@14FT	Diln Fac: 0.9980
Lab ID:	214303-022	Batch#: 154152
Matrix:	Soil	Sampled: 08/17/09
Units:	ug/Kg	Received: 08/20/09
Basis:	as received	Analyzed: 08/24/09

Analyte	Result	RL
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	91	71-128
1,2-Dichloroethane-d4	82	69-135
Toluene-d8	100	80-120
Bromofluorobenzene	99	77-131

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	DP-5@12FT	Basis:	as received
Lab ID:	214303-026	Sampled:	08/18/09
Matrix:	Soil	Received:	08/20/09
Units:	ug/Kg		

Analyte	Result	RL	Diln	Fac	Batch#	Analyzed
Freon 12	ND	94	9.434		154151	08/24/09
tert-Butyl Alcohol (TBA)	ND	940	9.434		154151	08/24/09
Chloromethane	ND	94	9.434		154151	08/24/09
Isopropyl Ether (DIPE)	ND	47	9.434		154151	08/24/09
Vinyl Chloride	ND	94	9.434		154151	08/24/09
Bromomethane	ND	94	9.434		154151	08/24/09
Ethyl tert-Butyl Ether (ETBE)	ND	47	9.434		154151	08/24/09
Chloroethane	ND	94	9.434		154151	08/24/09
Methyl tert-Amyl Ether (TAME)	ND	47	9.434		154151	08/24/09
Trichlorofluoromethane	ND	47	9.434		154151	08/24/09
Acetone	ND	1,000	50.00		154191	08/25/09
Freon 113	ND	47	9.434		154151	08/24/09
1,1-Dichloroethene	ND	47	9.434		154151	08/24/09
Methylene Chloride	ND	190	9.434		154151	08/24/09
Carbon Disulfide	ND	47	9.434		154151	08/24/09
MTBE	ND	47	9.434		154151	08/24/09
trans-1,2-Dichloroethene	ND	47	9.434		154151	08/24/09
Vinyl Acetate	ND	470	9.434		154151	08/24/09
1,1-Dichloroethane	ND	47	9.434		154151	08/24/09
2-Butanone	ND	94	9.434		154151	08/24/09
cis-1,2-Dichloroethene	ND	47	9.434		154151	08/24/09
2,2-Dichloropropane	ND	47	9.434		154151	08/24/09
Chloroform	ND	47	9.434		154151	08/24/09
Bromochloromethane	ND	47	9.434		154151	08/24/09
1,1,1-Trichloroethane	ND	47	9.434		154151	08/24/09
1,1-Dichloropropene	ND	47	9.434		154151	08/24/09
Carbon Tetrachloride	ND	47	9.434		154151	08/24/09
1,2-Dichloroethane	ND	47	9.434		154151	08/24/09
Benzene	ND	47	9.434		154151	08/24/09
Trichloroethene	ND	47	9.434		154151	08/24/09
1,2-Dichloropropane	ND	47	9.434		154151	08/24/09
Bromodichloromethane	ND	47	9.434		154151	08/24/09
Dibromomethane	ND	47	9.434		154151	08/24/09
4-Methyl-2-Pentanone	ND	94	9.434		154151	08/24/09
cis-1,3-Dichloropropene	ND	47	9.434		154151	08/24/09
Toluene	ND	47	9.434		154151	08/24/09
trans-1,3-Dichloropropene	ND	47	9.434		154151	08/24/09
1,1,2-Trichloroethane	ND	47	9.434		154151	08/24/09
2-Hexanone	ND	94	9.434		154151	08/24/09
1,3-Dichloropropane	ND	47	9.434		154151	08/24/09
Tetrachloroethene	ND	47	9.434		154151	08/24/09
Dibromochloromethane	ND	47	9.434		154151	08/24/09
1,2-Dibromoethane	ND	47	9.434		154151	08/24/09
Chlorobenzene	ND	47	9.434		154151	08/24/09
1,1,1,2-Tetrachloroethane	ND	47	9.434		154151	08/24/09
Ethylbenzene	110	47	9.434		154151	08/24/09
m,p-Xylenes	1,600	47	9.434		154151	08/24/09
o-Xylene	270	47	9.434		154151	08/24/09
Styrene	ND	47	9.434		154151	08/24/09
Bromoform	ND	47	9.434		154151	08/24/09
Isopropylbenzene	210	47	9.434		154151	08/24/09
1,1,2,2-Tetrachloroethane	ND	47	9.434		154151	08/24/09
1,2,3-Trichloropropane	ND	47	9.434		154151	08/24/09
Propylbenzene	580	47	9.434		154151	08/24/09
Bromobenzene	ND	47	9.434		154151	08/24/09

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	DP-5@12FT	Basis:	as received
Lab ID:	214303-026	Sampled:	08/18/09
Matrix:	Soil	Received:	08/20/09
Units:	ug/Kg		

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
1,3,5-Trimethylbenzene	1,400	47	9.434	154151	08/24/09
2-Chlorotoluene	ND	47	9.434	154151	08/24/09
4-Chlorotoluene	ND	47	9.434	154151	08/24/09
tert-Butylbenzene	62	47	9.434	154151	08/24/09
1,2,4-Trimethylbenzene	4,500	250	50.00	154191	08/25/09
sec-Butylbenzene	150	47	9.434	154151	08/24/09
para-Isopropyl Toluene	120	47	9.434	154151	08/24/09
1,3-Dichlorobenzene	ND	47	9.434	154151	08/24/09
1,4-Dichlorobenzene	ND	47	9.434	154151	08/24/09
n-Butylbenzene	410	47	9.434	154151	08/24/09
1,2-Dichlorobenzene	ND	47	9.434	154151	08/24/09
1,2-Dibromo-3-Chloropropane	ND	47	9.434	154151	08/24/09
1,2,4-Trichlorobenzene	ND	47	9.434	154151	08/24/09
Hexachlorobutadiene	ND	47	9.434	154151	08/24/09
Naphthalene	450	47	9.434	154151	08/24/09
1,2,3-Trichlorobenzene	ND	47	9.434	154151	08/24/09

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	99	71-128	9.434	154151	08/24/09
1,2-Dichloroethane-d4	107	69-135	9.434	154151	08/24/09
Toluene-d8	95	80-120	9.434	154151	08/24/09
Bromofluorobenzene	100	77-131	9.434	154151	08/24/09
Trifluorotoluene (MeOH)	103	56-147	50.00	154191	08/25/09

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	DP-5@14FT	Basis:	as received
Lab ID:	214303-027	Sampled:	08/18/09
Matrix:	Soil	Received:	08/20/09
Units:	ug/Kg		

Analyte	Result	RL	Diln	Fac	Batch#	Analyzed
Freon 12	ND	500	50.00		154191	08/25/09
tert-Butyl Alcohol (TBA)	ND	5,000	50.00		154191	08/25/09
Chloromethane	ND	500	50.00		154191	08/25/09
Isopropyl Ether (DIPE)	ND	250	50.00		154191	08/25/09
Vinyl Chloride	ND	500	50.00		154191	08/25/09
Bromomethane	ND	500	50.00		154191	08/25/09
Ethyl tert-Butyl Ether (ETBE)	ND	250	50.00		154191	08/25/09
Chloroethane	ND	500	50.00		154191	08/25/09
Methyl tert-Amyl Ether (TAME)	ND	250	50.00		154191	08/25/09
Trichlorofluoromethane	ND	250	50.00		154191	08/25/09
Acetone	ND	1,000	50.00		154191	08/25/09
Freon 113	ND	250	50.00		154191	08/25/09
1,1-Dichloroethene	ND	250	50.00		154191	08/25/09
Methylene Chloride	ND	1,000	50.00		154191	08/25/09
Carbon Disulfide	ND	250	50.00		154191	08/25/09
MTBE	ND	250	50.00		154191	08/25/09
trans-1,2-Dichloroethene	ND	250	50.00		154191	08/25/09
Vinyl Acetate	ND	2,500	50.00		154191	08/25/09
1,1-Dichloroethane	ND	250	50.00		154191	08/25/09
2-Butanone	ND	500	50.00		154191	08/25/09
cis-1,2-Dichloroethene	ND	250	50.00		154191	08/25/09
2,2-Dichloropropane	ND	250	50.00		154191	08/25/09
Chloroform	ND	250	50.00		154191	08/25/09
Bromochloromethane	ND	250	50.00		154191	08/25/09
1,1,1-Trichloroethane	ND	250	50.00		154191	08/25/09
1,1-Dichloropropene	ND	250	50.00		154191	08/25/09
Carbon Tetrachloride	ND	250	50.00		154191	08/25/09
1,2-Dichloroethane	ND	250	50.00		154191	08/25/09
Benzene	ND	250	50.00		154191	08/25/09
Trichloroethene	ND	250	50.00		154191	08/25/09
1,2-Dichloropropane	ND	250	50.00		154191	08/25/09
Bromodichloromethane	ND	250	50.00		154191	08/25/09
Dibromomethane	ND	250	50.00		154191	08/25/09
4-Methyl-2-Pentanone	ND	500	50.00		154191	08/25/09
cis-1,3-Dichloropropene	ND	250	50.00		154191	08/25/09
Toluene	ND	250	50.00		154191	08/25/09
trans-1,3-Dichloropropene	ND	250	50.00		154191	08/25/09
1,1,2-Trichloroethane	ND	250	50.00		154191	08/25/09
2-Hexanone	ND	500	50.00		154191	08/25/09
1,3-Dichloropropane	ND	250	50.00		154191	08/25/09
Tetrachloroethene	ND	250	50.00		154191	08/25/09
Dibromochloromethane	ND	250	50.00		154191	08/25/09
1,2-Dibromoethane	ND	250	50.00		154191	08/25/09
Chlorobenzene	ND	250	50.00		154191	08/25/09
1,1,1,2-Tetrachloroethane	ND	250	50.00		154191	08/25/09
Ethylbenzene	2,400	250	50.00		154191	08/25/09
m,p-Xylenes	8,800	250	50.00		154191	08/25/09
o-Xylene	2,200	250	50.00		154191	08/25/09
Styrene	ND	250	50.00		154191	08/25/09
Bromoform	ND	250	50.00		154191	08/25/09
Isopropylbenzene	740	250	50.00		154191	08/25/09
1,1,2,2-Tetrachloroethane	ND	250	50.00		154191	08/25/09
1,2,3-Trichloropropane	ND	250	50.00		154191	08/25/09
Propylbenzene	2,700	250	50.00		154191	08/25/09
Bromobenzene	ND	250	50.00		154191	08/25/09

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	DP-5@14FT	Basis:	as received
Lab ID:	214303-027	Sampled:	08/18/09
Matrix:	Soil	Received:	08/20/09
Units:	ug/Kg		

