LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT MACARTHUR BART TRANSIT STATION OAKLAND, CALIFORNIA

PREPARED FOR:
City of Oakland Public Works Agency
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July 20, 2005
Project No. 400834018

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Mr. Gopal Nair
City of Oakland Public Works Agency
250 Frank H. Ogawa Plaza, Suite 5301
Oakland, California 94612

Subject: Limited Phase II Environmental Site Assessment
MacArthur BART Transit Station, Oakland, California.

Dear Mr. Nair:

At your request, we have prepared this Revised Limited Phase II Environmental Site Assessment (ESA) report for the MacArthur BART Transit Station, located between 40th Street, Telegraph Avenue, MacArthur Boulevard, and the MacArthur BART Station, in Oakland, California. The purpose of our Revised Limited Phase II ESA was to characterize, if such conditions exist on site, impacted subsurface soil and/or groundwater.

We appreciate the opportunity to be of service to the City of Oakland on this project. Should you have any questions or comments regarding our report, please contact us.

Sincerely,
NINYO & MOORE

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1. INTRODUCTION AND SITE BACKGROUND

The City of Oakland Public Works Department, in Alameda County, California, has proposed to redevelop the property within the vicinity of the MacArthur BART Transit Station in Oakland, California (site) (Figure 1). The project boundaries include 40th Street to the north, Telegraph Avenue to the east, MacArthur Boulevard to the south, and the MacArthur BART Station to the west. The proposed site use is a multilevel parking garage and residential/commercial development. The site is currently occupied by commercial and residential property on 40th Street, Telegraph Avenue, and MacArthur Boulevard and a ground-level BART asphalt parking lot.

The Limited Phase II Environmental Site Assessment (ESA) was conducted in two sampling events. The initial sampling event consisted of soil and groundwater sample collection between February 25 and 27, 2005. The second sampling event included a geophysical survey conducted on June 4, 2005, and collection of soil, soil gas, and groundwater samples between June 4 and 5, 2005, and June 10, 2005. A scope of work for the initial sampling event was provided in a proposal prepared by Ninyo & Moore in November 2004, and a revised proposal prepared by Ninyo & Moore in February 2005. A scope of work for a geophysical survey and the second sampling event was provided to the City of Oakland (City) by Ninyo & Moore in a proposal, dated May 20, 2005. The geophysical survey was performed to locate potential underground storage tanks (USTs). The initial scope of services was based on site documents provided by the City, including a Phase I ESA for the site prepared by SCI in July 2002 (SCI, 2002) and a Contamination Investigation Report for the East Bay Surgery Center, located at 3875 Telegraph Avenue, prepared by Terracon in September 2001 (Terracon, 2001). The second scope of work was based on analytical data evaluated from soil and groundwater samples collected during the first sampling event (February 25-27, 2005).

Previous site occupants included a dry cleaner, formerly located at 3915 Telegraph Avenue, gasoline stations, formerly located at 3801 and 3875 Telegraph Avenue, and an automobile repair facility and dry cleaners with benzene room, formerly located at 521-523 and 524 40th Street (Figure 2). Another gasoline station was formerly located at 500 40th Street, the northwest corner of 40th Street and Telegraph Avenue. Results of the contamination report prepared by Terracon

for 3875 Telegraph Avenue indicate that petroleum hydrocarbon impacted soil and groundwater exist on the property. This property is directly upgradient of the MacArthur BART Station parking lot. Other than the former automobile repair facility and dry cleaners, the present parking lot area was historically occupied by a residential development. An auto detailing shop is currently located at 3901 Telegraph Avenue.

The site vicinity consists of Holocene-aged alluvium with unconsolidated deposits of gravel, sand, silts, and clays. Depth to groundwater on site was generally measured between three to 12 feet below ground surface (bgs) in borings located in the BART parking lot, MacArthur Boulevard, and 40th Streets, and between 11 and 17 feet bgs in borings located on Telegraph Avenue. Groundwater flow direction was reported as north/northwest in the SCI report; however, the Terracon report indicated groundwater flow direction was toward the west/southwest. The Terracon report also indicated that groundwater was encountered at depths ranging from 17 to 22 feet bgs during their Phase II evaluation.

2. SITE VICINITY BACKGROUND

Several environmental reports were prepared for adjacent properties where soil and groundwater contamination existed due to leaking underground storage tanks (LUSTs). The following section will discuss individual reports for those adjacent properties.

2.1. ENVIRONMENTAL REPORTS FOR ADJACENT PROPERTIES

Three environmental reports were prepared by Terracon, Cambria Environmental Technologies, Inc., (Cambria) and Gribi Associates (Gribi) to evaluate the environmental conditions of adjacent properties. A *Combination Investigation, East Bay Surgery Center, 3875 Telegraph Avenue, Oakland, California* was prepared by Terracon in September, 2001 (Terracon 2001). Additionally, a *Fourth Quarter 2004 Monitoring Report, Former Shell Service Station, 500 40th Street, Oakland, California,* was prepared by Cambria in February 2005 (Cambria, 2005) and a *Report of Phase II Environmental Site Assessment, The Surgery Center, 3875 Telegraph Avenue, Oakland, California,* was prepared by Gribi in February 2005

(Gribi, 2005). These environmental documents were reviewed to evaluate the potential for groundwater contamination migrating to the site. Copies of text, tables, and figures from both reports are provided in Appendix A.

The Terracon report discussed field activities and results of a subsurface investigation conducted at the Surgery Center (3875 Telegraph) in August 2001. The investigation indicated that elevated concentrations of impacted soil was reported in various samples collected on site including benzene at 420 micrograms per kilograms (µg/kg) at boring B-1, ethylbenzene at 9,600 µg/kg (B-2), naphthalene at 4,200 µg/kg (B-2), and o-xylene and m,p-xylene at 2,500 µg/kg and a 14,000 µg/kg (B-1). Elevated concentrations of impacted grab groundwater samples were also reported including benzene at 11,000 micrograms per liter (µg/L) (B-1), ethylbenzene at 2,600 µg/L (B-1), toluene at 760 µg/L (B-1) and o-xylene and m,p-xylene at 2,200 µg/L, and 7,100 µg/L (B-1). No figure was supplied with the report.

The Cambria report discussed groundwater samples collected in April 2004, in the vicinity of the former Shell Station, which was historically located at 500 40th Street, on the northwest corner of Telegraph Avenue and 40th Street. Two groundwater monitoring wells (OMW-9 and OMW-10) (Figure 2) are located near the southwest corner of Telegraph Avenue and 40th Street and were installed to monitor the migration of petroleum hydrocarbon constituents in the groundwater relating to the former Shell Station. Cambria reported groundwater samples collected from borings OMW-9 and OMW-10 in April 2004, with total petroleum hydrocarbons as gasoline (TPH-G) concentrations of 470 µg/L and 120 µg/L, total petroleum hydrocarbons as diesel (TPH-D) at 470 µg/L (OMW-9 only), benzene at 6.1 µg/L and 0.68 µg/L, ethylbenzene at 21 µg/L (OMW-9 only) and total xylenes at 1.2 µg/L (OMW-9 only). Two other groundwater monitoring wells, OMW-11 and OMW-13 (Figure 2) were located approximately 300 feet west of the Telegraph Avenue/40th Street intersection. Benzene, ethylbenzene, or MTBE were not reported above laboratory reporting limits in well OMW-11 during the same sampling event. Benzene was reported in well OMW-13 at 3.3 µg/L; while MTBE was not reported above laboratory reporting limits in well OMW-13.

According to a *Well Destruction Report,* prepared by Cambria in January 2005 (Cambria, 2005) OMW-11 was destroyed in November 2004.

The Phase II report for the Surgery Center (3875 Telegraph Avenue) discussed soil and groundwater samples collected at 3875 Telegraph Avenue in January 2005. Soil and groundwater samples were collected from five boring locations, three (borings GB-1, GB-2, and GB-3) (Figure 2) located in the eastern section of the MacArthur BART parking lot and two (borings GB-4 and GB-5) (Figure 2) located in the Surgery Center parking lot. These borings are actually identified as borings B-1 through B-5 in the Gribi report, but we changed the boring identification to avoid confusion with Ninyo & Moore borings B-1 through B-5. Gribi reported elevated concentrations of TPH-G in groundwater samples collected from borings GB-1 (240 µg/L), GB-2 (14,000 µg/L), GB-3 (80,000 µg/L), GB-4 (140,000 µg/L), and GB-5 (130,000 µg/L). Benzene was also reported in the groundwater samples collected from borings GB-2 through GB-4 at concentrations ranging from 220 µg/L in GB-2 to 21,000 µg/L in GB-4 Ethylbenzene ws reported in borings GB-1 through GB-5, ranging from 0.91 µg/L in GB-1 to 8,500 µg/L in GB-4. MTBE was reported in groundwater samples collected from borings GB-2 (34 µg/L) and GB-5 (390 µg/L).

3. LIMITED PHASE II ESA SCOPE OF SERVICES

Ninyo & Moore's Scope of Services for Phase II ESA activities included a utility clearance, the installation of 36 soil and/or groundwater borings, 15 soil gas borings within the site boundaries (Figure 2), and the chemical analysis of soil and groundwater samples collected from the borings. A geophysical survey was also conducted on a portion of the eastern section of the BART parking lot.

4. SUBSURFACE EVALUATION

A Limited Phase II ESA was conducted between February 25 -27, June 4-5, and June 10, 2005, to evaluate potential subsurface soil, soil gas, groundwater contamination, and subsurface structures on site. Prior to the commencement of sampling activities, locations of soil and

groundwater sample borings were marked in the field in preparation of a utility clearance: Underground Service Alert contacted utility companies to conduct a utility clearance for the site. A private utility locating service also conducted a subsurface search for underground utilities.

4.1. SOIL BORING INSTALLATION

Sampling and analysis activities were performed in accordance with the proposal prepared by Ninyo & Moore in November 2004, and a revised proposal prepared in February 2005. A proposal for a geophysical survey and additional sampling was provided to the City on May 20, 2005. Thirty-three borings (B-1-through B-33) (Figure 2) were installed between February 25 and 27, 2005, using direct push technology, supplied by Resonant Sonic of Woodland, California. Soil and groundwater samples were collected in 27 of the borings (borings B-1, B-3 through B-6, B-8 through B-10, B-12, B-13, B-15 through B-18, B-20 through B-22, B-24 through B-26, and B-28 through B-33), and soil only samples were collected in the remaining six borings (B-2, B-7, B-14, B19, B-23, and B-27) (Figure 2). A groundwater sample was to be collected at boring B-2; however, dry boring conditions prohibited sample collection. Prior to sampling activities, concrete coring was conducted at borings B1, B-2, B-6, and B-8. A second proposal, dated May 20, 2005, was prepared to describe the additional sampling event conducted in June 2005. Soil and groundwater samples were collected from borings B-11, B-16A, and B-16B on June 4, 2005, and soil gas samples were collected at borings SG-1 through SG-15 on June 4-5 and June 10, 2005.

Sampling activities included hand augering the first 4 to 5-feet in depth in borings and using a direct push rig for the remaining depths in each boring. Soil samples were collected from borings located on 40th Street, Telegraph Avenue, and MacArthur Boulevard from depths of 5 and 10 feet below ground surface (bgs) and the soil/groundwater interface, and inside the BART parking lot at 2 and 5 feet bgs and at the soil/groundwater interface. Soil samples were not collected below the groundwater table if groundwater was encountered.

Soil samples were collected in either acetate sleeves or brass tubes. Acetate sleeves were used to collect samples during direct push sampling and brass tubes were used to collect

samples during hand augering. Select soil samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-G), diesel (TPH-D) and motor oil (TPH-MO) using EPA Method 8015M, volatile organic compounds (VOCs) including benzene, toluene, ethylbenzene and total xylenes (BTEX) and methyl tert-butyl ether (MTBE) using EPA Method 8260B, polynuclear aromatic hydrocarbons (PAHs) using EPA Method 8270-SIM, and metals (CAM 17, LUFT 5 and total lead and arsenic) using EPA Method 6010B. Table 1 includes a description of sample locations and analysis performed.

Subsequent to soil sample collection, the samples were sealed with Teflon tape and plastic caps. The samples were then labeled with the project name, location, boring number, sample depth, sampling date/time, and sampler's initials. The samples were placed into plastic baggies and stored in an insulated cooler containing ice.

One soil sample was retained for chemical analysis and an additional soil sample was retained for field screening each soil sample interval. Recovered samples were described in boring logs in general conformance with the Unified Soil Classification System (Appendix A). A field geologist, under the direction of a State of California Registered Geologist, coordinated soil sampling activities.

Field screening was performed with a PID meter to evaluate the presence and relative concentration of organic vapors in the retained samples. To initiate the headspace testing procedure, soil samples were removed from the acetate sample tubes, placed into labeled zip-lock type plastic baggies. After sufficient time had elapsed for vapor build-up, the baggies were penetrated by the probe tip of the PID meter to allow measurement of organic vapors. Quantitative measurements of the field screening were obtained in the parts per million (ppm) ranges for organic vapors. The results of the field screening tests were recorded on the boring logs and were used to evaluate soil sample intervals to be submitted for laboratory analysis.

The breathing air space in the vicinity of the boring installation was also monitored with a PID meter during drilling activities to detect vapors potentially exceeding personal exposure limits (PELs) for worker safety.

Soil sampling equipment was cleaned between sampling intervals with an Alconox and water solution, followed by a rinse using tap water and deionized water. Rinsate water and soil cuttings generated during direct push drilling rig activity were placed into a 55-gallon drum for temporary storage at the site.

Grab groundwater samples were collected at a depth where groundwater was first encountered. Container breakage occurred for groundwater samples collected from boring B-1, B-20 and B-26. Therefore, TPH-G, TPH-D and TPH-MO analysis could not be conducted for samples collected from boring B-1 (GW-1), VOC analysis could not be conducted for samples collected from borings B-26 (GW-26), and TPH-G analysis could not be conducted for samples collected from boring B-20 (GW-20).

Grab groundwater samples were collected using bottom discharging disposable Teflon bailers from the borings subsequent to soil sample collection. A new bailer was used at each boring. Upon completion of sampling, the borings were backfilled to grade by grouting with neat cement, as required by the Alameda County Department of Public Works.

Duplicate soil and groundwater samples, equipment rinsate blank samples, and trip blanks were also collected and were analyzed for field and sample transport quality control. Duplicate soil samples were collected below the primary soil samples in each boring. Duplicate groundwater samples were collected immediately after the primary groundwater samples were collected. Equipment blank samples were collected by pouring distilled water over the Geoprobe sampling equipment directly into the appropriate sample containers. All samples were placed in zip-lock baggies and stored in a cooler with ice.

Samples were transferred to Curtis & Tompkins, Ltd. (C&T), a California state-certified analytical laboratory, located in Berkeley, California, with completed Chain of Custody (COC) documentation.

Soil gas samples were collected from 15 boring locations inside the MacArthur BART parking lot at approximately 6 feet bgs. A Geoprobe rod was hydraulically pushed to the target vapor sampling depth and the drill rod raised approximately 6 inches. Hydrated bentonite was placed around the drill rod to inhibit surface air migration down the outer portion of the drill rod. The contents of an office duster canister, which included the compound 1,1,1,2-tetrafluorethane, was sprayed on the bentonite seal to track the potential of a leak. A fitting was then connected to the top of each purge and sample summa canister and a 100 to 200 milliliter/minute flow regulator with a particulate filter was connected to the downhole side of the fitting. The connections were vacuum tested between the summa canisters and the valve on the downhole side of the regulator for 10 minutes by opening and closing the purge canister valve to place a test vacuum on the assembly.

Approximately 300 milliliters of soil gas was purged from each soil gas boring using a syringe. Subsequent to purging, the sample canister valve was opened to begin sample collection and the time sample collection started was recorded. The sample canister valve was closed when the sample canister gauge indicated approximately 5 inches Hg or less of vacuum remained in the canister. The time that the sample collection was terminated was recorded, and the sample was labeled and recorded on the chain of custody with the sample name, final vacuum, and the canister and flow controller serial numbers. The samples were stored in a container in a shaded area. The drilling rod and sampling apparatus were removed and the borings were backfilled with Portland cement.

5. SUBSURFACE CONDITIONS

Soil boring depths ranged from 5.5 feet bgs in boring B-15 to 24 feet bgs in boring B-2. Subsurface conditions observed from soil samples collected on site generally consisted of sandy gravel (fill) near the surface to 1.5 feet to 2 feet bgs, underlain by brown silty and sandy clay to the bottom of each boring. Six-inch to one-foot thick sand and/or gravely sand lenses were observed in the subsurface between 6 feet and 7 feet bgs in several borings.

Groundwater was encountered between 3 feet and 6 feet bgs in boring B-1, B-8, B-18, B-20, B-22, and B-24 through B-30, between 7 feet to 10 feet bgs in borings B-14, through B-19, B-21, B-23, and B-31; between 11 feet to 13 feet bgs in borings B-4, B-5, B-6, B-32, and B-33; between14 feet to 17 feet bgs in boring B-3, B-9, B-10, B-12, and B-13. Groundwater was not encountered in borings B-2 and B-7.

Further soil characteristic descriptions are described in the boring logs presented in Appendix A.

6. SAMPLE ANALYTICAL RESULTS

A summary of sample laboratory analytical data for primary, duplicate, and QC samples is discussed below. A copy of the analytical reports prepared by C & T is presented on a CD in Appendix B. Tables 2 through 8 provide analytical sample results.

6.1. SOIL SAMPLE ANALYTICAL RESULTS

Select soil samples were analyzed for TPH-G, TPH-D, TPH-MO, VOCs, PAHs, and Metals (Table 1). Regional Water Quality Control Board (RWQCB) Residential Environmental Screening Levels (ESLs) for Shallow Soil Samples (≤3 meters), collected where groundwater is a current or potential source of drinking water, and US Environmental Protection Agency Preliminary Remedial Goals for residential use (PRGs) were used to compare to soil sample analytical data results. A summary of laboratory analytical results follows. Please note in the discussion that follows that sample numbers contain sample collection depths information. The sample number, for example SB1-5, includes the boring number and depth (feet bgs) of sample collected.

6.1.1. TOTAL PETROLEUM HYDROCARBONS AS GASOLINE, DIESEL AND MOTOR OIL

ESLs were used to compare to analytical laboratory results for total petroleum hydrocarbons. PRGs were not listed for TPH-G, TPH-D and TPH-MO and therefore not used for comparison.

TPH-G ESLs of 100 milligrams per kilogram (mg/kg) were exceeded in soil samples collected from several borings on site. TPH-G was reported exceeding the ESL in four of 43 soil samples ranging from 300 to 2,700 mg/kg in samples SB21-5 and SB16-5, respectively. TPH-G was also reported in several soil samples above laboratory reporting limits but below the ESL, ranging from 1.2 mg/kg in sample SB23-2 to 75 mg/kg in sample SB33-14.5 (Table 2).

TPH-D concentrations were reported exceeding the ESL of 100 mg/kg in 7 of 64 soil samples analyzed, ranging from 110 mg/kg in sample SB1-4 to 670 mg/kg in sample SB32-2. TPH-D was also reported in several soil samples above laboratory reporting limits but below the ESL, ranging from 1.0 mg/kg in sample SB4-10 to 93 mg/kg in sample SB29-4 (Table 2).

TPH-MO concentrations were reported exceeding the ESL of 500 mg/kg in 1 of 58 soil samples at a concentration of 2,300 mg/kg in sample SB32-2. TPH-MO was also reported in several soil samples above laboratory reporting limits but below the ESL, ranging from 5.3 mg/kg in sample SB5-17 to 470 mg/kg in sample SB25-5 (Table 2).

6.1.2. BTEX AND VOLATILE ORGANIC COMPOUNDS (VOCS)

Benzene, toluene, ethylbenzene, and total xylenes were reported above ESLs of 23 µg/kg, 44 µg/kg, 2,900 µg/kg, and 2,300 µg/kg, respectively, in soil sample SB16-5. Benzene was also reported above the PRG of 640 µg/kg. Concentrations of benzene, toluene, ethylbenzene, and total xylenes were reported at concentrations of 5,700 µg/kg, 26,000 µg/kg, 49,000 µg/kg, and 150,000 µg/kg, respectively, in the sample. Total xylenes were also reported above ESLs in sample SB29-4 at 5,700 µg/kg (Table 2). No other soil samples were reported above BTEX for ESLs or PRGs.

No VOCs other than the BTEX compounds listed above were reported above ESLs or PRGs. VOCs reported above laboratory reporting limits, but below ESLs and PRGs included acetone up to 44 µg/kg in sample SB33-5, methylene chloride, up to 61 µg/kg in sample SB12-5, trichlorofluoromethane in sample SB9-5 (10 µg/kg), 2-butanone up to

13 µg/kg in sample SB33-5, Freon 12 in sample SB9-5 (60 µg/kg), tetrachloroethene (PCE) in sample SB30-2 (5.9 µg/kg), m,p-xylenes in sample SB33-14.5 (410 µg/kg), propylbenzene in sample SB33-5 (6.8 µg/kg) and sec-butylbenzene in samples SB29-2 and SB33-14.5 (1,700 µg/kg and 330 µg/kg, respectively (Table 3).

6.1.3. METALS

Arsenic concentrations were reported above the ESL of 5.5 mg/kg in 19 of 45 soil samples. All samples analyzed were reported above the arsenic PRG of 0.39 mg/kg. Arsenic concentrations ranged between 1.6 mg/kg in sample SB7-5 and SB29-5DUP to 25 mg/kg in sample SB15-2 (Table 4, Figure 3). Arsenic concentrations were reported above 10 mg/kg in two other samples, SB14-2 at 11 mg/kg and SB32-2 at 16 mg/kg.

Total lead was not reported above the ESL or PRG of 150 mg/kg in any of the collected samples analyzed. Total lead was reported above laboratory reporting limits in all samples, ranging from 2.5 mg/kg in sample SB6-10 to 41 mg/kg in sample SB1-4 (Table 4, Figure 3).

LUFT 5 and CAM 17 Metals were reported below their respective ESLs except for one sample, SB19-5, where cobalt (ESL of 10 mg/kg) was reported from CAM 17 analysis at 10 mg/kg. No LUFT 5 or CAM 17 Metals were reported above PRGs. LUFT 5 metals reported above laboratory reporting limits in samples collected on site included cadmium, ranging from 0.18 mg/kg in sample SB7-5 to 0.79 mg/kg in sample SB19-5, total chromium ranging from 8.7 mg/kg in sample SB15-2 to 57 mg/kg in sample SB22-5, nickel ranging from 11 mg/kg in sample SB33-10 to 99 mg/kg in sample SB13-5, and zinc ranging from 16 mg/kg in sample SB33-10 to 110 mg/kg in SB1-4. Maximum concentrations of the remaining metals analyzed included barium at 170 mg/kg in SB13-5 and SB19-5, beryllium at 0.80 mg/kg from sample SB13-2, copper at 26 mg/kg from sample SB19-5, mercury at 0.46 mg/kg from sample SB19-2, molybdenum at 1.9 mg/kg from sample SB29-2, selenium at 0.64 mg/kg, and vanadium at 40 mg/kg from sample

SB19-5. Antimony, thallium and vanadium were not reported above laboratory reporting limits.

6.1.4. PAHs

No PAHs were reported above ESLs or PRGs in samples analyzed. Several PAHs were reported above laboratory reporting limits in samples SB1-4 and SB5-5, including phenanthrene (5.6 µg/kg and 6.2 µg/kg), fluoranthene (5.5 µg/kg and 6.8 µg/kg), pyrene (6.2 µg/kg and 11µg/kg), benzo(b)fluoranthene (6.0 µg/kg and 10 µg/kg), and benzo(a)pyrene (6.5 µg/kg and 17 µg/kg). Benz(a)anthracene, chrysene, benzo(k)fluoranthene and benzo(g,h,i)perylene were also reported in sample SB5-5 at 12 µg/kg, 18 µg/kg, 11 µg/kg and 5.8 µg/kg. Chrysene was also reported in sample SB24-5 at 8.0 µg/kg (Table 5).

6.2. GROUNDWATER SAMPLE ANALYTICAL RESULTS

Select groundwater samples were analyzed for TPH-G, TPH-D, TPH-MO, VOCs, and Metals (Table 1). TPH-G, TPH-D, TPH-MO, VOCs and Metals groundwater sample analytical results were compared to ESLs. VOCs and Metals were also compared to California Department of Health Services (CDHS) Maximum Contaminant Levels (MCLs). A summary of laboratory analytical results follows.

6.2.1. TOTAL PETROLEUM HYDROCARBONS AS GASOLINE, DIESEL AND MOTOR OIL

TPH-G was reported above the ESL of 100 µg/L in 22 of 25 groundwater samples analyzed. Concentrations reported above the ESL ranged from 170 µg/L in sample GW-28 to 280,000 µg/L in sample GW-16 (Table 6, Figure 4).

TPH-D was reported above the ESL of 100 µg/L in 22 of 24 samples analyzed. Concentrations reported above the ESL ranged from 160 µg/L in sample GW-28 to 530,000 µg/L in sample GW-4. (Table 6, Figure 5).

TPH-MO was reported above the ESL of 100 µg/L in seven of 24 samples analyzed. The laboratory reporting limits (RL) for TPH-MO were predominantly 300 µg/L except in groundwater sample GW-16, where the RL was 15,000 µg/L. Concentrations reported above the ESL ranged from 310 µg/L in sample GW-29Dup (duplicate sample) to 39,000 µg/L in sample GW-4. (Table 6).

6.2.2. BTEX AND VOCS

Benzene was reported above the ESL and MCL of 1.0 µg/L in four of the six groundwater samples analyzed using EPA Method 8021. Benzene concentrations ranged from 9.8 µg/L in sample GW-15 to 560 µg/L in sample W-16B (Table 6). Benzene was also reported above the ESL and MCL in 7 of 25 samples analyzed, using EPA Method 8260B, ranging from 11 µg/L in sample GW-6 to 47,000 µg/L in sample GW-16 (Table 7).

Toluene was reported above the ESL of 40 µg/L in three of the six samples analyzed using EPA Method 8021. Toluene concentrations ranged from 25 µg/L in sample W16A to 71 µg/L in sample W16B (Table 6). Toluene was also reported above the ESL (analyzed using EPA Method 8260B) in samples GW-5 (78 µg/L) and sample GW-16 (48,000 µg/L) (Table 7). The MCL for toluene is 150µg/L.

Ethylbenzene was reported above the ESL of 30 µg/L in six samples collected using EPA Method 8021. Ethylbenzene concentrations ranged from 50 µg/L in sample GW-15 to 2,700 µg/L in sample W-11 (Table 6). Ethylbenzene was also reported above the ESL in samples analyzed using EPA Method 8260B at concentrations ranging from 40 µg/L in sample GS-20 and GW-21 to 6,500 in GW-16 (Tables 7). The MCL for ethylbenzene is 300 µg/L.

Total xylenes (m, p and o xylenes) were reported above the total xylene ESL of 20 µg/L using EPA Method 8021 in sample GW-15 (160 µg/L) (Table 6). Total xylenes were also reported above the total xylene ESL in samples analyzed using EPA Method 8260B at concentrations ranging from 33 µg/L in sample GW-21 to 25,000 µg/L in sample GW-16. The MCL for total xylenes is 1,750 µg/L. Total xylene concentrations were rep-

resented by m, p-xylenes for 8260B results because the concentrations were consistently higher than o-xylenes (Table 7).

Groundwater samples analyzed for MTBE were not reported above its ESL of 5.0 µg/L or MCL (13 µg/L) (Tables 6 and 7).

Additional VOCs exceeding their respective MCLs and/or ESLs were reported in groundwater samples analyzed using EPA Method 8260B. These VOCs include naphthalene which exceeded its ESL of 17 µg/L in 7 out of 25 samples analyzed, ranging in concentration from 22 µg/L in sample GW-21, to 210 µg/L in sample GW-5. No MCL is published for naphthalene. PCE was also reported exceeding its MCL and ESL of 5.0 µg/L in 3 out of 25 samples analyzed including 79 µg/L in samples GW-30 and GW-31, and 46 µg/L in sample GW-28. TCE and 1,2-DCE were also reported exceeding their respective MCL and ESL of 6.0 µg/L in the sample collected from GW-28 at concentrations of 35 µg/L and 51 µg/L respectively. Sample GW-24 also contained a reported 1,2-DCE concentration of 8.6 1,2-DCE. These three VOCs were not detected above laboratory reporting limits in the other samples analyzed (Table 7).

Isopropylbenzene, propylbenzene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, sec-butylbenzene and n-butylbenzene were reported above laboratory reporting limits but below ESLs and MCLs in several borings on site (Table 7).

6.2.3. METALS

Arsenic was reported above the ESL of 5.5 µg/L but below the MCL of 50 µg/L in 8 of 13 samples analyzed, ranging from 7.7 µg/L in sample GW-22 to 28 µg/L in sample GW-16. Additional groundwater samples exceeding arsenic ESLs included GW-17 at 9.2 µg/L, GW-18 at 14 µg/L, GW-21 at 7.8 µg/L, GW-25 at 10 µg/L, and GW-29 at 8.9 µg/L (Table 8).

Total lead was reported above the ESL of 2.5 µg/L in samples GW-1 (12 µg/L) and GW-18 (25 µg/L). No MCL was listed for lead.

Additional metal concentrations above ESLs were reported in sample GW-13 and included copper (ESL of 3.1 µg/L) at 21 µg/L, mercury (ESL of 0.012 µg/L) at 0.39 µg/L, nickel (ESL of 8.2 µg/L) at 82 µg/L, and vanadium (ESL of 15 µg/L) at 30 µg/L. Nickel was also reported above ESLs in samples GW-9 (46 µg/L), GW-22 (49 µg/L) and GW-33 (36 µg/L). None of these concentrations exceeded MCLs for the metals that have published MCLs.

Several other metals were reported above laboratory reporting limits but below ESLs and MCLs including barium (between 150 µg/L to 650 µg/L), total chromium (21 µg/L and 23 µg/L), molybdenum (28 µg/L and 32 µg/L), and zinc (24 µg/L and 47 µg/L). Antimony, beryllium, cadmium, cobalt, selenium, silver and thallium were not reported above laboratory reporting limits.

6.3. SOIL GAS SAMPLES

Soil gas samples were collected from 15 borings on site on June 4, 5, and 10, 2005, and shipped via courier to Air Toxics, Ltd, located in Folsom, California. VOC constituents reported above laboratory reporting limits in samples collected included 1,3-butadiene, ethanol, acetone, 2-propanol, carbon disulphide, methyline chloride, hexane, MEK, tetrahydrofuran, chloroform, cyclohexane, 2,2,4-trimethylpentane, benzene, heptane, toluene, PCE, ethylbenzene, total xylenes, propylbenzene4-ethyltoluene, 1,2,4-trimethylbenzene, and freon 134a (Table 9). Most constituents reported were below RWQCB Residential Land Use ESLs for Shallow Soil Gas (RWQCB, 2004) except for benzene, which has an ESL of 85 micrograms per meter cubed (µg/m^3). Benzene was reported in soil gas samples SG-4 (1,700 µg/m^3), SG-5 (140,000 µg/m^3) and SG-7 (360 µg/m^3). Several constituents reported above laboratory reporting limits did not have ESLs to compare, including, ethanol, acetone, methyline chloride, MEK, chloroform, benzene, toluene, PCE, ethylbenzene, total xylenes, and freon 134a. A copy of the soil gas analytical report is provided in Appendix C.

6.4. SOIL AND GROUNDWATER SAMPLE LABORATORY ANALYTICAL RESULTS FOR FIELD AND LABORATORY QUALITY CONTROL (QC) SAMPLES

Field samples included duplicate and equipment blank samples. Laboratory QA/QC samples included matrix spike/matrix spike duplicate (MS/MSD) samples, laboratory control and laboratory control duplicate (LC/LCD) samples, and method blanks. The following is a summary and discussion of QA/QC sample analytical results.

6.4.1. DUPLICATE SOIL AND GROUNDWATER SAMPLES

Duplicate soil samples were collected from boring B-5, B-8 and B-29 at 5 feet bgs. The samples were identified as SB5DUP-5, SB8DUP-5 and SB29-5DUP. The samples were analyzed for TPH-G, TPH-D, TPH-MO, VOCs and metals. SB5DUP-5 and SB8DUP-5 were also analyzed for PAHs. Duplicate samples were collected from the acetate sleeve within the sampling rods directly below the primary samples. Analytical results of the duplicate samples compared to the primary samples differed in sample SB5DUP-5, where TPH-D and TPH-MO concentrations were not reported above laboratory limits compared to primary sample results of 33 µg/kg and 210 µg/kg, and SB8DUP-5 where methylene chloride was reported at 46 µg/kg, however was not reported in the primary sample. The remaining duplicate sample analytical results were within an order of magnitude of the primary samples.

Three duplicate grab groundwater samples were collected on site. The duplicate groundwater samples were identified as GW-5DUP, GW-8DUP and GW-29DUP. The duplicated grab groundwater samples were collected immediately afeeter collection of the primary samples in each boring. All three duplicate samples were analyzed for TPH-G, TPH-D, TPH-MO and either LUFEET 5 or CAM 17 Metals. Additionally, duplicate samples GW-5DUP and GW-29DUP were analyzed for VOCs, including BTEX and MTBE. Analytical results reported that all duplicate samples were within one order of magnitude of the primary samples.