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
1,3,5-Trimethylbenzene	5,100	250	50.00	154191	08/25/09
2-Chlorotoluene	ND	250	50.00	154191	08/25/09
4-Chlorotoluene	ND	250	50.00	154191	08/25/09
tert-Butylbenzene	ND	250	50.00	154191	08/25/09
1,2,4-Trimethylbenzene	17,000	500	100.0	154246	08/26/09
sec-Butylbenzene	420	250	50.00	154191	08/25/09
para-Isopropyl Toluene	250	250	50.00	154191	08/25/09
1,3-Dichlorobenzene	ND	250	50.00	154191	08/25/09
1,4-Dichlorobenzene	ND	250	50.00	154191	08/25/09
n-Butylbenzene	1,300	250	50.00	154191	08/25/09
1,2-Dichlorobenzene	ND	250	50.00	154191	08/25/09
1,2-Dibromo-3-Chloropropane	ND	250	50.00	154191	08/25/09
1,2,4-Trichlorobenzene	ND	250	50.00	154191	08/25/09
Hexachlorobutadiene	ND	250	50.00	154191	08/25/09
Naphthalene	3,200	250	50.00	154191	08/25/09
1,2,3-Trichlorobenzene	ND	250	50.00	154191	08/25/09

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	80	71-128	50.00	154191	08/25/09
1,2-Dichloroethane-d4	78	69-135	50.00	154191	08/25/09
Toluene-d8	94	80-120	50.00	154191	08/25/09
Bromofluorobenzene	116	77-131	50.00	154191	08/25/09
Trifluorotoluene (MeOH)	103	56-147	50.00	154191	08/25/09

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



Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	DP-5@20FT	Diln Fac:	3.311
Lab ID:	214303-029	Batch#:	154246
Matrix:	Soil	Sampled:	08/18/09
Units:	ug/Kg	Received:	08/20/09
Basis:	as received	Analyzed:	08/26/09

Analyte	Result	RL
Freon 12	ND	33
tert-Butyl Alcohol (TBA)	ND	330
Chloromethane	ND	33
Isopropyl Ether (DIPE)	ND	17
Vinyl Chloride	ND	33
Bromomethane	ND	33
Ethyl tert-Butyl Ether (ETBE)	ND	17
Chloroethane	ND	33
Methyl tert-Amyl Ether (TAME)	ND	17
Trichlorofluoromethane	ND	17
Acetone	110	66
Freon 113	ND	17
1,1-Dichloroethene	ND	17
Methylene Chloride	ND	66
Carbon Disulfide	ND	17
MTBE	ND	17
trans-1,2-Dichloroethene	ND	17
Vinyl Acetate	ND	170
1,1-Dichloroethane	ND	17
2-Butanone	36	33
cis-1,2-Dichloroethene	ND	17
2,2-Dichloropropane	ND	17
Chloroform	ND	17
Bromochloromethane	ND	17
1,1,1-Trichloroethane	ND	17
1,1-Dichloropropene	ND	17
Carbon Tetrachloride	ND	17
1,2-Dichloroethane	ND	17
Benzene	ND	17
Trichloroethene	ND	17
1,2-Dichloropropane	ND	17
Bromodichloromethane	ND	17
Dibromomethane	ND	17
4-Methyl-2-Pentanone	ND	33
cis-1,3-Dichloropropene	ND	17
Toluene	ND	17
trans-1,3-Dichloropropene	ND	17
1,1,2-Trichloroethane	ND	17
2-Hexanone	ND	33
1,3-Dichloropropane	ND	17
Tetrachloroethene	ND	17
Dibromochloromethane	ND	17
1,2-Dibromoethane	ND	17
Chlorobenzene	ND	17
1,1,1,2-Tetrachloroethane	ND	17
Ethylbenzene	ND	17
m,p-Xylenes	51	17
o-Xylene	ND	17
Styrene	ND	17
Bromoform	ND	17
Isopropylbenzene	ND	17
1,1,2,2-Tetrachloroethane	ND	17
1,2,3-Trichloropropane	ND	17
Propylbenzene	71	17

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Field ID:	DP-5@20FT	Diln Fac: 3.311
Lab ID:	214303-029	Batch#: 154246
Matrix:	Soil	Sampled: 08/18/09
Units:	ug/Kg	Received: 08/20/09
Basis:	as received	Analyzed: 08/26/09

Analyte	Result	RL
Bromobenzene	ND	17
1,3,5-Trimethylbenzene	170	17
2-Chlorotoluene	ND	17
4-Chlorotoluene	ND	17
tert-Butylbenzene	ND	17
1,2,4-Trimethylbenzene	490	17
sec-Butylbenzene	27	17
para-Isopropyl Toluene	ND	17
1,3-Dichlorobenzene	ND	17
1,4-Dichlorobenzene	ND	17
n-Butylbenzene	69	17
1,2-Dichlorobenzene	ND	17
1,2-Dibromo-3-Chloropropane	ND	17
1,2,4-Trichlorobenzene	ND	17
Hexachlorobutadiene	ND	17
Naphthalene	110	17
1,2,3-Trichlorobenzene	ND	17

Surrogate	%REC	Limits
Dibromofluoromethane	87	71-128
1,2-Dichloroethane-d4	83	69-135
Toluene-d8	90	80-120
Bromofluorobenzene	111	77-131

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	DP-6@12FT	Basis:	as received
Lab ID:	214303-031	Sampled:	08/18/09
Matrix:	Soil	Received:	08/20/09
Units:	ug/Kg		

Analyte	Result	RL	Diln	Fac	Batch#	Analyzed
Freon 12	ND	50	4.950		154190	08/25/09
tert-Butyl Alcohol (TBA)	ND	500	4.950		154190	08/25/09
Chloromethane	ND	50	4.950		154190	08/25/09
Isopropyl Ether (DIPE)	ND	25	4.950		154190	08/25/09
Vinyl Chloride	ND	50	4.950		154190	08/25/09
Bromomethane	ND	50	4.950		154190	08/25/09
Ethyl tert-Butyl Ether (ETBE)	ND	25	4.950		154190	08/25/09
Chloroethane	ND	50	4.950		154190	08/25/09
Methyl tert-Amyl Ether (TAME)	ND	25	4.950		154190	08/25/09
Trichlorofluoromethane	ND	25	4.950		154190	08/25/09
Acetone	ND	1,000	50.00		154291	08/27/09
Freon 113	ND	25	4.950		154190	08/25/09
1,1-Dichloroethene	ND	25	4.950		154190	08/25/09
Methylene Chloride	ND	99	4.950		154190	08/25/09
Carbon Disulfide	ND	25	4.950		154190	08/25/09
MTBE	ND	25	4.950		154190	08/25/09
trans-1,2-Dichloroethene	ND	25	4.950		154190	08/25/09
Vinyl Acetate	ND	250	4.950		154190	08/25/09
1,1-Dichloroethane	ND	25	4.950		154190	08/25/09
2-Butanone	64	50	4.950		154190	08/25/09
cis-1,2-Dichloroethene	ND	25	4.950		154190	08/25/09
2,2-Dichloropropane	ND	25	4.950		154190	08/25/09
Chloroform	ND	25	4.950		154190	08/25/09
Bromochloromethane	ND	25	4.950		154190	08/25/09
1,1,1-Trichloroethane	ND	25	4.950		154190	08/25/09
1,1-Dichloropropene	ND	25	4.950		154190	08/25/09
Carbon Tetrachloride	ND	25	4.950		154190	08/25/09
1,2-Dichloroethane	ND	25	4.950		154190	08/25/09
Benzene	ND	25	4.950		154190	08/25/09
Trichloroethene	ND	25	4.950		154190	08/25/09
1,2-Dichloropropane	ND	25	4.950		154190	08/25/09
Bromodichloromethane	ND	25	4.950		154190	08/25/09
Dibromomethane	ND	25	4.950		154190	08/25/09
4-Methyl-2-Pentanone	ND	50	4.950		154190	08/25/09
cis-1,3-Dichloropropene	ND	25	4.950		154190	08/25/09
Toluene	ND	25	4.950		154190	08/25/09
trans-1,3-Dichloropropene	ND	25	4.950		154190	08/25/09
1,1,2-Trichloroethane	ND	25	4.950		154190	08/25/09
2-Hexanone	ND	50	4.950		154190	08/25/09
1,3-Dichloropropane	ND	25	4.950		154190	08/25/09
Tetrachloroethene	ND	25	4.950		154190	08/25/09
Dibromochloromethane	ND	25	4.950		154190	08/25/09
1,2-Dibromoethane	ND	25	4.950		154190	08/25/09
Chlorobenzene	ND	25	4.950		154190	08/25/09
1,1,1,2-Tetrachloroethane	ND	25	4.950		154190	08/25/09
Ethylbenzene	540	25	4.950		154190	08/25/09
m,p-Xylenes	200	25	4.950		154190	08/25/09
o-Xylene	ND	25	4.950		154190	08/25/09
Styrene	ND	25	4.950		154190	08/25/09
Bromoform	ND	25	4.950		154190	08/25/09
Isopropylbenzene	130	25	4.950		154190	08/25/09
1,1,2,2-Tetrachloroethane	ND	25	4.950		154190	08/25/09
1,2,3-Trichloropropane	ND	25	4.950		154190	08/25/09
Propylbenzene	430	25	4.950		154190	08/25/09
Bromobenzene	ND	25	4.950		154190	08/25/09

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	DP-6@12FT	Basis:	as received
Lab ID:	214303-031	Sampled:	08/18/09
Matrix:	Soil	Received:	08/20/09
Units:	ug/Kg		

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
1,3,5-Trimethylbenzene	280	25	4.950	154190	08/25/09
2-Chlorotoluene	ND	25	4.950	154190	08/25/09
4-Chlorotoluene	ND	25	4.950	154190	08/25/09
tert-Butylbenzene	27	25	4.950	154190	08/25/09
1,2,4-Trimethylbenzene	1,000	250	50.00	154291	08/27/09
sec-Butylbenzene	72	25	4.950	154190	08/25/09
para-Isopropyl Toluene	41	25	4.950	154190	08/25/09
1,3-Dichlorobenzene	ND	25	4.950	154190	08/25/09
1,4-Dichlorobenzene	ND	25	4.950	154190	08/25/09
n-Butylbenzene	190	25	4.950	154190	08/25/09
1,2-Dichlorobenzene	ND	25	4.950	154190	08/25/09
1,2-Dibromo-3-Chloropropane	ND	25	4.950	154190	08/25/09
1,2,4-Trichlorobenzene	ND	25	4.950	154190	08/25/09
Hexachlorobutadiene	ND	25	4.950	154190	08/25/09
Naphthalene	150	25	4.950	154190	08/25/09
1,2,3-Trichlorobenzene	ND	25	4.950	154190	08/25/09

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	99	71-128	4.950	154190	08/25/09
1,2-Dichloroethane-d4	110	69-135	4.950	154190	08/25/09
Toluene-d8	95	80-120	4.950	154190	08/25/09
Bromofluorobenzene	100	77-131	4.950	154190	08/25/09
Trifluorotoluene (MeOH)	108	56-147	50.00	154291	08/27/09

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	DP-6@14FT	Basis:	as received
Lab ID:	214303-032	Sampled:	08/18/09
Matrix:	Soil	Received:	08/20/09
Units:	ug/Kg		

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Freon 12	ND	9.7	0.9671	154190	08/25/09
tert-Butyl Alcohol (TBA)	ND	97	0.9671	154190	08/25/09
Chloromethane	ND	9.7	0.9671	154190	08/25/09
Isopropyl Ether (DIPE)	ND	4.8	0.9671	154190	08/25/09
Vinyl Chloride	ND	9.7	0.9671	154190	08/25/09
Bromomethane	ND	9.7	0.9671	154190	08/25/09
Ethyl tert-Butyl Ether (ETBE)	ND	4.8	0.9671	154190	08/25/09
Chloroethane	ND	9.7	0.9671	154190	08/25/09
Methyl tert-Amyl Ether (TAME)	ND	4.8	0.9671	154190	08/25/09
Trichlorofluoromethane	ND	4.8	0.9671	154190	08/25/09
Acetone	52	20	0.9881	154152	08/24/09
Freon 113	ND	4.8	0.9671	154190	08/25/09
1,1-Dichloroethene	ND	4.8	0.9671	154190	08/25/09
Methylene Chloride	ND	19	0.9671	154190	08/25/09
Carbon Disulfide	ND	4.8	0.9671	154190	08/25/09
MTBE	ND	4.8	0.9671	154190	08/25/09
trans-1,2-Dichloroethene	ND	4.8	0.9671	154190	08/25/09
Vinyl Acetate	ND	48	0.9671	154190	08/25/09
1,1-Dichloroethane	ND	4.8	0.9671	154190	08/25/09
2-Butanone	29	9.7	0.9671	154190	08/25/09
cis-1,2-Dichloroethene	ND	4.8	0.9671	154190	08/25/09
2,2-Dichloropropane	ND	4.8	0.9671	154190	08/25/09
Chloroform	ND	4.8	0.9671	154190	08/25/09
Bromochloromethane	ND	4.8	0.9671	154190	08/25/09
1,1,1-Trichloroethane	ND	4.8	0.9671	154190	08/25/09
1,1-Dichloropropene	ND	4.8	0.9671	154190	08/25/09
Carbon Tetrachloride	ND	4.8	0.9671	154190	08/25/09
1,2-Dichloroethane	ND	4.8	0.9671	154190	08/25/09
Benzene	ND	4.8	0.9671	154190	08/25/09
Trichloroethene	ND	4.8	0.9671	154190	08/25/09
1,2-Dichloropropane	ND	4.8	0.9671	154190	08/25/09
Bromodichloromethane	ND	4.8	0.9671	154190	08/25/09
Dibromomethane	ND	4.8	0.9671	154190	08/25/09
4-Methyl-2-Pentanone	ND	9.7	0.9671	154190	08/25/09
cis-1,3-Dichloropropene	ND	4.8	0.9671	154190	08/25/09
Toluene	ND	4.8	0.9671	154190	08/25/09
trans-1,3-Dichloropropene	ND	4.8	0.9671	154190	08/25/09
1,1,2-Trichloroethane	ND	4.8	0.9671	154190	08/25/09
2-Hexanone	ND	9.7	0.9671	154190	08/25/09
1,3-Dichloropropane	ND	4.8	0.9671	154190	08/25/09
Tetrachloroethene	ND	4.8	0.9671	154190	08/25/09
Dibromochloromethane	ND	4.8	0.9671	154190	08/25/09
1,2-Dibromoethane	ND	4.8	0.9671	154190	08/25/09
Chlorobenzene	ND	4.8	0.9671	154190	08/25/09
1,1,1,2-Tetrachloroethane	ND	4.8	0.9671	154190	08/25/09
Ethylbenzene	ND	4.8	0.9671	154190	08/25/09
m,p-Xylenes	ND	4.8	0.9671	154190	08/25/09
o-Xylene	ND	4.8	0.9671	154190	08/25/09
Styrene	ND	4.8	0.9671	154190	08/25/09
Bromoform	ND	4.8	0.9671	154190	08/25/09
Isopropylbenzene	ND	4.8	0.9671	154190	08/25/09
1,1,2,2-Tetrachloroethane	ND	4.8	0.9671	154190	08/25/09
1,2,3-Trichloropropane	ND	4.8	0.9671	154190	08/25/09
Propylbenzene	5.7	4.8	0.9671	154190	08/25/09
Bromobenzene	ND	4.8	0.9671	154190	08/25/09

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	DP-6@14FT	Basis:	as received
Lab ID:	214303-032	Sampled:	08/18/09
Matrix:	Soil	Received:	08/20/09
Units:	ug/Kg		

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
1,3,5-Trimethylbenzene	ND	4.8	0.9671	154190	08/25/09
2-Chlorotoluene	ND	4.8	0.9671	154190	08/25/09
4-Chlorotoluene	ND	4.8	0.9671	154190	08/25/09
tert-Butylbenzene	ND	4.8	0.9671	154190	08/25/09
1,2,4-Trimethylbenzene	11	4.8	0.9671	154190	08/25/09
sec-Butylbenzene	ND	4.8	0.9671	154190	08/25/09
para-Isopropyl Toluene	ND	4.8	0.9671	154190	08/25/09
1,3-Dichlorobenzene	ND	4.8	0.9671	154190	08/25/09
1,4-Dichlorobenzene	ND	4.8	0.9671	154190	08/25/09
n-Butylbenzene	6.0	4.8	0.9671	154190	08/25/09
1,2-Dichlorobenzene	ND	4.8	0.9671	154190	08/25/09
1,2-Dibromo-3-Chloropropane	ND	4.8	0.9671	154190	08/25/09
1,2,4-Trichlorobenzene	ND	4.8	0.9671	154190	08/25/09
Hexachlorobutadiene	ND	4.8	0.9671	154190	08/25/09
Naphthalene	ND	4.8	0.9671	154190	08/25/09
1,2,3-Trichlorobenzene	ND	4.8	0.9671	154190	08/25/09

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	108	71-128	0.9671	154190	08/25/09
1,2-Dichloroethane-d4	119	69-135	0.9671	154190	08/25/09
Toluene-d8	90	80-120	0.9671	154190	08/25/09
Bromofluorobenzene	109	77-131	0.9671	154190	08/25/09

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

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	DP-6@17FT	Diln Fac:	8.065
Lab ID:	214303-033	Batch#:	154246
Matrix:	Soil	Sampled:	08/18/09
Units:	ug/Kg	Received:	08/20/09
Basis:	as received	Analyzed:	08/26/09

Analyte	Result	RL
Freon 12	ND	81
tert-Butyl Alcohol (TBA)	ND	810
Chloromethane	ND	81
Isopropyl Ether (DIPE)	ND	40
Vinyl Chloride	ND	81
Bromomethane	ND	81
Ethyl tert-Butyl Ether (ETBE)	ND	40
Chloroethane	ND	81
Methyl tert-Amyl Ether (TAME)	ND	40
Trichlorofluoromethane	ND	40
Acetone	160	160
Freon 113	ND	40
1,1-Dichloroethene	ND	40
Methylene Chloride	ND	160
Carbon Disulfide	ND	40
MTBE	ND	40
trans-1,2-Dichloroethene	ND	40
Vinyl Acetate	ND	400
1,1-Dichloroethane	ND	40
2-Butanone	ND	81
cis-1,2-Dichloroethene	ND	40
2,2-Dichloropropane	ND	40
Chloroform	ND	40
Bromochloromethane	ND	40
1,1,1-Trichloroethane	ND	40
1,1-Dichloropropene	ND	40
Carbon Tetrachloride	ND	40
1,2-Dichloroethane	ND	40
Benzene	ND	40
Trichloroethene	ND	40
1,2-Dichloropropane	ND	40
Bromodichloromethane	ND	40
Dibromomethane	ND	40
4-Methyl-2-Pentanone	ND	81
cis-1,3-Dichloropropene	ND	40
Toluene	ND	40
trans-1,3-Dichloropropene	ND	40
1,1,2-Trichloroethane	ND	40
2-Hexanone	ND	81
1,3-Dichloropropane	ND	40
Tetrachloroethene	ND	40
Dibromochloromethane	ND	40
1,2-Dibromoethane	ND	40
Chlorobenzene	ND	40
1,1,1,2-Tetrachloroethane	ND	40
Ethylbenzene	220	40
m,p-Xylenes	660	40
o-Xylene	180	40
Styrene	ND	40
Bromoform	ND	40
Isopropylbenzene	43	40
1,1,2,2-Tetrachloroethane	ND	40
1,2,3-Trichloropropane	ND	40
Propylbenzene	160	40

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Field ID:	DP-6@17FT	Diln Fac: 8.065
Lab ID:	214303-033	Batch#: 154246
Matrix:	Soil	Sampled: 08/18/09
Units:	ug/Kg	Received: 08/20/09
Basis:	as received	Analyzed: 08/26/09

Analyte	Result	RL
Bromobenzene	ND	40
1,3,5-Trimethylbenzene	290	40
2-Chlorotoluene	ND	40
4-Chlorotoluene	ND	40
tert-Butylbenzene	ND	40
1,2,4-Trimethylbenzene	1,000	40
sec-Butylbenzene	ND	40
para-Isopropyl Toluene	ND	40
1,3-Dichlorobenzene	ND	40
1,4-Dichlorobenzene	ND	40
n-Butylbenzene	66	40
1,2-Dichlorobenzene	ND	40
1,2-Dibromo-3-Chloropropane	ND	40
1,2,4-Trichlorobenzene	ND	40
Hexachlorobutadiene	ND	40
Naphthalene	180	40
1,2,3-Trichlorobenzene	ND	40

Surrogate	%REC	Limits
Dibromofluoromethane	85	71-128
1,2-Dichloroethane-d4	83	69-135
Toluene-d8	96	80-120
Bromofluorobenzene	102	77-131

ND= Not Detected  
 RL= Reporting Limit



Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	DP-7@12FT	Diln Fac:	0.9671
Lab ID:	214303-035	Batch#:	154152
Matrix:	Soil	Sampled:	08/18/09
Units:	ug/Kg	Received:	08/20/09
Basis:	as received	Analyzed:	08/24/09