6.4.2. EQUIPMENT BLANK SAMPLE

Three equipment blank samples were collected during the subsurface investigations on site. Equipment blank samples were collected by decanting distilled water over sampling tools into the appropriate sample containers after they had been decontaminated. Equipment blank samples were identified as EB-1, EB-2, and EB-3. Equipment blanks were analyzed for TPH-G, TPH-D, VOCs, including BTEX and MTBE, PAHs and Metals. None of the equipment blank samples were reported above laboratory reporting limits.

6.4.3. TRIP BLANKS

Trip blanks were placed in each cooler containing groundwater samples. A total of five trip blanks (TB-1 through TB-5) were analyzed for VOCs. None of the trip blanks were reported above laboratory reporting limits.

6.4.4. LABORATORY QA/QC SAMPLES

A summary of the laboratory report case narrative indicated that high surrogate recoveries of bromofluorobenzene and trifluorotoluene were reported in several soil and groundwater samples analyzed for TPH-G and BTEX using gas chromatography (GC). High surrogate recoveries of 1,2-dichloroethane-d4 were also reported in soil samples analyzed for VOCs using gas chromatography/mass spectrometry (GC/MS). According to Curtis & Tompkins, the high surrogate recoveries were due to hydrocarbon coelution, i.e. matrix interferences, which means compounds other than the constituent being analyzed interfered with the analytical result.

Laboratory qualifiers "H", "Y" and "L" were included for TPH-G, TPH-D and TPH-MO analytical results that were not completely representative of the fuel specified for analysis. The "H" qualifier was described as heavier hydrocarbons contributing to the quantitation and the "Y" qualifier was described as a sample exhibiting a chromographic pattern which does not resemble the standard. The "L" qualifier indicates lighter

hydrocarbons contributing to the quantitation. The qualifiers usually represent petroleum hydrocarbons that have degraded to a weathered fuel.

7. GEOPHYSICAL SURVEY

The geophysical survey was located in the eastern section of the BART parking lot (Figure 2). This survey was performed to locate potential underground storage tanks (USTs).

7.1. GROUND-PENETRATING RADAR (GPR) SURVEY USING SIR-2000 GPR

Theground-penetrating radar (GPR) survey incorporated a Geophysical Survey Systems Incorporated (GSSI) SIR-2000 GPR instrument which transmits energy into the ground from its transducer/antenna, in the form of EM waves. A portion of this energy is reflected back to the antenna at any boundary in the subsurface across which there is an electrical contrast in the material dielectric permittivity. The recorder continuously makes a record of the reflected energy as the antenna is moved across the ground surface. The greater the electrical contrast, the higher the amplitude of the returned energy. The EM wave travels at a velocity unique to the material properties of the ground being studied and, when these velocities are known or closely estimated from ground conductivity values and other information, two-way travel times can be converted to estimated depth of the reflected energy. Penetration into the ground and resolution of the GPR images produced are a function of ground or material electrical conductivity and dielectric constant, which are somewhat dependent on soil or material moisture content and clay mineral content. Images tend to be graphic in concrete materials or sandy soils, but penetration and resolution may be limited in more conductive, clayey moist ground.

The GPR antenna frequency that is used affects resolution of detected radar targets and the depth of evaluation. Longer frequencies tend to provide deeper penetration with reduced resolution, while shorter frequencies penetrate less but provide higher resolution of targets. Commonly, a 900 megahertz (MHz) or 1.5 gigahertz (GHz) antenna is used to conduct runway, bridge deck, retaining wall, P.T. cable, or structural column evaluation, including

imaging of re-bar and/or cable locations and approximate depth of concrete cover and concrete thickness. A 400 MHz antenna is commonly used to detect locations of larger objects such as buried USTs or buried utility lines, such as water lines, sewer lines, electrical conduits, or buried trenches and/or wastes, etc.

Ninyo & Moore used the 400 MHz antenna to evaluate for the presence of a buried UST on this project over a specified location near the eastern end of the BART parking lot, approximately 66 feet by 160 feet in area. Radar transects were recorded in the north-south direction spaced at 3-foot intervals. Random traverses were also performed in the east-west direction. GPR signal penetration at this site generally ranged from about 2 to 3 feet bgs, with some limited areas of up to 4 feet bgs.

7.2. ELECTROMAGNETIC SURVEY USING A GEONICS EM-61

Electromagnetic (EM) induction, as the name implies, uses the principle of induction to measure the electrical conductivity of the subsurface. A primary alternating electric current of known frequency and magnitude is passed through a sending coil creating a primary magnetic field in the space surrounding the coil, including underground. The eddy currents generated in the ground, in turn, induce a secondary current in underground conductors, which results in an alternating secondary magnetic field that is sensed by the receiving coil. The secondary field is distinguished from the primary field by a phase lag. The ratio of the magnitudes of the primary and secondary currents is proportional to the terrain conductivity. The depth of penetration is governed by the coil separation and orientation. Data is automatically stored in an electronic data logger for later transfer to a computer. The EM-61 instrument is a high resolution, time-domain device for detecting buried conductive objects. It consists of a powerful transmitter that generates a pulsed primary magnetic field when its coils are energized, which induces eddy currents in nearby conductive objects. The decay of the eddy currents, following the input pulse, is measured by the coils which, in turn, serve as receiver coils. The decay rate is measured for two coils, mounted concentrically, one above the other. By making the measurements at a relatively long time interval (measured in milliseconds) after termination of the primary pulse, the response is nearly independent of the

electrical conductivity of the ground. Thus, the instrument is a super-sensitive metal detector. Due to its unique coil arrangement, the response curve is a single well-defined positive peak over a buried conductive object. This facilitates quick and accurate location of targets. Conductive objects can be detected to a depth of approximately 11 feet.

7.3. SURVEY RESULTS

GPR signatures indicative of a buried UST were not recorded within our surveyed area. However, the presence of a parked car physically blocked us from surveying the southeast corner of the planned survey area.

Two relatively large EM anomalies were detected. One EM anomaly at the northwest corner of the surveyed area is coincident with a surface-mounted metallic light standard. The second was coincident with a parked car at the southeastern corner of the surveyed area. If buried USTs are present within the bounds of the anomalies caused by these objects, the anomalies caused by these objects would likely "mask" any anomaly that would be caused by a buried tank in these two locations.

7.4. PHYSICAL PROPERTIES

Soil samples were collected from boring B16B at 1 foot bgs (B16B-1) and 5 feet bgs (B16B-5) to analyze for physical properties. Physical properties were analyzed by PTS Laboratories, located in Santa Fe Springs, California. Physical property analysis included Moisture Content using ASTM Method D22216, Bulk and Grain Density using American Petroleum Institute (API) Method RP40, Porosity, Total Pore Fluid Saturation and 25.0 PSI Confining Stress using API Method AP40, and Total Organic Carbon using the Walkley Black Method. Laboratory results for the physical properties are presented in Table 10, and a copy of the laboratory report is provided in Appendix C.

8. SUMMARY

The Limited Phase II ESA was conducted in two sampling events on site. The initial sampling event consisted of soil and groundwater sample collection between February 25 and 27, 2005, and the second sampling event included soil, soil gas, and groundwater sample collection between June 4 and 5, and June 10, 2005. A geophysical survey was also conducted in the eastern section of the BART parking lot on June 4, 2005.

Thirty-three borings (B-1 through B-33) (Figure 2) were installed between February 25 and 27, 2005, using direct push technology, supplied by Resonant Sonic of Woodland, California. Soil and groundwater samples were collected in 27 of the borings (borings B-1, B-3 through B-6, B-8 through B-10, B-12, B-13, B-15 through B-18, B-20 through B-22, B-24 through B-26, and B-28 through B-33), and soil samples were collected in the remaining six borings (B-2, B-7, B-14, B-19, B-23, and B-27) (Figure 2). a groundwater sample was to be collected at boring B-2; however, dry boring conditions prohibited sample collection. Soil and groundwater samples were collected from borings B-11, B16A, and B16B on June 4, 2005, and soil gas samples were collected at borings SG-1 through SG-15 on June 4, 5, and 10, 2005.

Select soil and groundwater samples were analyzed for TPH-G, TPH-D and TPH-MO using EPA Method 8015M, VOCs including BTEX and MTBE using EPA Method 8260B, PAHs using EPA Method 8270-SIM, and metals (CAM 17, LUFT 5 and total lead and arsenic) using EPA Method 6010B. Table 1 includes a description of sample locations and analysis performed.

RWQCB residential ESLs for shallow soil, ($\leq$3 meters), where groundwater is a current or potential source of drinking water, were used to compare analytical data results for soil and groundwater samples. US EPA PRGs for residential use were also used to compare soil results for constituents except TPH-G, TPH-D, and TPH-MO. CDHS MCLs were also used to compare groundwater results for most constituents.

Soil boring depths ranged from 5.5 feet bgs in boring B-15 to 24 feet bgs in boring B-2. Subsurface conditions observed from soil samples collected on site generally consisted of sandy gravel (fill) near the surface to 1.5 feet to 2 feet bgs, underlain by brown silty and sandy clay to the bot-

tom of each boring. Six-inch to one-foot thick sand and/or gravelly sand lenses were observed in the subsurface between 6 and 7 feet bgs in borings B-2, B-29, and B-32; between 7 and 10 feet bgs in borings B-8, B-13 through B-16, B-19, B-22 through B-27, and B-30; between 10 and 11 feet bgs in boring B-5; between 11 and 12 feet bgs in borings B-6, B-12, B-22; between 14.5 and 15.5 feet bgs in boring B-5; between 15.5 and 16.5 feet bgs in borings B-3 and B-17; and between 18 and 19 feet bgs in borings B-6, B-10, and B-13.

Depth to groundwater on site was generally measured between 3 to 12 feet bgs in borings located in the BART parking lot, MacArthur Boulevard, and 40th Street, and between 11 and 17 feet bgs in borings located on Telegraph Avenue. Groundwater was not encountered in borings B-2 and B-7.

TPH-G was reported at concentrations exceeding the ESL in 4 of 43 soil samples, up to 2,700 mg/kg in sample SB16-5. TPH-D concentrations were reported exceeding the ESL in 7 of 64 soil samples, up to 670 mg/kg in sample SB32-2. TPH-MO concentrations were reported exceeding the ESL in one of 58 soil samples at a concentration of 2,300 mg/kg in sample SB32-2 (Table 2).

Benzene, toluene, ethylbenzene, and total xylenes were reported above ESLs of 23 µg/kg, 44 µg/kg, 2,900 µg/kg, and 2,300 µg/kg, respectively, in soil sample SB16-5. Concentrations of benzene (5,700 µg/kg), toluene (26,000 µg/kg), ethylbenzene (49,000 µg/kg), and total xylenes (150,000 µg/kg) were reported in the sample. Total xylenes were also reported in sample SB29-4 at 5,700 µg/kg. No other soil samples were reported above ESLs or PRGs for VOCs, including BTEX and MTBE (Table 3).

Arsenic concentrations ranged between 1.6 mg/kg in sample SB7-5 to 25 mg/kg in sample SB15-2 (Table 4). Every sample analyzed was reported above the arsenic PRG. Arsenic was reported above the ESL in 19 of 45 samples analyzed (Table 4, Figure 3).

Total lead was not reported above its ESL or PRG in any of the samples collected on site. LUFT 5 and CAM 17 Metals were reported below ESLs and PRGs except for one sample, SB19-5, where cobalt was reported at the ESL of 10 mg/kg. (Table 4, Figure 3).

No PAHs were reported above ESLs or PRGs in soil samples collected (Table 5).

Grab groundwater sample analytical results included TPH-G reported above its ESL, ranging from 170 µg/L in sample GW-28 to 280,000 µg/L in sample GW-16. TPH-D was reported above its ESLs ranging from 160 µg/L in sample GW-28 to 530,000 µg/L in sample GW-4. TPH-MO was reported above its ESL ranging from 310 µg/L in sample GW-29DUP to 39,000 µg/L in sample GW-4. (Table 6, Figure 4).

Benzene was reported above its ESL and MCL ranging from 11 µg/L in sample GW-6 to 47,000 µg/L in sample GW-16. Toluene was reported above its ESL ranging from 78 µg/L in sample GW-5 to 48,000 µg/L in GW-16. Toluene was reported below MCLs except in sample GW-16. Ethylbenzene was reported above its ESL ranging from 40 µg/L in samples GW-20 and GW-21 to 6,500 µg/L in sample GW-16. Total xylenes (m, p and o-xylenes) were reported above the total xylenes ESL ranging from 33 µg/L (GW-21) to 25,000 µg/L (GW-16). MCLs were not exceeded in samples analyzed for total xylenes. The ESL and MCL were not exceeded for MTBE in groundwater samples analyzed for MTBE (Tables 6 and 7).

Arsenic was reported at concentrations above the ESL ranging from 7.7 µg/L in sample GW-22 to 28 µg/L in sample GW-16 (Table 8). Total lead was reported above the ESL of 2.5 µg/L in samples GW-1 (12 µg/L) and GW-18 (25 µg/L). Additional metal concentrations above ESLs were reported in sample GW-13 and included copper at 21 µg/L, mercury at 0.39 µg/L, nickel at 82 µg/L, and vanadium at 30 µg/L. Nickel was also reported above its ESL in samples GW-9 (46 µg/L), GW-22 (49 µg/L) and GW-33 (36 µg/L). Metal constituents were not listed above MCLs (Table 8).

Soil gas samples were collected from 15 borings on site on June 4, 5 and 10, 2005 and shipped via courier to Air Toxics, Ltd located in Folsom, California. VOC constituents reported above laboratory reporting limits in samples collected included 1,3-butadiene, ethanol, acetone, 2-propanol, carbon disulphide, methyline chloride, hexane, MEK, tetrahydrofuran, chloroform, cyclohexane, 2,2,4-trimethylpentane, benzene, heptane, toluene, PCE, ethylbenzene, total xylenes, propylbenzene4-ethyltoluene, 1,2,4-trimethylbenzene, and freon 134a (Table 9). Most

constituents reported were below RWQCB Residential Land Use ESLs for Shallow Soil Gas (RWQCB, 2004) except for benzene, which has an ESL of 85 $\mu g/m^3$. Benzene was reported in soil gas samples SG-4 (1,700 $\mu g/m^3$), SG-5 (140,000 $\mu g/m^3$) and SG-7 (360 $\mu g/m^3$). Several constituents reported above laboratory reporting limits did not have ESLs to compare, including, ethanol, acetone, methyline chloride, MEK, chloroform, benzene, toluene, PCE, ethylbenzene, total xylenes, and freon 134a. A copy of the soil gas analytical report is provided in Appendix C.

Soil samples were collected from boring B16B at 1 ft bgs (B16B-1) and 5 ft bgs (B16B-5) to analyze for physical properties. Physical properties were analyzed by PTS Laboratories located in Santa Fe Springs, California. Physical property analysis included Moisture Content using ASTM Method D22216, Bulk and Grain Density using American Petroleum Institute (API) Method RP40, Porosity, Total Pore Fluid Saturation and 25.0 PSI Confining Stress using API Method AP40 and Total Organic Carbon using the Walkley Black Method. Laboratory results for the physical properties are presented in Table 10 and a copy of the laboratory report is provided in Appendix C.

Recent environmental reports by Terracon, Cambria and Gribi were reviewed for two off site properties located adjacent to the site. The reports discussed the groundwater monitoring of wells located on the southwest corner of 40th Street and Telegraph Avenue (relating to a former Shell Station), the destruction of wells, and a Phase II ESA for the Surgery Center at 3875 Telegraph Avenue. Copies of the environmental reports are provided in Appendix A.

The Terracon report discussed field activities and results of a subsurface investigation conducted at the Surgery Center (3875 Telegraph) in August 2001. The investigation indicated that elevated concentrations of impacted soil was reported in various samples collected on site including benzene at 420 µg/kg at boring B-1, ethylbenzene at 9,600 µg/kg (B-2), naphthalene at 4,200 µg/kg (B-2), and o-xylene and m,p-xylene at 2,500 µg/kg and a 14,000 µg/kg (B-1). Elevated concentrations of impacted grab groundwater samples were also reported including benzene at 11,000 µg/L (B-1), ethylbenzene at 2,600 µg/L (B-1), toluene at 760 µg/L (B-1) and o-xylene and m,p-xylene at 2,200 µg/L, and 7,100 µg/L (B-1). No figure was supplied with the report.

The Cambria report discussed groundwater samples collected in April 2004 in the vicinity of the former Shell Station, which was historically located at 500 40th Street, on the northwest corner of Telegraph Avenue and 40th Street. Two groundwater monitoring wells (OMW-9 and OMW-10) (Figure 2) are located near the southwest corner of Telegraph Avenue and 40th Street and were installed to monitor the migration of petroleum hydrocarbon constituents in the groundwater relating to the former Shell Station. Cambria reported groundwater samples collected from borings OMW-9 and OMW-10 in April 2004 with TPH-G concentrations of 470 µg/L and 120 µg/L, TPH-D at 470 µg/L (OMW-9 only), benzene at 6.1 µg/L and 0.68 µg/L, ethylbenzene at 21 µg/L (OMW-9 only), and total xylenes at 1.2 µg/L (OMW-9 only). Two other groundwater monitoring wells, OMW-11 and OMW-13 (Figure 2) were located approximately 300 feet west of the Telegraph Avenue/40th Street intersection. Benzene, ethylbenzene, or MTBE were not reported above laboratory reporting limits in well OMW-11 during the same sampling event. Benzene was reported in well OMW-13 at 3.3 µg/L; while MTBE was not reported above laboratory reporting limits in well OMW-13. According to a *Well Destruction Report,* prepared by Cambria in January 2005 (Cambria, 2005) OMW-11 was destroyed in November 2004.

The Phase II report for the Surgery Center (3875 Telegraph Avenue) discussed soil and groundwater samples collected at 3875 Telegraph Avenue in January 2005. Soil and groundwater samples were collected from five boring locations, three (borings GB-1, GB-2, and GB-3) (Figure 2) located in the eastern section of the MacArthur BART parking lot and two (borings GB-4 and GB-5) (Figure 2) located in the Surgery Center parking lot. These borings are actually identified as borings B-1 through B-5 in the Gribi report, but we changed the boring identification to avoid confusion with Ninyo & Moore borings B-1 through B-5. Gribi reported elevated concentrations of TPH-G in groundwater samples collected from borings GB-1 (240 µg/L), GB-2 (14,000 µg/L), GB-3 (80,000 µg/L), GB-4 (140,000 µg/L), and GB-5 (130,000 µg/L). Benzene was also reported in the groundwater samples collected from borings GB-2 through GB-4 at concentrations ranging from 220 µg/L in GB-2 to 21,000 µg/L in GB-4 Ethylbenzene ws reported in borings GB-1 through GB-5, ranging from 0.91 µg/L in GB-1 to 8,500 µg/L in GB-4. MTBE was reported in groundwater samples collected from borings GB-2 (34 µg/L) and GB-5 (390 µg/L).

The geophysical survey was performed in the eastern section of the BART parking lot (Figure 2) and utilized both ground-penetrating radar and electromagnetic induction methodologies.

GPR signatures indicative of a buried UST were not recorded within our surveyed area. However, the presence of a parked car physically blocked us from surveying the southeast corner of the planned survey area. Two relatively large EM anomalies were detected. One EM anomaly at the northwest corner of the surveyed area is coincident with a surface-mounted metallic light standard. The second was coincident with a parked car at the southeastern corner of the surveyed area. If buried USTs are present within the bounds of the anomalies caused by these objects, the anomalies caused by these objects would likely "mask" any anomaly that would be caused by a buried tank in these two locations.

Soil samples were collected from boring B16B at 1 foot bgs (B16B-1) and 5 feet bgs (B16B-5) to analyze for physical properties. Physical property analysis included Moisture Content using ASTM Method D22216, Bulk and Grain Density using American Petroleum Institute (API) Method RP40, Porosity, Total Pore Fluid Saturation and 25.0 PSI Confining Stress using API Method AP40, and Total Organic Carbon using the Walkley Black Method. Laboratory results for the physical properties are presented in Table 10, and a copy of the laboratory report is provided in Appendix C.

9. CONCLUSIONS AND RECOMMENDATIONS

TPH-D and TPH-MO impacted soil was reported in minor concentrations in samples collected from most borings on site. ESLs for TPH-D, however, were exceeded in just 7 of 64 soil samples analyzed (including duplicates). The highest concentrations of TPH-D included 300 mg/kg and 670 mg/kg (SB29-2 and SB32-2, respectively). ESLs for TPH-MO were exceeded in just one of 58 soil samples analyzed. The highest concentrations of TPH-MO included 470 mg/kg and 2,300 mg/kg (SB25-2 and SB32-2, respectively). TPH-G exceeded ESLs in just 4 of 43 soil samples analyzed (including duplicates). The highest concentrations of TPH-G included 2,700 mg/kg and 1,300 mg/kg (SB16-5 and SB29-2, respectively) (Table 2).

Forty-five soil samples were analyzed for arsenic (including duplicates), all of which exceeded the PRG and 19 of which exceeded the ESL. The highest arsenic concentrations were reported at 11 mg/kg, 16 mg/kg and 25 mg/kg (SB14-2, SB32-2 and SB15-2). The concentrations of arsenic in soil samples reported above ESLs and PRGs may be related to naturally occurring arsenic found in geologic formations of the Oakland and Berkeley Hills.

Groundwater plume maps for TPH-G and TPH-D (Figures 5 and 6) indicate that the highest concentrations of TPH-G and TPH-D impacted groundwater was located at boring B-16 (downgradient of the three former gasoline stations at 3875 Telegraph Avenue), where TPH-G and TPH-D were reported at 280,000 µg/L and 210,000 µg/L, respectively, and at boring B-4 (adjacent to the auto detailing facility at 3901 Telegraph Avenue) where TPH-G and TPH-D were reported at 33,000 µg/L and 530,000 µg/L, respectively. Elevated concentrations of TPH-G and TPH-D were also reported from groundwater samples collected from boring B-32 (former auto repair facility at 523 40th Street) at 5,100 µg/L and 1,700 µg/L, respectively, boring B-8 (former gasoline station at 3801 Telegraph Avenue), where TPH-G and TPH-D concentrations were reported at 5,300 µg/L and 2,400 µg/L, respectively, and B-11 at 32,000 µg/L and 25,000 µg/L, respectively. The petroleum hydrocarbon impacted groundwater plume boundaries extend from the northeast and eastern borders of the site toward the southern and western borders of the site. Benzene constituents in groundwater were reported above ESLs and MCLs in samples collected from borings B-5, B-6, B-13, B-15, B-16A, B-16B, B-17, and B-20, ranging from 9.8 µg/L to 47,000 µg/L (Table 7, Figure 7).

VOC concentrations in groundwater, including PCE, cis-1,2-dichloroethene (DCE) and TCE were reported in borings located in the northern section of the site. PCE was reported above ESLs and MCLs in groundwater samples collected from borings B-28 (46 µg/L), B30 (79 µg/L) and B-31 (79 µg/L). Boring B-31 is in the vicinity of the former dry cleaner located at 525 40th Street, and B-28 and B-30 are downgradiant of the dry cleaner. TCE, a breakdown product of PCE, was reported at 51 µg/L in boring B-29, which is located on the southern edge of the former dry cleaners at 525 40th Street and downgradiant of another former dry cleaner located at 3915 Telegraph Avenue. Cis-1,2-DCE (a further breakdown product of PCE and TCE) was re-

ported in the groundwater sample collected from borings B-24 and B-28 at concentrations of 8.6 µg/L and 35 µg/L, respectively. B-24 is located downgradiant of both former dry cleaners.

The TPH-G, TPH-D, and benzene groundwater plumes are potentially a result of off site groundwater contamination commingling from the former gas stations located at 500 40th Street and 3875 Telegraph Avenue. The February Gribi report indicated that elevated concentrations of TPH-G (<100,000 µg/L) and benzene (<20,000 µg/L) were reported in grab groundwater samples collected from borings at 3875 Telegraph Avenue. The local groundwater flow direction is toward the southeast; therefore, a slug of petroleum hydrocarbon contamination is likely following the groundwater flow direction toward the MacArthur BART parking lot.

The elevated concentrations of TPH-G and TPH-D reported in groundwater samples collected from borings on MacArthur Boulevard are potentially related to the former gas station located at 3801 Telegraph Avenue. The concentrations of PCE, TCE, and cis-1,2-DCE reported above ESLs in groundwater samples collected in the northern section of the BART parking lot may be related to the two former dry cleaners located on Telegraph Avenue and 40th Street.

Soil gas samples were collected from 15 borings on site on June 4, 5 and 10, 2005 and shipped via courier to Air Toxics, Ltd located in Folsom, California. VOC constituents reported above laboratory reporting limits in samples collected included 1,3-butadiene, ethanol, acetone, 2-propanol, carbon disulphide, methyline chloride, hexane, MEK, tetrahydrofuran, chloroform, cyclohexane, 2,2,4-trimethylpentane, benzene, heptane, toluene, PCE, ethylbenzene, total xylenes, propylbenzene4-ethyltoluene, 1,2,4-trimethylbenzene, and freon 134a (Table 9). Most constituents reported were below RWQCB Residential Land Use ESLs for Shallow Soil Gas (RWQCB, 2004) except for benzene, which has an ESL of 85 µg/m^3. Benzene was reported in soil gas samples SG-4 (1,700 µg/m^3), SG-5 (140,000 µg/m^3) and SG-7 (360 µg/m^3). Several constituents reported above laboratory reporting limits did not have ESLs to compare, including, ethanol, acetone, methyline chloride, MEK, chloroform, benzene, toluene, PCE, ethylbenzene, total xylenes, and freon 134a. A copy of the soil gas analytical report is provided in Appendix C.

The soil gas sample data should be utilized, along with the soil and groundwater sample analytical data, to evaluate pathways that may affect human health in the form of a Human Health Risk Assessment (HHRA). The HHRA will assist in evaluating future cleanup goals for the site prior to site development.

10. LIMITATIONS

The field investigation, laboratory testing, and soil sample analyses presented in this report have been conducted in general accordance with current engineering practice and the standard of care exercised by reputable environmental consultants performing similar tasks in the area. No other warranty, expressed or implied, is made regarding the conclusions and professional opinions presented in this report. There is no investigation detailed enough to reveal every soil condition. Variations may exist and conditions not observed or described in this report may be encountered at a later time. Uncertainties relative to soil conditions can be reduced through additional soil sampling. An additional soil investigation will be performed upon request.

Ninyo & Moore's summary, conclusions, and recommendations regarding environmental considerations as presented in this report are based on a limited soil assessment and chemical analysis. Further assessment of potential adverse environmental impacts from past on-site and/or nearby use of hazardous materials may be accomplished by a more comprehensive assessment. The samples collected and used for testing, and the observations made are believed to be representative of the area(s) evaluated; however, conditions can vary significantly between sampling locations. Variations in soil conditions will exist beyond the points explored in this investigation.

The environmental interpretations and opinions contained in this report are based on the results of laboratory tests and analyses intended to detect the presence and concentration of certain chemical or physical constituents in samples collected from the subject site. The testing and analyses have been conducted by an independent laboratory that is accredited by the EPA or certified by the State of California to conduct such tests. Ninyo & Moore has no involvement in, or control over, such testing and analysis. Ninyo & Moore, therefore, disclaims responsibility for any inaccuracy in such laboratory results.

This report is intended for preliminary design purposes only and may not provide sufficient data to prepare an accurate bid by some contractors. This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires additional information or has questions regarding the content, interpretations presented, or completeness of this document.

Our summary, conclusions, and recommendations are based on an analysis of the observed site conditions. It should be understood that the conditions of a site can change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

11. SELECTED REFERENCES

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TABLE 1
BORING LOCATIONS AND LABORATORY ANALYTICAL METHODS
MACARTHUR BART TRANSIT VILLAGE
OAKLAND, CALIFORNIA

Boring ID	Address	MATRIX															
		SOIL SAMPLE ANALYSIS								GW SAMPLE ANALYSIS							
		TPH-D/MO	TPH-G	VOCs/BTEX/MTBE	PAHs	LUFT 5 Metals	Cam 17 metals	Arsenic	Lead	TPH-D/MO	TPH-G	VOCs/BTEX/MTBE	PAHs	LUFT 5 Metals	Cam 17 metals	Arsenic	Lead
		Number of Samples															
B-1	3931 Telegraph	1		1	1	1						1		1			
B-2	3931 Telegraph	1		1		1											
B-3	3915 Telegraph			3								1					
B-4	3901 Telegraph	2	2	2	2			1	1	1	1	1					
B-5	Apgar Street	3	3	2	2	3		1		1	1	1		1			
B-5 Dup	Apgar Street	1	1	1	1	1		1		1	1	1		1			
B-6	3801 Telegraph	2	2			2				1	1	1					
*B-7	3801 Telegraph	3	3	3	2	1		1									
B-8	3801 Telegraph	2	2	2	2	2				1	1			1			
B-8 Dup	3801 Telegraph	1	1	1	1	1				1	1			1			
B-9	Macarthur Blvd	1	1	1		1				1	1	1		1			
B-10	Macarthur Blvd	1	1	1		1				1	1	1		1			
B-11	**Macarthur Blvd**	**3**	**3**							**1**	**1**						
B-12	South Parking	2		1	2					1	1	1			1		
B-13	South Parking	2					2			1	1	1			1		
*B-14	South Parking	2						2	2								
B-15	South Parking	2	2			2		2		1	1						
B-16	Central Parking	2	2	1		2		2		1	1	1		1		1	
B-16A	**Central Parking**		**2**								**1**						
B-16B	**Central Parking**		**2**								**1**						
B-17	Central Parking	2	2					2	2			1				1	1
B-18	Central Parking	2		1	2			2	2	1	1	1				1	1
B-19	Central Parking	2		1			2			1	1						
B-20	Central Parking	1		1		1		1		1		1		1		1	
B-21	Central Parking	2	2	1		2		2		1	1	1		1		1	
B-22	Central Parking	2	2	1	2	2		2		1	1	1		1		1	
*B-23	Central Parking	2	2	1				2	2								
B-24	Central Parking	2		1	2			2	2			1					1
B-25	North Parking	2	2			2		2		1	1	1				1	
B-26	North Parking			2				1	1								
*B-27	North Parking	2		1				2	2								
B-28	North Parking	2		1				2	2	1	1	1				1	
B-29	North Parking	3	3	2			3			1	1	1			1		
B-29 Dup	North Parking	1	1	1			1			1	1	1			1		
B-30	North Parking	2		1				2	2	1	1	1		1		1	
B-31	North Parking	2		1		2		2				1					
*B-32	North Parking	2		1				2	2			1					
B-33	510 MacArthur Blvd	3	3	3		2						1		1			
EB-1										1	1	1	1		1		
EB-2										1	1	1	1		1		
EB-3										1	1	1	1		1		
TB												5					

NOTES:
* Soil only sample
** Boring not sampled due to change in scope
EB = Equipment blank
TB = Trip blank
Samples collected between 5/25/05 through 5/27/05 except those enboldened, which were collected 6/4/05.