Analyte	Result	RL
Freon 12	ND	9.7
tert-Butyl Alcohol (TBA)	ND	97
Chloromethane	ND	9.7
Isopropyl Ether (DIPE)	ND	4.8
Vinyl Chloride	ND	9.7
Bromomethane	ND	9.7
Ethyl tert-Butyl Ether (ETBE)	ND	4.8
Chloroethane	ND	9.7
Methyl tert-Amyl Ether (TAME)	ND	4.8
Trichlorofluoromethane	ND	4.8
Acetone	ND	19
Freon 113	ND	4.8
1,1-Dichloroethene	ND	4.8
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.8
MTBE	ND	4.8
trans-1,2-Dichloroethene	ND	4.8
Vinyl Acetate	ND	48
1,1-Dichloroethane	ND	4.8
2-Butanone	ND	9.7
cis-1,2-Dichloroethene	ND	4.8
2,2-Dichloropropane	ND	4.8
Chloroform	ND	4.8
Bromochloromethane	ND	4.8
1,1,1-Trichloroethane	ND	4.8
1,1-Dichloropropene	ND	4.8
Carbon Tetrachloride	ND	4.8
1,2-Dichloroethane	ND	4.8
Benzene	ND	4.8
Trichloroethene	ND	4.8
1,2-Dichloropropane	ND	4.8
Bromodichloromethane	ND	4.8
Dibromomethane	ND	4.8
4-Methyl-2-Pentanone	ND	9.7
cis-1,3-Dichloropropene	ND	4.8
Toluene	ND	4.8
trans-1,3-Dichloropropene	ND	4.8
1,1,2-Trichloroethane	ND	4.8
2-Hexanone	ND	9.7
1,3-Dichloropropane	ND	4.8
Tetrachloroethene	ND	4.8
Dibromochloromethane	ND	4.8
1,2-Dibromoethane	ND	4.8
Chlorobenzene	ND	4.8
1,1,1,2-Tetrachloroethane	ND	4.8
Ethylbenzene	ND	4.8
m,p-Xylenes	ND	4.8
o-Xylene	ND	4.8
Styrene	ND	4.8
Bromoform	ND	4.8
Isopropylbenzene	ND	4.8
1,1,2,2-Tetrachloroethane	ND	4.8
1,2,3-Trichloropropane	ND	4.8
Propylbenzene	ND	4.8

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Field ID:	DP-7@12FT	Diln Fac: 0.9671
Lab ID:	214303-035	Batch#: 154152
Matrix:	Soil	Sampled: 08/18/09
Units:	ug/Kg	Received: 08/20/09
Basis:	as received	Analyzed: 08/24/09

Analyte	Result	RL
Bromobenzene	ND	4.8
1,3,5-Trimethylbenzene	ND	4.8
2-Chlorotoluene	ND	4.8
4-Chlorotoluene	ND	4.8
tert-Butylbenzene	ND	4.8
1,2,4-Trimethylbenzene	ND	4.8
sec-Butylbenzene	ND	4.8
para-Isopropyl Toluene	ND	4.8
1,3-Dichlorobenzene	ND	4.8
1,4-Dichlorobenzene	ND	4.8
n-Butylbenzene	ND	4.8
1,2-Dichlorobenzene	ND	4.8
1,2-Dibromo-3-Chloropropane	ND	4.8
1,2,4-Trichlorobenzene	ND	4.8
Hexachlorobutadiene	ND	4.8
Naphthalene	ND	4.8
1,2,3-Trichlorobenzene	ND	4.8

Surrogate	%REC	Limits
Dibromofluoromethane	91	71-128
1,2-Dichloroethane-d4	80	69-135
Toluene-d8	95	80-120
Bromofluorobenzene	91	77-131

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	DP-7@14FT	Diln Fac:	0.9747
Lab ID:	214303-036	Batch#:	154151
Matrix:	Soil	Sampled:	08/18/09
Units:	ug/Kg	Received:	08/20/09
Basis:	as received	Analyzed:	08/24/09

Analyte	Result	RL
Freon 12	ND	9.7
tert-Butyl Alcohol (TBA)	ND	97
Chloromethane	ND	9.7
Isopropyl Ether (DIPE)	ND	4.9
Vinyl Chloride	ND	9.7
Bromomethane	ND	9.7
Ethyl tert-Butyl Ether (ETBE)	ND	4.9
Chloroethane	ND	9.7
Methyl tert-Amyl Ether (TAME)	ND	4.9
Trichlorofluoromethane	ND	4.9
Acetone	ND	19
Freon 113	ND	4.9
1,1-Dichloroethene	ND	4.9
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.9
MTBE	ND	4.9
trans-1,2-Dichloroethene	ND	4.9
Vinyl Acetate	ND	49
1,1-Dichloroethane	ND	4.9
2-Butanone	ND	9.7
cis-1,2-Dichloroethene	ND	4.9
2,2-Dichloropropane	ND	4.9
Chloroform	ND	4.9
Bromochloromethane	ND	4.9
1,1,1-Trichloroethane	ND	4.9
1,1-Dichloropropene	ND	4.9
Carbon Tetrachloride	ND	4.9
1,2-Dichloroethane	ND	4.9
Benzene	ND	4.9
Trichloroethene	ND	4.9
1,2-Dichloropropane	ND	4.9
Bromodichloromethane	ND	4.9
Dibromomethane	ND	4.9
4-Methyl-2-Pentanone	ND	9.7
cis-1,3-Dichloropropene	ND	4.9
Toluene	ND	4.9
trans-1,3-Dichloropropene	ND	4.9
1,1,2-Trichloroethane	ND	4.9
2-Hexanone	ND	9.7
1,3-Dichloropropane	ND	4.9
Tetrachloroethene	ND	4.9
Dibromochloromethane	ND	4.9
1,2-Dibromoethane	ND	4.9
Chlorobenzene	ND	4.9
1,1,1,2-Tetrachloroethane	ND	4.9
Ethylbenzene	ND	4.9
m,p-Xylenes	ND	4.9
o-Xylene	ND	4.9
Styrene	ND	4.9
Bromoform	ND	4.9
Isopropylbenzene	ND	4.9
1,1,2,2-Tetrachloroethane	ND	4.9
1,2,3-Trichloropropane	ND	4.9
Propylbenzene	ND	4.9

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Field ID:	DP-7@14FT	Diln Fac: 0.9747
Lab ID:	214303-036	Batch#: 154151
Matrix:	Soil	Sampled: 08/18/09
Units:	ug/Kg	Received: 08/20/09
Basis:	as received	Analyzed: 08/24/09

Analyte	Result	RL
Bromobenzene	ND	4.9
1,3,5-Trimethylbenzene	ND	4.9
2-Chlorotoluene	ND	4.9
4-Chlorotoluene	ND	4.9
tert-Butylbenzene	ND	4.9
1,2,4-Trimethylbenzene	ND	4.9
sec-Butylbenzene	ND	4.9
para-Isopropyl Toluene	ND	4.9
1,3-Dichlorobenzene	ND	4.9
1,4-Dichlorobenzene	ND	4.9
n-Butylbenzene	ND	4.9
1,2-Dichlorobenzene	ND	4.9
1,2-Dibromo-3-Chloropropane	ND	4.9
1,2,4-Trichlorobenzene	ND	4.9
Hexachlorobutadiene	ND	4.9
Naphthalene	ND	4.9
1,2,3-Trichlorobenzene	ND	4.9

Surrogate	%REC	Limits
Dibromofluoromethane	102	71-128
1,2-Dichloroethane-d4	116	69-135
Toluene-d8	100	80-120
Bromofluorobenzene	109	77-131

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	SOMA-5@11FT	Basis:	as received
Lab ID:	214303-040	Sampled:	08/18/09
Matrix:	Soil	Received:	08/20/09
Units:	ug/Kg		

Analyte	Result	RL	Diln	Fac	Batch#	Analyzed
Freon 12	ND	500	50.00		154191	08/25/09
tert-Butyl Alcohol (TBA)	ND	5,000	50.00		154191	08/25/09
Chloromethane	ND	500	50.00		154191	08/25/09
Isopropyl Ether (DIPE)	ND	250	50.00		154191	08/25/09
Vinyl Chloride	ND	500	50.00		154191	08/25/09
Bromomethane	ND	500	50.00		154191	08/25/09
Ethyl tert-Butyl Ether (ETBE)	ND	250	50.00		154191	08/25/09
Chloroethane	ND	500	50.00		154191	08/25/09
Methyl tert-Amyl Ether (TAME)	ND	250	50.00		154191	08/25/09
Trichlorofluoromethane	ND	250	50.00		154191	08/25/09
Acetone	ND	1,000	50.00		154191	08/25/09
Freon 113	ND	250	50.00		154191	08/25/09
1,1-Dichloroethene	ND	250	50.00		154191	08/25/09
Methylene Chloride	ND	1,000	50.00		154191	08/25/09
Carbon Disulfide	ND	250	50.00		154191	08/25/09
MTBE	ND	250	50.00		154191	08/25/09
trans-1,2-Dichloroethene	ND	250	50.00		154191	08/25/09
Vinyl Acetate	ND	2,500	50.00		154191	08/25/09
1,1-Dichloroethane	ND	250	50.00		154191	08/25/09
2-Butanone	ND	500	50.00		154191	08/25/09
cis-1,2-Dichloroethene	ND	250	50.00		154191	08/25/09
2,2-Dichloropropane	ND	250	50.00		154191	08/25/09
Chloroform	ND	250	50.00		154191	08/25/09
Bromochloromethane	ND	250	50.00		154191	08/25/09
1,1,1-Trichloroethane	ND	250	50.00		154191	08/25/09
1,1-Dichloropropene	ND	250	50.00		154191	08/25/09
Carbon Tetrachloride	ND	250	50.00		154191	08/25/09
1,2-Dichloroethane	ND	250	50.00		154191	08/25/09
Benzene	ND	250	50.00		154191	08/25/09
Trichloroethene	ND	250	50.00		154191	08/25/09
1,2-Dichloropropane	ND	250	50.00		154191	08/25/09
Bromodichloromethane	ND	250	50.00		154191	08/25/09
Dibromomethane	ND	250	50.00		154191	08/25/09
4-Methyl-2-Pentanone	ND	500	50.00		154191	08/25/09
cis-1,3-Dichloropropene	ND	250	50.00		154191	08/25/09
Toluene	ND	250	50.00		154191	08/25/09
trans-1,3-Dichloropropene	ND	250	50.00		154191	08/25/09
1,1,2-Trichloroethane	ND	250	50.00		154191	08/25/09
2-Hexanone	ND	500	50.00		154191	08/25/09
1,3-Dichloropropane	ND	250	50.00		154191	08/25/09
Tetrachloroethene	ND	250	50.00		154191	08/25/09
Dibromochloromethane	ND	250	50.00		154191	08/25/09
1,2-Dibromoethane	ND	250	50.00		154191	08/25/09
Chlorobenzene	ND	250	50.00		154191	08/25/09
1,1,1,2-Tetrachloroethane	ND	250	50.00		154191	08/25/09
Ethylbenzene	2,000	250	50.00		154191	08/25/09
m,p-Xylenes	11,000	250	50.00		154191	08/25/09
o-Xylene	3,200	250	50.00		154191	08/25/09
Styrene	ND	250	50.00		154191	08/25/09
Bromoform	ND	250	50.00		154191	08/25/09
Isopropylbenzene	710	250	50.00		154191	08/25/09
1,1,2,2-Tetrachloroethane	ND	250	50.00		154191	08/25/09
1,2,3-Trichloropropane	ND	250	50.00		154191	08/25/09
Propylbenzene	2,400	250	50.00		154191	08/25/09
Bromobenzene	ND	250	50.00		154191	08/25/09

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	SOMA-5@11FT	Basis:	as received
Lab ID:	214303-040	Sampled:	08/18/09
Matrix:	Soil	Received:	08/20/09
Units:	ug/Kg		

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
1,3,5-Trimethylbenzene	4,600	250	50.00	154191	08/25/09
2-Chlorotoluene	ND	250	50.00	154191	08/25/09
4-Chlorotoluene	ND	250	50.00	154191	08/25/09
tert-Butylbenzene	ND	250	50.00	154191	08/25/09
1,2,4-Trimethylbenzene	17,000	500	100.0	154246	08/26/09
sec-Butylbenzene	380	250	50.00	154191	08/25/09
para-Isopropyl Toluene	290	250	50.00	154191	08/25/09
1,3-Dichlorobenzene	ND	250	50.00	154191	08/25/09
1,4-Dichlorobenzene	ND	250	50.00	154191	08/25/09
n-Butylbenzene	1,300	250	50.00	154191	08/25/09
1,2-Dichlorobenzene	ND	250	50.00	154191	08/25/09
1,2-Dibromo-3-Chloropropane	ND	250	50.00	154191	08/25/09
1,2,4-Trichlorobenzene	ND	250	50.00	154191	08/25/09
Hexachlorobutadiene	ND	250	50.00	154191	08/25/09
Naphthalene	3,400	250	50.00	154191	08/25/09
1,2,3-Trichlorobenzene	ND	250	50.00	154191	08/25/09

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	80	71-128	50.00	154191	08/25/09
1,2-Dichloroethane-d4	89	69-135	50.00	154191	08/25/09
Toluene-d8	95	80-120	50.00	154191	08/25/09
Bromofluorobenzene	106	77-131	50.00	154191	08/25/09
Trifluorotoluene (MeOH)	111	56-147	50.00	154191	08/25/09

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

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	SOMA-5@12.5FT	Basis:	as received
Lab ID:	214303-041	Sampled:	08/18/09
Matrix:	Soil	Received:	08/20/09
Units:	ug/Kg		

Analyte	Result	RL	Diln	Fac	Batch#	Analyzed
Freon 12	ND	100	10.00		154246	08/26/09
tert-Butyl Alcohol (TBA)	ND	1,000	10.00		154246	08/26/09
Chloromethane	ND	100	10.00		154246	08/26/09
Isopropyl Ether (DIPE)	ND	50	10.00		154246	08/26/09
Vinyl Chloride	ND	100	10.00		154246	08/26/09
Bromomethane	ND	100	10.00		154246	08/26/09
Ethyl tert-Butyl Ether (ETBE)	ND	50	10.00		154246	08/26/09
Chloroethane	ND	100	10.00		154246	08/26/09
Methyl tert-Amyl Ether (TAME)	ND	50	10.00		154246	08/26/09
Trichlorofluoromethane	ND	50	10.00		154246	08/26/09
Acetone	ND	200	10.00		154246	08/26/09
Freon 113	ND	50	10.00		154246	08/26/09
1,1-Dichloroethene	ND	50	10.00		154246	08/26/09
Methylene Chloride	ND	200	10.00		154246	08/26/09
Carbon Disulfide	ND	50	10.00		154246	08/26/09
MTBE	ND	50	10.00		154246	08/26/09
trans-1,2-Dichloroethene	ND	50	10.00		154246	08/26/09
Vinyl Acetate	ND	500	10.00		154246	08/26/09
1,1-Dichloroethane	ND	50	10.00		154246	08/26/09
2-Butanone	ND	100	10.00		154246	08/26/09
cis-1,2-Dichloroethene	ND	50	10.00		154246	08/26/09
2,2-Dichloropropane	ND	50	10.00		154246	08/26/09
Chloroform	ND	50	10.00		154246	08/26/09
Bromochloromethane	ND	50	10.00		154246	08/26/09
1,1,1-Trichloroethane	ND	50	10.00		154246	08/26/09
1,1-Dichloropropene	ND	50	10.00		154246	08/26/09
Carbon Tetrachloride	ND	50	10.00		154246	08/26/09
1,2-Dichloroethane	ND	50	10.00		154246	08/26/09
Benzene	ND	50	10.00		154246	08/26/09
Trichloroethene	ND	50	10.00		154246	08/26/09
1,2-Dichloropropane	ND	50	10.00		154246	08/26/09
Bromodichloromethane	ND	50	10.00		154246	08/26/09
Dibromomethane	ND	50	10.00		154246	08/26/09
4-Methyl-2-Pentanone	ND	100	10.00		154246	08/26/09
cis-1,3-Dichloropropene	ND	50	10.00		154246	08/26/09
Toluene	ND	50	10.00		154246	08/26/09
trans-1,3-Dichloropropene	ND	50	10.00		154246	08/26/09
1,1,2-Trichloroethane	ND	50	10.00		154246	08/26/09
2-Hexanone	ND	100	10.00		154246	08/26/09
1,3-Dichloropropane	ND	50	10.00		154246	08/26/09
Tetrachloroethene	ND	50	10.00		154246	08/26/09
Dibromochloromethane	ND	50	10.00		154246	08/26/09
1,2-Dibromoethane	ND	50	10.00		154246	08/26/09
Chlorobenzene	ND	50	10.00		154246	08/26/09
1,1,1,2-Tetrachloroethane	ND	50	10.00		154246	08/26/09
Ethylbenzene	400	50	10.00		154246	08/26/09
m,p-Xylenes	1,800	50	10.00		154246	08/26/09
o-Xylene	850	50	10.00		154246	08/26/09
Styrene	ND	50	10.00		154246	08/26/09
Bromoform	ND	50	10.00		154246	08/26/09
Isopropylbenzene	55	50	10.00		154246	08/26/09
1,1,2,2-Tetrachloroethane	ND	50	10.00		154246	08/26/09
1,2,3-Trichloropropane	ND	50	10.00		154246	08/26/09
Propylbenzene	240	50	10.00		154246	08/26/09
Bromobenzene	ND	50	10.00		154246	08/26/09

ND= Not Detected  
 RL= Reporting Limit

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	SOMA-5@12.5FT	Basis:	as received
Lab ID:	214303-041	Sampled:	08/18/09
Matrix:	Soil	Received:	08/20/09
Units:	ug/Kg		

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
1,3,5-Trimethylbenzene	570	50	10.00	154246	08/26/09
2-Chlorotoluene	ND	50	10.00	154246	08/26/09
4-Chlorotoluene	ND	50	10.00	154246	08/26/09
tert-Butylbenzene	ND	50	10.00	154246	08/26/09
1,2,4-Trimethylbenzene	1,900	250	50.00	154291	08/27/09
sec-Butylbenzene	ND	50	10.00	154246	08/26/09
para-Isopropyl Toluene	ND	50	10.00	154246	08/26/09
1,3-Dichlorobenzene	ND	50	10.00	154246	08/26/09
1,4-Dichlorobenzene	ND	50	10.00	154246	08/26/09
n-Butylbenzene	150	50	10.00	154246	08/26/09
1,2-Dichlorobenzene	ND	50	10.00	154246	08/26/09
1,2-Dibromo-3-Chloropropane	ND	50	10.00	154246	08/26/09
1,2,4-Trichlorobenzene	ND	50	10.00	154246	08/26/09
Hexachlorobutadiene	ND	50	10.00	154246	08/26/09
Naphthalene	1,100	250	50.00	154291	08/27/09
1,2,3-Trichlorobenzene	ND	50	10.00	154246	08/26/09

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	82	71-128	10.00	154246	08/26/09
1,2-Dichloroethane-d4	81	69-135	10.00	154246	08/26/09
Toluene-d8	94	80-120	10.00	154246	08/26/09
Bromofluorobenzene	108	77-131	10.00	154246	08/26/09
Trifluorotoluene (MeOH)	106	56-147	50.00	154291	08/27/09

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



**Batch QC Report**

<b>Volatile Organics</b>			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC508882	Batch#:	154151
Matrix:	Soil	Analyzed:	08/24/09
Units:	ug/Kg		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
Freon 12	ND	10
tert-Butyl Alcohol (TBA)	ND	100
Chloromethane	ND	10
Isopropyl Ether (DIPE)	ND	5.0
Vinyl Chloride	ND	10
Bromomethane	ND	10
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
Chloroethane	ND	10
Methyl tert-Amyl Ether (TAME)	ND	5.0
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0

ND= Not Detected  
 RL= Reporting Limit

## Batch QC Report

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC508882	Batch#:	154151
Matrix:	Soil	Analyzed:	08/24/09
Units:	ug/Kg		

Analyte	Result	RL
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	113	71-128
1,2-Dichloroethane-d4	130	69-135
Toluene-d8	94	80-120
Bromofluorobenzene	116	77-131

ND= Not Detected  
 RL= Reporting Limit

**Batch QC Report**

<b>Volatile Organics</b>		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Type:	LCS	Diln Fac: 1.000
Lab ID:	QC508883	Batch#: 154151
Matrix:	Soil	Analyzed: 08/24/09
Units:	ug/Kg	

<b>Analyte</b>	<b>Spiked</b>	<b>Result</b>	<b>%REC</b>	<b>Limits</b>
tert-Butyl Alcohol (TBA)	125.0	116.8	93	56-140
Isopropyl Ether (DIPE)	25.00	23.20	93	65-131
Ethyl tert-Butyl Ether (ETBE)	25.00	25.60	102	66-132
Methyl tert-Amyl Ether (TAME)	25.00	24.92	100	75-128
1,1-Dichloroethene	25.00	25.83	103	73-135
Benzene	25.00	24.85	99	80-125
Trichloroethene	25.00	27.14	109	80-127
Toluene	25.00	23.90	96	80-126
Chlorobenzene	25.00	24.44	98	80-120

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	111	71-128
1,2-Dichloroethane-d4	115	69-135
Toluene-d8	94	80-120
Bromofluorobenzene	103	77-131