TABLE 2
SOIL SAMPLE LABORATORY ANALYTICAL RESULTS
TOAL PETROLEUM HYDROCARBONS AS GASOLINE, DIESEL, MOTOR OIL, MTBE AND BTEX
OAKLAND MACARTHUR BART STATION
CITY OF OAKLAND, CALIFORNIA

SAMPLE I.D	ANALYTE							
	TPH-G (mg/kg)	TPH-D (mg/kg)	TPH-MO (mg/kg)	MTBE (µg/kg)	Benzene (µg/kg)	Toluene (µg/kg)	Ethyl-Benzene (µg/kg)	Total (m, p and o) Xylenes (µg/kg)*
	ANALYTICAL RESULTS							
SB1-4	--	[redacted]	250	--	--	--	--	--
SB2-5	--	3.4 Y	<5.0	--	--	--	--	--
SB2-10	--	--	--	--	--	--	--	--
SB4-5	<1.1	9.3 Y	55 L	--	--	--	--	--
SB4-10	<1.1	1.0 Y	<5.0	--	--	--	--	--
SB5-5	<1.1	33 HY	210	--	--	--	--	--
SB5DUP-5	<1.1	<0.99	<5.0	--	--	--	--	--
SB5-10	<1.0	<1.0	<5.0	--	--	--	--	--
SB5-17	<1.0	51 LY	5.3 Y	<22	<5.4	<5.4	<5.4	<5.4
SB6-5	<0.99	1.8 Y	<5.0	<20	<5.0	<5.0	<5.0	<5.0
SB6-10	<1.0	1.1 Y	<5.0	<21	<5.2	<5.2	<5.2	<5.2
SB7-5	<0.97	4.2 Y	--	--	--	--	--	--
SB7-10	<1.0	1.3 Y	--	--	--	--	--	--
SB7-15	<1.1	1.5 Y	--	--	--	--	--	--
SB8-5	<1.0	3.2 Y	5.9 Y	--	--	--	--	--
SB8DUP-5	<1.1	2.4 Y	<5.0	--	--	--	--	--
SB8-10	17 Y	20 LY	8.7 LY	--	--	--	--	--
SB9-5	<1.0	<0.99	<5.0	--	--	--	--	--
SB9-10	--	--	--	--	--	--	--	--
SB10-4.5	<1.0	<5.0	--	--	--	--	--	--
**SB11-2.5	<1.0	1.8	--	--	<5.0	<5.0	<5.0	<5.0
**SB11-5.5	<1.0	<1.0	--	--	<5.0	<5.0	<5.0	<5.0
SB12-5	--	1.3 Y	<5.0	--	--	--	--	--
SB12-10	--	2.3 Y	<5.0	--	--	--	--	--
SB13-2	--	19 HY	110	--	--	--	--	--
SB13-5	--	4.4 Y	5.5 Y	--	--	--	--	--
SB13-11.5	--	--		--	--	--	--	--
SB14-2	--	92 HY	390	--	--	--	--	--
SB14-5	--	5.4 HY	36	--	--	--	--	--
SB14-7.5	--	--		--	--	--	--	--
SB15-2	<1.0	7.7 HY	62	<21	<5.2	<5.2	<5.2	<5.2
SB15-5	<1.0	1.1 LY	7.5	<21	<5.2	<5.2	<5.2	<5.2
SB16-2	<1.0	19 HY	140	--	--	--	--	--
SB16-5	[redacted]	[redacted]	<25	<1,000	[redacted]	[redacted]	[redacted]	[redacted]
SB16-8	--	--	--	--	--	--	--	--
**SB16A-2	<1.1	--	--	--	<5.3	<5.3	<5.3	<5.3
**SB16A-5	<1.1	--	--	--	<5.4	<5.4	<5.4	<5.4
**SB16B-2	<0.99	--	--	--	<5.0	<5.0	<5.0	<5.0
**SB16B-5	<1.1	--	--	--	9.7	<5.3	<5.3	<5.3
SB17-2	--	12 HY	110	--	--	[redacted]	--	--
SB17-5	<0.97	20 HY	150	--	--	[redacted]	--	--
SB17-10	<1.0	--	--	--	--	[redacted]	--	--
SB18-2	--	7.4 HY	58	--	--	[redacted]	--	--
SB18-5	--	11 HY	25	--	--	[redacted]	--	--
SB19-2	--	[redacted]	350	--	--	[redacted]	--	--
SB19-5	--	2.0 LY	<5.0	--	--	[redacted]	--	--
SB19-7	--	--	--	--	--	[redacted]	--	--
SB20-2	--	10 HY	110	--	--	[redacted]	--	--
SB21-2	<1.1	3.9 Y	5.7 Y	--	--	[redacted]	--	--
SB21-5	[redacted]	63 LY	6.9 Y	<100	<25	<25	630	260
SB22-2	<1.0	11 HLY	12	--	--	--	--	--
SB22-5	<1.0	26 HY	180	<20	<5.1	<5.1	<5.1	<5.1
SB23-2	1.2 HY	73 HLY	110	--	--	--	--	--
SB23-5	21 HY	2.4 HLY	8.6	<21	<5.3	<5.3	<5.3	<5.3
SB23-8	--	--	--	--	--	--	--	--
SB24-2	--	20 HLY	95	--	--	--	--	--
SB24-5	--	27 HLY	100	--	--	--	--	--
SB25-2	<1.1	[redacted]	470	<22	<5.5	<5.5	<5.5	<5.5
SB25-5	6.0 HY	[redacted]	71 L	<21	<5.2	<5.2	<5.2	50 C
SB26-2	--	--	--	--	--	--	--	--
SB26-5	--	--	--	--	--	--	--	--

TABLE 2
SOIL SAMPLE LABORATORY ANALYTICAL RESULTS
TOAL PETROLEUM HYDROCARBONS AS GASOLINE, DIESEL, MOTOR OIL, MTBE AND BTEX
OAKLAND MACARTHUR BART STATION
CITY OF OAKLAND, CALIFORNIA

SAMPLE I.D	ANALYTE							
	TPH-G (mg/kg)	TPH-D (mg/kg)	TPH-MO (mg/kg)	MTBE (µg/kg)	Benzene (µg/kg)	Toluene (µg/kg)	Ethyl-Benzene (µg/kg)	Total (m, p and o) Xylenes (µg/kg)*
SB27-2	--	<1.0	10	--	--	--	--	--
SB27-5	--	4.0 Y	<5.0	--	--	--	--	--
SB28-2	--	56 LY	6.8	--	--	--	--	--
SB28-5	--	41 HY	300	--	--	--	--	--
SB27-5	--	--	--	--	--	--	--	--
SB29-2	[redacted]	[redacted]	<50	--	--	--	--	--
SB29-4	[redacted]	93 HLY	37	<1,000	<250	<250	<250	[redacted]
SB29-5	3.3 HY	22 HLY	57	--	--	--	--	--
SB29-5DUP	1.3 Y	3.8 Y	<5.0	--	--	--	--	--
SB30-2	--	4.5 Y	6.1	--	--	--	--	--
SB30-5	--	7.9 HY	80	--	--	--	--	--
SB30-6	--	--	--	--	--	--	--	--
SB31-2	--	<0.99	<5.0	--	--	--	--	--
SB31-5	--	2.6 Y	<5.0	--	--	--	--	--
SB31-8	--	--	--	--	--	--	--	--
SB32-2	--	[redacted]	[redacted]	--	--	--	--	--
SB32-5	--	8.8 HLY	18	--	--	--	--	--
SB32-10	--	--	--	--	--	--	--	--
SB32-12	--	--	--	--	--	--	--	--
SB33-5	<1.1	3.0 Y	<5.0	--	--	--	--	--
SB33-10	<0.97	3.5 Y	<5.0	--	--	--	--	--
SB33-14.5	75	16 LY	<5.0	--	--	--	--	--
ESLs	100	100	500	23	44	2,900	3,300	2,300
PRGs	N/A	N/A	N/A	32,000	640	520,000	400,000	270,000

Notes:
Samples collected between February 25 -27, 2005.
**Samples collected between June 4, 2005.
TPH-G = Total Petroleum Hydrocarbons as Gasoline analyzed by EPA Method 8015B
TPH-MO = Total Petroleum Hydrocarbons as Motor Oil analyzed by EPA Method 8015B
TPH-D = Total Petroleum Hydrocarbons as Diesel analyzed by EPA Method 8015B
BTEX = Benzene, Toluene, Ethylbenzene, and Total Xylenes analyzed by EPA Method 8260B
MTBE = Methyl Tertiary Butyl Ether analyzed by EPA Method 8260B
mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
< = below laboratory reporting limits
-- = Not analyzed
N/A = Not available
PRGs = USEPA Preliminary Reporting Limits for Residential Use (October, 2004)
ESLs = San Francisco Bay RWQCB Environmental Screening Levels for Residential Use - Shallow Soils (≤ 3 mbgs) - Where Groundwater is a current or potential source of drinking water (February 2005)
Shaded cells indicate concentrations reported greater than PRGs and/or ESLs
H indicates heavier hydrocarbons contributed to the quantitation
Y indicates the sample exhibits a chromatographic pattern which does not resemble standard
L indicates lighter hydrocarbons contributed to the quantitation
* = Value listed was the highest concentration between m, p and o-xylenes.
DUP = Duplicate sample

TABLE 3
SOIL SAMPLE LABORATORY ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS
OAKLAND MACARTHUR BART STATION
CITY OF OAKLAND, CALIFORNIA

ANALYTE	SAMPLE NO.																																							
	SB1-4	SB2-5	SB3-5	SB3-10	SB3-17	SB4-5	SB4-10	SB7-5	SB7-10	SB7-15	SB5-5	SB5DUP-5	SB5-10	SB8-5	SB8DUP-5	SB8-10	SB9-5	SB10-4.5	SB12-5	SB16-2	SB18-2	SB19-2	SB20-2	SB21-2	SB22-2	SB23-2	SB24-2	SB26-2	SB26-5	SB27-2	SB28-2	SB29-2	SB29-5	SB29-5DUP	SB30-2	SB31-2	SB32-2	SB33-5	SB33-10	SB33-14.5	ESLs	PRGs
	ANALYTICAL RESULTS (µg/kg)																																							
Freon 12	<10	<9.4	<8.9	<9.4	<10	<9.8	<9.6	<9.8	<8.6	<9.4	<9.8	<9.6	<10	<9.8	<10	<50	60	<8.6	<9.1	<9.4	<9.8	<9.8	<9.8	<9.6	<8.9	<9.1	<8.9	<9.6	<9.8	<9.8	<9.6	<2,000	<9.3	<10	<9.8	<45	<9.8	<9.8	<9.3	<250	N/A	N/A
Chloromethane	<10	<9.4	<8.9	<9.4	<10	<9.8	<9.6	<9.8	<8.6	<9.4	<9.8	<9.6	<10	<9.8	<10	<50	<9.4	<8.6	<9.1	<9.4	<9.8	<9.8	<9.8	<9.6	<8.9	<9.1	<8.9	<9.6	<9.8	<9.8	<9.6	<2,000	<9.3	<10	<9.8	<45	<9.8	<9.8	<9.3	<250	70	47,000
Vinyl Chloride	<10	<9.4	<8.9	<9.4	<10	<9.8	<9.6	<9.8	<8.6	<9.4	<9.8	<9.6	<10	<9.8	<10	<50	<9.4	<8.6	<9.1	<9.4	<9.8	<9.8	<9.8	<9.6	<8.9	<9.1	<8.9	<9.6	<9.8	<9.8	<9.6	<2,000	<9.3	<10	<9.8	<45	<9.8	<9.8	<9.3	<250	6.7	79
Bromomethane	<10	<9.4	<8.9	<9.4	<10	<9.8	<9.6	<9.8	<8.6	<9.4	<9.8	<9.6	<10	<9.8	<10	<50	<9.4	<8.6	<9.1	<9.4	<9.8	<9.8	<9.8	<9.6	<8.9	<9.1	<8.9	<9.6	<9.8	<9.8	<9.6	<2,000	<9.3	<10	<9.8	<45	<9.8	<9.8	<9.3	<250	220	3,900
Chloroethane	<10	<9.4	<8.9	<9.4	<10	<9.8	<9.6	<9.8	<8.6	<9.4	<9.8	<9.6	<10	<9.8	<10	<50	<9.4	<8.6	<9.1	<9.4	<9.8	<9.8	<9.8	<9.6	<8.9	<9.1	<8.9	<9.6	<9.8	<9.8	<9.6	<2,000	<9.3	<10	<9.8	<45	<9.8	<9.8	<9.3	<250	630	3,000
Trichlorofluoromethane	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	10	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	N/A	390,000
Acetone	39	<19	<18	<19	<20	<20	<19	<20	<17	<19	<20	<19	<20	<20	<20	<100	<19	<17	<18	<19	<20	<20	<20	24	<18	20	<18	<19	<20	<20	<19	<4000	<19	<20	<20	<91	<20	44	<19	<500	500	1,400,000
Freon 113	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	N/A	5,600,000
1,1-Dichloroethene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	1,000	120,000
Methylene Chloride	<20	<19	22	27	44	35	33	24	42	<19	<20	<19	30	<20	46	<100	31	45	61	<19	<20	53	<20	25	19	<18	<18	<19	21	<20	<19	<4000	<19	<20	<20	<91	28	<20	<19	<500	77	9,100
Carbon Disulfide	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	N/A	360,000
MTBE	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	23	32,000
trans-1,2-Dichloroethene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	670	69,000
Vinyl Acetate	<50	<47	<45	<47	<50	<49	<48	<49	<43	<47	<49	<48	<50	<49	<50	<250	<47	<43	<45	<47	<49	<49	<49	<48	<45	<45	<45	<48	<49	<49	<48	<10,000	<46	<50	<49	<230	<49	<49	<46	<1,300	N/A	430,000
1,1-Dichloroethane	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	200	510,000
2-Butanone (MEK)	10	<9.4	<8.9	<9.4	10	<9.8	<9.6	<9.8	<8.6	<9.4	<9.8	<9.6	10	<9.8	10	<50	<9.4	<8.6	<9.1	<9.4	<9.8	<9.8	<9.8	<9.6	<8.9	<9.1	<8.9	<9.6	<9.8	<9.8	<9.6	<2,000	<9.3	10	<9.8	<45	<9.8	13	<9.3	<250	3,900	22,000,000
cis-1,2-Dichloroethene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	190	43,000
2,2-Dichloropropane	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	N/A	N/A
Chloroform	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	880	220
Bromochloromethane	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	N/A	N/A
1,1,1-Trichloroethane	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	7,800	1,200,000
1,1-Dichloropropene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	N/A	N/A
Carbon Tetrachloride	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	12	250
1,2-Dichloroethane	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	4.5	280
Benzene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	44	640
Trichloroethene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	260	53
1,2-Dichloropropane	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	51	340
Bromodichloromethane	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	14	820
Dibromomethane	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	N/A	N/A
4-Methyl-2-Pentanone	<10	<9.4	<8.9	<9.4	<10	<9.8	<9.6	<9.8	<8.6	<9.4	<9.8	<9.6	<10	<9.8	<10	<50	<9.4	<8.6	<9.1	<9.4	<9.8	<9.8	<9.8	<9.6	<8.9	<9.1	<8.9	<9.6	<9.8	<9.8	<9.6	<2,000	<9.3	<10	<9.8	<45	<9.8	<9.8	<9.3	<250	N/A	N/A
cis-1,3-Dichloropropene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	N/A	N/A
Toluene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	2,900	520,000
trans-1,3-Dichloropropene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	N/A	N/A
1,1,2-Trichloroethane	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	32	730
2-Hexanone	<10	<9.4	<8.9	<9.4	<10	<9.8	<9.6	<9.8	<8.6	<9.4	<9.8	<9.6	<10	<9.8	<10	<50	<9.4	<8.6	<9.1	<9.4	<9.8	<9.8	<9.8	<9.6	<8.9	<9.1	<8.9	<9.6	<9.8	<9.8	<9.6	<2,000	<9.3	<10	<9.8	<45	<9.8	<9.8	<9.3	<250	N/A	N/A
1,3-Dichloropropane	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	N/A	100,000
Tetrachloroethene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	5.9	<23	<4.9	<4.9	<4.6	<130	87	480
Dibromochloromethane	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	19	1,100
1,2-Dibromoethane	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	0.33	32
Chlorobenzene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	1,500	150,000
1,1,1,2-Tetrachloroethane	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	24	3,200
Ethylbenzene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	3,300	400,000
m,p-Xylenes	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	410	2,300*	270,000*
o-Xylene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	2,300*	270,000*
Styrene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	1,500	1,700,000
Bromoform	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	2,200	62,000
Isopropylbenzene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	N/A	570,000
1,1,2,2-Tetrachloroethane	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	9.1	410
1,2,3-Trichloropropane	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	N/A	34
Propylbenzene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	6.8	<4.6	<130	N/A	240,000**
Bromobenzene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	N/A	28,000
1,3,5-Trimethylbenzene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	N/A	21,000
2-Chlorotoluene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	N/A	N/A
4-Chlorotoluene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	N/A	N/A

TABLE 3
SOIL SAMPLE LABORATORY ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS
OAKLAND MACARTHUR BART STATION
CITY OF OAKLAND, CALIFORNIA

ANALYTE	SAMPLE NO.																																								
	SB1-4	SB2-5	SB3-5	SB3-10	SB3-17	SB4-5	SB4-10	SB7-5	SB7-10	SB7-15	SB5-5	SB5DUP-5	SB5-10	SB8-5	SB8DUP-5	SB8-10	SB9-5	SB10-4.5	SB12-5	SB16-2	SB18-2	SB19-2	SB20-2	SB21-2	SB22-2	SB23-2	SB24-2	SB26-2	SB26-5	SB27-2	SB28-2	SB29-2	SB29-5	SB29-5DUP	SB30-2	SB31-2	SB32-2	SB33-5	SB33-10	SB33-14.5	ESLs	PRGs
	ANALYTICAL RESULTS (µg/kg)																																								
tert-Butylbenzene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	N/A	390,000
1,2,4-Trimethylbenzene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	N/A	52,000
sec-Butylbenzene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	**1,700**	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	**330**	N/A	220,000
para-Isopropyl Toluene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	N/A	N/A
1,3-Dichlorobenzene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	7,400	530,000
1,4-Dichlorobenzene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	46	3,400
n-Butylbenzene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	---	240,000
1,2-Dichlorobenzene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	1,100	600,000
1,2-Dibromo-3-Chloropropane	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	4.5	460
1,2,4-Trichlorobenzene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	380	62,000
Hexachlorobutadiene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	1,000	6,200
Naphthalene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	460	56,000
1,2,3-Trichlorobenzene	<5.0	<4.7	<4.5	<4.7	<5.0	<4.9	<4.8	<4.9	<4.3	<4.7	<4.9	<4.8	<5.0	<4.9	<5.0	<25	<4.7	<4.3	<4.5	<4.7	<4.9	<4.9	<4.9	<4.8	<4.5	<4.5	<4.5	<4.8	<4.9	<4.9	<4.8	<1,000	<4.6	<5.0	<4.9	<23	<4.9	<4.9	<4.6	<130	---	---

Notes:
Samples collected between February 25 -27, 2005.
VOCs nanlyzed uming EPA Method 8260B
PRGs = USEPA Preliminary Reporting Limits for Residential Use (October, 2004)
ESLs = San Francisco Bay RWQCB Environmental Screening Levels for Residential Use - Shallow Soils (= 3 mbgs) - Where Groundwater is a current or potential source of drinking water (February 2005)
µg/kg = micrograms per kilograms
< = below laboratory reporting limit
N/A = Not available
DUP = Duplicate sample
* = no published value for species of xylene - value provided for total xylenes

TABLE 4
SOIL SAMPLE ANALYTICAL RESULTS
METALS
OAKLAND MACARTHUR BART STATION
CITY OF OAKLAND, CALIFORNIA

SAMPLE ID	ANALYTE																
	Antimony	Arsenic	Barium	Beryllium	Cadmium	Total Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
	ANALYTICAL RESULTS (mg/kg)																
SB1-4	---	5.2	---	---	0.38	38	---	---	41	---	---	44	---	---	---	---	110
SB2-5	---	---	---	---	<0.28	35	---	---	3.7	---	---	36	---	---	---	---	31
SB4-5	---	[redacted]	---	---	---	---	---	---	5.7	---	---	---	---	---	---	---	---
SB5-5	---	4.3	---	---	<0.16	29	---	---	7.3	---	---	28	---	---	---	---	30
SB5DUP-5	---	[redacted]	---	---	<0.26	29	---	---	6.6	---	---	39	---	---	---	---	42
SB5-10	---	---	---	---	0.50	23	---	---	3.5	---	---	74	---	---	---	---	42
SB5-17	---	---	---	---	0.20	35	---	---	5.4	---	---	51	---	---	---	---	38
SB6-5	---	---	---	---	<0.24	29	---	---	3.5	---	---	20	---	---	---	---	26
SB6-10	---	---	---	---	<0.22	21	---	---	2.5	---	---	26	---	---	---	---	28
SB7-5	---	1.6	---	---	0.18	27	---	---	4.4	---	---	18	---	---	---	---	20
SB8-5	---	---	---	---	<0.18	37	---	---	4.3	---	---	29	---	---	---	---	28
SB8DUP-5	---	---	---	---	<0.18	41	---	---	3.3	---	---	32	---	---	---	---	30
SB8-10	---	---	---	---	0.29	42	---	---	3.0	---	---	46	---	---	---	---	44
SB9-5	---	---	---	---	<0.25	29	---	---	3.9	---	---	58	---	---	---	---	28
SB10-4.5	---	---	---	---	0.19	31	---	---	38	---	---	20	---	---	---	---	20
SB13-2	<3.1	5.3	110	0.80	0.41	38	8.3	15	4.0	0.11	<1.0	48	<0.26	<0.26	<0.26	39	31
SB13-5	<2.3	[redacted]	170	0.50	0.77	31	12	14	5.4	0.052	1.5	99	<0.19	<0.19	<0.19	29	31
SB14-2	---	[redacted]	---	---	---	---	---	---	6.5	---	---	---	---	---	---	---	---
SB14-5	---	1.9	---	---	---	---	---	---	4.3	---	---	---	---	---	---	---	---
SB15-2	---	[redacted]	---	---	0.26	8.7	---	---	11	---	---	12	---	---	---	---	82
SB15-5	---	[redacted]	---	---	0.44	27	---	---	5.9	---	---	60	---	---	---	---	46
SB16-2	---	[redacted]	---	---	0.19	13	---	---	10	---	---	15	---	---	---	---	88
SB16-5	---	5.3	---	---	<0.19	25	---	---	5.9	---	---	49	---	---	---	---	45
SB17-2	---	5.2	---	---	---	---	---	---	5.6	---	---	---	---	---	---	---	---
SB17-5	---	[redacted]	---	---	---	---	---	---	7.9	---	---	---	---	---	---	---	---
SB18-2	---	4.6	---	---	---	---	---	---	6.6	---	---	---	---	---	---	---	---
SB18-5	---	[redacted]	---	---	---	---	---	---	3.6	---	---	---	---	---	---	---	---
SB19-2	<2.3	4.6	41	0.30	0.49	12	3.9	18	6.0	0.46	<0.76	12	0.35	<0.19	<0.19	13	69
SB19-5	<2.6	[redacted]	170	0.46	0.79	45	[redacted]	26	5.7	0.13	1.6	59	0.64	<0.22	<0.22	40	55
SB20-2	---	[redacted]	---	---	<0.26	30	---	---	5.6	---	---	34	---	---	---	---	43
SB21-2	---	2.0	---	---	<0.25	32	---	---	3.1	---	---	28	---	---	---	---	42
SB21-5	---	5.1	---	---	0.38	35	---	---	5.0	---	---	56	---	---	---	---	52
SB22-2	---	[redacted]	---	---	0.42	37	---	---	3.8	---	---	52	---	---	---	---	58
SB22-5	---	4.5	---	---	0.31	57	---	---	3.9	---	---	67	---	---	---	---	57
SB23-2	---	3.4	---	---	---	---	---	---	4.2	---	---	---	---	---	---	---	---
SB23-5	---	[redacted]	---	---	---	---	---	---	4.8	---	---	---	---	---	---	---	---
SB24-2	---	3.6	---	---	---	---	---	---	4.0	---	---	---	---	---	---	---	---
SB24-5	---	[redacted]	---	---	---	---	---	---	5.1	---	---	---	---	---	---	---	---
SB25-2	---	4.4	---	---	<0.24	23	---	---	5.9	---	---	32	---	---	---	---	48
SB25-5	---	[redacted]	---	---	<0.18	36	---	---	7.8	---	---	38	---	---	---	---	44
SB26-2	---	3.7	---	---	---	---	---	---	38	---	---	---	---	---	---	---	---
SB27-2	---	[redacted]	---	---	---	---	---	---	5.8	---	---	---	---	---	---	---	---
SB27-5	---	[redacted]	---	---	---	---	---	---	5.4	---	---	---	---	---	---	---	---
SB28-2	---	4.5	---	---	---	---	---	---	4.7	---	---	---	---	---	---	---	---
SB28-5	---	5.0	---	---	---	---	---	---	6.4	---	---	---	---	---	---	---	---
SB29-2	<3.2	5.2	150	0.44	0.77	37	7.8	25	5.0	0.091	1.9	51	<0.27	<0.27	<0.27	36	52
SB29-4	<2.8	3.9	120	0.32	0.54	31	6.2	18	2.6	0.13	1.4	51	<0.23	<0.23	<0.23	27	39
SB29-5	<2.9	5.9	130	0.45	0.63	42	6.4	22	5.1	0.093	1.7	46	<0.25	<0.25	<0.25	34	45
SB29-5DUP	<1.9	1.6	100	0.34	0.32	26	5.2	13	2.8	0.056	<0.65	28	<0.16	<0.16	<0.16	20	35
SB30-2	---	4.1	---	---	---	---	---	---	6.3	---	---	---	---	---	---	---	---
SB30-5	---	2.9	---	---	---	---	---	---	4.2	---	---	---	---	---	---	---	---
SB31-2	---	[redacted]	---	---	0.53	44	---	---	4.0	---	---	54	---	---	---	---	33
SB31-5	---	4.1	---	---	0.40	41	---	---	3.3	---	---	68	---	---	---	---	40
SB32-2	---	[redacted]	---	---	---	---	---	---	5.1	---	---	---	---	---	---	---	---
SB32-5	---	4.1	---	---	---	---	---	---	4.4	---	---	---	---	---	---	---	---
SB33-10	---	---	---	---	<0.19	28	---	---	2.9	---	---	11	---	---	---	---	16
SB33-14.5	---	---	---	---	0.24	43	---	---	11	---	---	43	---	---	---	---	35
ESLs	6.1	5.5	750	4.0	1.7	58	10	230	150	3.7	40	150	10	20	1.0	110	600
PRGs	31	0.39*	5,400	150	37	210	900	3,100	150**	23	390	1,600	390	390	5.2	78	23,000

Notes:

Samples collected between February 25 -27, 2005.
mg/kg = milligrams per kilograms
< = below laboratory reporting limit
--- = Not analyzed
Shaded cells indicate concentrations reported greater than PRGs and/or ESLs
PRGs = USEPA Preliminary Reporting Limits for Residential Use (October, 2004)
ESLs = San Francisco Bay RWQCB Environmental Screening Levels for Residential Use - Shallow Soils (= 3 mbgs) - Where Groundwater is a current or potential source of drinking water (February 2005)
Metals analyzed using EPA Method 6010B
Mercury analyzed using EPA Method 7471
DUP = Duplicate sampleLICATE
* Where non-cancer PRG < 100X cancer PRG
** Cal-Modified

TABLE 5
SOIL SAMPLE LABORATORY ANALYTICAL RESULTS
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)
OAKLAND MACARTHUR BART STATION
CITY OF OAKLAND, CALIFORNIA

SAMPLE ID	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenzo(a,h)anthracene	Benzo(g,h,I)perylene
	ANALYTICAL RESULTS µg/kg															
SB1-4	<5.0	<5.0	<5.0	<5.0	**5.6**	<5.0	**5.5**	**6.2**	<5.0	<5.0	**6.0**	<5.0	**6.5**	<5.0	<5.0	<5.0
SB4-5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
SB4-10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
SB5-5	<4.9	<4.9	<4.9	<4.9	**6.2**	<4.9	**6.8**	**11**	**12**	**18**	**10**	**11**	**17**	<4.9	<4.9	**5.8**
SB5DUP-5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
SB5-10	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9
SB7-5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
SB7-10	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9
SB8-5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
SB8DUP-5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
SB8-10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
SB12-5	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9
SB12-10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
SB18-2	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9
SB18-5	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9
SB22-2	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9
SB22-5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
SB24-2	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9
SB24-5	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	**8.0**	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9
*EB-1	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
*EB-2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
*EB-3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
ESLs	460	13,000	16,000	8,900	11,000	2,800	40,000	85,000	380	3,800	380	380	38	380	110	27,000
PRGs	56,000	N/A	3,700,000	2,700,000	N/A	22,000,000	2,300,000	2,300,000	620	62,000	620	6,200	62	620	62	N/A

TABLE 5
SOIL SAMPLE LABORATORY ANALYTICAL RESULTS
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)
OAKLAND MACARTHUR BART STATION
CITY OF OAKLAND, CALIFORNIA

Notes:

Samples collected between February 25 -27, 2005.
PRGs = USEPA Preliminary Reporting Limits for Residential Use (October 2004)
PAHs analyzed using EPA Method 8270C-SIM
µg/kg = micrograms per kilograms
< = below laboratory reporting limit
PRGs = USEPA Preliminary Reporting Limits for Residential Use (October, 2004
ESLs = San Francisco Bay RWQCB Environmental Screening Levels for Residential Use - Shallow Soils≤ 3 mbgs) - Where Groundwater is a current or potential source of drinking water (February 2005)
DUP = Duplicate sample
Shaded cells indicate concentrations reported greater than PRGs and/or ESLs
*EB = Equipment blank sample analytical results reported in micrograms per liter.

TABLE 7
GRAB GROUNDWATER SAMPLE LABORATORY ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS
OAKLAND MACARTHUR BART STATION
CITY OF OAKLAND, CALIFORNIA

ANALYTE	SAMPLE ID																																				
	GW-1	GW-3	GW-4	GW-5	GW-5Dup	GW-6	GW-9	GW-10	GW-12	GW-13	GW-16	GW-17	GW-18	GW-20	GW-21	GW-22	GW-24	GW-25	*GW-26	GW-28	GW-29	GW-29Dup	GW-30	GW-31	GW-32	GW-33	EB-1	EB-2	EB-3	TB-1	TB-2	TB-3	TB-4	TB-5	ESLs	MCLs
	ANALYTICAL RESULTS (µg/L)																																				
Freon 12	<10	<10	<10	<140	<140	<10	<10	<10	<10	<10	<8,300	<20	<10	<40	<20	<10	<10	<10	--	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	N/A	N/A
Chloromethane	<10	<10	<10	<140	<140	<10	<10	<10	<10	<10	<8,300	<20	<10	<40	<20	<10	<10	<10	--	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	1.3	N/A
Vinyl Chloride	<10	<10	<10	<140	<140	<10	<10	<10	<10	<10	<8,300	<20	<10	<40	<20	<10	<10	<10	--	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	0.5	0.5
Bromomethane	<10	<10	<10	<140	<140	<10	<10	<10	<10	<10	<8,300	<20	<10	<40	<20	<10	<10	<10	--	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	9.8	N/A
Chloroethane	<10	<10	<10	<140	<140	<10	<10	<10	<10	<10	<8,300	<20	<10	<40	<20	<10	<10	<10	--	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	12	N/A
Trichlorofluoromethane	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	150
Acetone	<20	<20	<20	<290	<290	<20	<20	<20	<20	<20	<17,000	<40	<20	<80	<40	<20	<20	<20	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	1,500	N/A
Freon 113	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	1,200
1,1-Dichloroethene	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	6.0	6.0
Methylene Chloride	<20	<20	<20	<290	<290	<20	<20	<20	<20	<20	<17,000	<40	<20	<80	<40	<20	<20	<20	--	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	5.0	N/A
Carbon Disulfide	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	N/A
MTBE	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	13
trans-1,2-Dichloroethene	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	670	10
Vinyl Acetate	<50	<50	<50	<710	<710	<50	<50	<50	<50	<50	<42,000	<100	<50	<200	<100	<50	<50	<50	--	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	N/A	N/A
1,1-Dichloroethane	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	5.0
2-Butanone (MEK)	<10	<10	<10	<140	<140	<10	<10	<10	<10	<10	<8,300	<20	<10	<40	<20	<10	<10	<10	--	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	4,200	N/A
cis-1,2-Dichloroethene	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	[redacted]	<5.0	--	[redacted]	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	6.0	6.0
2,2-Dichloropropane	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	N/A
Chloroform	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	70	N/A
Bromochloromethane	<10	<10	<10	<140	<140	<10	<10	<10	<10	<10	<8,300	<20	<10	<40	<20	<10	<10	<10	--	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	N/A	N/A
1,1,1-Trichloroethane	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	62	200
1,1-Dichloropropene	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	N/A
Carbon Tetrachloride	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	0.5	0.5
1,2-Dichloroethane	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	0.5	0.5
Benzene	<5.0	<5.0	<5.0	[redacted]	[redacted]	[redacted]	<5.0	<5.0	<5.0	[redacted]	[redacted]	[redacted]	<5.0	[redacted]	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	1.0	1.0
Trichloroethene	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	[redacted]	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	5.0
1,2-Dichloropropane	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	5.0
Bromodichloromethane	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	100	N/A
Dibromomethane	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	N/A
4-Methyl-2-Pentanone	<10	<10	<10	<140	<140	<10	<10	<10	<10	<10	<8,300	<20	<10	<40	<20	<10	<10	<10	--	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	1,200	N/A
cis-1,3-Dichloropropene	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	N/A
Toluene	<5.0	<5.0	<5.0	[redacted]	[redacted]	<5.0	<5.0	<5.0	<5.0	<5.0	[redacted]	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	40	150
trans-1,3-Dichloropropene	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	N/A
1,1,2-Trichloroethane	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	5.0
2-Hexanone	<10	<10	<10	<140	<140	<10	<10	<10	<10	<10	<8,300	<20	<10	<40	<20	<10	<10	<10	--	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	4,200	N/A
1,3-Dichloropropane	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	N/A
Tetrachloroethene	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	[redacted]	<5.0	<5.0	[redacted]	[redacted]	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	5.0
Dibromochloromethane	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	100	N/A
1,2-Dibromoethane	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	0.05	N/A
Chlorobenzene	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	25	N/A
1,1,1,2-Tetrachloroethane	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	1.3	N/A
Ethylbenzene	<5.0	<5.0	<5.0	[redacted]	[redacted]	[redacted]	<5.0	<5.0	<5.0	[redacted]	[redacted]	[redacted]	<5.0	[redacted]	[redacted]	[redacted]	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	[redacted]	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	30	300
m,p-Xylenes	<5.0	<5.0	<5.0	[redacted]	[redacted]	[redacted]	<5.0	<5.0	<5.0	[redacted]	[redacted]	[redacted]	<5.0	<20	[redacted]	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	[redacted]	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	20**	1,750**
o-Xylene	<5.0	<5.0	<5.0	[redacted]	[redacted]	19	<5.0	<5.0	<5.0	<5.0	[redacted]	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	[redacted]	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	20**	1,750**
Styrene	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	10	100
Bromoform	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	100	N/A
Isopropylbenzene	<5.0	<5.0	<5.0	72	<71	14	<5.0	<5.0	<5.0	11	<4,200	18	<5.0	<20	28	<5.0	<5.0	6.2	--	<5.0	<5.0	<5.0	<5.0	<5.0	11	11	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	N/A
1,1,2,2-Tetrachloroethane	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	1.0	1.0
1,2,3-Trichloropropane	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	N/A
Propylbenzene	<5.0	<5.0	<5.0	250	210	44	<5.0	<5.0	<5.0	30	<4,200	58	<5.0	36	150	<5.0	<5.0	14	--	<5.0	<5.0	<5.0	<5.0	<5.0	11	40	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	N/A
Bromobenzene	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	N/A