**Batch QC Report**

<b>Volatile Organics</b>			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC508884	Batch#:	154152
Matrix:	Soil	Analyzed:	08/24/09
Units:	ug/Kg		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
Freon 12	ND	10
tert-Butyl Alcohol (TBA)	ND	100
Chloromethane	ND	10
Isopropyl Ether (DIPE)	ND	5.0
Vinyl Chloride	ND	10
Bromomethane	ND	10
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
Chloroethane	ND	10
Methyl tert-Amyl Ether (TAME)	ND	5.0
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0

ND= Not Detected  
 RL= Reporting Limit

## Batch QC Report

Volatile Organics		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Type:	BLANK	Diln Fac: 1.000
Lab ID:	QC508884	Batch#: 154152
Matrix:	Soil	Analyzed: 08/24/09
Units:	ug/Kg	

Analyte	Result	RL
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	96	71-128
1,2-Dichloroethane-d4	86	69-135
Toluene-d8	95	80-120
Bromofluorobenzene	94	77-131

ND= Not Detected  
 RL= Reporting Limit

**Batch QC Report**

<b>Volatile Organics</b>		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Type:	LCS	Diln Fac: 1.000
Lab ID:	QC508885	Batch#: 154152
Matrix:	Soil	Analyzed: 08/24/09
Units:	ug/Kg	

<b>Analyte</b>	<b>Spiked</b>	<b>Result</b>	<b>%REC</b>	<b>Limits</b>
tert-Butyl Alcohol (TBA)	125.0	95.70	77	56-140
Isopropyl Ether (DIPE)	25.00	21.91	88	65-131
Ethyl tert-Butyl Ether (ETBE)	25.00	22.35	89	66-132
Methyl tert-Amyl Ether (TAME)	25.00	24.70	99	75-128
1,1-Dichloroethene	25.00	28.19	113	73-135
Benzene	25.00	26.44	106	80-125
Trichloroethene	25.00	25.75	103	80-127
Toluene	25.00	26.17	105	80-126
Chlorobenzene	25.00	22.45	90	80-120

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	94	71-128
1,2-Dichloroethane-d4	81	69-135
Toluene-d8	103	80-120
Bromofluorobenzene	90	77-131

**Batch QC Report**

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	DP-7@14FT	Batch#:	154151
MSS Lab ID:	214303-036	Sampled:	08/18/09
Matrix:	Soil	Received:	08/20/09
Units:	ug/Kg	Analyzed:	08/27/09
Basis:	as received		

Type: MS Diln Fac: 0.9709  
 Lab ID: QC508905

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	<19.49	242.7	232.0	96	42-139
Isopropyl Ether (DIPE)	<0.9747	48.54	38.78	80	49-130
Ethyl tert-Butyl Ether (ETBE)	<0.9747	48.54	45.24	93	52-130
Methyl tert-Amyl Ether (TAME)	<0.9747	48.54	45.47	94	58-126
1,1-Dichloroethene	<0.9747	48.54	53.81	111	58-145
Benzene	<0.9747	48.54	44.23	91	56-126
Trichloroethene	<0.9747	48.54	53.91	111	50-142
Toluene	<0.9747	48.54	42.87	88	52-125
Chlorobenzene	<0.9747	48.54	43.35	89	46-120

Surrogate	%REC	Limits
Dibromofluoromethane	111	71-128
1,2-Dichloroethane-d4	129	69-135
Toluene-d8	101	80-120
Bromofluorobenzene	99	77-131

Type: MSD Diln Fac: 0.9728  
 Lab ID: QC508906

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	243.2	228.3	94	42-139	2	36
Isopropyl Ether (DIPE)	48.64	41.02	84	49-130	5	27
Ethyl tert-Butyl Ether (ETBE)	48.64	42.79	88	52-130	6	26
Methyl tert-Amyl Ether (TAME)	48.64	46.45	95	58-126	2	25
1,1-Dichloroethene	48.64	50.34	104	58-145	7	28
Benzene	48.64	44.25	91	56-126	0	26
Trichloroethene	48.64	52.25	107	50-142	3	29
Toluene	48.64	42.62	88	52-125	1	29
Chlorobenzene	48.64	41.40	85	46-120	5	29

Surrogate	%REC	Limits
Dibromofluoromethane	105	71-128
1,2-Dichloroethane-d4	128	69-135
Toluene-d8	95	80-120
Bromofluorobenzene	101	77-131

RPD= Relative Percent Difference

**Batch QC Report**

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	DP-1@17FT	Batch#:	154152
MSS Lab ID:	214303-005	Sampled:	08/18/09
Matrix:	Soil	Received:	08/20/09
Units:	ug/Kg	Analyzed:	08/26/09
Basis:	as received		

Type: MS Diln Fac: 0.9452  
 Lab ID: QC508907

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	<19.61	236.3	153.7	65	42-139
Isopropyl Ether (DIPE)	<0.9804	47.26	29.92	63	49-130
Ethyl tert-Butyl Ether (ETBE)	<0.9804	47.26	30.55	65	52-130
Methyl tert-Amyl Ether (TAME)	<0.9804	47.26	36.75	78	58-126
1,1-Dichloroethene	<0.9762	47.26	46.35	98	58-145
Benzene	<0.9804	47.26	42.22	89	56-126
Trichloroethene	<0.9804	47.26	42.09	89	50-142
Toluene	<0.9804	47.26	41.39	88	52-125
Chlorobenzene	<0.9804	47.26	39.10	83	46-120

Surrogate	%REC	Limits
Dibromofluoromethane	92	71-128
1,2-Dichloroethane-d4	102	69-135
Toluene-d8	99	80-120
Bromofluorobenzene	102	77-131

Type: MSD Diln Fac: 0.9579  
 Lab ID: QC508908

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	239.5	156.9	66	42-139	1	36
Isopropyl Ether (DIPE)	47.89	31.99	67	49-130	5	27
Ethyl tert-Butyl Ether (ETBE)	47.89	32.99	69	52-130	6	26
Methyl tert-Amyl Ether (TAME)	47.89	37.67	79	58-126	1	25
1,1-Dichloroethene	47.89	48.59	101	58-145	3	28
Benzene	47.89	41.68	87	56-126	3	26
Trichloroethene	47.89	43.60	91	50-142	2	29
Toluene	47.89	42.55	89	52-125	1	29
Chlorobenzene	47.89	39.49	82	46-120	0	29

Surrogate	%REC	Limits
Dibromofluoromethane	90	71-128
1,2-Dichloroethane-d4	96	69-135
Toluene-d8	101	80-120
Bromofluorobenzene	97	77-131

RPD= Relative Percent Difference



**Batch QC Report**

<b>Volatile Organics</b>			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC509045	Batch#:	154190
Matrix:	Soil	Analyzed:	08/25/09
Units:	ug/Kg		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
Freon 12	ND	10
tert-Butyl Alcohol (TBA)	ND	100
Chloromethane	ND	10
Isopropyl Ether (DIPE)	ND	5.0
Vinyl Chloride	ND	10
Bromomethane	ND	10
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
Chloroethane	ND	10
Methyl tert-Amyl Ether (TAME)	ND	5.0
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0

ND= Not Detected  
 RL= Reporting Limit

## Batch QC Report

Volatile Organics		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Type:	BLANK	Diln Fac: 1.000
Lab ID:	QC509045	Batch#: 154190
Matrix:	Soil	Analyzed: 08/25/09
Units:	ug/Kg	

Analyte	Result	RL
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	105	71-128
1,2-Dichloroethane-d4	124	69-135
Toluene-d8	96	80-120
Bromofluorobenzene	113	77-131

ND= Not Detected  
 RL= Reporting Limit

**Batch QC Report**

<b>Volatile Organics</b>		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Type:	LCS	Diln Fac: 1.000
Lab ID:	QC509046	Batch#: 154190
Matrix:	Soil	Analyzed: 08/25/09
Units:	ug/Kg	

<b>Analyte</b>	<b>Spiked</b>	<b>Result</b>	<b>%REC</b>	<b>Limits</b>
tert-Butyl Alcohol (TBA)	125.0	145.3	116	56-140
Isopropyl Ether (DIPE)	25.00	25.56	102	65-131
Ethyl tert-Butyl Ether (ETBE)	25.00	27.47	110	66-132
Methyl tert-Amyl Ether (TAME)	25.00	29.25	117	75-128
1,1-Dichloroethene	25.00	28.61	114	73-135
Benzene	25.00	27.68	111	80-125
Trichloroethene	25.00	29.47	118	80-127
Toluene	25.00	24.76	99	80-126
Chlorobenzene	25.00	24.86	99	80-120

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	109	71-128
1,2-Dichloroethane-d4	117	69-135
Toluene-d8	97	80-120
Bromofluorobenzene	109	77-131

**Batch QC Report**

<b>Volatile Organics</b>			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC509047	Batch#:	154191
Matrix:	Soil	Analyzed:	08/25/09
Units:	ug/Kg		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
Freon 12	ND	10
tert-Butyl Alcohol (TBA)	ND	100
Chloromethane	ND	10
Isopropyl Ether (DIPE)	ND	5.0
Vinyl Chloride	ND	10
Bromomethane	ND	10
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
Chloroethane	ND	10
Methyl tert-Amyl Ether (TAME)	ND	5.0
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0

ND= Not Detected  
 RL= Reporting Limit

**Batch QC Report**

<b>Volatile Organics</b>		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Type:	BLANK	Diln Fac: 1.000
Lab ID:	QC509047	Batch#: 154191
Matrix:	Soil	Analyzed: 08/25/09
Units:	ug/Kg	

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	86	71-128
1,2-Dichloroethane-d4	92	69-135
Toluene-d8	101	80-120
Bromofluorobenzene	96	77-131

ND= Not Detected  
 RL= Reporting Limit

**Batch QC Report**

<b>Volatile Organics</b>		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Type:	LCS	Diln Fac: 1.000
Lab ID:	QC509048	Batch#: 154191
Matrix:	Soil	Analyzed: 08/25/09
Units:	ug/Kg	

<b>Analyte</b>	<b>Spiked</b>	<b>Result</b>	<b>%REC</b>	<b>Limits</b>
tert-Butyl Alcohol (TBA)	125.0	96.95	78	56-140
Isopropyl Ether (DIPE)	25.00	18.89	76	65-131
Ethyl tert-Butyl Ether (ETBE)	25.00	19.35	77	66-132
Methyl tert-Amyl Ether (TAME)	25.00	24.02	96	75-128
1,1-Dichloroethene	25.00	23.37	93	73-135
Benzene	25.00	25.48	102	80-125
Trichloroethene	25.00	24.35	97	80-127
Toluene	25.00	25.43	102	80-126
Chlorobenzene	25.00	25.27	101	80-120