TABLE 7
GRAB GROUNDWATER SAMPLE LABORATORY ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS
OAKLAND MACARTHUR BART STATION
CITY OF OAKLAND, CALIFORNIA

ANALYTE	SAMPLE ID																																		
	GW-1	GW-3	GW-4	GW-5	GW-5Dup	GW-6	GW-9	GW-10	GW-12	GW-13	GW-16	GW-17	GW-18	GW-20	GW-21	GW-22	GW-24	GW-25	*GW-26	GW-28	GW-29	GW-29Dup	GW-30	GW-31	GW-32	GW-33	EB-1	EB-2	EB-3	TB-1	TB-2	TB-3	TB-4	TB-5	ESLs	MCLs
	ANALYTICAL RESULTS (µg/L)																																			
1,3,5-Trimethylbenzene	<5.0	<5.0	<5.0	320	260	21	<5.0	<5.0	<5.0	22	<4,200	61	<5.0	<20	21	<5.0	<5.0	<5.0	---	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	56	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	N/A
2-Chlorotoluene	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	---	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	N/A
4-Chlorotoluene	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	---	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	N/A
tert-Butylbenzene	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	---	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	N/A
1,2,4-Trimethylbenzene	<5.0	<5.0	<5.0	980	790	91	<5.0	9.5	<5.0	78	6,200	180	<5.0	50	40	<5.0	<5.0	<5.0	---	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	190	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	N/A
sec-Butylbenzene	<5.0	<5.0	<5.0	<71	<71	6.7	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	29	<5.0	<5.0	8.2	---	<5.0	13	13	<5.0	<5.0	11	6	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	N/A
para-Isopropyl Toluene	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	---	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	N/A
1,3-Dichlorobenzene	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	---	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	65	N/A
1,4-Dichlorobenzene	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	---	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	5.0
n-Butylbenzene	<5.0	<5.0	<5.0	<71	<71	13	<5.0	<5.0	<5.0	<5.0	<4,200	12	<5.0	<20	60	<5.0	<5.0	<5.0	---	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	16	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	N/A
1,2-Dichlorobenzene	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	---	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	10	600
1,2-Dibromo-3-Chloropropane	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	---	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	N/A
1,2,4-Trichlorobenzene	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	---	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	25	5.0
Hexachlorobutadiene	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	---	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	N/A
Naphthalene	<5.0	<5.0	<5.0	110	100	21	<5.0	<5.0	<5.0	20	<4,200	21	<5.0	<20	27	<5.0	<5.0	<5.0	---	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	17	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	17	N/A
1,2,3-Trichlorobenzene	<5.0	<5.0	<5.0	<71	<71	<5.0	<5.0	<5.0	<5.0	<5.0	<4,200	<10	<5.0	<20	<10	<5.0	<5.0	<5.0	---	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	N/A

Notes:
Samples collected between February 25 -27, 2005.
µg/L = micrograms per liter
< = below laboratory reporting limits
ESLs = San Francisco Bay RWQCB Environmental Screening Levels for Residential Use - Shallow Soils (= 3 mbgs) -Where Groundwater is a current or potential source of drinking water (February 2005)
MCLs = Title 22, CCR, Division 4., Environmetnal Health, Chapter 15., Domestic Water Quality and Monitoring, Article 5.5., Primary Standards-Organic Chemicals (September, 2003).
Shaded cells indicate concentrations reported greater than ESLs and/or MCLs
VOCs analyzed using EPA Method 8260B
DUP = Duplicate Sample
EB = Equipment blank
TB = Trip blank
N/A = Not available
* Groundwater sample collected, sample not analyzed due to container breakage.
** Compared to total xylenes

TABLE 6
GRAB GROUNDWATER SAMPLE LABORATORY ANALYTICAL RESULTS
TOTLA PETROLEUM HYDROCARBONS AS GASOLINE, DIESEL, MOTOR OIL, MTBE AND BTEX
OAKLAND MACARTHUR BART STATION
CITY OF OAKLAND, CALIFORNIA

SAMPLE I.D.	ANALYTE							
	TPH-G	TPH-D	TPH-MO	MTBE	Benzene	Toluene	Ethyl-Benzene	Total Xylenes
	ANLAYTICAL RESULTS (µg/L)							
*GW-3	---	---	---	---	---	---	---	---
GW-4	[redacted]	[redacted]	[redacted]	---	---	---	---	---
GW-5	[redacted]	[redacted]	<300	---	---	---	---	---
GW-5Dup	[redacted]	[redacted]	<300	---	---	---	---	---
GW-6	[redacted]	[redacted]	<300	---	---	---	---	---
GW-8	[redacted]	[redacted]	<300	<2.0	[redacted]	<0.5	[redacted]	10 C
GW-8Dup	[redacted]	[redacted]	<300	<2.0	[redacted]	<0.5	[redacted]	7.9C
GW-9	[redacted]	[redacted]	<300	---	---	---	---	---
GW-10	[redacted]	[redacted]	<300	---	---	---	---	---
**W-11	[redacted]	[redacted]	<300	---	<5.0	<5.0	[redacted]	[redacted]
GW-12	<50	<50	<300	---	---	---	---	---
GW-13	[redacted]	[redacted]	[redacted]	---	---	---	---	---
GW-15	[redacted]	[redacted]	[redacted]	<2.0	[redacted]	[redacted]	[redacted]	[redacted]
GW-16	[redacted]	[redacted]	<15,000	---	---	---	---	---
**W16A	[redacted]	---	---	---	[redacted]	[redacted]	[redacted]	[redacted]
**W16B	[redacted]	---	---	---	[redacted]	[redacted]	[redacted]	[redacted]
GW-18	54	[redacted]	[redacted]	---	---	---	---	---
GW-20	---*	[redacted]	<300	---	---	---	---	---
GW-21	[redacted]	[redacted]	<300	---	---	---	---	---
GW-22	[redacted]	[redacted]	<300	---	---	---	---	---
GW-25	[redacted]	[redacted]	[redacted]	---	---	---	---	---
GW-28	[redacted]	[redacted]	<300	---	---	---	---	---
GW-29	[redacted]	[redacted]	<300	---	---	---	---	---
GW-29Dup	[redacted]	[redacted]	[redacted]	---	---	---	---	---
GW-30	<50	<50	<300	---	---	---	---	---
GW-31	---	---	---	---	---	---	---	---
GW-32	[redacted]	[redacted]	[redacted]	---	---	---	---	---
GW-33	<50	[redacted]	<300	---	---	---	---	---
EB-1	<50	<50	<300	<2.0	<0.5	<0.5	<0.5	<0.5
EB-2	<50	<50	<300	<2.0	<0.5	<0.5	<0.5	<0.5
EB-3	<50	<50	<300	<2.0	<0.5	<0.5	<0.5	<0.5
ESLs	100	100	100	5.0	1.0	40	30	20
MCLs	N/A	N/A	N/A	13	1.0	150	300	1,750

Notes:
Groundwater Samples collected between February 25 -27, 2005.
** Groundwater sample collected June 4, 2005
TPH-G = Total Petroleum Hydrocarbons as Gasoline) analyzed by EPA Method 8015B
TPH-MO = Total Petroleum Hydrocarbons as Motor Oil analyzed by EPA Method 8015B
TPH-D = Total Petroleum Hydrocarbons as Diesel analyzed by EPA Method 8015B
BTEX = Benzene, Toluene, Ethylbenzene, and Total Xylenes analyzed by EPA Method 8260
MTBE = Methyl Tertiary Butyl Ether analyzed by EPA Method 8260
µg/L = micrograms per liter
< = below laboratory reporting limits
--- = Not analyzed
H indicates heavier hydrocarbons contributed to the quantitation
Y indicates the sample exhibits a chromatographic pattern which does not resemble standard
L indicates lighter hydrocarbons contributed to the quantitation
N/A = Not available
ESLs = San Francisco Bay RWQCB Environmental Screening Levels - Shallow Soils (≤3 mbgs) - Where Groundwater is a Current or Potential Source of Drinking Water (February 2005)
MCLs = Title 22, CCR, Division 4 , Environmetnal Health, Chapter 15., Domestic Water Quality and Monitoring, Article 5.5., Primary Standards-Organic Chemicals (September, 2003).
Shaded cells indicate concentrations reported greater than ESLs and/or MCLs
DUP = Duplicate sample
EB = Equipment Blank Sample
* Groundwater sample collected, sample not analyzed due to container breakage.

TABLE 8
GRAB GROUNDWATER SAMPLE LABORATORY ANALYTICAL RESULTS
METALS
OAKLAND MACARTHUR BART STATION
CITY OF OAKLAND, CALIFORNIA

SAMPLE ID	ANALYTE																
	Antimony	Arsenic	Barium	Beryllium	Cadmium	Total Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
	ANALYTICAL RESULTS (µg/L)																
GW-1	---	---	---	---	<5.0	<10	---	---	[redacted]	---	---	<20	---	---	---	---	<20
GW-5	---	---	---	---	<5.0	<10	---	---	<3.0	---	---	<20	---	---	---	---	<20
GW-5DUP	---	---	---	---	<5.0	<10	---	---	<3.0	---	---	<20	---	---	---	---	<20
GW-8	---	---	---	---	<5.0	<10	---	---	<3.0	---	---	<20	---	---	---	---	<20
GW-8DUP	---	---	---	---	<5.0	<10	---	---	<3.0	---	---	<20	---	---	---	---	<20
GW-9	---	---	---	---	<5.0	<10	---	---	<3.0	---	---	[redacted]	---	---	---	---	<20
GW-10	---	---	---	---	<5.0	<10	---	---	<3.0	---	---	<20	---	---	---	---	<20
GW-12	<60	<5.0	150	<2.0	<5.0	<10	<20	<10	<3.0	<0.20	<20	<20	<5.0	<5.0	<5.0	<10	<20
GW-13	<60	<5.0	650	<2.0	<5.0	23	<20	[redacted]	<3.0	[redacted]	<20	[redacted]	<5.0	<5.0	<5.0	[redacted]	47
GW-16	---	[redacted]	---	---	<5.0	<10	---	---	<3.0	---	---	<20	---	---	---	---	<20
GW-17	---	[redacted]	---	---	---	---	---	---	<3.0	---	---	---	---	---	---	---	---
GW-18	---	[redacted]	---	---	---	---	---	---	[redacted]	---	---	---	---	---	---	---	---
GW-20	---	<5.0	---	---	<5.0	<10	---	---	<3.0	---	---	<20	---	---	---	---	<20
GW-21	---	[redacted]	---	---	<5.0	<10	---	---	<3.0	---	---	<20	---	---	---	---	<20
GW-22	---	[redacted]	---	---	<5.0	21	---	---	<3.0	---	---	[redacted]	---	---	---	---	24
GW-24	---	---	---	---	---	---	---	---	<3.0	---	---	---	---	---	---	---	---
GW-25	---	[redacted]	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
GW-28	---	<3.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
GW-29	<60	[redacted]	290	<2.0	<5.0	<10	<20	<10	<3.0	<0.20	28	<20	<5.0	<5.0	<5.0	<10	<20
GW-29DUP	<60	[redacted]	310	<2.0	<5.0	<10	<20	<10	<3.0	<0.20	32	<20	<5.0	<5.0	<5.0	<10	<20
GW-30	---	<5.0	---	---	<5.0	<10	---	---	<3.0	---	---	<20	---	---	---	---	<20
GW-33	---	---	---	---	<5.0	<10	---	---	<3.0	---	---	[redacted]	---	---	---	---	<20
EB-1	<60	<5.0	<10	<2.0	<5.0	<10	<20	<10	<3.0	<0.20	<20	<20	<5.0	<5.0	<5.0	<10	<20
EB-2	<60	<5.0	<10	<2.0	<5.0	<10	<20	<10	<3.0	<0.20	<20	<20	<5.0	<5.0	<5.0	<10	<20
EB-3	<60	<5.0	<10	<2.0	<5.0	<10	<20	<10	<3.0	<0.20	<20	<20	<5.0	<5.0	<5.0	<10	<20
ESLs	6.0	5.5	1,000	2.7	1.1	50	3.0	3.1	2.5	0.012	35	8.2	5.0	0.19	2.0	15	81
MCLs	6.0	50	1,000	4.0	5.0	50	N/A	N/A	N/A	2.0	N/A	100	50	N/A	2.0	N/A	N/A

Notes:
Samples collected between February 25 -27, 2005.
Groundwater samples field filtered with 0.45 micron filter prior to laboratory analysis
CAM 17 Metals analyzed using EPA Method 6010E
Mercury analyzed using EPA Method 7471
All concentrations are given in
< = below laboratory reporting limit
-- = Not analyzed
µg/L = micrograms per liter
N/A = Not applicable
ESLs = San Francisco Bay RWQCB Environmental Screening Levels for Residential Use - Shallow Soils (= 3 mbgs) - Where Groundwater is a current or potential source of drinking water (February 2005)
MCLs = Title 22, CCR, Division 4., Environmetnal Health, Chapter 15., Domestic Water Quality and Monitoring, Article 4., Primary Standards-Inorganic Chemicals (September, 2003).
Shaded cells indicate concentrations reported greater than ESLs and/or MCLs
DUP = Duplicate
EB = Equipment blank.

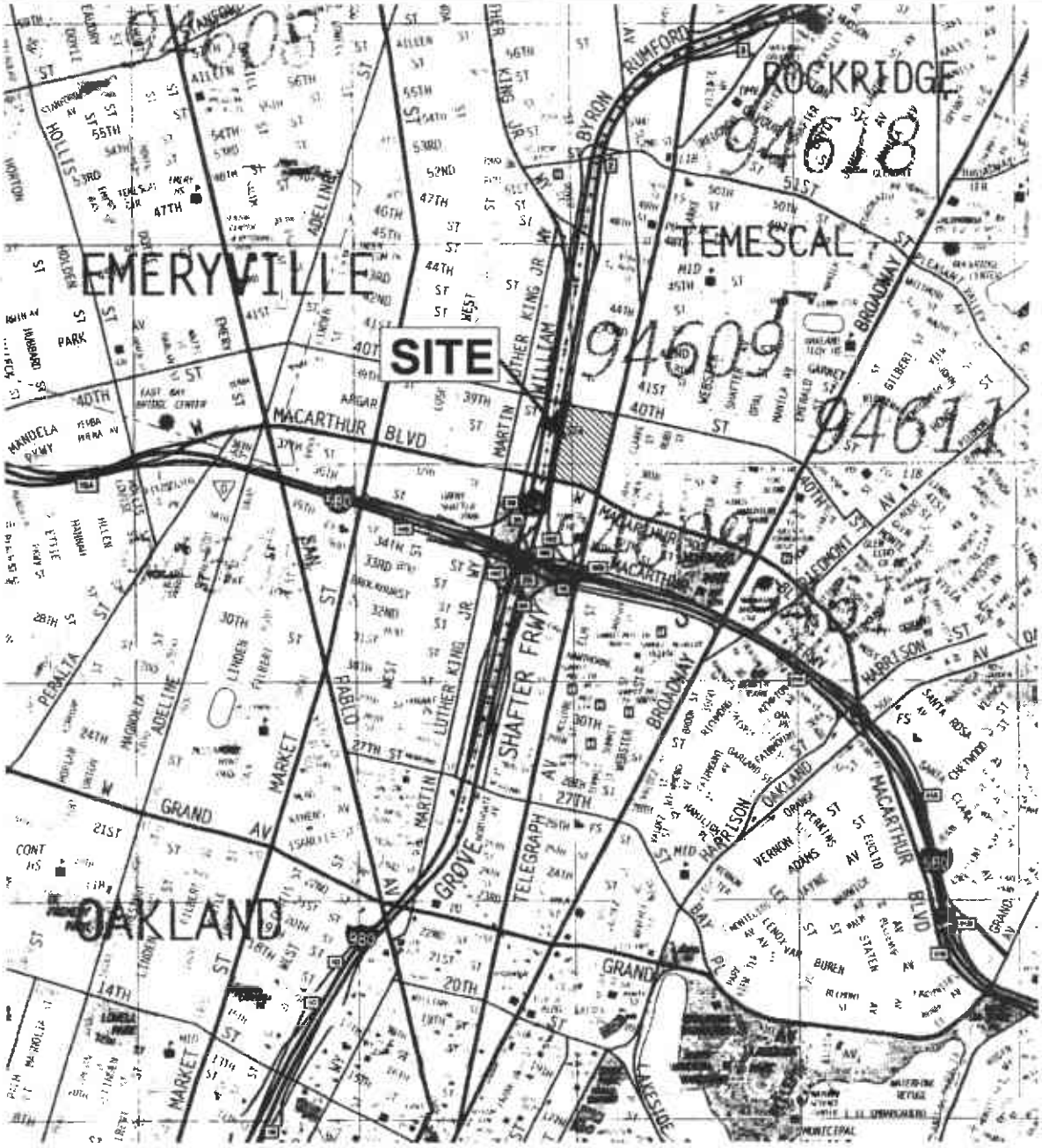
TABLE 9
SOIL GAS SURVEY LABORATORY ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS
OAKLAND MACARTHUR BART STATION
CITY OF OAKLAND, CALIFORNIA

ANALYTE	SAMPLE ID																ESLs ($\mu g/m^3$)
	SG-1	SG-1 Dup	SG-2	SG-3	SG-4	SG-5	SG-6	SG-7	SG-8	SG-9	SG-10	SG-11	SG-12	SG-13	SG-14	SG-15	
	ANALYTICAL RESULTS ($\mu g/m^3$)																
Freon 12	< 4300	< 4300	< 250	< 52	< 410	< 740	<6.6	<9.4	<17	< 5.1	< 5.0	< 5.2	< 5.8	< 5.1	< 5.2	< 5.3	—
Freon 114	< 6000	< 6000	< 360	< 73	< 580	< 1000	<9.4	<13	<24	< 7.2	< 7.1	< 7.3	< 8.1	< 7.2	< 7.3	< 7.4	—
Chloromethane	< 7100	< 7100	< 420	< 86	< 680	< 1200	<11	<16	<28	< 8.5	< 8.3	< 8.6	< 9.6	< 8.5	< 8.6	< 8.8	330
Vinyl Chloride	< 2200	< 2200	< 130	< 27	< 210	< 380	<3.4	<4.9	<8.6	< 2.6	< 2.6	< 2.7	< 3.0	< 2.6	< 2.7	< 2.7	32
1,3-Butadiene	< 1900	< 1900	< 110	95	< 180	< 330	<3.0	<4.2	<7.4	< 2.3	61	< 2.3	< 2.6	48	85	< 2.4	—
Bromomethane	< 3400	< 3400	< 200	< 40	< 320	< 580	<5.2	<7.4	<13	< 4.0	< 3.9	< 4.0	< 4.5	< 4.0	< 4.0	< 4.1	1,000
Chloroethane	< 2300	< 2300	< 140	< 28	< 220	< 390	<3.5	<5.0	<8.9	< 2.7	< 2.7	< 2.8	< 3.1	< 2.7	< 2.8	< 2.8	330
Freon 11	< 4900	< 4900	< 290	< 59	< 470	< 840	<7.6	<11	<19	< 5.8	< 5.7	< 5.9	< 6.5	< 5.8	< 5.9	< 6.0	—
Ethanol	< 6500	< 6500	< 390	< 79	< 620	< 1100	68	67	120	100	19	110	34	130	43	< 8.0	19,000,000
Freon 113	< 6600	< 6600	< 390	< 80	< 640	< 1100	<10	<15	<26	< 7.8	< 7.7	< 8.0	< 8.9	< 7.8	< 8.0	< 8.2	—
1,1-Dichloroethene	< 3400	< 3400	< 200	< 41	< 330	< 590	<5.3	<7.6	<13	< 4.1	< 4.0	< 4.1	< 4.6	< 4.1	< 4.1	< 4.2	1500
Acetone	13000	13000	2600	840	2600	< 1400	330	470	400	850	250	820	340	430	510	38	660,000
2-Propanol	75000	78000	1100	< 100	< 820	< 1500	<13	<19	<33	11	< 9.9	47	45	34	< 10	< 10	—
Carbon Disulfide	9700	10000	< 160	34	< 260	< 460	16	15	21	4.7	11	5.0	27	8.8	11	< 3.3	—
3-Chloropropene	< 11000	< 11000	< 640	< 130	< 1000	< 1900	<17	<24	<42	< 13	< 13	< 13	< 14	< 13	< 13	< 13	—
Methylene Chloride	< 3000	< 3000	< 180	< 36	< 290	< 520	7.2	<6.6	<12	< 3.6	< 3.5	< 3.6	< 4.0	< 3.6	< 3.6	< 3.7	2,400
Methyl tert-butyl ether	< 3100	< 3100	< 180	< 38	< 300	< 540	<4.8	<6.9	<12	< 3.7	< 3.6	< 3.8	< 4.2	< 3.7	< 3.8	< 3.8	9,400
trans-1,2-Dichloroethene	< 3400	< 3400	< 200	< 41	< 330	< 590	<5.3	<7.6	<13	< 4.1	< 4.0	< 4.1	< 4.6	< 4.1	< 4.1	< 4.2	15,000
Hexane	4200	4300	320	78	1300	20000	18	420	150	22	23	65	120	49	35	< 3.8	—
Vinyl Acetate	< 12000	< 12000	< 720	< 150	< 1200	< 2100	<19	<27	<47	< 14	< 14	< 15	< 16	< 14	< 15	< 15	—
1,1-Dichloroethane	< 3500	< 3500	< 210	< 42	< 340	< 600	<5.4	<7.7	<14	< 4.1	< 4.1	< 4.2	< 4.7	< 4.1	< 4.2	< 4.3	1,500
2-Butanone (Methyl Ethyl Ketone)	< 2600	< 2600	< 150	33	< 240	< 440	22	34	26	42	13	35	21	45	33	4.2	210,000
cis-1,2-Dichloroethene	< 3400	< 3400	< 200	< 41	< 330	< 590	<5.3	<7.6	<13	< 4.1	< 4.0	< 4.1	< 4.6	< 4.1	< 4.1	< 4.2	7,300
Tetrahydrofuran	< 2600	< 2600	360	46	< 240	< 440	6.9	9.2	11	< 3.0	< 3.0	< 3.1	< 3.4	< 3.0	< 3.1	< 3.1	—
Chloroform	< 4200	< 4200	< 250	< 51	< 400	< 730	<6.6	<9.3	<16	< 5.0	< 4.9	< 5.1	29	< 5.0	< 5.1	< 5.2	450
1,1,1-Trichloroethane	< 4700	< 4700	< 280	< 57	< 450	< 820	<7.3	<10	<18	< 5.6	< 5.5	< 5.7	< 6.4	< 5.6	< 5.7	< 5.8	460,000
Cyclohexane	16000	15000	1000	730	9800	8100	<4.6	210	81	11	18	30	90	39	16	< 3.7	—
Carbon Tetrachloride	< 5400	< 5400	< 320	< 66	< 520	< 940	<8.5	<12	<21	< 6.4	< 6.4	< 6.6	< 7.3	< 6.4	< 6.6	< 6.7	—
2,2,4-Trimethylpentane	1400000	1400000	70000	9200	120000	28000	1400	2400	4500	110	240	1100	1100	410	150	22	—
Benzene	< 2800	< 2800	< 160	65	1700	140000	11	360	16	9.2	< 20	34	63	38	30	< 3.4	85
1,2-Dichloroethane	< 3500	< 3500	< 210	< 42	< 340	< 600	<5.4	<7.7	<14	< 4.1	< 4.1	< 4.2	< 4.7	< 4.1	< 4.2	< 4.3	—
Heptane	< 3500	< 3500	< 210	< 43	< 340	5000	<5.5	100	130	7.1	< 4.3	28	35	17	8.9	< 4.4	—
Trichloroethene	< 4600	< 4600	< 280	< 56	< 450	< 800	<7.2	<10	<18	< 5.5	< 5.4	< 5.6	12	< 5.5	< 5.6	< 5.7	1,200
1,2-Dichloropropane	< 4000	< 4000	< 240	< 48	< 380	< 690	<6.2	<8.8	<16	< 4.7	< 4.7	< 4.8	< 5.4	< 4.7	< 4.8	< 4.9	—
1,4-Dioxane	< 12000	< 12000	< 740	< 150	< 1200	< 2200	<19	<28	<48	< 15	< 14	< 15	< 17	< 15	< 15	< 15	—
Bromodichloromethane	< 5800	< 5800	< 340	< 70	< 560	< 1000	<9.0	<13	<22	< 6.9	< 6.8	< 7.0	< 7.8	< 6.9	< 7.0	< 7.1	66
cis-1,3-Dichloropropene	< 3900	< 3900	< 230	< 47	< 380	< 680	<6.1	<8.7	<15	< 4.6	< 4.6	< 4.7	< 5.3	< 4.6	< 4.7	< 4.8	—
4-Methyl-2-pentanone	< 3500	< 3500	< 210	< 43	< 340	< 610	<5.5	<7.8	<14	< 4.2	< 4.1	< 4.3	< 4.8	< 4.2	< 4.3	< 4.4	—
Toluene	3400	3600	< 190	< 39	< 310	4800	17	14	29	21	10	54	54	49	23	< 4.0	63,000
trans-1,3-Dichloropropene	< 3900	< 3900	< 230	< 47	< 380	< 680	<6.1	<8.7	<15	< 4.6	< 4.6	< 4.7	< 5.3	< 4.6	< 4.7	< 4.8	—

TABLE 9
SOIL GAS SURVEY LABORATORY ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS
OAKLAND MACARTHUR BART STATION
CITY OF OAKLAND, CALIFORNIA

ANALYTE	SAMPLE ID																ESLs ($\mu g/m^3$)
	SG-1	SG-1 Dup	SG-2	SG-3	SG-4	SG-5	SG-6	SG-7	SG-8	SG-9	SG-10	SG-11	SG-12	SG-13	SG-14	SG-15	
	ANALYTICAL RESULTS ($\mu g/m^3$)																
1,1,2-Trichloroethane	< 4700	< 4700	< 280	< 57	< 450	< 820	<7.3	<10	<18	< 5.6	< 5.5	< 5.7	< 6.4	< 5.6	< 5.7	< 5.8	**150**
Tetrachloroethene	< 5900	< 5900	< 350	< 71	< 560	< 1000	<9.1	<13	<23	< 7.0	< 6.8	**< 24**	**220**	< 7.0	< 7.1	< 7.2	**410**
2-Hexanone	< 14000	< 14000	< 840	< 170	< 1400	< 2400	<22	<31	<55	< 17	< 16	< 17	< 19	< 17	< 17	< 17	—
Dibromochloromethane	< 7400	< 7400	< 440	< 89	< 710	< 1300	<11	<16	<29	< 8.7	< 8.6	< 8.9	< 9.9	< 8.7	< 8.9	< 9.1	**91**
1,2-Dibromoethane (EDB)	< 6600	< 6600	< 400	< 80	< 640	< 1100	<10	<15	<26	< 7.9	< 7.8	< 8.0	< 9.0	< 7.9	< 8.0	< 8.2	**34**
Chlorobenzene	< 4000	< 4000	< 240	< 48	< 380	< 690	<6.2	<8.8	<15	< 4.7	< 4.6	< 4.8	< 5.4	< 4.7	< 4.8	< 4.9	**12,000**
Ethyl Benzene	< 3800	< 3800	< 220	< 45	< 360	**1900**	<5.8	**16**	**16**	< 4.4	< 4.4	**19**	**19**	**55**	< 4.5	< 4.6	**420,000**
m,p-Xylene	< 3800	< 3800	< 220	< 45	< 360	**1500**	**8.7**	**11**	**22**	**12**	**< 5.7**	**38**	**34**	**70**	**12**	< 4.6	**150,000**
o-Xylene	< 3800	< 3800	< 220	< 45	< 360	< 650	<5.8	<8.3	<15	**5.0**	< 4.4	**15**	**12**	**22**	**5.2**	< 4.6	**150,000**
Styrene	< 3700	< 3700	< 220	< 44	< 350	< 640	<5.7	<8.1	<14	< 4.4	< 4.3	< 4.4	< 5.0	< 4.4	< 4.4	< 4.5	**210,000**
Bromoform	< 8900	< 8900	< 530	< 110	< 860	< 1500	<14	<20	<35	< 10	< 10	< 11	< 12	< 10	< 11	< 11	—
Cumene	< 4200	< 4200	< 250	< 51	< 410	< 730	<6.6	<9.4	<16	< 5.0	< 5.0	< 5.1	< 5.7	< 5.0	< 5.1	< 5.2	—
1,1,2,2-Tetrachloroethane	< 5900	< 5900	< 350	< 72	< 570	< 1000	<9.2	<13	<23	< 7.0	< 6.9	< 7.2	< 8.0	< 7.0	< 7.2	< 7.3	**43**
Propylbenzene	< 4200	< 4200	< 250	< 51	< 410	< 730	<6.6	<9.4	**20**	< 5.0	< 5.0	**7.0**	< 5.7	**6.8**	< 5.1	< 5.2	—
4-Ethyltoluene	< 4200	< 4200	< 250	< 51	< 410	< 730	<6.6	<9.4	<16	< 5.0	< 5.0	**9.4**	**6.7**	**10**	**5.2**	< 5.2	—
1,3,5-Trimethylbenzene	< 4200	< 4200	< 250	< 51	< 410	< 730	<6.6	<9.4	<16	< 5.0	< 5.0	< 5.1	< 5.7	< 5.0	< 5.1	< 5.2	—
1,2,4-Trimethylbenzene	< 4200	< 4200	< 250	< 51	< 410	< 730	<6.6	<9.4	<16	**5.5**	< 5.0	**8.8**	**6.9**	**7.6**	**6.3**	< 5.2	—
1,3-Dichlorobenzene	< 5200	< 5200	< 310	< 63	< 500	< 900	<8.1	<11	<20	< 6.2	< 6.1	< 6.3	< 7.0	< 6.2	< 6.3	< 6.4	**22,000**
1,4-Dichlorobenzene	< 5200	< 5200	< 310	< 63	< 500	< 900	<8.1	<11	<20	< 6.2	< 6.1	< 6.3	< 7.0	< 6.2	< 6.3	< 6.4	**210**
alpha-Chlorotoluene	< 4500	< 4500	< 270	< 54	< 430	< 770	<7.0	<9.9	<17	< 5.3	< 5.2	< 5.4	< 6.0	< 5.3	< 5.4	< 5.5	—
1,2-Dichlorobenzene	< 5200	< 5200	< 310	< 63	< 500	< 900	<8.1	<11	<20	< 6.2	< 6.1	< 6.3	< 7.0	< 6.2	< 6.3	< 6.4	**42,000**
1,2,4-Trichlorobenzene	< 26000	< 26000	< 1500	< 310	< 2500	< 4400	<40	<57	<100	< 30	< 30	< 31	< 34	< 30	< 31	< 32	**730**
Hexachlorobutadiene	< 37000	< 37000	< 2200	< 440	< 3500	< 6400	<57	<81	<140	< 44	< 43	< 44	< 50	< 44	< 44	< 45	—
Freon 134a	< 14000	< 14000	< 860	< 170	< 1400	< 2500	<22	**510**	**690**	< 17	< 17	**44**	**30**	< 17	**29**	< 18	—

Notes:
$\mu g/m^3$ = micrograms per meter cube
ESLs = SF Bay Regional Water Quality Control Board Residential Land Use Environmetnal Screening Levels for Shallow Soil Gas, Interm Final 20
— = not available
< = less than laboratory reporting limit
Bold indicates concentration above laboratory reporting limit, shaded area represents concentration above ESLs
Modified EPA Method TO-15 GC/MS Full Scan used for sample analysis
Samples collected June, 2005