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	88	71-128
1,2-Dichloroethane-d4	92	69-135
Toluene-d8	103	80-120
Bromofluorobenzene	100	77-131

**Batch QC Report**

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	154191
MSS Lab ID:	214336-003	Sampled:	08/20/09
Matrix:	Soil	Received:	08/21/09
Units:	ug/Kg	Analyzed:	08/25/09
Basis:	as received		

Type: MS Diln Fac: 0.8000  
 Lab ID: QC509182

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	<15.67	200.0	130.3	65	42-139
Isopropyl Ether (DIPE)	<0.7837	40.00	30.82	77	49-130
Ethyl tert-Butyl Ether (ETBE)	<0.7837	40.00	31.25	78	52-130
Methyl tert-Amyl Ether (TAME)	<0.7837	40.00	34.54	86	58-126
1,1-Dichloroethene	<0.7804	40.00	41.83	105	58-145
Benzene	<0.7837	40.00	38.42	96	56-126
Trichloroethene	<0.7837	40.00	38.42	96	50-142
Toluene	<0.7837	40.00	40.12	100	52-125
Chlorobenzene	<0.7837	40.00	41.31	103	46-120

Surrogate	%REC	Limits
Dibromofluoromethane	87	71-128
1,2-Dichloroethane-d4	79	69-135
Toluene-d8	97	80-120
Bromofluorobenzene	101	77-131

Type: MSD Diln Fac: 0.8197  
 Lab ID: QC509183

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	204.9	165.9	81	42-139	22	36
Isopropyl Ether (DIPE)	40.98	32.62	80	49-130	3	27
Ethyl tert-Butyl Ether (ETBE)	40.98	34.20	83	52-130	7	26
Methyl tert-Amyl Ether (TAME)	40.98	38.21	93	58-126	8	25
1,1-Dichloroethene	40.98	43.04	105	58-145	0	28
Benzene	40.98	40.39	99	56-126	3	26
Trichloroethene	40.98	40.97	100	50-142	4	29
Toluene	40.98	42.27	103	52-125	3	29
Chlorobenzene	40.98	41.32	101	46-120	2	29

Surrogate	%REC	Limits
Dibromofluoromethane	86	71-128
1,2-Dichloroethane-d4	81	69-135
Toluene-d8	94	80-120
Bromofluorobenzene	91	77-131

RPD= Relative Percent Difference

**Batch QC Report**

<b>Volatile Organics</b>			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC509279	Batch#:	154246
Matrix:	Soil	Analyzed:	08/26/09
Units:	ug/Kg		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
Freon 12	ND	10
tert-Butyl Alcohol (TBA)	ND	100
Chloromethane	ND	10
Isopropyl Ether (DIPE)	ND	5.0
Vinyl Chloride	ND	10
Bromomethane	ND	10
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
Chloroethane	ND	10
Methyl tert-Amyl Ether (TAME)	ND	5.0
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0

ND= Not Detected  
 RL= Reporting Limit



## Batch QC Report

Volatile Organics		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Type:	BLANK	Diln Fac: 1.000
Lab ID:	QC509279	Batch#: 154246
Matrix:	Soil	Analyzed: 08/26/09
Units:	ug/Kg	

Analyte	Result	RL
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	86	71-128
1,2-Dichloroethane-d4	103	69-135
Toluene-d8	103	80-120
Bromofluorobenzene	95	77-131

ND= Not Detected  
 RL= Reporting Limit

**Batch QC Report**

<b>Volatile Organics</b>		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Type:	LCS	Diln Fac: 1.000
Lab ID:	QC509280	Batch#: 154246
Matrix:	Soil	Analyzed: 08/26/09
Units:	ug/Kg	

<b>Analyte</b>	<b>Spiked</b>	<b>Result</b>	<b>%REC</b>	<b>Limits</b>
tert-Butyl Alcohol (TBA)	125.0	95.06	76	56-140
Isopropyl Ether (DIPE)	25.00	19.75	79	65-131
Ethyl tert-Butyl Ether (ETBE)	25.00	20.81	83	66-132
Methyl tert-Amyl Ether (TAME)	25.00	23.55	94	75-128
1,1-Dichloroethene	25.00	25.89	104	73-135
Benzene	25.00	25.36	101	80-125
Trichloroethene	25.00	24.51	98	80-127
Toluene	25.00	25.52	102	80-126
Chlorobenzene	25.00	25.44	102	80-120

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	90	71-128
1,2-Dichloroethane-d4	97	69-135
Toluene-d8	98	80-120
Bromofluorobenzene	99	77-131

**Batch QC Report**

<b>Volatile Organics</b>			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC509281	Batch#:	154246
Matrix:	Soil	Analyzed:	08/26/09
Units:	ug/Kg		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
Freon 12	ND	10
tert-Butyl Alcohol (TBA)	ND	100
Chloromethane	ND	10
Isopropyl Ether (DIPE)	ND	5.0
Vinyl Chloride	ND	10
Bromomethane	ND	10
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
Chloroethane	ND	10
Methyl tert-Amyl Ether (TAME)	ND	5.0
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0

ND= Not Detected  
 RL= Reporting Limit

**Batch QC Report**

<b>Volatile Organics</b>		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Type:	BLANK	Diln Fac: 1.000
Lab ID:	QC509281	Batch#: 154246
Matrix:	Soil	Analyzed: 08/26/09
Units:	ug/Kg	

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	85	71-128
1,2-Dichloroethane-d4	87	69-135
Toluene-d8	99	80-120
Bromofluorobenzene	101	77-131

ND= Not Detected  
 RL= Reporting Limit

**Batch QC Report**

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	154246
MSS Lab ID:	214411-004	Sampled:	08/25/09
Matrix:	Soil	Received:	08/25/09
Units:	ug/Kg	Analyzed:	08/27/09
Basis:	as received		

Type: MS Diln Fac: 0.9921  
 Lab ID: QC509398

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	<19.92	248.0	195.1	79	42-139
Isopropyl Ether (DIPE)	<0.9960	49.60	39.92	80	49-130
Ethyl tert-Butyl Ether (ETBE)	<0.9960	49.60	41.59	84	52-130
Methyl tert-Amyl Ether (TAME)	<0.9960	49.60	47.58	96	58-126
1,1-Dichloroethene	<0.9918	49.60	47.35	95	58-145
Benzene	<0.9960	49.60	46.25	93	56-126
Trichloroethene	<0.9960	49.60	45.39	92	50-142
Toluene	<0.9960	49.60	45.24	91	52-125
Chlorobenzene	<0.9960	49.60	42.23	85	46-120

Surrogate	%REC	Limits
Dibromofluoromethane	88	71-128
1,2-Dichloroethane-d4	83	69-135
Toluene-d8	96	80-120
Bromofluorobenzene	95	77-131

Type: MSD Diln Fac: 0.9980  
 Lab ID: QC509399

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	249.5	223.7	90	42-139	13	36
Isopropyl Ether (DIPE)	49.90	39.08	78	49-130	3	27
Ethyl tert-Butyl Ether (ETBE)	49.90	41.29	83	52-130	1	26
Methyl tert-Amyl Ether (TAME)	49.90	47.13	94	58-126	2	25
1,1-Dichloroethene	49.90	47.36	95	58-145	1	28
Benzene	49.90	44.80	90	56-126	4	26
Trichloroethene	49.90	43.58	87	50-142	5	29
Toluene	49.90	43.45	87	52-125	5	29
Chlorobenzene	49.90	40.41	81	46-120	5	29

Surrogate	%REC	Limits
Dibromofluoromethane	90	71-128
1,2-Dichloroethane-d4	86	69-135
Toluene-d8	97	80-120
Bromofluorobenzene	103	77-131

RPD= Relative Percent Difference

**Batch QC Report**

<b>Volatile Organics</b>			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC509471	Batch#:	154291
Matrix:	Soil	Analyzed:	08/27/09
Units:	ug/Kg		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
Freon 12	ND	10
tert-Butyl Alcohol (TBA)	ND	100
Chloromethane	ND	10
Isopropyl Ether (DIPE)	ND	5.0
Vinyl Chloride	ND	10
Bromomethane	ND	10
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
Chloroethane	ND	10
Methyl tert-Amyl Ether (TAME)	ND	5.0
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0

ND= Not Detected  
 RL= Reporting Limit

**Batch QC Report**

<b>Volatile Organics</b>		
Lab #:	214303	Location: 3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#:	2762	Analysis: EPA 8260B
Type:	BLANK	Diln Fac: 1.000
Lab ID:	QC509471	Batch#: 154291
Matrix:	Soil	Analyzed: 08/27/09
Units:	ug/Kg	

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	86	71-128
1,2-Dichloroethane-d4	104	69-135
Toluene-d8	103	80-120
Bromofluorobenzene	99	77-131

ND= Not Detected  
 RL= Reporting Limit

**Batch QC Report**

Volatile Organics			
Lab #:	214303	Location:	3519 Castro Valley Blvd, Castro Valle
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Matrix:	Soil	Batch#:	154291
Units:	ug/Kg	Analyzed:	08/27/09
Diln Fac:	1.000		

Type: BS Lab ID: QC509472

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	102.1	82	56-140
Isopropyl Ether (DIPE)	25.00	20.29	81	65-131
Ethyl tert-Butyl Ether (ETBE)	25.00	20.78	83	66-132
Methyl tert-Amyl Ether (TAME)	25.00	23.92	96	75-128
1,1-Dichloroethene	25.00	25.57	102	73-135
Benzene	25.00	25.95	104	80-125
Trichloroethene	25.00	25.09	100	80-127
Toluene	25.00	25.38	102	80-126
Chlorobenzene	25.00	25.58	102	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	89	71-128
1,2-Dichloroethane-d4	96	69-135
Toluene-d8	99	80-120
Bromofluorobenzene	97	77-131

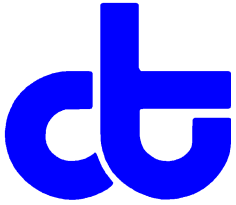
Type: BSD Lab ID: QC509473

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	110.7	89	56-140	8	26
Isopropyl Ether (DIPE)	25.00	20.50	82	65-131	1	20
Ethyl tert-Butyl Ether (ETBE)	25.00	21.42	86	66-132	3	20
Methyl tert-Amyl Ether (TAME)	25.00	24.55	98	75-128	3	20
1,1-Dichloroethene	25.00	25.60	102	73-135	0	20
Benzene	25.00	25.71	103	80-125	1	20
Trichloroethene	25.00	24.55	98	80-127	2	20
Toluene	25.00	25.98	104	80-126	2	20
Chlorobenzene	25.00	25.80	103	80-120	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	92	71-128
1,2-Dichloroethane-d4	98	69-135
Toluene-d8	98	80-120
Bromofluorobenzene	95	77-131

RPD= Relative Percent Difference





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

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

**Laboratory Job Number 215070  
ANALYTICAL REPORT**

SOMA Environmental Engineering Inc.  
6620 Owens Dr.  
Pleasanton, CA 94588

Project : 2762  
Location : Shakoori/CV  
Level : II

Sample ID  
SOMA-5

Lab ID  
215070-001

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: \_\_\_\_\_

Project Manager

Date: 09/24/2009

NELAP # 01107CA

### CASE NARRATIVE

Laboratory number: 215070  
Client: SOMA Environmental Engineering Inc.  
Project: 2762  
Location: Shakoori/CV  
Request Date: 09/22/09  
Samples Received: 09/21/09

This data package contains sample and QC results for one water sample, requested for the above referenced project on 09/22/09. The sample was received cold and intact.