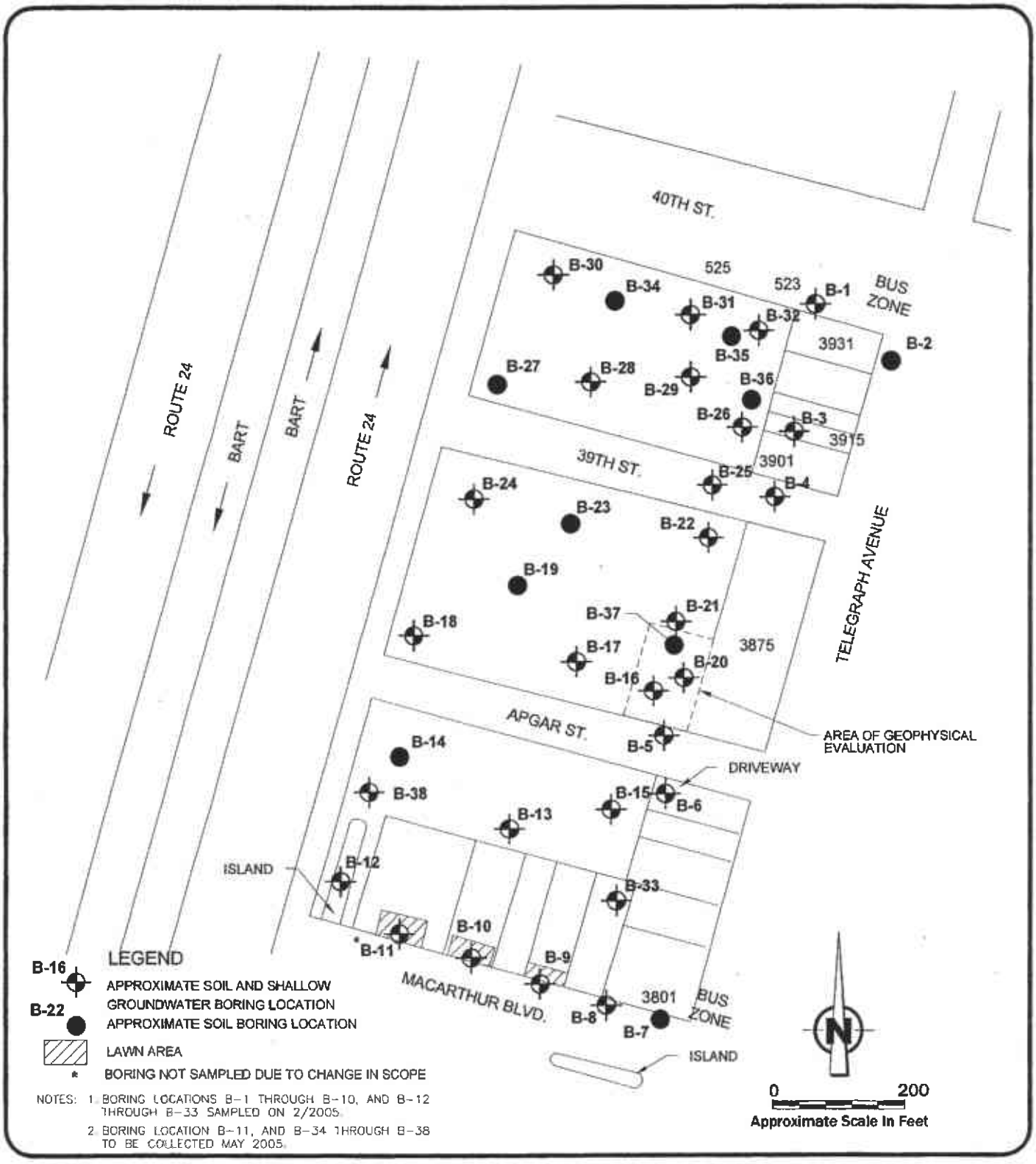
REFERENCE: 2004 THOMAS GUIDE FOR ALAMEDA & CONTRA COSTA COUNTIES STREET GUIDE AND DIRECTORIES

Ninyo & Moore

SITE LOCATION MAP

MACARTHUR BART TRANSIT PROJECT
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	3/2005	1

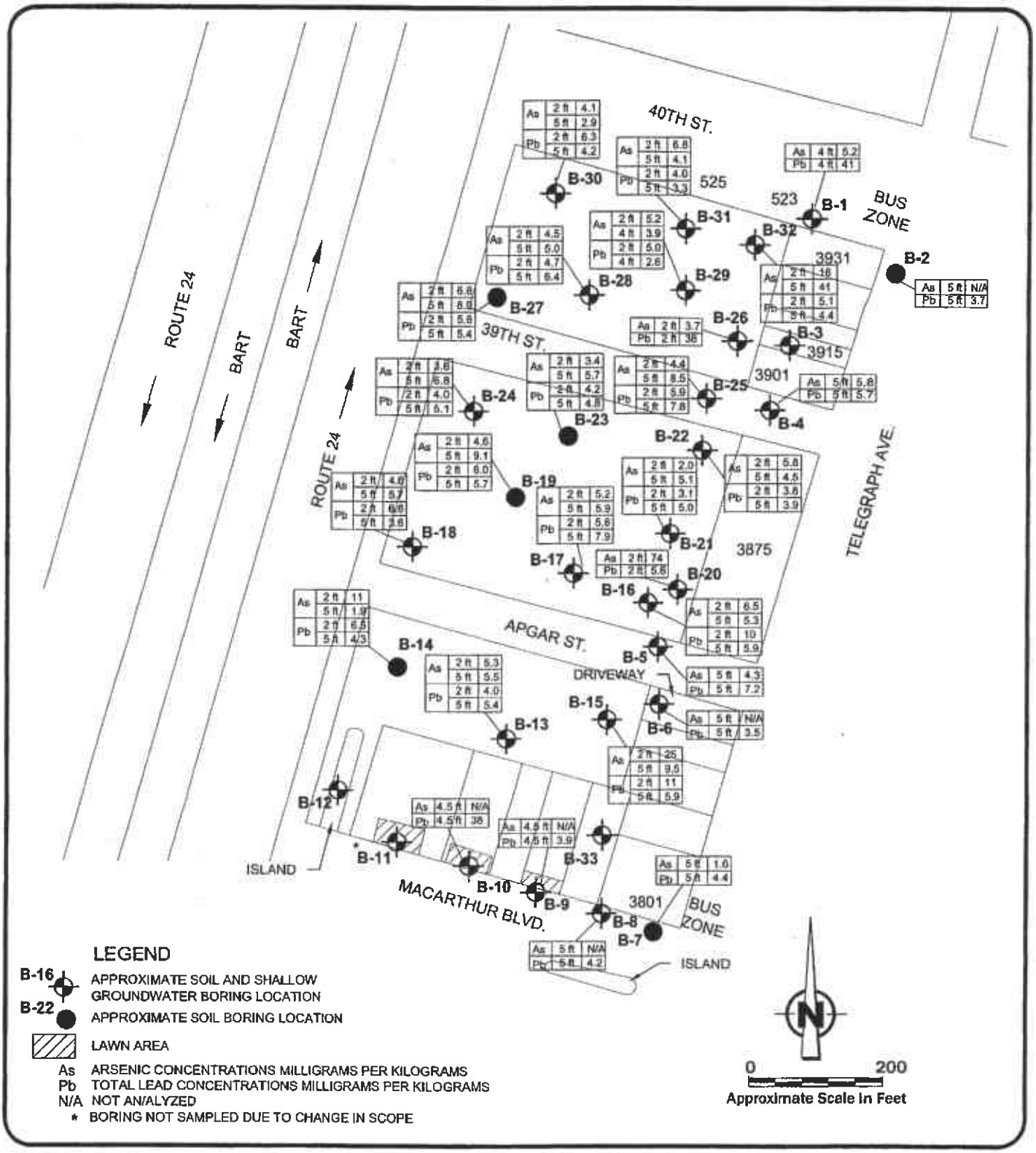


Ninyo & Moore

BORING LOCATION MAP

MACARTHUR BART TRANSIT PROJECT
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	3/2005	2

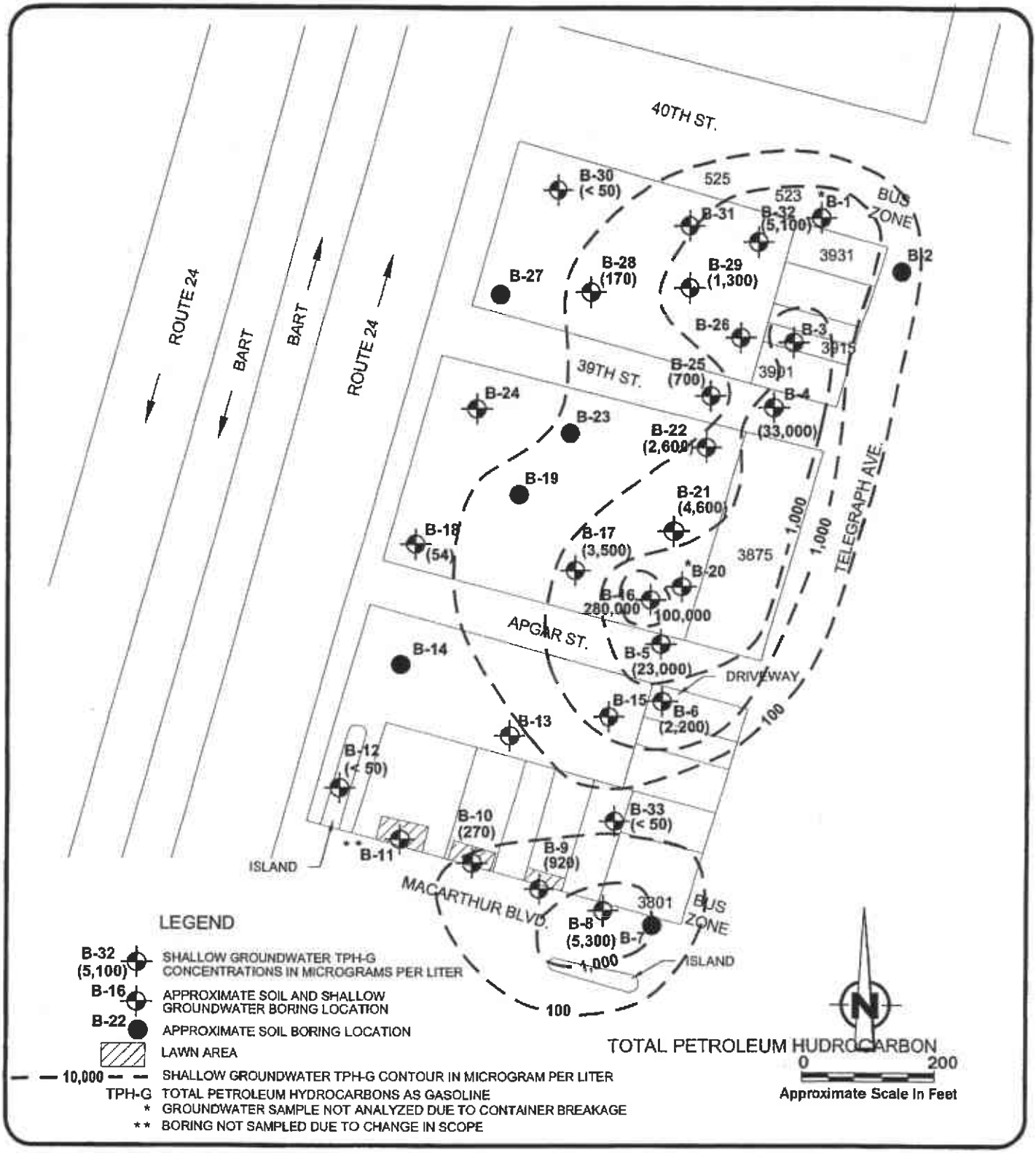


Ninyo & Moore

SOIL SAMPLE CONCENTRATION MAP FOR TOTAL LEAD AND ARSENIC

MACARTHUR BART TRANSIT PROJECT
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	3/2005	3

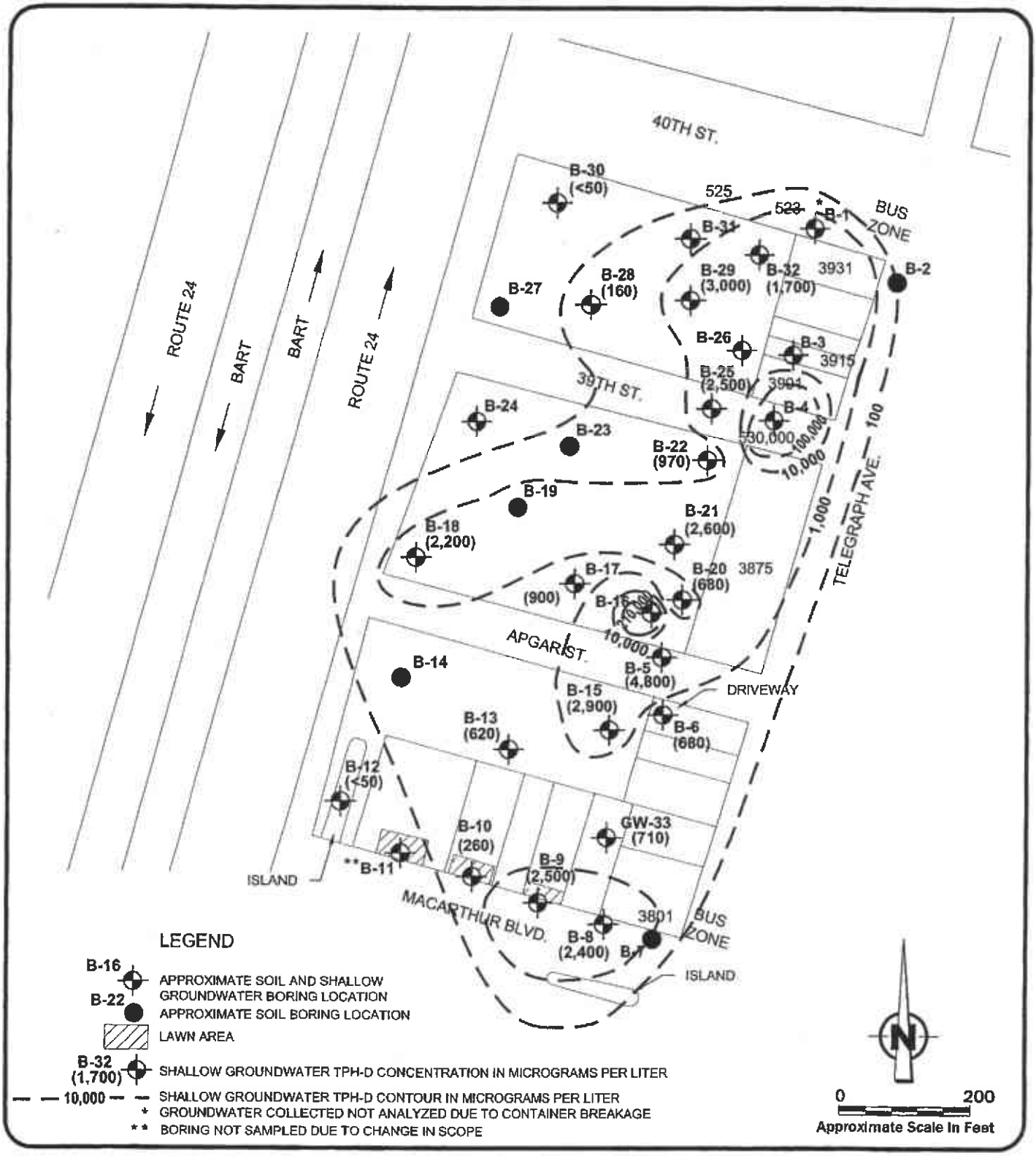


Ninyo & Moore

SHALLOW GROUNDWATER ISOCONCENTRATION MAP, TOTAL PETROLEUM HYDROCARBON AS GASOLINE (TPH-G)

MACARTHUR BART TRANSIT PROJECT
OAKLAND, CALIFORNIA

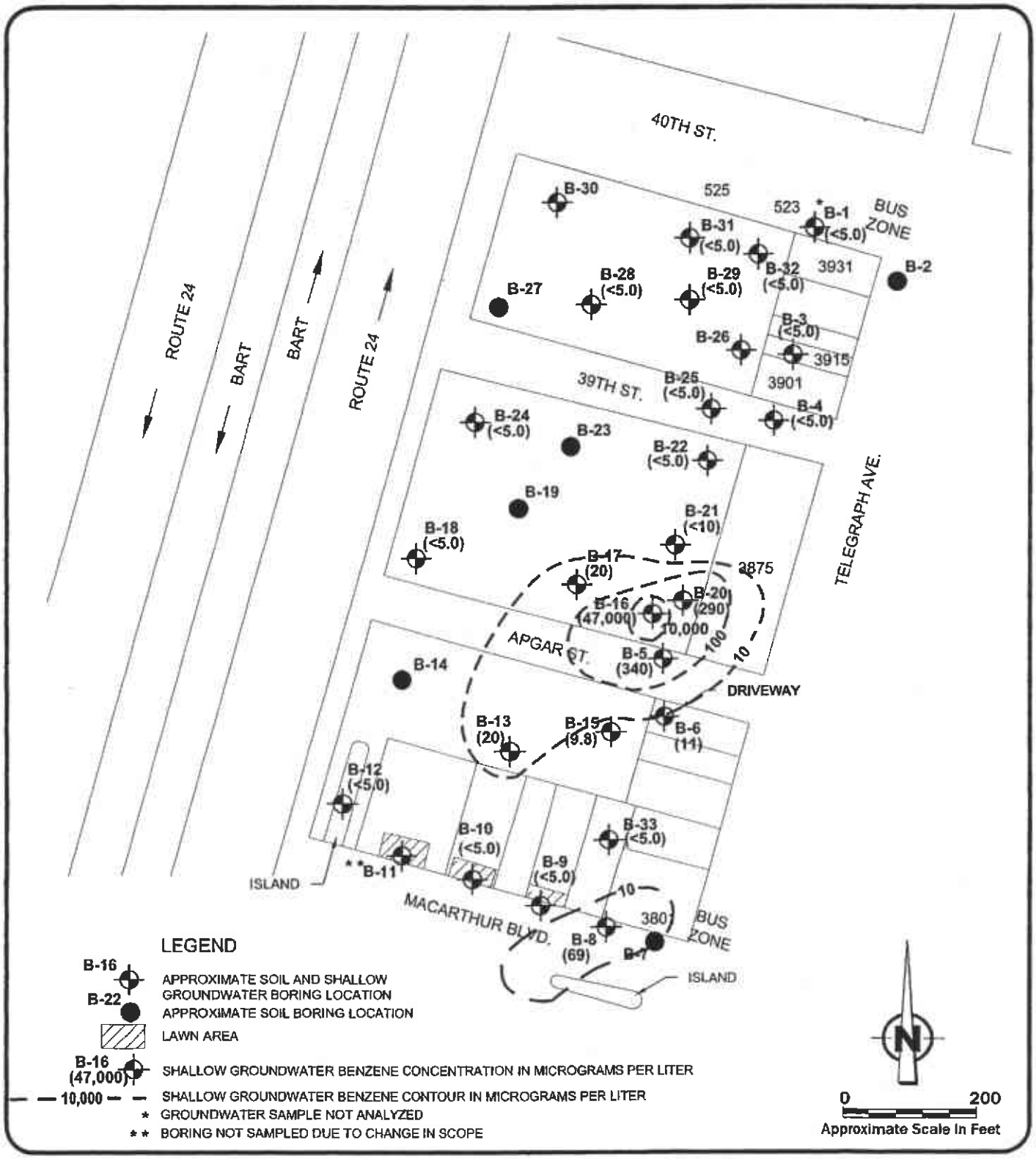
PROJECT NO.	DATE	FIGURE
400834018	3/2005	4



Ninyo & Moore

SHALLOW GROUNDWATER ISOCONCENTRATION MAP TOTAL PETROLEUM HYDROCARBON AS DIESEL (TPH-D)
MACARTHUR BART TRANSIT PROJECT
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	3/2005	5

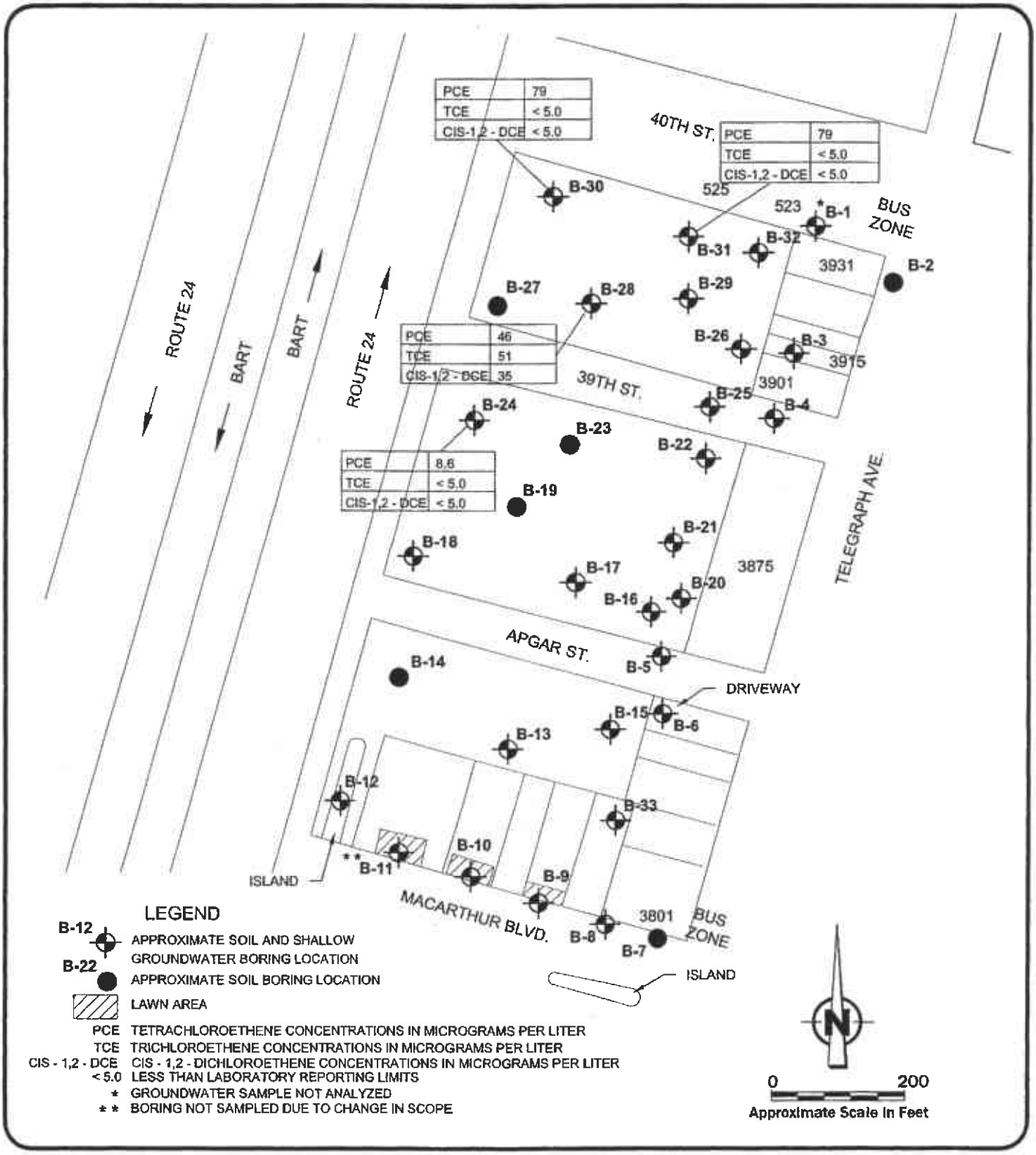


Ninyo & Moore

SHALLOW GROUNDWATER ISOCONCENTRATION MAP, BENZENE

MACARTHUR BART TRANSIT PROJECT
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	3/2005	6



Ninyo & Moore

SHALLOW GROUNDWATER CONCENTRATION MAP, PCE, TCE AND CIS - 1,2 -DCE
MACARTHUR BART TRANSIT PROJECT
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	3/2005	7

APPENDIX A

ADJACENT PROPERTY ENVIRONMENTAL REPORTS

CONTAMINATION INVESTIGATION
EAST BAY SURGERY CENTER
3875 TELEGRAPH AVENUE
OAKLAND, CALIFORNIA

TERRACON PROJECT NO. 67017004
September 19, 2001

Prepared for:

HEALTHSOUTH CORPORATION
One Healthsouth Parkway
Birmingham, AL 35243

Prepared by:

TERRACON
801 East Glendale Ave.
Sparks, Nevada
Phone: 775-351-2400
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ADJACENT PROPERTY ENVIRONMENTAL REPORTS

CONTAMINATION INVESTIGATION
EAST BAY SURGERY CENTER
3875 TELEGRAPH AVENUE
OAKLAND, CALIFORNIA

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Birmingham, AL 35243

Prepared by:

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CONTAMINATION INVESTIGATION
EAST BAY SURGERY CENTER
3875 TELEGRAPH AVENUE
OAKLAND, CALIFORNIA

TERRACON PROJECT NO. 67017004

EXECUTIVE SUMMARY

A Contamination Investigation was conducted for the East Bay Surgery Center located at 3875 Telegraph Ave., Oakland, California. Field activities were performed by Terracon on August 29, 2001. This investigation was conducted to investigate and characterize the extent and nature of petroleum contamination on-site, if any, identified in other consultants' prior reports. In addition, the investigation was performed to provide baseline data to determine the feasibility and cost of remediation.

The investigation included advancing six continuous Geoprobe borings at selected locations within the subject site boundaries (see Figure 2). One soil sample and one groundwater sample were collected from each boring. Samples were analyzed for volatile organic compounds by EPA method 8260.

Based on this investigation, petroleum contaminated subsurface soil and groundwater were encountered at the site. The highest levels of soil and groundwater contamination were found in Geoprobe boring B-1, which is located in the southwest corner of the site. The groundwater sample collected from Geoprobe boring B-1 contained benzene at a concentration of 11,000 µg/L and ethylbenzene at a concentration of 2,600 µg/L, which exceed the respective action levels for groundwater. Elevated concentrations of other volatile organic compounds were also identified in the B-1 soil and groundwater samples. Elevated levels of volatile organic compounds were also detected in soil and groundwater samples from borings B-2 and B-4. Soil and groundwater samples collected from borings B-3, B-5, and B-6 contained only traces or no detectable volatile organic compounds. The source or sources of the contamination and the extent of the contamination could not be fully determined from the six Geoprobe borings. To determine the source of the contamination and to fully characterize the contamination, installation of monitoring wells on the subject site and adjoining properties would be required.

PCE was not detected in any of the soil or groundwater samples and thus potential contamination from a former adjoining dry cleaning facility to the east across Telegraph Avenue was not identified.

Terracon concludes that reportable concentrations of petroleum contaminated subsurface soil and groundwater have been identified at the subject site. Terracon recommends that

the owners of the property notify the appropriate regulatory agencies as to the findings of this investigation. Additional characterization will be required to establish the source or sources of the contamination, the groundwater flow direction, and the extent of the soil and groundwater contamination.

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EAST BAY SURGERY CENTER
3875 TELEGRAPH AVENUE
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1.0 INTRODUCTION

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Terracon's Contamination Investigation consisted of advancing six continuous Geoprobe borings at selected sites within the subject site boundaries (see Figure 2). One soil sample and one groundwater sample were selected from each boring for laboratory analysis. Soil sampling depths were based on field observations of contamination indicators including staining, odor, and organic vapor meter (OVM) reading. If no contamination indicators were observed in a boring, the soil sample was collected within the capillary fringe. Samples were analyzed for volatile organic compounds by EPA method 8260.

Terracon's work was performed in general accordance with our Proposal No. P6701009, dated June 26, 2001. The following sections contain a discussion of the previously conducted assessments, subject site description, field methodologies, analytical test results, and conclusions.

1.1 Background

The subject site is currently developed with the East Bay Surgery Center. The surgery center consists of an approximately 16,000 square foot building, a parking lot, and landscaped areas. Environmental Site Assessments (ESAs) performed by others indicated the former presence of three gasoline stations on the subject site. A brief summary of those report findings follows.

A Kleinfelder, Inc. Phase I Environmental Site Assessment report on the subject site dated January 25, 1990 was reviewed and this report noted the former presence of two gasoline stations on the site. The removal of the tanks from the northern portion of the site was

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reported to have been completed without incident. Additionally, the report noted the discovery of a possibly 80-year old brick-lined cistern on the site. The Kleinfelder report also noted a dry cleaning facility on an adjoining property to the east across Telegraph Avenue. Recommendations relative to the site were not made in this report.

A Harding Lawson Associates (HLA) Phase I Preliminary Hazardous Materials Site Assessment report on the subject site dated January 22, 1993 identified three former gasoline stations on the site. The northern portion of the site was apparently occupied by two gasoline stations, one prior to 1947 and one from 1951-1985. The southerly gasoline station apparently ceased operations as of 1936 and was reportedly not shown on a 1947 aerial photograph of the site. The northerly gasoline station was also reportedly not shown on this same 1947 photograph. Disposition of the underground tanks from both of the pre-1947 gasoline stations is unknown. A 1950 Sanborn Fire Insurance map showed no gasoline stations on the site, but a 1951 Sanborn map showed a gasoline station on the northern portion of the site. This third gasoline station was apparently in operation from 1951 through 1985. Permits for removal of the USTs from this most recent northerly gasoline station were issued on December 5, 1984. Geotechnical borings drilled in 1984 for the construction of the existing East Bay Surgery Center building noted strong hydrocarbon odors at the water table in the four borings. In addition, a sump was discovered in the northwestern portion of the property that appeared to contain a liquid petroleum product. The sump was pumped out and the soils were excavated prior to construction of the existing East Bay Surgery Center. Approximately 300 gallons of fluid described as water (95%) and "oil" (5%) on the hazardous waste manifest to a licensed disposal facility near Martinez, California. A slotted PVC well screen was installed in the sump excavation area for future use to remove petroleum product that might accumulate in the groundwater. An up-gradient LUST site with multiple monitoring wells and up to six feet of free product was noted at 40th and Telegraph, approximately 300 feet to the north. HLA recommended the installation of three monitoring wells and two additional soil borings to evaluate the possible presence of soil and groundwater contamination on the site from both on-site and off-site sources. Copies of the plates from the HLA report showing the gasoline location are attached in Appendix A.

The prior consultants' reports noted that groundwater was encountered at depths ranging from 10 to 15 feet below the ground surface (bgs) in 1984 and that the groundwater flow direction was estimated as west to southwest. Based on the former presence of on-site USTs, the strong hydrocarbon odors at the water table in the four 1984 geotechnical borings, and the presence of off-site sources of contamination, Terracon proposed the collection of subsurface soil and groundwater samples to assess for soil and groundwater

contamination and to attempt to characterize as much as possible any contamination that was encountered.

2.0 PROPERTY DESCRIPTION

The subject site is located at 3875 Telegraph Ave., Oakland, Alameda County, California. The subject site consists of an approximately 26,500 square foot parcel occupied by a single story structure, which currently houses the East Bay Surgery Center. Paved parking and landscaped areas are located on the north and south sides of the existing structure. A chain link fence extends along the western boundary of the subject site from Apgar Street to 39th Street. There is a fenced enclosure on the northwest side of the building. The enclosure is used to house the heating and air conditioning units, the backup generator, and storage for infectious waste.

The subject site location is depicted on Figure 1 of Appendix A, which was reproduced from a portion of the Microsoft Street and Trips digital map of the area. A Site Diagram of the subject site and adjoining properties is included as Figure 2 of Appendix A.

3.0 FIELD INVESTIGATION

A Drilling Permit Application was filed with the Alameda County Public Works Agency on August 13, 2001. The application documents that 6 2-inch Geoprobe borings would be advanced to a depth of approximately 25 feet below grade at the site.

3.1 Soil Sampling Methods

On August 28, 2001, six borings were advanced on the subject site using truck-mounted Geoprobe direct push drilling equipment. The approximate locations of the Geoprobe borings B-1 though B-6 on the subject site are shown on Figure 2 of Appendix A.

The Geoprobe was equipped with 2-inch diameter four-foot long metal rods lined with acetate sleeves. As the metal rod is advanced into the soil, soil collects within the acetate sleeve. To collect the soil samples, the rods are withdrawn from the boring and desired soil samples were cut from the acetate sleeve for field screening, soil classification, and selection and preservation for laboratory analysis. Geoprobe borings were advanced to approximately two feet into groundwater at all six locations. The soil horizon in the Geoprobe boring from the

ground surface to total depth was classified in the field by a field engineer. A generalized soil classification log showing the subsurface stratigraphy and depth of the subsurface soil sample is presented in Appendix B. Upon completion of the Geoprobe activities, the borings were backfilled with a cement slurry. The down-hole soil sampling equipment was decontaminated prior to use in each boring. The decontamination procedures were conducted to remove all solid residues from previous use. The procedures consisted of scrubbing the sampling equipment (Geoprobe rods) in a detergent and water mixture. The equipment was triple rinsed in water and allowed to air dry.

Soils recovered from the borings were monitored for staining, odor, and OVM readings. The soil horizons in the borings from the ground surface to total depth were screened in the field with a Thermo Environmental Instruments Inc. Model 580B™ photoionization Organic Vapor Meter (OVM). The soil screening was performed to identify the potential presence of contamination through visual observations and volatile organic compound screening with the OVM. Representative soil material for the screening was collected from the Geoprobe soil samples.

The OVM results are summarized in the following table:

BORING NO.	DEPTH/OVM	DEPTH/OVM	DEPTH/OVM
B1	11 ft. bgs/ 1 ppm	15.5 ft. bgs/ 24 ppm	17.5 ft. bgs/ 68 ppm
B2	14.5 ft. bgs/ 34 ppm	19.5 ft. bgs/ 140 ppm	21.5 ft. bgs/ 6ppm
B3	15.5 ft. bgs/ 1ppm	-	-
B4	14.5 ft. bgs/ 16 ppm	22 ft. bgs/ 1 ppm	-
B5	-	-	-
B6	16.5 ft. bgs/ 26 ppm	-	-

Soil samples were collected by two methods. Method one was to cut a six-inch section from the 4-foot acetate tube and seal the ends with Teflon tape and caps. Method two was to transfer soil from the acetate tube into 4-ounce laboratory sample jars. All samples were labeled and preserved on ice at an approximate temperature of four degrees Celsius. Based on the field screening, soil samples were submitted to the laboratory for analysis from the Geoprobe borings (identified as B1@15', B2@19.5', B3@15.5', B4@14.5', B5@21.5', and B6@11.5'). The soil samples were delivered to Nevada Environmental Laboratory of Reno, Nevada, a California certified analytical laboratory, under chain-of-custody protocols and analyzed for volatile organic compounds (VOCs) by EPA Method 8260.

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3.2 Soil Analytical Results

The soil laboratory analytical results are summarized in the following table:

SUMMARY OF
SOIL SAMPLE ANALYTICAL RESULTS

	B1@ 15' Results* ug/kg	B2@19.5' Results ug/kg	B3@15.5' Results ug/kg	B4@14.5' Results ug/kg	B5@ 21.5' Results ug/kg	B6@11.5' Results ug/kg
Acetone	ND	ND**	ND	ND	28	ND
Benzene	420	ND	ND	ND	ND	ND
n-Butylbenzene	1,400	6,800	23	370	22	ND
sec-Butylbenzene	350	2,000	10	870	19	ND
tert-Butylbenzene	ND	ND	ND	61	ND	ND
Ethylbenzene	4,700	9,600	ND	45	ND	ND
Isopropylbenzene	630	3,800	8.2	1,500	ND	ND
p-Isopropyltoluene	160	1,000	ND	41	ND	ND
Naphthalene	1,700	4,200	ND	ND	ND	ND
n-Propylbenzene	2,300	14,000	32	5,400	15	ND
Tetrachloroethene (PCE)	ND	ND	ND	ND	ND	ND
Toluene	86	ND	ND	ND	ND	ND
1,2,3 Trichlorobenzene	ND	ND	6.6	ND	ND	ND
1,2,4 Trichlorobenzene	ND	ND	7.3	ND	ND	ND
1,2,4 Trimethylbenzene	10,000	22,000	ND	ND	ND	ND
1,3,5 Trimethylbenzene	3,500	12,000	ND	ND	ND	ND
o-Xylene	2,500	ND	ND	ND	ND	ND
m, p-Xylene	14,000	2,000	ND	320	ND	ND

* Copies of the analytical report forms for the soil samples are provided in Appendix C.
** Not detected above laboratory limits.

The greatest levels of VOCs were detected in the soil samples from borings B-1, B-2, and B-4, which were located closest to the western margin of the subject site. Borings B-3, B-5, and B-6 contained fewer types of VOCs in trace amounts or none were detected. PCE was not detected in any of the soil samples submitted for analysis. The soil contamination appears to be concentrated on the western margin of the areas investigated, on both the north and south sides of the existing building.

3.2 Groundwater Sampling Methods

Upon completion of each of the Geoprobe borings, a groundwater sample was collected from each boring. Geoprobe borings were advanced to approximately two feet into groundwater at all six locations. In general groundwater was encountered in a clayey sand or sand layer that was overlain with lean clay approximately 17 to 22 feet below grade. A representative groundwater sample was obtained from the Geoprobe borings using a single use polyethylene bottom filling mini bailer. The sample was retrieved by lowering the bailer into the boring and allowing the groundwater to slowly fill the bailer. The recovered groundwater was then transferred into laboratory supplied 40 ml vials that were pre-preserved with HCL, sealed without headspace, labeled, and stored at approximately four degrees Celsius. The sample was delivered to Nevada Environmental Laboratories of Reno, Nevada, a California certified analytical laboratory, and analyzed for Volatile Organic Compounds by EPA Method 8260. Groundwater samples were identified as B1, B2, B3, B4, B5, and B6.

3.2 Groundwater Analytical Results

The groundwater laboratory analytical results are summarized in the following table:

SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS

Results reported as ug/L	B1 Results*	B2 Results	B3 Results	B4 Results	B5 Results	B6 Results
Benzene	11,000	30	ND**	ND	ND	ND
n-Butylbenzene	ND	ND	ND	ND	ND	ND
Sec-Butylbenzene	ND	ND	23	ND	ND	ND
tert-Butylbenzene	ND	ND	ND	ND	ND	ND
Ethylbenzene	2,600	100	310	ND	ND	ND
Isopropylbenzene	ND	21	74	ND	8.2	ND
p-Isopropyltoluene	ND	ND	ND	ND	ND	ND
Naphthalene	640	20	90	ND	ND	ND
n-Propylbenzene	560	39	230	6.4	7.3	ND
Tetrachloroethene (PCE)	ND	ND	ND	ND	ND	ND
Toluene	760	ND	ND	ND	ND	ND
1,2,4 Trimethylbenzene	2,300	57	100	ND	ND	ND
1,3,5 Trimethylbenzene	600	10	120	ND	ND	ND
o-Xylene	2,200	32	ND	ND	ND	ND
M, p-Xylene	7,100	130	74	ND	ND	ND

* Copies of the analytical report forms for the groundwater samples are provided in Appendix C.
** Not detected above laboratory limits.

The highest levels of soil and groundwater contamination were also documented in boring B-1 located in the southwest corner of the site. The groundwater sample collected from Geoprobe boring B-1 contained benzene at a concentration of 11,000 µg/L, ethylbenzene at a concentration of 2,600 µg/L, and total xylenes at a concentration of 9,300 µg/L, which exceed the respective action levels for groundwater. Elevated concentrations of other volatile organic compounds were also identified in the B-1 groundwater sample. Elevated levels of volatile organic compounds were also detected in groundwater samples from borings B-2 and B-3. Groundwater samples collected from borings B-4, B-5, and B-6 contained only traces or no detectable volatile organic compounds. Borings B-4, B-5, and B-6 are located in the southeast and northern portions of the subject site.

4.0 CONCLUSIONS

Terracon has completed a Contamination Investigation for the East Bay Surgery Center located at 3875 Telegraph Ave., Oakland, California. Terracon's work was performed in general accordance with our Proposal No. P6701009, dated June 26, 2001. This investigation was conducted to investigate and characterize the extent and nature of petroleum contamination on-site, if any, identified in prior reports. In addition, the investigation was performed to provide baseline data to determine the feasibility and cost of remediation.

Terracon concludes that reportable concentrations of petroleum contaminated subsurface soil and groundwater have been identified at the subject site. Terracon recommends that the owners of the property notify the appropriate regulatory agencies as to the findings of this investigation. Additional characterization will be required to establish the source or sources of the contamination, the groundwater flow direction, and the extent of the soil and groundwater contamination.

The owners of the property are responsible for reporting the contamination to the following parties:

City of Oakland
Certified Unified Program Agency
Hazardous Materials Section
510-238-3938

Alameda County Environmental Health
Hazardous Materials Section
510-567-6700

State of California Water Resources Control Board
San Francisco Bay Region
510-622-2300

According to the California Code of Regulation (CCR), Title 23, Division 3, Chapter 16, Article 11, a "Soil and Groundwater Investigation" must be done to assess the vertical and lateral extent of the release and determine a cost-effective method of clean up. Prior to implementing any phase of corrective action (assessment and remediation), a work plan must be submitted to and approved by Alameda County Environmental Health.

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5.0 GENERAL COMMENTS

The behavior of subsurface contaminants is a complex phenomenon involving geochemistry, hydrogeology, and the geotechnical sciences. Terracon's conclusions regarding the potential for subsurface contamination are based solely upon information cited in this report. The analyses and conclusions in this report are based upon data obtained from this assessment. The nature and extent of variations beyond this assessment may not become evident until further exploration. If variations then appear evident, it may be necessary to reevaluate the conclusions of this report. The professional services provided and judgment rendered on this project meet current professional standards and do not carry any other guarantee.

Terracon accepts no responsibility or liability to any person or organization for any claim, for loss or damage (including attorney's fees) caused, or believed to be caused, directly or indirectly by: conditions not revealed by the laboratory analyses performed; failure to perform other chemical analyses or utilize different test methods or equipment; or failure to locate or install additional sample points, test pits, soil borings, or monitoring wells.

CAMBRIA

February 24, 2005

Roseanna Garcia-La Grille
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **Fourth Quarter 2004 Monitoring Report**
Former Shell Service Station
500 40th Street
Oakland, California
Incident #97093400
Cambria Project #247-1513-002

Dear Ms. Garcia-La Grille:

On behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell), Cambria Environmental Technology, Inc. (Cambria) is submitting this groundwater monitoring report in accordance with the reporting requirements of 23 CCR 2652d.

FOURTH QUARTER 2004 ACTIVITIES

Groundwater Monitoring: Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged and sampled selected wells, measured dissolved oxygen (DO) in selected wells, calculated groundwater elevations, and compiled the analytical data. Cambria prepared a site vicinity map which includes previously submitted well survey information (Figure 1) and a groundwater elevation contour map (Figure 2). Blaine's report, presenting the laboratory report and supporting field documents, is included as Attachment A.

Additional Oxygenate Analysis: At Shell's request, in addition to methyl tertiary butyl ether, all samples were also analyzed for the oxygenate compounds di-isopropyl ether, ethyl tertiary butyl ether, tertiary amyl methyl ether, and tertiary butyl alcohol. None of the additional target analytes were detected in the groundwater samples.

Monitoring Well Destructions: Cambria oversaw the destruction of wells EW-1, MW-4, MW-5, OMW-10, OMW-11 and OMW-12 by pressure grouting on November 18, 2004. Cambria has submitted a well destruction report under separate cover.

APPENDIX A

ADJACENT PROPERTY ENVIRONMENTAL REPORTS

CONTAMINATION INVESTIGATION
EAST BAY SURGERY CENTER
3875 TELEGRAPH AVENUE
OAKLAND, CALIFORNIA

TERRACON PROJECT NO. 67017004
September 19, 2001

Prepared for:

HEALTHSOUTH CORPORATION
One Healthsouth Parkway
Birmingham, AL 35243

Prepared by:

TERRACON
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Sparks, Nevada
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Terracon

3.2 Soil Analytical Results

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SUMMARY OF
SOIL SAMPLE ANALYTICAL RESULTS

	B1@ 15' Results* ug/kg	B2@19.5' Results ug/kg	B3@15.5' Results ug/kg	B4@14.5' Results ug/kg	B5@ 21.5' Results ug/kg	B6@11.5' Results ug/kg
Acetone	ND	ND**	ND	ND	28	ND
Benzene	420	ND	ND	ND	ND	ND
n-Butylbenzene	1,400	6,800	23	370	22	ND
sec-Butylbenzene	350	2,000	10	870	19	ND
tert-Butylbenzene	ND	ND	ND	61	ND	ND
Ethylbenzene	4,700	9,600	ND	45	ND	ND
Isopropylbenzene	630	3,800	8.2	1,500	ND	ND
p-Isopropyltoluene	160	1,000	ND	41	ND	ND
Naphthalene	1,700	4,200	ND	ND	ND	ND
n-Propylbenzene	2,300	14,000	32	5,400	15	ND
Tetrachloroethene (PCE)	ND	ND	ND	ND	ND	ND
Toluene	86	ND	ND	ND	ND	ND
1,2,3 Trichlorobenzene	ND	ND	6.6	ND	ND	ND
1,2,4 Trichlorobenzene	ND	ND	7.3	ND	ND	ND
1,2,4 Trimethylbenzene	10,000	22,000	ND	ND	ND	ND
1,3,5 Trimethylbenzene	3,500	12,000	ND	ND	ND	ND
o-Xylene	2,500	ND	ND	ND	ND	ND
m, p-Xylene	14,000	2,000	ND	320	ND	ND

* Copies of the analytical report forms for the soil samples are provided in Appendix C.
** Not detected above laboratory limits.

The greatest levels of VOCs were detected in the soil samples from borings B-1, B-2, and B-4, which were located closest to the western margin of the subject site. Borings B-3, B-5, and B-6 contained fewer types of VOCs in trace amounts or none were detected. PCE was not detected in any of the soil samples submitted for analysis. The soil contamination appears to be concentrated on the western margin of the areas investigated, on both the north and south sides of the existing building.

3.2 Groundwater Sampling Methods

Upon completion of each of the Geoprobe borings, a groundwater sample was collected from each boring. Geoprobe borings were advanced to approximately two feet into groundwater at all six locations. In general groundwater was encountered in a clayey sand or sand layer that was overlain with lean clay approximately 17 to 22 feet below grade. A representative groundwater sample was obtained from the Geoprobe borings using a single use polyethylene bottom filling mini bailer. The sample was retrieved by lowering the bailer into the boring and allowing the groundwater to slowly fill the bailer. The recovered groundwater was then transferred into laboratory supplied 40 ml vials that were pre-preserved with HCL, sealed without headspace, labeled, and stored at approximately four degrees Celsius. The sample was delivered to Nevada Environmental Laboratories of Reno, Nevada, a California certified analytical laboratory, and analyzed for Volatile Organic Compounds by EPA Method 8260. Groundwater samples were identified as B1, B2, B3, B4, B5, and B6.

3.2 Groundwater Analytical Results

The groundwater laboratory analytical results are summarized in the following table:

SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS

Results reported as ug/L	B1 Results*	B2 Results	B3 Results	B4 Results	B5 Results	B6 Results
Benzene	11,000	30	ND**	ND	ND	ND
n-Butylbenzene	ND	ND	ND	ND	ND	ND
Sec-Butylbenzene	ND	ND	23	ND	ND	ND
tert-Butylbenzene	ND	ND	ND	ND	ND	ND
Ethylbenzene	2,600	100	310	ND	ND	ND
Isopropylbenzene	ND	21	74	ND	6.2	ND
p-Isopropyltoluene	ND	ND	ND	ND	ND	ND
Naphthalene	640	20	90	ND	ND	ND
n-Propylbenzene	560	39	230	6.4	7.3	ND
Tetrachloroethene (PCE)	ND	ND	ND	ND	ND	ND
Toluene	760	ND	ND	ND	ND	ND
1,2,4 Trimethylbenzene	2,300	57	100	ND	ND	ND
1,3,5 Trimethylbenzene	600	10	120	ND	ND	ND
o-Xylene	2,200	32	ND	ND	ND	ND
M, p-Xylene	7,100	130	74	ND	ND	ND

* Copies of the analytical report forms for the groundwater samples are provided in Appendix C.
** Not detected above laboratory limits.

The highest levels of soil and groundwater contamination were also documented in boring B-1 located in the southwest corner of the site. The groundwater sample collected from Geoprobe boring B-1 contained benzene at a concentration of 11,000 µg/L, ethylbenzene at a concentration of 2,600 µg/L, and total xylenes at a concentration of 9,300 µg/L, which exceed the respective action levels for groundwater. Elevated concentrations of other volatile organic compounds were also identified in the B-1 groundwater sample. Elevated levels of volatile organic compounds were also detected in groundwater samples from borings B-2 and B-3. Groundwater samples collected from borings B-4, B-5, and B-6 contained only traces or no detectable volatile organic compounds. Borings B-4, B-5, and B-6 are located in the southeast and northern portions of the subject site.

4.0 CONCLUSIONS

Terracon has completed a Contamination Investigation for the East Bay Surgery Center located at 3875 Telegraph Ave., Oakland, California. Terracon's work was performed in general accordance with our Proposal No. P6701009, dated June 26, 2001. This investigation was conducted to investigate and characterize the extent and nature of petroleum contamination on-site, if any, identified in prior reports. In addition, the investigation was performed to provide baseline data to determine the feasibility and cost of remediation.

Terracon concludes that reportable concentrations of petroleum contaminated subsurface soil and groundwater have been identified at the subject site. Terracon recommends that the owners of the property notify the appropriate regulatory agencies as to the findings of this investigation. Additional characterization will be required to establish the source or sources of the contamination, the groundwater flow direction, and the extent of the soil and groundwater contamination.

The owners of the property are responsible for reporting the contamination to the following parties:

City of Oakland
Certified Unified Program Agency
Hazardous Materials Section
510-238-3938

Alameda County Environmental Health
Hazardous Materials Section
510-567-6700

State of California Water Resources Control Board
San Francisco Bay Region
510-622-2300

According to the California Code of Regulation (CCR), Title 23, Division 3, Chapter 16, Article 11, a "Soil and Groundwater Investigation" must be done to assess the vertical and lateral extent of the release and determine a cost-effective method of clean up. Prior to implementing any phase of corrective action (assessment and remediation), a work plan must be submitted to and approved by Alameda County Environmental Health.

Terracon

5.0 GENERAL COMMENTS

The behavior of subsurface contaminants is a complex phenomenon involving geochemistry, hydrogeology, and the geotechnical sciences. Terracon's conclusions regarding the potential for subsurface contamination are based solely upon information cited in this report. The analyses and conclusions in this report are based upon data obtained from this assessment. The nature and extent of variations beyond this assessment may not become evident until further exploration. If variations then appear evident, it may be necessary to reevaluate the conclusions of this report. The professional services provided and judgment rendered on this project meet current professional standards and do not carry any other guarantee.

Terracon accepts no responsibility or liability to any person or organization for any claim, for loss or damage (including attorney's fees) caused, or believed to be caused, directly or indirectly by: conditions not revealed by the laboratory analyses performed; failure to perform other chemical analyses or utilize different test methods or equipment; or failure to locate or install additional sample points, test pits, soil borings, or monitoring wells.

CAMBRIA

February 24, 2005

Roseanna Garcia-La Grille
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **Fourth Quarter 2004 Monitoring Report**
Former Shell Service Station
500 40th Street
Oakland, California
Incident #97093400
Cambria Project #247-1513-002

Dear Ms. Garcia-La Grille:

On behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell), Cambria Environmental Technology, Inc. (Cambria) is submitting this groundwater monitoring report in accordance with the reporting requirements of 23 CCR 2652d.

FOURTH QUARTER 2004 ACTIVITIES

Groundwater Monitoring: Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged, and sampled selected wells, measured dissolved oxygen (DO) in selected wells, calculated groundwater elevations, and compiled the analytical data. Cambria prepared a site vicinity map which includes previously submitted well survey information (Figure 1) and a groundwater elevation contour map (Figure 2). Blaine's report, presenting the laboratory report and supporting field documents, is included as Attachment A.

Additional Oxygenate Analysis: At Shell's request, in addition to methyl tertiary butyl ether, all samples were also analyzed for the oxygenate compounds di-isopropyl ether, ethyl tertiary butyl ether, tertiary amyl methyl ether, and tertiary butyl alcohol. None of the additional target analytes were detected in the groundwater samples.

Monitoring Well Destructions: Cambria oversaw the destruction of wells EW-1, MW-4, MW-5, OMW-10, OMW-11 and OMW-12 by pressure grouting on November 18, 2004. Cambria has submitted a well destruction report under separate cover.

ANTICIPATED SECOND QUARTER 2005 ACTIVITIES

Groundwater Monitoring: Blaine will gauge selected wells, collect groundwater samples and measure DO in selected wells, and tabulate the data. Cambria will prepare a monitoring report.

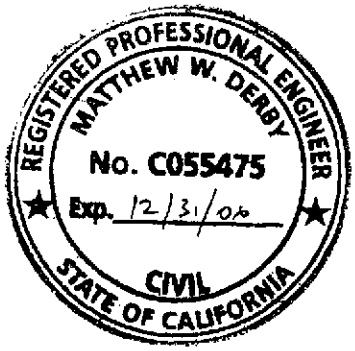
CLOSING

We appreciate the opportunity to work with you on this project. Please call David Gibbs at (510) 420-3363 if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc

David Gibbs
Project Geologist

Matthew W. Derby, P.E.
Senior Project Engineer



Figures: 1 - Vicinity/Area Well Survey Map
2 - Groundwater Elevation Contour Map

Attachment: A - Blaine Groundwater Monitoring Report and Field Notes

cc: Karen Petryna, Shell Oil Products US, 20945 S. Wilmington Ave., Carson, CA 90810
Joseph H Chan & Ivy T Wong, 21213-B Hawthorne Blvd. #5146, Torrance, CA 94609

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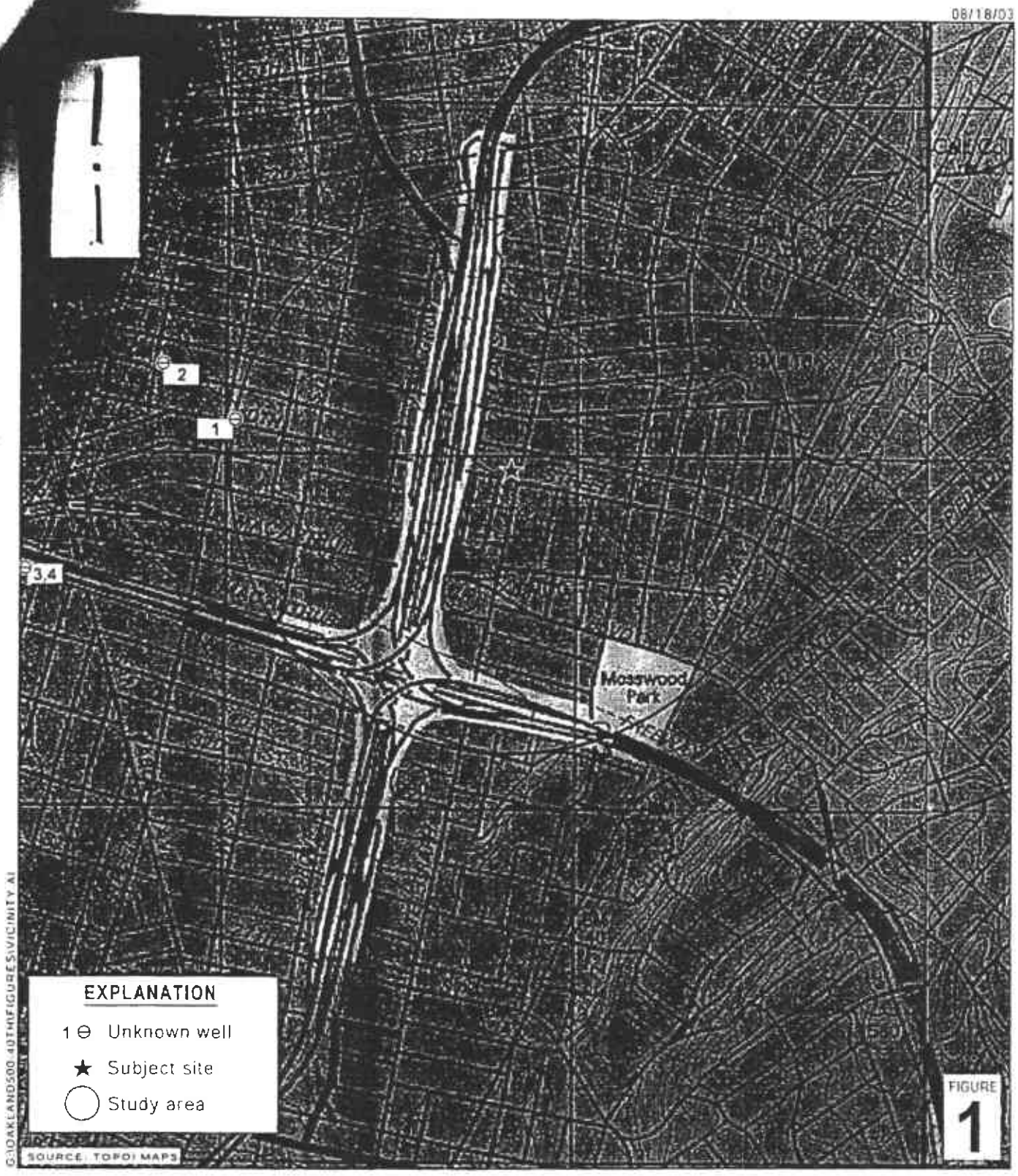


0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

Former Shell Service Station
500 40th Street
Oakland, California
Incident #97093400

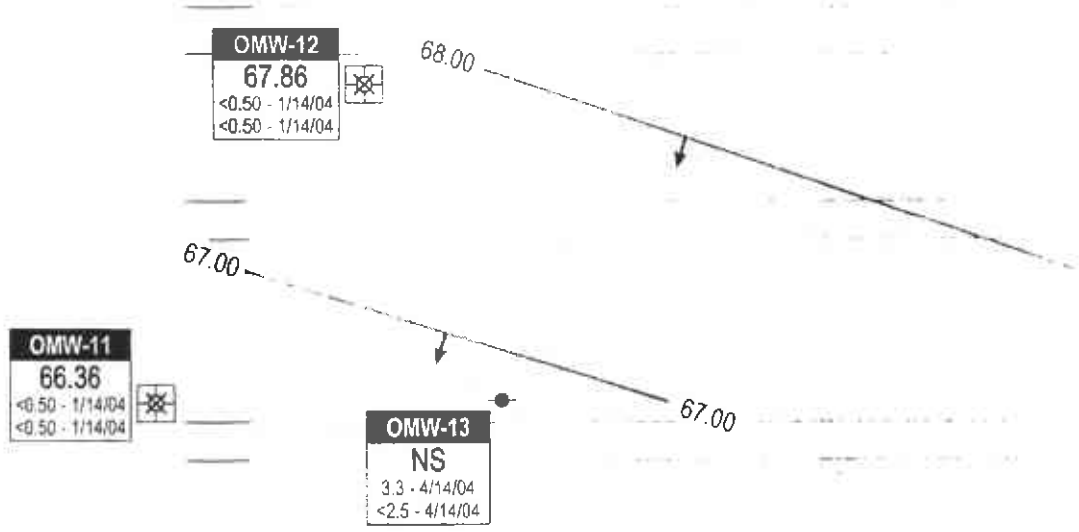
CAMBRIA

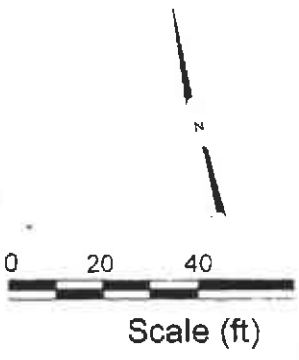
Vicinity/Area Well Survey Map

(1/2-Mile Radius)

EXPLANATION

- [redacted] • Monitoring well location
- [redacted] ⊠ Monitoring well proposed for destruction
- NS Not surveyed
- → Groundwater flow direction
- ~~XX.XX~~ Groundwater elevation contour, in feet above mean sea level (msl), approximately located; dashed where inferred.
- Well — Well designation
- ELEV — Groundwater elevation, in feet above msl
- Benzene / MTBE — Benzene and MTBE concentrations are in parts per billion and are analyzed by EPA Method 8260.





Groundwater Elevation Contour Map

October 29, 2004

CAMBRIA

Former Shell Service Station

500 40th Street

Oakland, California

Incident #97059400

FIGURE

2

ATTACHMENT A

Blaine Groundwater Monitoring Report
and Field Notes

BLAINE
TECH SERVICES INC

GROUNDWATER SAMPLING SPECIALISTS
SINCE 1985

December 8, 2004

Karen Petryna
Shell Oil Products US
20945 South Wilmington Avenue
Carson, CA 90810

Fourth Quarter 2004 Groundwater Monitoring at
Former Shell Service Station
500 40th Street/Telegraph Avenue
Oakland, CA

Monitoring performed on October 29, 2004

Groundwater Monitoring Report **041029-MD-2**

This report covers the routine monitoring of groundwater wells at this former Shell facility. In accordance with standard procedures that conform to Regional Water Quality Control Board requirements, routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, calculated purge volume (if applicable), elapsed evacuation time (if applicable), total volume of water removed (if applicable), and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purgewater (if applicable) is, likewise, collected and transported to the Martinez Refining Company.

Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL CONCENTRATIONS**. The full analytical report for the most recent samples and the field data sheets are attached to this report.

At a minimum, Blaine Tech Services, Inc. field personnel are certified on completion of a forty-hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight-hour refresher courses.

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. Our activities at this site consisted of objective data and sample collection only. No interpretation of analytical results, defining of hydrological conditions or formulation of recommendations was performed.

Please call if you have any questions.

Yours truly,

Leon Gearhart
Project Coordinator

LG/ks

attachments: Cumulative Table of WELL CONCENTRATIONS
Certified Analytical Report
Field Data Sheets

cc: Anni Kreml
Cambria Environmental Technology, Inc.
5900 Hollis Street, Suite A
Emeryville, CA 94608

WELL CONCENTRATIONS
Former Shell Service Station
500 40th Street/Telegraph Avenue
Oakland, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft)	GW Elevation (MSL)	SPH Thickness (ft)	DO Reading (ppm)
EW-1	08/06/1991	180	<50	5.4	<0.5	0.9	0.7	NA	NA	NA	NA	NA	NA	78.26	NA	NA	NA	NA
EW-1	10/30/1991	70	<50	2.6	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	78.26	12.72	65.54	NA	NA
EW-1	02/15/1992	<50	NA	2.1	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	78.26	NA	NA	NA	NA
EW-1	03/18/1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.26	11.71	66.55	NA	NA
EW-1	05/22/1992	99	NA	4.1	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	78.26	12.84	65.42	NA	NA
EW-1	08/19/1992	140	NA	6.6	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	78.26	13.04	65.22	NA	NA
EW-1	11/18/1992	56	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	78.26	12.90	65.36	NA	NA
EW-1	02/11/1993	63	NA	<0.5	<0.5	<0.5	0.9	NA	NA	NA	NA	NA	NA	78.26	11.28	66.98	NA	NA
EW-1 (D)	02/11/1993	63	NA	<0.5	<0.5	<0.5	0.8	NA	NA	NA	NA	NA	NA	78.26	NA	NA	NA	NA
EW-1	05/19/1993	60a	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	78.26	12.52	65.74	NA	NA
EW-1	08/18/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.26	12.48	65.78	NA	NA
EW-1	11/17/1993	170	NA	17	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	78.26	12.63	65.63	NA	NA
EW-1 (D)	11/17/1993	190	NA	17	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	78.26	NA	NA	NA	NA
EW-1	02/18/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.26	11.38	66.88	NA	NA
EW-1	05/26/1994	<50	NA	3.5	<0.5	<0.5	0.51	NA	NA	NA	NA	NA	NA	78.26	12.02	66.24	NA	NA
EW-1	08/29/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.26	12.76	65.50	NA	NA
EW-1	11/11/1994	200	NA	13	0.88	<0.5	<0.5	NA	NA	NA	NA	NA	NA	78.26	11.08	67.18	NA	NA
EW-1	02/03/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.26	10.88	67.38	NA	NA
EW-1	05/07/1995	90	NA	8.6	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	78.26	11.32	66.94	NA	NA
EW-1	08/02/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.26	11.76	66.50	NA	NA
EW-1	11/02/1995	240	NA	12	1.5	0.6	1.9	NA	NA	NA	NA	NA	NA	78.26	12.80	65.46	NA	NA
EW-1	02/24/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.26	10.15	68.11	NA	NA
EW-1	05/04/1996	<50	NA	1.4	<0.50	<0.50	<0.50	4.1	NA	NA	NA	NA	NA	78.26	12.26	66.00	NA	NA
EW-1	09/07/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.26	13.43	64.83	NA	NA
EW-1	11/24/1996	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	78.26	12.24	66.02	NA	NA
EW-1	02/23/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.26	12.20	66.06	NA	NA
EW-1	05/01/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	78.26	12.97	65.29	NA	NA
EW-1	07/22/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.26	13.43	64.83	NA	NA
EW-1	11/04/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<5.0	NA	NA	NA	NA	NA	78.26	13.20	65.06	NA	NA
EW-1	01/21/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.26	10.52	67.74	NA	NA
EW-1	05/11/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	78.26	12.35	65.91	NA	NA
EW-1	08/11/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.26	12.90	65.36	NA	NA

WELL CONCENTRATIONS
Former Shell Service Station
500 40th Street/Telegraph Avenue
Oakland, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft)	GW Elevation (MSL)	SPH Thickness (ft)	DO Reading (ppm)
EW-1	10/20/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	78.26	13.34	64.92	NA	NA
EW-1	02/08/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.26	9.28	68.98	NA	NA
EW-1	04/12/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	NA	NA	NA	NA	78.26	10.28	67.98	NA	NA
EW-1	07/27/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.26	13.04	65.22	NA	NA
EW-1	10/25/1999	<50.0	NA	0.885	<0.500	<0.500	<0.500	<5.00	NA	NA	NA	NA	NA	78.26	13.12	65.14	NA	NA
EW-1	01/24/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.26	10.50	67.76	NA	2.0
EW-1	04/24/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	78.26	12.05	66.21	NA	1.8
EW-1	07/24/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.26	13.00	65.26	NA	NA
EW-1	11/01/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	78.26	12.15	66.11	NA	2.4
EW-1	01/19/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.26	12.24	66.02	NA	4.4
EW-1	04/13/2001	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	78.26	12.56	65.70	NA	5.8
EW-1	07/09/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.26	12.97	65.29	NA	4.2
EW-1	10/18/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	78.26	13.69	64.57	NA	0.3
EW-1	01/24/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.26	11.98	66.28	NA	c
EW-1	05/10/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	78.26	12.68	65.58	NA	2.3
EW-1	07/18/2002	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.26	NA	NA	NA	NA
EW-1	10/31/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	81.11	13.38	67.73	NA	NA
EW-1	01/30/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.11	11.43	69.68	NA	NA
EW-1	04/17/2003	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<5.0	NA	NA	NA	NA	81.11	11.55	69.56	NA	NA
EW-1	07/17/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.11	12.84	68.27	NA	NA
EW-1	10/16/2003	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	81.11	13.00	68.11	NA	NA
EW-1	01/14/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.11	11.15	69.96	NA	NA
EW-1	04/14/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.11	12.41	68.70	NA	NA
EW-1	**10/29/2004**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**81.11**	**12.08**	**69.03**	**NA**	**NA**
MW-2	08/06/1991	1200	230	59	1.1	38	56	NA	NA	NA	NA	NA	NA	80.80	12.12	68.68	NA	NA
MW-2	10/30/1991	520	300	56	<0.5	56	100	NA	NA	NA	NA	NA	NA	80.80	11.70	69.10	NA	NA
MW-2	02/15/1992	2300	2200a	87	<2.5	88	150	NA	NA	NA	NA	NA	NA	80.80	NA	NA	NA	NA
MW-2	03/18/1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80.80	11.10	69.70	NA	NA
MW-2	05/22/1992	700	NA	24	1.0	34	48	NA	NA	NA	NA	NA	NA	80.80	12.12	68.68	NA	NA
MW-2	08/19/1992	740	NA	21	<2.5	24	26	NA	NA	NA	NA	NA	NA	80.80	12.18	68.62	NA	NA
MW-2 (D)	08/19/1992	840	NA	31	<2.5	36	43	NA	NA	NA	NA	NA	NA	80.80	NA	NA	NA	NA