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

High response was observed for isopropyl ether (DIPE) in the CCV analyzed 09/23/09 12:39; affected data was qualified with "b". High recoveries were observed for isopropyl ether (DIPE) in the BS/BSD for batch 155211; the associated RPD was within limits, and this analyte was not detected at or above the RL in the associated sample. High recoveries were observed for isopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), and tert-butyl alcohol (TBA) in the MS/MSD for batch 155211; the parent sample was not a project sample, and the associated RPDs were within limits. No other analytical problems were encountered.

# CHAIN OF CUSTODY

**Curtis & Tompkins, Ltd.**  
 Analytical Laboratory Since 1878  
 2323 Fifth Street  
 Berkeley, CA 94710  
 (510)486-0900 Phone  
 (510)486-0532 Fax

**Analyses**

C&T LOGIN # 215070

**Sampler:** Lizzie Hightower

**Project No:** 2762

**Report To:** Joyce Bobek

**Project Name:** 3519 Castro Valley Blvd., Castro Valley **Company:** SOMA Environmental

**Turnaround Time:** Standard 24hr **Telephone:** 925-734-6400

**Fax:** 925-734-6401

*Per Elenor requested 9/22/09*

Lab No.	Sample ID.	Sampling Date	Time	Matrix			# of Containers	Preservative						
				Soil	Water	Waste		HCL	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICE			
	SOMA-5	9/21/09	09:40	*			4-VOAs	*			*			

TPHg, BTEX, MtBE 8260B	Gasoline Oxygenates & Lead Scavengers	Ethanol												
*	*	*												

**Notes:** EDF OUTPUT REQUIRED  
 GASOLINE OXYGENATES: TBA, DIPE, ETBE, TAME  
 LEAD SCAVENGERS: 1,2-DCA, EDB

**RELINQUISHED BY:**  
*E. Anglit* 9/21/09 10:22  
 DATE/TIME

DATE/TIME

DATE/TIME

**RECEIVED BY:**  
*Pat Kargal* 9/21/09 10:22  
 DATE/TIME

DATE/TIME

DATE/TIME

COOLER RECEIPT CHECKLIST



Login # 215070 Date Received 9/21/09 Number of coolers 1
Client SOMIX Project 3519 CASTRO VALLEY BLVD.

Date Opened 9/21/09 By (print) M. VILLANUEVA (sign)
Date Logged in 9/22/09 By (print) T. Babier (sign)

1. Did cooler come with a shipping slip (airbill, etc) YES NO
Shipping info

2A. Were custody seals present? ... YES (circle) on cooler on samples NO
How many Name Date

2B. Were custody seals intact upon arrival? YES NO N/A

3. Were custody papers dry and intact when received? YES NO

4. Were custody papers filled out properly (ink, signed, etc)? YES NO

5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO

6. Indicate the packing in cooler: (if other, describe)

- Bubble Wrap, Foam blocks, Bags, None, Cloth material, Cardboard, Styrofoam, Paper towels

7. Temperature documentation:

Type of ice used: Wet Blue/Gel None Temp(C)

Samples Received on ice & cold without a temperature blank

Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES NO
If YES, what time were they transferred to freezer?

9. Did all bottles arrive unbroken/unopened? YES NO

10. Are samples in the appropriate containers for indicated tests? YES NO

11. Are sample labels present, in good condition and complete? YES NO

12. Do the sample labels agree with custody papers? YES NO

13. Was sufficient amount of sample sent for tests requested? YES NO

14. Are the samples appropriately preserved? YES NO N/A

15. Are bubbles > 6mm absent in VOA samples? YES NO N/A

16. Was the client contacted concerning this sample delivery? YES NO
If YES, Who was called? By Date:

COMMENTS

Multiple horizontal lines for handwritten comments.

Gasoline by GC/MS			
Lab #:	215070	Location:	Shakoori/CV
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	SOMA-5	Batch#:	155211
Lab ID:	215070-001	Sampled:	09/21/09
Matrix:	Water	Received:	09/21/09
Units:	ug/L	Analyzed:	09/23/09
Diln Fac:	20.00		

Analyte	Result	RL
Gasoline C7-C12	16,000	1,000
tert-Butyl Alcohol (TBA)	510	200
Isopropyl Ether (DIPE)	ND	10
Ethyl tert-Butyl Ether (ETBE)	ND	10
Methyl tert-Amyl Ether (TAME)	ND	10
Ethanol	ND	20,000
MTBE	120	10
1,2-Dichloroethane	ND	10
Benzene	1,300	10
Toluene	ND	10
1,2-Dibromoethane	ND	10
Ethylbenzene	420	10
m,p-Xylenes	2,000	10
o-Xylene	360	10

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	107	75-137
Toluene-d8	102	80-120
Bromofluorobenzene	106	80-123

ND= Not Detected  
 RL= Reporting Limit

**Batch QC Report**

<b>Gasoline by GC/MS</b>			
Lab #:	215070	Location:	Shakoori/CV
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC513262	Batch#:	155211
Matrix:	Water	Analyzed:	09/23/09
Units:	ug/L		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	102	80-120
1,2-Dichloroethane-d4	120	75-137
Toluene-d8	101	80-120
Bromofluorobenzene	109	80-123

ND= Not Detected  
 RL= Reporting Limit

**Batch QC Report**

Gasoline by GC/MS			
Lab #:	215070	Location:	Shakoori/CV
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	155211
Units:	ug/L	Analyzed:	09/23/09
Diln Fac:	1.000		

Type: BS Lab ID: QC513263

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	112.5	137.0	122	51-141
Isopropyl Ether (DIPE)	22.50	32.69 b	145 *	65-130
Ethyl tert-Butyl Ether (ETBE)	22.50	27.06	120	74-126
Methyl tert-Amyl Ether (TAME)	22.50	23.50	104	80-120
MTBE	22.50	24.33	108	70-120
1,2-Dichloroethane	22.50	27.08	120	70-137
Benzene	22.50	23.68	105	80-120
Toluene	22.50	23.13	103	80-120
1,2-Dibromoethane	22.50	23.86	106	80-120
Ethylbenzene	22.50	23.90	106	80-122
m,p-Xylenes	45.00	49.09	109	80-123
o-Xylene	22.50	24.32	108	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-120
1,2-Dichloroethane-d4	110	75-137
Toluene-d8	101	80-120
Bromofluorobenzene	104	80-123

Type: BSD Lab ID: QC513264

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	112.5	146.0	130	51-141	6	20
Isopropyl Ether (DIPE)	22.50	31.78 b	141 *	65-130	3	20
Ethyl tert-Butyl Ether (ETBE)	22.50	25.99	116	74-126	4	20
Methyl tert-Amyl Ether (TAME)	22.50	22.91	102	80-120	3	20
MTBE	22.50	23.32	104	70-120	4	20
1,2-Dichloroethane	22.50	26.37	117	70-137	3	20
Benzene	22.50	22.93	102	80-120	3	20
Toluene	22.50	23.02	102	80-120	0	20
1,2-Dibromoethane	22.50	24.43	109	80-120	2	20
Ethylbenzene	22.50	23.24	103	80-122	3	20
m,p-Xylenes	45.00	47.98	107	80-123	2	20
o-Xylene	22.50	24.14	107	80-120	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-120
1,2-Dichloroethane-d4	109	75-137
Toluene-d8	102	80-120
Bromofluorobenzene	104	80-123

\*= Value outside of QC limits; see narrative

b= See narrative

RPD= Relative Percent Difference





**Batch QC Report**

Gasoline by GC/MS			
Lab #:	215070	Location:	Shakoori/CV
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2762	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	155211
MSS Lab ID:	215038-005	Sampled:	09/16/09
Matrix:	Water	Received:	09/17/09
Units:	ug/L	Analyzed:	09/23/09
Diln Fac:	1.000		

Type: MS Lab ID: QC513307

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	<2.000	100.0	136.5	136 *	61-131
Isopropyl Ether (DIPE)	<0.1000	20.00	30.67 b	153 *	74-125
Ethyl tert-Butyl Ether (ETBE)	<0.1000	20.00	25.20	126 *	80-124
Methyl tert-Amyl Ether (TAME)	<0.1000	20.00	21.86	109	80-120
MTBE	<0.1000	20.00	22.30	111	73-120
1,2-Dichloroethane	<0.1217	20.00	25.78	129	79-135
Benzene	<0.1000	20.00	23.28	116	80-122
Toluene	<0.1000	20.00	22.42	112	80-122
1,2-Dibromoethane	<0.1024	20.00	22.50	113	80-120
Ethylbenzene	<0.1525	20.00	23.21	116	80-122
m,p-Xylenes	<0.1000	40.00	48.30	121	80-122
o-Xylene	<0.1000	20.00	23.44	117	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-120
1,2-Dichloroethane-d4	111	75-137
Toluene-d8	101	80-120
Bromofluorobenzene	104	80-123

Type: MSD Lab ID: QC513308

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	100.0	132.2	132 *	61-131	3	20
Isopropyl Ether (DIPE)	20.00	28.95 b	145 *	74-125	6	20
Ethyl tert-Butyl Ether (ETBE)	20.00	23.23	116	80-124	8	20
Methyl tert-Amyl Ether (TAME)	20.00	20.71	104	80-120	5	20
MTBE	20.00	20.71	104	73-120	7	20
1,2-Dichloroethane	20.00	24.50	122	79-135	5	20
Benzene	20.00	21.46	107	80-122	8	20
Toluene	20.00	21.02	105	80-122	6	20
1,2-Dibromoethane	20.00	21.75	109	80-120	3	20
Ethylbenzene	20.00	21.30	107	80-122	9	20
m,p-Xylenes	40.00	43.96	110	80-122	9	20
o-Xylene	20.00	21.95	110	80-120	7	20

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-120
1,2-Dichloroethane-d4	112	75-137
Toluene-d8	102	80-120
Bromofluorobenzene	105	80-123

\*= Value outside of QC limits; see narrative

b= See narrative

RPD= Relative Percent Difference