WELL CONCENTRATIONS
Former Shell Service Station
500 40th Street/Telegraph Avenue
Oakland, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (ppm)
MW-2	11/18/1992	920	NA	19	<2.5	30	51	NA	NA	NA	NA	NA	NA	80.80	12.03	68.77	NA	NA
MW-2 (D)	11/18/1992	870	NA	25	<2.5	34	52	NA	NA	NA	NA	NA	NA	80.80	NA	NA	NA	NA
MW-2	02/11/1993	1000	NA	25	6.0	43	73	NA	NA	NA	NA	NA	NA	80.80	11.15	69.65	NA	NA
MW-2	05/19/1993	570	NA	19	<0.5	37	42	NA	NA	NA	NA	NA	NA	80.80	11.80	69.00	NA	NA
MW-2	08/18/1993	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80.80	NA	NA	NA	NA
MW-2	11/17/1993	250	NA	10	<1.0	26	20	NA	NA	NA	NA	NA	NA	80.80	12.00	68.80	NA	NA
MW-2	02/18/1994	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80.80	NA	NA	NA	NA
MW-2	05/26/1994	620	NA	17	1.4	25	31	NA	NA	NA	NA	NA	NA	80.80	11.61	69.19	NA	NA
MW-2 (D)	05/26/1994	600	NA	16	1.2	24	29	NA	NA	NA	NA	NA	NA	80.80	NA	NA	NA	NA
MW-2	08/29/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80.80	11.96	68.84	NA	NA
MW-2	11/11/1994	1100	NA	28	3.1	39	65	NA	NA	NA	NA	NA	NA	80.80	10.74	70.06	NA	NA
MW-2	02/03/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80.80	11.58	69.22	NA	NA
MW-2	05/07/1995	700	NA	15	<0.5	35	39	NA	NA	NA	NA	NA	NA	80.80	10.98	69.82	NA	NA
MW-2	08/02/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80.80	11.90	68.90	NA	NA
MW-2	11/02/1995	140	NA	2.3	<0.5	4.4	3.7	NA	NA	NA	NA	NA	NA	80.80	12.12	68.68	NA	NA
MW-2	02/24/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80.80	10.25	70.55	NA	NA
MW-2	05/04/1996	140	NA	2.1	<0.50	4.6	4.9	6.2	NA	NA	NA	NA	NA	80.80	11.30	69.50	NA	NA
MW-2	09/07/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80.80	15.10	65.70	NA	NA
MW-2	11/24/1996	620	NA	9.7	<0.50	2.0	46	<2.5	NA	NA	NA	NA	NA	80.80	12.13	68.67	NA	NA
MW-2	02/23/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80.80	12.01	68.79	NA	NA
MW-2	05/01/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	80.80	12.94	67.86	NA	NA
MW-2	07/22/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80.80	13.22	67.58	NA	NA
MW-2	11/04/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<5.0	NA	NA	NA	NA	NA	80.80	13.00	67.80	NA	NA
MW-2	01/21/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80.80	10.47	70.33	NA	NA
MW-2	05/11/1998	59	NA	0.56	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	80.80	12.49	68.31	NA	NA
MW-2	08/11/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80.80	12.82	67.98	NA	NA
MW-2	10/20/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	80.80	13.13	67.67	NA	NA
MW-2	02/08/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80.80	9.10	71.70	NA	NA
MW-2	04/12/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	NA	NA	NA	NA	80.80	10.06	70.74	NA	NA
MW-2	07/27/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80.80	12.81	67.99	NA	NA
MW-2	10/25/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	NA	NA	NA	NA	80.80	12.89	67.91	NA	NA
MW-2	01/24/2000	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80.80	NA	NA	NA	NA

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MW-2	04/24/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	80.80	19.35	61.45	NA	1.8
MW-2	07/24/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80.80	12.83	67.97	NA	NA
MW-2	11/01/2000	53.2	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	80.80	11.75	69.05	NA	2.4
MW-2	01/19/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80.80	12.22	68.58	NA	5.8
MW-2	04/13/2001	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	80.80	12.40	68.40	NA	3.0
MW-2	07/09/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80.80	12.98	67.82	NA	3.4
MW-2	10/18/2001	71	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	80.80	12.87	67.93	NA	0.7
MW-2	01/24/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80.80	12.13	68.67	NA	1.4
MW-2	05/10/2002	74	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	80.80	12.69	68.11	NA	1.4
MW-2	07/18/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80.80	12.84	67.96	NA	1.2
MW-2	10/31/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	83.66	13.15	70.51	NA	NA
MW-2	01/30/2003 d	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	83.78	11.97	71.81	NA	NA
MW-2	04/17/2003	85	NA	<0.50	<0.50	<0.50	<1.0	NA	<5.0	NA	NA	NA	NA	83.78	12.19	71.59	NA	NA
MW-2	07/17/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	83.78	12.57	71.21	NA	NA
MW-2	10/16/2003	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	83.78	13.13	70.65	NA	NA
MW-2	01/14/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	83.78	11.58	72.20	NA	NA
MW-2	04/14/2004	73	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	83.78	12.65	71.13	NA	NA
MW-2	**10/29/2004**	**180**	**NA**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**NA**	**<0.50**	**<2.0**	**<2.0**	**<2.0**	**<5.0**	**83.78**	**12.39**	**71.39**	**NA**	**NA**
MW-3	08/06/1991	1900	470	220	57	57	260	NA	NA	NA	NA	NA	NA	79.60	11.12	68.48	NA	NA
MW-3	10/30/1991	1900	480	160	28	63	180	NA	NA	NA	NA	NA	NA	79.60	10.93	68.67	NA	NA
MW-3	02/15/1992	2300	780a	170	31	59	180	NA	NA	NA	NA	NA	NA	79.60	NA	NA	NA	NA
MW-3	03/18/1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.60	10.54	69.06	NA	NA
MW-3	05/22/1992	1500	NA	160	20	44	140	NA	NA	NA	NA	NA	NA	79.60	10.79	68.81	NA	NA
MW-3	08/19/1992	4500	NA	210	64	89	310	NA	NA	NA	NA	NA	NA	79.60	11.23	68.37	NA	NA
MW-3	11/18/1992	2400	NA	81	14	39	140	NA	NA	NA	NA	NA	NA	79.60	11.20	68.40	NA	NA
MW-3	02/11/1993	3000	NA	200	47	90	260	NA	NA	NA	NA	NA	NA	79.60	11.00	68.60	NA	NA
MW-3	05/19/1993	2100	NA	240	44	100	330	NA	NA	NA	NA	NA	NA	79.60	11.16	68.44	NA	NA
MW-3	08/18/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.60	11.35	68.25	NA	NA
MW-3	11/17/1993	1000	NA	110	13	60	150	NA	NA	NA	NA	NA	NA	79.60	11.10	68.50	NA	NA
MW-3	02/18/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.60	10.76	68.84	NA	NA
MW-3	05/26/1994	1100	NA	200	17	29	58	NA	NA	NA	NA	NA	NA	79.60	11.85	67.75	NA	NA

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MW-3	08/29/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.60	10.40	69.20	NA	NA
MW-3	11/11/1994	870	NA	130	10	38	87	NA	NA	NA	NA	NA	NA	79.60	10.04	69.56	NA	NA
MW-3 (D)	11/11/1994	1000	NA	120	10	42	92	NA	NA	NA	NA	NA	NA	79.60	NA	NA	NA	NA
MW-3	02/03/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.60	10.06	69.54	NA	NA
MW-3	05/07/1995	1300	NA	180	7.5	54	110	NA	NA	NA	NA	NA	NA	79.60	10.11	69.49	NA	NA
MW-3	08/02/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.60	11.02	68.58	NA	NA
MW-3	11/02/1995	370	NA	36	1.8	16	21	NA	NA	NA	NA	NA	NA	79.60	10.97	68.63	NA	NA
MW-3	02/24/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.60	9.61	69.99	NA	NA
MW-3	05/04/1996	460	NA	54	1.9	18	28	20	NA	NA	NA	NA	NA	79.60	10.40	69.20	NA	NA
MW-3	09/07/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.60	13.55	66.05	NA	NA
MW-3	11/24/1996	2800	NA	290	<10	29	39	<50	NA	NA	NA	NA	NA	79.60	11.83	67.77	NA	NA
MW-3	02/23/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.60	11.81	67.79	NA	NA
MW-3	05/01/1997	2000	NA	120	<5.0	53	14	60	NA	NA	NA	NA	NA	79.60	12.34	67.26	NA	NA
MW-3	07/22/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.60	12.86	66.74	NA	NA
MW-3	11/04/1997	470	NA	120	<2.5	<2.5	7.3	<25	NA	NA	NA	NA	NA	79.60	12.62	66.98	NA	NA
MW-3	01/21/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.60	10.78	68.82	NA	NA
MW-3	05/11/1998	4400	NA	260	<10	220	36	170	NA	NA	NA	NA	NA	79.60	11.98	67.62	NA	NA
MW-3	08/11/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.60	12.38	67.22	NA	NA
MW-3	10/20/1998	1700	NA	120	<2.0	18	7.1	19	NA	NA	NA	NA	NA	79.60	12.55	67.05	NA	NA
MW-3 (D)	10/20/1998	1400	NA	120	<5.0	18	<5.0	80	NA	NA	NA	NA	NA	79.60	NA	NA	NA	NA
MW-3	02/08/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.60	8.53	71.07	NA	NA
MW-3	04/12/1999	8040	NA	554	30	436	624	160	NA	NA	NA	NA	NA	79.60	10.19	69.41	NA	NA
MW-3	07/27/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.60	12.21	67.39	NA	NA
MW-3	10/25/1999	827	NA	31	2.23	14.5	6.71	<10.0	NA	NA	NA	NA	NA	79.60	12.35	67.25	NA	NA
MW-3	01/24/2000	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.60	NA	NA	NA	NA
MW-3	04/24/2000	1470	NA	121	<5.00	63.8	14.1	<25.0	NA	NA	NA	NA	NA	79.60	11.75	67.85	NA	1.0
MW-3	07/24/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.60	12.56	67.04	NA	NA
MW-3	11/01/2000	1550	NA	143	<1.25	36.4	35.3	24.4	NA	NA	NA	NA	NA	79.60	11.48	68.12	NA	2.2
MW-3	01/19/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.60	11.83	67.77	NA	6.6
MW-3	04/13/2001	2560	NA	250	<10.0	108	<10.0	92.1	NA	NA	NA	NA	NA	79.60	12.08	67.52	NA	3.6
MW-3	07/09/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.60	12.68	66.92	NA	2.8
MW-3	10/18/2001	2300	NA	150	0.90	42	11	NA	<5.0	NA	NA	NA	NA	79.60	13.21	66.39	NA	0.0

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MW-3	01/24/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.60	11.83	67.77	NA	2.3
MW-3	05/10/2002	3300	NA	77	0.60	94	3.1	NA	<5.0	NA	NA	NA	NA	79.60	12.24	67.36	NA	1.5
MW-3	07/18/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.60	12.43	67.17	NA	2.1
MW-3	10/31/2002	2100	NA	89	0.57	26	5.7	NA	<5.0	NA	NA	NA	NA	82.46	12.60	69.86	NA	2.0
MW-3	01/30/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	82.46	11.76	70.70	NA	4.6
MW-3	04/17/2003	2100	NA	55	0.79	100	110	NA	<5.0	NA	NA	NA	NA	82.46	11.80	70.66	NA	1.8
MW-3	07/17/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	82.46	12.28	70.18	NA	4.0
MW-3	10/16/2003	120 e	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	82.46	12.35	70.11	NA	2.0
MW-3	01/14/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	82.46	11.35	71.11	NA	2.9
MW-3	04/14/2004	130	NA	1.6	<0.50	1.5	<1.0	NA	<0.50	NA	NA	NA	NA	82.46	12.12	70.34	NA	3.4
MW-3	**10/29/2004**	**490**	**NA**	**11**	**<0.50**	**19**	**18**	**NA**	**<0.50**	**<2.0**	**<2.0**	**<2.0**	**<5.0**	**82.46**	**11.67**	**70.79**	**NA**	**1.2**
MW-4	08/06/1991	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.00	12.36	68.64	NA	NA
MW-4	10/30/1991	50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.00	12.02	68.98	NA	NA
MW-4	02/15/1992	90	NA	0.9	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.00	NA	NA	NA	NA
MW-4	03/18/1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.00	11.34	69.66	NA	NA
MW-4	05/22/1992	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.00	12.35	68.65	NA	NA
MW-4	08/19/1992	82a	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.00	12.41	68.59	NA	NA
MW-4	11/18/1992	85a	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.00	12.28	68.72	NA	NA
MW-4	02/11/1993	62a	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.00	11.65	69.35	NA	NA
MW-4	05/19/1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.00	11.92	69.08	NA	NA
MW-4	08/18/1993	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.00	NA	NA	NA	NA
MW-4	11/17/1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.00	12.24	68.76	NA	NA
MW-4	02/18/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.00	11.69	69.31	NA	NA
MW-4	05/26/1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.00	12.00	69.00	NA	NA
MW-4	11/11/1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.00	11.30	69.70	NA	NA
MW-4	02/03/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.00	10.99	70.01	NA	NA
MW-4	05/07/1995	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.00	11.69	69.31	NA	NA
MW-4	08/02/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.00	11.72	69.28	NA	NA
MW-4	11/02/1995	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.00	12.23	68.77	NA	NA
MW-4	02/24/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.00	11.13	69.87	NA	NA
MW-4	05/04/1996	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	81.00	11.80	69.20	NA	NA

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MW-4	09/07/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.00	13.27	67.73	NA	NA
MW-4	11/24/1996	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	81.00	12.42	68.58	NA	NA
MW-4	02/23/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.00	12.38	68.62	NA	NA
MW-4	05/01/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	81.00	13.08	67.92	NA	NA
MW-4	07/22/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.00	13.73	67.27	NA	NA
MW-4	11/04/1997	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.00	NA	NA	NA	NA
MW-4	01/21/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.00	11.41	69.59	NA	NA
MW-4	05/11/1998	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.00	NA	NA	NA	NA
MW-4	08/11/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.00	13.05	67.95	NA	NA
MW-4	10/20/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	81.00	13.30	67.70	NA	NA
MW-4	02/08/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.00	9.19	71.81	NA	NA
MW-4	04/12/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	NA	NA	NA	NA	81.00	9.26	71.74	NA	NA
MW-4	07/27/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.00	12.57	68.43	NA	NA
MW-4	10/25/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	NA	NA	NA	NA	81.00	13.15	67.85	NA	NA
MW-4	01/24/2000	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.00	NA	NA	NA	NA
MW-4	04/24/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	14.5	NA	NA	NA	NA	NA	81.00	12.55	68.45	NA	2.5
MW-4	07/24/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.00	13.31	67.69	NA	NA
MW-4	11/01/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	81.00	12.09	68.91	NA	2.8
MW-4	01/19/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.00	12.58	68.42	NA	8.4
MW-4	04/13/2001	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	81.00	12.75	68.25	NA	2.6
MW-4	07/09/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.00	13.30	67.70	NA	4.2
MW-4	10/18/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	81.00	13.45	67.55	NA	1.4
MW-4	01/24/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.00	12.55	68.45	NA	c
MW-4	05/10/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	81.00	12.93	68.07	NA	1.5
MW-4	07/18/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.00	13.13	67.87	NA	1.4
MW-4	10/31/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	83.92	13.40	70.52	NA	NA
MW-4	01/30/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	83.92	12.44	71.48	NA	NA
MW-4	04/17/2003	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<5.0	NA	NA	NA	NA	83.92	12.24	71.68	NA	NA
MW-4	07/17/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	83.92	13.02	70.90	NA	NA
MW-4	10/16/2003	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	83.92	13.15	70.77	NA	NA
MW-4	01/14/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	83.92	12.20	71.72	NA	NA
MW-4	04/14/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	83.92	12.80	71.12	NA	[illegible]

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MW-4	**10/29/2004**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**83.92**	**12.41**	**71.51**	**NA**	**NA**
MW-5	08/06/1991	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.50	13.02	68.48	NA	NA
MW-5	10/30/1991	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.50	12.73	68.77	NA	NA
MW-5	02/15/1992	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.50	NA	NA	NA	NA
MW-5	03/18/1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.50	12.52	68.98	NA	NA
MW-5	05/22/1992	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.50	13.05	68.45	NA	NA
MW-5	08/19/1992	55a	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.50	13.04	68.46	NA	NA
MW-5	11/18/1992	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.50	12.91	68.59	NA	NA
MW-5	02/11/1993	59a	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.50	12.44	69.06	NA	NA
MW-5 (D)	05/19/1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.50	12.84	68.66	NA	NA
MW-5	11/17/1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.50	NA	NA	NA	NA
MW-5	02/18/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.50	12.89	68.61	NA	NA
MW-5	05/26/1994	<50	NA	1.8	2.4	1.3	4.9	NA	NA	NA	NA	NA	NA	81.50	12.30	69.20	NA	NA
MW-5	08/29/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.50	12.73	68.77	NA	NA
MW-5	11/11/1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.50	12.88	68.62	NA	NA
MW-5	02/03/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.50	12.20	69.30	NA	NA
MW-5	05/07/1995	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.50	11.78	69.72	NA	NA
MW-5	08/02/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.50	12.47	69.03	NA	NA
MW-5	11/02/1995	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	81.50	12.83	68.67	NA	NA
MW-5	02/24/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.50	13.02	68.48	NA	NA
MW-5	05/04/1996	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	81.50	12.11	69.39	NA	NA
MW-5	09/07/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.50	13.20	68.30	NA	NA
MW-5	11/24/1996	<50	NA	<0.50	<0.5	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	81.50	14.24	67.26	NA	NA
MW-5	02/23/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.50	13.58	67.92	NA	NA
MW-5	05/01/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	81.50	13.54	67.96	NA	NA
MW-5	07/22/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.50	14.17	67.33	NA	NA
MW-5	11/04/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	81.50	14.35	67.15	NA	NA
MW-5 (D)	11/04/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	81.50	14.30	67.20	NA	NA
MW-5	01/21/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.50	NA	NA	NA	NA
MW-5	05/11/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	81.50	12.86	68.64	NA	NA
														81.50	13.89	67.61	NA	NA

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MW-5	08/11/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.50	14.20	67.30	NA	NA
MW-5	10/20/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	81.50	14.41	67.09	NA	NA
MW-5	02/08/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.50	10.31	71.19	NA	NA
MW-5	04/12/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	NA	NA	NA	NA	81.50	11.30	70.20	NA	NA
MW-5	07/27/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.50	12.63	68.87	NA	NA
MW-5	10/25/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	NA	NA	NA	NA	81.50	14.15	67.35	NA	NA
MW-5	01/24/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.50	11.65	69.85	NA	1.8
MW-5	04/24/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	81.50	13.71	67.79	NA	2.1
MW-5	07/24/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.50	14.48	67.02	NA	NA
MW-5	11/01/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	81.50	13.26	68.24	NA	3.2
MW-5	01/19/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.50	13.68	67.82	NA	7.8
MW-5	04/13/2001	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	81.50	13.90	67.60	NA	3.2
MW-5	07/09/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.50	14.72	66.78	NA	4.8
MW-5	10/18/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	81.50	14.41	67.09	NA	1.1
MW-5	01/24/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.50	13.69	67.81	NA	1.4
MW-5	05/10/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	81.50	14.05	67.45	NA	2.2
MW-5	07/18/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.50	14.23	67.27	NA	1.2
MW-5	10/31/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	84.36	14.36	70.00	NA	2.8
MW-5	**01/30/2003**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**84.36**	**13.70**	**70.66**	NA	**2.4**
MW-5	**04/17/2003**	<50	NA	<0.50	**<0.50**	<0.50	**<1.0**	NA	<5.0	NA	NA	NA	NA	**84.36**	**13.52**	**70.84**	NA	**2.6**
MW-5	07/17/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	84.36	14.13	70.23	NA	1.6
MW-5	10/16/2003	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	84.36	14.21	70.15	NA	2.1
MW-5	01/14/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	84.36	14.15	70.21	NA	3.1
MW-5	04/14/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	84.36	13.95	70.41	NA	2.5
MW-5	**10/29/2004**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**84.36**	**13.63**	**70.73**	**NA**	**0.8**
OMW-6	08/06/1991	26000	3600	910	420	560	1900	NA	NA	NA	NA	NA	NA	77.90	10.71	67.19	NA	NA
OMW-6	10/30/1991	20000	4600	710	240	410	1700	NA	NA	NA	NA	NA	NA	77.90	10.50	67.40	NA	NA
OMW-6	02/15/1992	35000	27000	690	420	650	3000	NA	NA	NA	NA	NA	NA	77.90	NA	NA	NA	NA
OMW-6	03/18/1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	9.24	68.66	NA	NA
OMW-6	05/22/1992	15000	NA	460	110	300	1600	NA	NA	NA	NA	NA	NA	77.90	10.13	67.77	NA	NA
OMW-6	08/19/1992	24000	NA	600	300	460	2000	NA	NA	NA	NA	NA	NA	77.90	10.16	67.74	NA	

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OMW-6	11/18/1992	29000	NA	480	250	450	2300	NA	NA	NA	NA	NA	NA	77.90	9.94	67.96	NA	NA
OMW-6	02/11/1993	24000	NA	1300	250	630	2400	NA	NA	NA	NA	NA	NA	77.90	9.20	68.70	NA	NA
OMW-6	05/19/1993	18000	NA	750	180	520	2500	NA	NA	NA	NA	NA	NA	77.90	10.64	67.86	NA	NA
OMW-6	08/18/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	10.04	67.86	NA	NA
OMW-6	11/17/1993	14000	NA	260	64	430	1900	NA	NA	NA	NA	NA	NA	77.90	10.12	67.78	NA	NA
OMW-6	02/18/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	9.65	68.25	NA	NA
OMW-6	05/26/1994	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	NA	NA	NA	NA
OMW-6	08/29/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	NA	NA	NA	NA
OMW-6	11/11/1994	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	NA	NA	NA	NA
OMW-6	02/03/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	NA	NA	NA	NA
OMW-6	05/07/1995	11000	NA	460	82	280	540	NA	NA	NA	NA	NA	NA	77.90	8.96	68.94	NA	NA
OMW-6 (D)	05/07/1995	14000	NA	480	61	230	370	NA	NA	NA	NA	NA	NA	77.90	8.64	69.26	NA	NA
OMW-6	08/02/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	NA	NA	NA	NA
OMW-6	02/24/1996	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	12.09	65.81	NA	NA
OMW-6	05/04/1996	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	NA	NA	NA	NA
OMW-6	09/07/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	NA	NA	NA	NA
OMW-6	11/24/1996	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	14.45	63.45	NA	NA
OMW-6	02/23/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	NA	NA	NA	NA
OMW-6	05/01/1997	17000	NA	630	52	610	1300	380	NA	NA	NA	NA	NA	77.90	13.12	64.78	NA	NA
OMW-6 (D)	05/01/1997	20000	NA	630	54	630	1300	500	<20	NA	NA	NA	NA	77.90	13.19	64.71	NA	NA
OMW-6	07/22/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	NA	NA	NA	NA
OMW-6	11/04/1997	10000	NA	610	23	410	820	<100	NA	NA	NA	NA	NA	77.90	13.52	64.38	NA	NA
OMW-6	01/21/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	13.12	64.78	NA	NA
OMW-6	05/11/1998	14000	NA	500	32	900	1000	110	NA	NA	NA	NA	NA	77.90	12.19	65.71	NA	NA
OMW-6 (D)	05/11/1998	14000	NA	490	<25	900	980	370	NA	NA	NA	NA	NA	77.90	12.71	65.19	NA	NA
OMW-6	08/11/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	NA	NA	NA	NA
OMW-6	10/20/1998	7500	NA	220	<20	290	130	120	NA	NA	NA	NA	NA	77.90	13.18	64.72	NA	NA
OMW-6	02/08/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	13.11	64.79	NA	NA
OMW-6	04/12/1999	11300	NA	818	67.2	600	690	342	NA	NA	NA	NA	NA	77.90	9.07	68.83	NA	NA
OMW-6	07/27/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	10.10	67.80	NA	NA
OMW-6	10/25/1999	11100	NA	559	21.1	329	75.7	<100	NA	NA	NA	NA	NA	77.90	12.18	65.72	NA	NA
OMW-6	01/24/2000	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	12.58	65.32	NA	NA

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OMW-6	04/24/2000	12700	NA	576	<10.0	452	141	556	NA	NA	NA	NA	NA	77.90	12.35	65.55	NA	1.1
OMW-6	07/24/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	13.08	64.82	NA	NA
OMW-6	11/01/2000	10700	NA	179	27.5	532	416	304	14.6	NA	NA	NA	NA	77.90	11.91	65.99	NA	0.6
OMW-6	01/19/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	12.08	65.82	NA	6.0
OMW-6	04/13/2001	8650	NA	103	25.6	318	207	258	<1.00	NA	NA	NA	NA	77.90	12.00	65.90	NA	4.2
OMW-6	07/09/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	11.86	66.04	NA	5.2
OMW-6	10/18/2001	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	NA	NA	NA	NA
OMW-6	11/01/2001	6600	NA	85	<2.0	160	53	NA	<20	NA	NA	NA	NA	77.90	13.23	64.67	NA	3.4
OMW-6	01/24/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	12.63	65.27	NA	4.2
OMW-6	05/10/2002	7600	NA	230	2.9	370	25	NA	<20	NA	NA	NA	NA	77.90	13.07	64.83	NA	1.2
OMW-6	07/18/2002	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.90	NA	NA	NA	NA
OMW-6	10/31/2002	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	NA	NA	NA	NA
OMW-6	11/11/2002	6600	NA	37	<5.0	42	<5.0	NA	<50	NA	NA	NA	NA	NS	12.82	NA	NA	1.0
OMW-6	01/30/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	12.78	NA	NA	2.8
OMW-6	04/17/2003	5500	NA	89	1.4	61	20	NA	<5.0	NA	NA	NA	NA	NS	13.02	NA	NA	1.6
OMW-6	07/17/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	13.08	NA	NA	2.0
OMW-6	10/16/2003	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	NA	NA	NA	NA
OMW-6	01/14/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	12.69	NA	NA	8.9
OMW-6	**04/14/2004**	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	NA	NA	NA	NA
OMW-6	**10/29/2004**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NS**	**12.21**	**NA**	**NA**	**0.1**
MW-8	08/06/1991	90	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	79.91	13.08	66.83	NA	NA
MW-8	10/30/1991	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	79.91	12.87	67.04	NA	NA
MW-8	02/15/1992	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	79.91	NA	NA	NA	NA
MW-8	03/18/1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.91	11.54	68.37	NA	NA
MW-8	05/22/1992	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	79.91	12.32	67.59	NA	NA
MW-8	08/19/1992	60	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	79.91	12.58	67.33	NA	NA
MW-8	11/18/1992	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	79.91	12.47	67.44	NA	NA
MW-8	02/11/1993	76a	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	79.91	11.02	68.89	NA	NA
MW-8	05/19/1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	79.91	11.78	68.13	NA	NA
MW-8	08/18/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.91	12.22	67.69	NA	NA
MW-8	11/17/1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	79.91	12.25	67.66	NA	N

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MW-8	02/18/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.91	10.56	69.35	NA	NA
MW-8	05/26/1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	79.91	11.30	68.61	NA	NA
MW-8	08/29/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.91	11.90	68.01	NA	NA
MW-8	11/11/1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	79.91	10.12	69.79	NA	NA
MW-8	02/03/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.91	11.64	68.27	NA	NA
MW-8	05/07/1995	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	79.91	10.77	69.14	NA	NA
MW-8	08/02/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.91	10.92	68.99	NA	NA
MW-8	11/02/1995	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	79.91	11.93	67.98	NA	NA
MW-8	02/24/1996	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.91	NA	NA	NA	NA
MW-8	05/04/1996	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	79.91	11.66	68.25	NA	NA
MW-8	09/07/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.91	9.84	70.07	NA	NA
MW-8	11/24/1996	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	79.91	11.53	68.38	NA	NA
MW-8	02/23/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.91	11.54	68.37	NA	NA
MW-8	05/01/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	79.91	12.37	67.54	NA	NA
MW-8	07/22/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.91	12.73	67.18	NA	NA
MW-8	11/04/1997	50	NA	<0.50	<0.50	<0.50	<0.50	<5.0	NA	NA	NA	NA	NA	79.91	12.60	67.31	NA	NA
MW-8	01/21/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.91	9.73	70.18	NA	NA
MW-8	05/11/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	79.91	11.93	67.98	NA	NA
MW-8	08/11/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.91	12.35	67.56	NA	NA
MW-8	10/20/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	79.91	12.88	67.03	NA	NA
MW-8	02/08/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.91	8.79	71.12	NA	NA
MW-8	04/12/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	NA	NA	NA	NA	79.91	9.86	70.05	NA	NA
MW-8	07/27/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.91	12.35	67.56	NA	NA
MW-8	10/25/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	NA	NA	NA	NA	79.91	12.53	67.38	NA	NA
MW-8	01/24/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.91	8.42	71.49	NA	1.3
MW-8	04/24/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	79.91	11.49	68.42	NA	2.0
MW-8	07/24/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.91	12.87	67.04	NA	NA
MW-8	11/01/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	79.91	11.19	68.72	NA	4.0
MW-8	01/19/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.91	11.62	68.29	NA	7.0
MW-8	04/13/2001	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	79.91	11.86	68.05	NA	4.6
MW-8	07/09/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.91	12.42	67.49	NA	6.4
MW-8	10/18/2001	81	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	79.91	13.24	66.67	NA	2.3

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MW-8	01/24/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.91	11.39	68.52	NA	3.1
MW-8	05/10/2002	95	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	79.91	12.25	67.66	NA	2.5
MW-8	07/18/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.91	12.45	67.46	NA	2.8
MW-8	10/31/2002	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	82.34	NA	NA	NA	NA
MW-8	11/11/2002	110	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	82.34	12.03	70.31	NA	NA
MW-8	01/30/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	82.34	11.85	70.49	NA	NA
MW-8	04/17/2003	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<5.0	NA	NA	NA	NA	82.34	11.30	71.04	NA	NA
MW-8	07/17/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	82.34	12.40	69.94	NA	NA
MW-8	10/16/2003	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	82.34	12.62	69.72	NA	NA
MW-8	01/14/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	82.34	11.85	70.49	NA	NA
MW-8	04/16/2004	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	82.34	12.00	70.34	NA	NA
MW-8	**10/29/2004**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**82.34**	**11.66**	**70.68**	**NA**	**NA**
OMW-9	08/06/1991	3900	190	58	8.8	80	220	NA	NA	NA	NA	NA	NA	77.71	10.38	67.33	NA	NA
OMW-9	10/30/1991	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	NA	NA	NA	NA
OMW-9	03/18/1992	1800a	210	84	11	49	60	NA	NA	NA	NA	NA	NA	77.71	8.76	68.95	NA	NA
OMW-9	05/20/1992	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	NA	NA	NA	NA
OMW-9	08/19/1992	4600	22a	63	<25	48	70	NA	NA	NA	NA	NA	NA	77.71	9.98	67.73	NA	NA
OMW-9	11/18/1992	1800	130a	30	9.2	46	61	NA	NA	NA	NA	NA	NA	77.71	9.81	67.90	NA	NA
OMW-9	02/11/1993	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	NA	NA	NA	NA
OMW-9	05/19/1993	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	NA	NA	NA	NA
OMW-9	08/18/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	9.75	67.96	NA	NA
OMW-9	11/17/1993	5900	2400a	86	14	150	46	NA	NA	NA	NA	NA	NA	77.71	9.92	67.79	NA	NA
OMW-9	02/18/1994	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	NA	NA	NA	NA
OMW-9	05/26/1994	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	NA	NA	NA	NA
OMW-9	08/29/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	NA	NA	NA	NA
OMW-9	11/11/1994	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	NA	NA	NA	NA
OMW-9	02/03/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	NA	NA	NA	NA
OMW-9	05/07/1995	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	NA	NA	NA	NA
OMW-9	08/02/1995	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	NA	NA	NA	NA
OMW-9	02/24/1996	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	NA	NA	NA	NA
OMW-9	05/04/1996	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	NA	NA	NA	NA

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OMW-9	09/07/1996	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	NA	NA	NA	NA
OMW-9	11/24/1996	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	NA	NA	NA	NA
OMW-9	02/23/1997	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	NA	NA	NA	NA
OMW-9	05/01/1997	4700	1100	150	14	97	52	330	NA	NA	NA	NA	NA	77.71	12.10	65.61	NA	NA
OMW-9	07/22/1997	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	NA	NA	NA	NA
OMW-9	11/04/1997	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	NA	NA	NA	NA
OMW-9	01/21/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	11.32	66.39	NA	NA
OMW-9	05/11/1998	5500.0	1500	220	10	160	91	110	NA	NA	NA	NA	NA	77.71	11.95	65.76	NA	NA
OMW-9	08/11/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	12.08	65.63	NA	NA
OMW-9	10/20/1998	1200	780	18	<5.0	14	6.0	48	NA	NA	NA	NA	NA	77.71	12.03	65.68	NA	NA
OMW-9*	11/23/1998	1700	890	88	9.0	42	22	170	NA	NA	NA	NA	NA	77.71	11.85	65.86	NA	NA
OMW-9	02/08/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	8.01	69.70	NA	NA
OMW-9	04/12/1999	2670	1870	97	<5.00	111	54	401	NA	NA	NA	NA	NA	77.71	9.55	68.16	NA	NA
OMW-9	07/27/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	11.87	65.84	NA	NA
OMW-9	10/25/1999	2670	606	31.3	<2.50	8.32	<2.50	107	NA	NA	NA	NA	NA	77.71	11.93	65.78	NA	NA
OMW-9	01/24/2000	1400	1250	44.5	<1.00	12.6	8.66	69.8	23.5	NA	NA	NA	NA	77.71	10.32	67.39	NA	1.2
OMW-9	04/24/2000	1440	644	53.3	0.605	4.63	10.2	80.7	NA	NA	NA	NA	NA	77.71	11.33	66.38	NA	1.8
OMW-9	07/24/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	11.82	65.89	NA	NA
OMW-9	11/01/2000	2160	685	92.6	7.95	4.69	4.02	88.8	NA	NA	NA	NA	NA	77.71	11.45	66.26	NA	2.0
OMW-9	01/19/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	11.83	65.88	NA	4.2
OMW-9	04/13/2001	3620	923	167	3.16	60.2	14.5	231	NA	NA	NA	NA	NA	77.71	12.19	65.52	NA	3.8
OMW-9	07/09/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	12.04	65.67	NA	3.8
OMW-9	10/18/2001	1400	<500	23	0.77	1.8	1.4	NA	10	NA	NA	NA	NA	77.71	12.90	64.81	NA	0.4
OMW-9	01/24/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	11.97	65.74	NA	4.0
OMW-9	05/10/2002	3900	380	84	2.9	120	23	NA	11	NA	NA	NA	NA	77.71	12.27	65.44	NA	1.1
OMW-9	07/18/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.71	12.42	65.29	NA	4.2
OMW-9	10/31/2002	4700	<1500	40	1.1	14	14	NA	<5.0	NA	NA	NA	NA	NS	12.60	NA	NA	2.4
OMW-9	01/30/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	12.15	NA	NA	4.8
OMW-9	04/17/2003	<50	120	<0.50	<0.50	<0.50	<1.0	NA	<5.0	NA	NA	NA	NA	NS	11.61	NA	NA	1.8
OMW-9	07/17/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	12.22	NA	NA	4.2
OMW-9	10/16/2003	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	NA	NA	NA	NA
OMW-9	01/14/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	11.87	NA	NA	9.1

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OMW-9	04/14/2004	460	470 e	6.1	<0.50	21	1.2	NA	1.2	NA	NA	NA	NA	NS	12.44	NA	NA	1.0
OMW-9	**10/29/2004**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NS**	**11.95**	**NA**	**NA**	**11.4**
OMW-10	08/07/1991	460	<50	73	1.0	18	8.4	NA	NA	NA	NA	NA	NA	77.91	10.00	67.91	NA	NA
OMW-10	10/31/1991	630	150	100	<0.5	33	26	NA	NA	NA	NA	NA	NA	77.91	10.10	67.81	NA	NA
OMW-10	02/15/1992	810	570a	85	2.5	44	38	NA	NA	NA	NA	NA	NA	77.91	NA	NA	NA	NA
OMW-10	03/18/1992	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.91	9.55	68.36	NA	NA
OMW-10	05/21/1992	280	NA	47	0.7	4.0	3.1	NA	NA	NA	NA	NA	NA	77.91	10.41	67.50	NA	NA
OMW-10	08/19/1992	330	NA	35	<1	6.0	4.1	NA	NA	NA	NA	NA	NA	77.91	10.46	67.45	NA	NA
OMW-10	11/18/1993	300	NA	30	0.8	7.1	6.3	NA	NA	NA	NA	NA	NA	77.91	10.31	67.60	NA	NA
OMW-10	02/11/1993	510a	NA	49	3.8	18	18	NA	NA	NA	NA	NA	NA	77.91	9.68	68.23	NA	NA
OMW-10	05/19/1993	<50	NA	96	<0.5	3.4	1.5	NA	NA	NA	NA	NA	NA	77.91	10.19	67.72	NA	NA
OMW-10	08/18/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.91	10.29	67.62	NA	NA
OMW-10	11/17/1993	400	NA	24	<1.0	2.8	1.9	NA	NA	NA	NA	NA	NA	77.91	10.32	67.59	NA	NA
OMW-10	02/18/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.91	9.30	68.61	NA	NA
OMW-10	05/26/1994	330	NA	32	13	7.5	26	NA	NA	NA	NA	NA	NA	77.91	10.14	67.77	NA	NA
OMW-10	08/09/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.91	10.38	67.53	NA	NA
OMW-10	11/11/1994	110	NA	7.8	<0.5	2.3	1.5	NA	NA	NA	NA	NA	NA	77.91	9.34	68.57	NA	NA
OMW-10	**02/03/1995**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**77.91**	**10.17**	**67.74**	**NA**	**NA**
OMW-10	05/07/1995	1600	NA	110	3.1	17	12	NA	NA	NA	NA	NA	NA	77.91	9.63	68.28	NA	NA
OMW-10	08/02/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.91	10.07	67.84	NA	NA
OMW-10	11/02/1995	1200	NA	47	0.8	1.4	2.4	NA	NA	NA	NA	NA	NA	77.91	9.74	68.17	NA	NA
OMW-10 (D)	11/02/1995	1300	NA	50	0.8	1.5	2.5	NA	NA	NA	NA	NA	NA	77.91	NA	NA	NA	NA
OMW-10	02/24/1996	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.91	NA	NA	NA	NA
OMW-10	05/04/1996	1100	NA	76	16	7.4	32	57	NA	NA	NA	NA	NA	77.91	9.97	67.94	NA	NA
OMW-10 (D)	05/04/1996	700	NA	63	13	6.4	25	21	NA	NA	NA	NA	NA	77.91	NA	NA	NA	NA
OMW-10	09/07/1996	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.91	13.00	64.91	NA	NA
OMW-10	11/24/1996	540	NA	13	2.7	1.3	1.7	16	NA	NA	NA	NA	NA	77.91	12.56	65.35	NA	NA
OMW-10 (D)	11/24/1996	490	NA	25	<2.0	<2.0	<2.0	66	NA	NA	NA	NA	NA	77.91	NA	NA	NA	NA
OMW-10	02/23/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.91	12.52	65.39	NA	NA
OMW-10	05/01/1997	910	NA	1.3	10	4.1	5.9	4.1	NA	NA	NA	NA	NA	77.91	13.13	64.78	NA	NA
OMW-10	07/22/1997	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.91	13.46	64.45	NA	NA

[redacted]

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Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft)	GW Elevation (MSL)	SPH Thickness (ft)	DO Reading (ppm)
OMW-10	11/04/1997	460	NA	5.0	<0.50	1.3	2.2	<5.0	NA	NA	NA	NA	NA	77.91	12.08	65.83	NA	NA
OMW-10	01/21/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.91	11.77	66.14	NA	NA
OMW-10	05/11/1998	370	NA	4.1	0.7	<0.50	0.88	5.2	NA	NA	NA	NA	NA	77.91	12.86	65.05	NA	NA
OMW-10	08/11/1998	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.91	13.20	64.71	NA	NA
OMW-10	10/20/1998	490	NA	<0.50	<0.50	1.6	2.3	5.9	NA	NA	NA	NA	NA	77.91	13.20	64.71	NA	NA
OMW-10**	11/23/1998	150	790	3.2	0.72	<0.50	1.5	5	NA	NA	NA	NA	NA	77.91	12.85	65.06	NA	NA
OMW-10	02/08/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.91	9.18	68.73	NA	NA
OMW-10	04/12/1999	1910	NA	59.8	65.80	67	41.6	<100	NA	NA	NA	NA	NA	77.91	10.25	67.66	NA	NA
OMW-10	07/27/1999	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.91	12.85	65.06	NA	NA
OMW-10	10/25/1999	130	NA	1.08	<0.500	0.522	<0.500	<5.00	NA	NA	NA	NA	NA	77.91	12.99	64.92	NA	NA
OMW-10	01/24/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.91	10.61	67.30	NA	0.6
OMW-10	04/24/2000	60.7	NA	1.73	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	77.91	12.35	65.56	NA	1.1
OMW-10	07/24/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.91	12.76	65.15	NA	NA
OMW-10	11/01/2000	<50.0	NA	0.664	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	77.91	11.96	65.95	NA	2.2
OMW-10	01/19/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.91	12.51	65.40	NA	3.4
OMW-10	04/13/2001	91.0	NA	1.75	0.720	<0.500	0.718	6.11	NA	NA	NA	NA	NA	77.91	12.95	64.96	NA	6.2
OMW-10	07/09/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.91	13.11	64.80	NA	3.4
OMW-10	10/18/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	77.91	19.69	58.22	NA	0.2
OMW-10	01/24/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.91	12.83	65.08	NA	2.5
OMW-10	05/10/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	77.91	13.20	64.71	NA	1.1
OMW-10	07/18/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.91	13.22	64.69	NA	2.3
OMW-10	**10/31/2002**	**<50**	**NA**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**	**<5.0**	**NA**	**NA**	**NA**	**NA**	**81.14**	**13.55**	**67.59**	**NA**	**NA**
OMW-10	01/30/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.14	12.67	68.47	NA	NA
OMW-10	04/17/2003	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	6.6	NA	NA	NA	NA	81.14	12.14	69.00	NA	NA
OMW-10	07/17/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.14	13.08	68.06	NA	NA
OMW-10	10/16/2003	120 e	NA	0.68	<0.50	<0.50	<1.0	NA	0.99	NA	NA	NA	NA	81.14	13.27	67.87	NA	NA
OMW-10	01/14/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.14	12.55	68.59	NA	NA
OMW-10	04/14/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	81.14	13.04	68.10	NA	NA
OMW-10	**10/29/2004**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**81.14**	**12.61**	**68.53**	**NA**	**NA**
OMW-11	11/22/1991	450	240	1.1	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.76	11.90	63.86	NA	NA
OMW-11	02/15/1992	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA

Destroyed 11/04

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OMW-11	03/18/1992	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	05/20/1992	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	08/19/1992	270a	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.76	12.06	63.70	NA	NA
OMW-11	11/18/1992	400a	100	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.76	12.01	63.75	NA	NA
OMW-11	02/11/1993	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	05/20/1993	200a	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.76	11.90	63.86	NA	NA
OMW-11	08/18/1993	180a	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.76	11.90	63.86	NA	NA
OMW-11	11/17/1993	150a	<50a	<0.5	3.6	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.76	11.94	63.82	NA	NA
OMW-11	02/18/1994	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	05/26/1994	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	08/29/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	11.98	63.78	NA	NA
OMW-11	11/11/1994	160	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.76	10.88	64.88	NA	NA
OMW-11	02/03/1995	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	10.62	65.14	NA	NA
OMW-11	03/05/1995	220	100	0.7	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	05/07/1995	160	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.76	11.49	64.27	NA	NA
OMW-11	08/02/1995	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	02/24/1996	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	05/04/1996	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	09/07/1996	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	11/24/1996	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	02/23/1997	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	05/01/1997	130	71	<0.50	<0.50	<0.50	0.61	<2.5	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	07/22/1997	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	13.76	62.00	NA	NA
OMW-11	11/04/1997	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	01/21/1998	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	05/11/1998	100	85	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	08/11/1998	110	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	75.76	13.18	62.58	NA	NA
OMW-11	10/20/1998	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	13.50	62.26	NA	NA
OMW-11	04/12/1999	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	07/27/1999	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	10/25/1999	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	01/24/2000	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA

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Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft)	GW Elevation (MSL)	SPH Thickness (ft)	DO Reading (ppm)
OMW-11	04/24/2000	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	05/11/2000	<50.0	<50 0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	75.76	12.21	63.55	NA	NA
OMW-11	07/24/2000	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	07/29/2000	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	10/26/2000	<50.0	b	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	75.76	12.47	63.29	NA	1.5
OMW-11	11/01/2000	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	01/19/2001	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	12.29	63.47	NA	NA
OMW-11	04/13/2001	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	04/26/2001	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	04/27/2001	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.76	NA	NA	NA	NA
OMW-11	07/09/2001	130	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	75.76	13.00	62.76	NA	3.6
OMW-11	10/18/2001	200	<50	<0.50	<0.50	<0.50	<0.50	NA	<5 0	NA	NA	NA	NA	75.76	13.35	62.41	NA	0 6
OMW-11	01/24/2002	<50	170	<0.50	<0.50	<0.50	<0.50	NA	<5 0	NA	NA	NA	NA	75.76	12.18	63.58	NA	1.7
OMW-11	05/10/2002	180	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	75.76	12.44	63.32	NA	1 3
OMW-11	07/18/2002	230	68	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	75.76	12.32	63.44	NA	1 9
OMW-11	10/31/2002	210	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	78.67	12.70	65.97	NA	NA
OMW-11	01/30/2003	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.67	NA	NA	NA	NA
OMW-11	04/17/2003	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.67	NA	NA	NA	NA
OMW-11	07/17/2003	120 e	<50	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	78.67	12.56	66.11	NA	NA
OMW-11	10/16/2003	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.67	NA	NA	NA	NA
OMW-11	01/14/2004	97 e	<50	<0.50	0.67	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	78.67	12.17	66.50	NA	1.6
OMW-11	04/14/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.67	12.41	66.26	NA	NA
OMW-11	**10/29/2004**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**78.67**	**12.31**	**66.36**	**NA**	**NA**

OMW-12	12/02/1991	<1000	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.65	10.31	65.34	NA	NA
OMW-12	03/18/1992	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.65	8.93	66.72	NA	NA
OMW-12	05/20/1992	180a	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.65	10.26	65.39	NA	NA
OMW-12	08/19/1992	230a	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.65	10 53	65.12	NA	NA
OMW-12	11/18/1992	220a	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.65	10.45	65.20	NA	NA
OMW-12	02/11/1993	240	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.65	8.90	66.75	NA	NA
OMW-12	05/19/1993	110a	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.65	10 60	65.05	NA	NA
OMW-12	08/18/1993	140a	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.65	10 28	65.37	NA	NA

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Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft)	GW Elevation (MSL)	SPH Thickness (ft)	DO Reading (ppm)
OMW-12	11/17/1993	120a	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.65	10.24	65.41	NA	NA
OMW-12	02/18/1994	180a	NA	1.7	2.1	0.9	4.8	NA	NA	NA	NA	NA	NA	75.65	8.97	66.68	NA	NA
OMW-12	05/26/1994	150	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.65	9.62	66.03	NA	NA
OMW-12	08/29/1994	110	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.65	10.20	65.45	NA	NA
OMW-12	11/11/1994	90	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.65	8.54	67.11	NA	NA
OMW-12	02/03/1995	80	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.65	8.28	67.37	NA	NA
OMW-12 (D)	02/03/1995	100	NA	0.6	<0.5	0.7	1.1	NA	NA	NA	NA	NA	NA	75.65	NA	NA	NA	NA
OMW-12	05/07/1995	110	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.65	9.17	66.48	NA	NA
OMW-12	08/02/1995	90	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.65	10.06	65.59	NA	NA
OMW-12 (D)	08/02/1995	120	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.65	NA	NA	NA	NA
OMW-12	11/02/1995	130	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.65	10.09	65.56	NA	NA
OMW-12	02/24/1996	80	NA	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	75.65	7.81	67.84	NA	NA
OMW-12	05/04/1996	61	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	75.65	11.72	63.93	NA	NA
OMW-12	09/07/1996	66	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	75.65	12.65	63.00	NA	NA
OMW-12	11/24/1996	70	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	75.65	11.54	64.11	NA	NA
OMW-12	02/23/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	75.65	11.53	64.12	NA	NA
OMW-12	05/01/1997	79	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	75.65	12.17	63.48	NA	NA
OMW-12	07/22/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	75.65	12.48	63.17	NA	NA
OMW-12 (D)	07/22/1997	51	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	75.65	NA	NA	NA	NA
OMW-12	11/04/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<5.0	NA	NA	NA	NA	NA	75.65	12.54	63.11	NA	NA
OMW-12	01/21/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	75.65	9.82	65.83	NA	NA
OMW-12	05/11/1998	53	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	75.65	11.63	64.02	NA	NA
OMW-12	08/11/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	75.65	12.05	63.60	NA	NA
OMW-12	10/20/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	75.65	12.31	63.34	NA	NA
OMW-12	02/08/1999	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	NA	NA	NA	NA	75.65	8.25	67.40	NA	NA
OMW-12	04/12/1999	Well Inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.65	NA	NA	NA	NA
OMW-12	07/27/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	75.65	10.88	64.77	NA	NA
OMW-12	10/25/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	NA	NA	NA	NA	75.65	11.00	64.65	NA	NA
OMW-12	01/24/2000	Well Inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	75.65	NA	NA	NA	NA
OMW-12	04/24/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	75.65	10.53	65.12	NA	2.0
OMW-12	07/24/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	75.65	11.55	64.10	NA	NA
OMW-12	11/01/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	75.65	10.34	65.31	NA	

WELL CONCENTRATIONS
Former Shell Service Station
500 40th Street/Telegraph Avenue
Oakland, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft)	GW Elevation (MSL)	SPH Thickness (ft)	DO Reading (ppm)
OMW-12	01/19/2001	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	75.65	10.60	65.0	NA	7.6
OMW-12	04/13/2001	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	75.65	10.75	64.9	NA	2.8
OMW-12	07/09/2001	69	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	75.65	11.64	64.0	NA	4.8
OMW-12	10/18/2001	81	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	75.65	11.95	63.7	NA	1.3
OMW-12	01/24/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	75.65	10.27	65.3	NA	3.4
OMW-12	05/10/2002	73	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	75.65	10.86	64.7	NA	1.6
OMW-12	07/18/2002	71	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	75.65	10.66	64.9	NA	1.7
OMW-12	10/31/2002	76	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	78.58	11.20	67.3	NA	NA
OMW-12	01/30/2003	58	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	78.58	10.30	68.2	NA	NA
OMW-12	04/17/2003	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<5.0	NA	NA	NA	NA	78.58	10.17	68.4	NA	NA
OMW-12	07/17/2003	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	78.58	11.05	67.5	NA	NA
OMW-12	10/16/2003	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	78.58	11.33	67.2	NA	NA
OMW-12	01/14/2004	67 e	NA	<0.50	0.87	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	78.58	10.50	68.0	NA	2.8
OMW-12	04/14/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.58	10.85	67.7	NA	NA
OMW-12	**10/29/2004**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**78.58**	**10.72**	**67.8**	**NA**	**NA**
OMW-13	11/22/1991	900	1000	37	9.5	74	130	NA	NA	NA	NA	NA	NA	76.36	11.96	64.4	NA	NA
OMW-13	03/18/1992	900a	590a	24	28	320	320	NA	NA	NA	NA	NA	NA	76.36	10.84	65.5	NA	NA
OMW-13	05/20/1992	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	76.36	NA	NA	NA	NA
OMW-13	08/19/1992	7000	470a	180	36	150	150	NA	NA	NA	NA	NA	NA	76.36	12.12	64.2	NA	NA
OMW-13	11/18/1992	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	76.36	12.00	64.3	NA	NA
OMW-13	02/11/1993	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	76.36	NA	NA	NA	NA
OMW-13	05/20/1993	9200	NA	320	83	490	950	NA	NA	NA	NA	NA	NA	76.36	12.26	64.1	NA	NA
OMW-13	08/18/1993	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	76.36	11.75	64.6	NA	NA
OMW-13	11/17/1993	38000	3800	210	<130	1000	2500	NA	NA	NA	NA	NA	NA	76.36	11.78	64.5	NA	NA
OMW-13	02/18/1994	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	76.36	NA	NA	NA	NA
OMW-13	05/26/1994	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	76.36	NA	NA	NA	NA
OMW-13	08/29/1994	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	76.36	NA	NA	NA	NA
OMW-13	11/11/1994	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	76.36	10.28	66.1	NA	NA
OMW-13	02/03/1995	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	76.36	10.01	66.3	NA	NA
OMW-13	03/05/1995	9100	3900	200	9.7	200	130	NA	NA	NA	NA	NA	NA	76.36	NA	NA	NA	NA
OMW-13	05/07/1995	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	76.36	NA	NA	NA	NA

WELL CONCENTRATIONS
Former Shell Service Station
500 40th Street/Telegraph Avenue
Oakland, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Readin (ppm)

Notes:

a = Chromatogram indicated an unidentified hydrocarbon.

b = The TEPH analysis was not performed because the sample containers were broken in the laboratory.

c = Well was inaccessible, able to gauge but not able to take DO reading.

d = Top of casing elevation altered during wellhead maintenance.

e = Hydrocarbon does not match pattern of laboratory's standard.

* Field technician mistakenly sampled this well instead of OMW-11.

** Field technician mistakenly sampled this well instead of OMW-13.

DO readings are taken post-purge when wells are sampled and pre-purge in wells not sampled.

All wells except OMW-6, OMW-9, and OMW-13 surveyed March 18, 2002 by Virgil Chavez Land Surveying of Vallejo, CA.

RO204

Shell Oil Products US

January 21, 2005

Roseanna Garcia-La Grille
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: **Former Shell Service Station**
500 40th Street
Oakland, California
Incident #97093400

Dear Ms. Garcia-La Grille:

Attached for your review and comment is a copy of the *Well Destruction Report* for the above referenced site. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

As always, please feel free to contact me directly at (559) 645-9306 with any questions or concerns.

Sincerely,

Shell Oil Products US

Karen Petryna

Karen Petryna
Sr. Environmental Engineer

P.O. Box 7869 Burbank, CA 91510-7869 Phone (559) 645-9306 Facsimile (559) 645-5643

CAMBRIA

January 21, 2005

Ms. Roseanne Garcia-La Grille
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **Well Destruction Report**
Former Shell-branded Service Station
500 40th Street
Oakland, California
Incident #97093400
Cambria Project #247-1513-006

Dear Ms. Garcia-La Grille:

On behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell), Cambria Environmental Technology, Inc. (Cambria) is submitting this *Well Destruction Report*. In Cambria's August 20, 2003 *Well Destruction Work Plan* submitted to the Alameda County Health Care Services Agency (ACHCSA), in Cambria's *Second Quarter 2004 Monitoring Report, First Quarter 2004 Monitoring Report,* and *Fourth Quarter 2003 Monitoring Report,* Cambria recommended destruction of three on-site and three off-site monitoring wells. On April 8, 2004, Cambria called Mr. Don Hwang, requesting approval or correspondence on the approval of the proposed monitoring well destructions. To date, Cambria has received no reply or correspondence from ACHCSA regarding the well destructions. After waiting more than 60 days after submittal of the work plan, and after the subsequent notifications in multiple monitoring reports, at Shell's request, Cambria completed the proposed well destructions on November 18, 2004.

SITE CHARACTERISTICS

Site Description: The site is located at the northeastern corner of the 40th Street and Telegraph Avenue intersection in Oakland, California (Figure 1 and 2). The site, a former Shell Service Station which discontinued operation in 1986, is currently developed as a commercial shopping center. The land use surrounding the site is mixed commercial and residential.

Site Lithology: The site subsurface consists mainly of gravelly or silty clay with sands, silts and gravels to the total explored depth of 44 feet below grade (fbg). Groundwater flow direction typically ranges from southeast to southwest.

Cambria
Environmental
Technology, Inc.

5900 Hollis Street
Suite A
Emeryville, CA 94608
Tel: (510) 420-0700
Fax (510) 420-9170

SOIL AND GROUNDWATER INVESTIGATION SUMMARY

1982 Investigation: Between 1982 and 1984, IT Enviroscience (IT) installed 11 groundwater monitoring wells (B-1 through B-11) and 2 recovery wells (R-1 and R-2). Separate-phase hydrocarbons (SPH) were noted intermittently in wells B-2, B-7 and B-8 and regularly in wells B-3 and B-4. IT gauged and removed SPH by manual bailing and periodic batch extraction using a vacuum truck. In November 1983, the tanks were removed from the site, and wells R-1 and R-2 were destroyed during tank removal activities. No formal report of UST removal is available.

According to a July 28, 1987 memorandum prepared by Pacific Environmental Group, Inc. a retail commercial shopping center building was erected on the property between January and April 1986, covering wells B-2, B-6, B-7, B-9 and B-10. In addition, wells B-1, B-3, B-4, B-5 and B-8 were covered by parking lot and rear driveway pavement.

1989-1990 Investigations: In 1989, Converse Environmental Consultants California (Converse) of San Francisco, California installed on-site monitoring wells MW-2 through MW-5; off-site monitoring wells OMW-6, OMW-8, OMW-9 and OMW-10; and an off-site soil boring, SB-1. In 1990, Converse installed on-site monitoring wells MW-8 and EW-1. The maximum total petroleum hydrocarbon as gasoline (TPHg) and benzene concentrations detected in soil samples collected during monitoring well and soil boring installation are 210 parts per million (ppm) and 40 parts per million, respectively, in off-site monitoring well OMW-9.

Quarterly Monitoring: Quarterly groundwater monitoring was initiated at the site in 1990. No SPH has been detected on site since at 1990. All site monitoring wells have shown decreasing concentration trends since installation.

WELL DESTRUCTION ACTIVITIES

Destruction Dates: November 18, 2004.

Wells Destroyed: Six: Wells EW-1, MW-4, MW-5, OMW-10, OMW-11, OMW-12 (Figure 2).

Permit: Alameda County Public Works Agency Permit #'s W04-0659, W04-0660, W04-0661, W04-0662, W04-0663, and W04-0664. (Attachment A).

City of Oakland Community and Economic Development Agency. Excavation Permit Appl # (X0402618) (Attachment A).

Personnel Present: Stewart Dalie, Staff Scientist, Cambria.
Jason Neff, Driller, Gregg Inc., (Gregg) of Martinez, California

Drilling Companies: Gregg (C-57 License # 485-165).

Destruction Methods: Gregg filled all six on- and off-site wells with neat Portland Type I/II cement grout using a tremie pipe. Once the wells were completely filled with grout, 25 pounds per square inch of air pressure was applied with a portable air compressor for approximately 5 minutes. After the wells were pressurized, the space in the well casing was topped off with grout, the well lids and support rings were removed, and the vaults were filled with dyed concrete to match the surrounding pavement conditions. However, well MW-5 was constructed with an aboveground well completion and "stovepipe" protective vault. MW-5 was pressure grouted in place, and the aboveground vault was left in place. Upon destruction of the other site wells, Cambria will remove the aboveground vault for well MW-5 when the appropriate equipment is available. Attachment B presents Cambria's Standard Field Procedures for Monitoring Well Destruction. Attachment C presents Department of Water Resources (DWR) well completion reports.

CLOSING

Please call David Gibbs at (510) 420-3363 or Matt Derby at (510) 420-3332 if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc

Stewart A. Dalie IV
Staff Scientist

Matthew W. Derby, P.E.
Senior Project Engineer

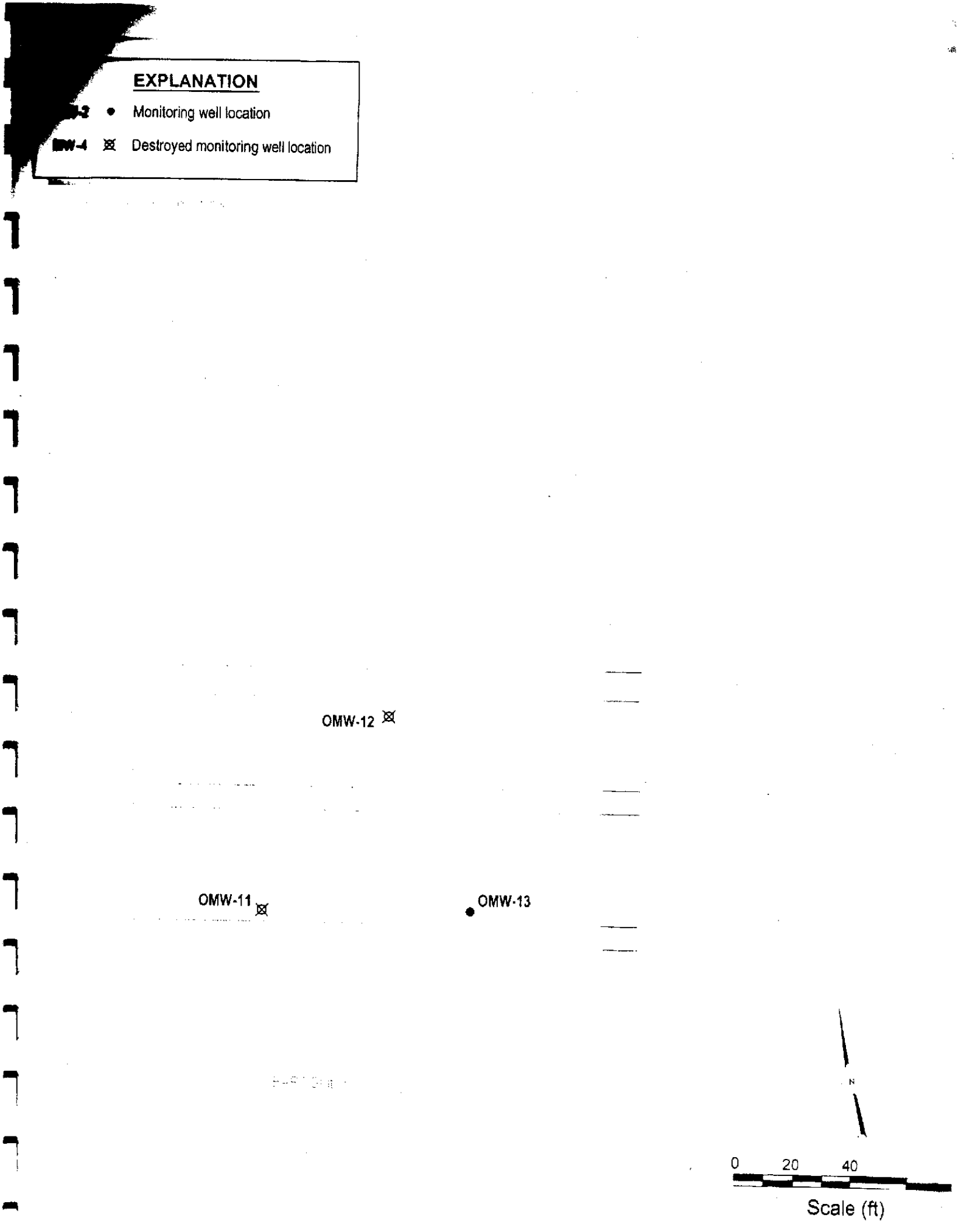
REGISTERED PROFESSIONAL ENGINEER
MATTHEW W. DERBY
No. C055475
Exp. 12/31/06
CIVIL
STATE OF CALIFORNIA

Figures: 1 - Vicinity/Area Well Survey Map
2 - Site Plan

Attachments: A - Permits
B - Cambria's Standard Field Procedures for Monitoring Well Destruction
C - DWR Well Driller's Completion Reports

cc: Karen Petryna, Shell Oil Products US, 20945 S. Wilmington Avenue, Carson, CA 90810
Joseph H Chan, Ivy T Wong, 21213-B Hawthorne Blvd. #5146, Torrance, CA 94609

G:\Oakland 500 40th\2004 Well Destructions\Well Destruction Report.doc


EXPLANATION
Monitoring well location
Destroyed monitoring well location
OMW-12
OMW-11
OMW-13
N
0
20
40
Scale (ft)

12/13/04

Site Plan

MW-8

MW-4

MW-2

EW-1

MW-3

MW-5

OMW-6

OMW-9

OMW-10

80

FIGURE

2

Former Shell Service Station

500 40th Street

Oakland, California

Incident #97093400

CAMBRIA

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

LOG OF BORING NO. OMW-12

[redacted]/91 12/2/91	Geologist: *C. Brown* Assistant Geol.: *N/A* Drilling Co.: *A.T.D.*	Driller/Helper: *N/A* Drilling Method: *Hollow Stem Auger* Auger/Bit Dia.: *3.75" x 8" - 7.25" x 13"*

SAMPLE	WATER LEVEL	SYMBOL	WELL CONSTRUCT.	DESCRIPTION		MOISTURE	SOIL CONSISTENCY OR ROCK HARDNESS	COLOR	BLOWS / 6"	PERCENT RECOVERY
				≈8" Concrete, 8" Base, 6" Fill						
				6" layer Gravel						
				Silty Clay	CL	moist	stiff	black		
S 1				trace black specks				brown	10 10	
S 2				Clayey Sand	SC	moist	medium dense	gray with rust	6 18	
S				Fine Sandy Silt	ML				16	
S				Clayey Sand, little fine Gravel	SC	very moist to wet		red brown	11 11 16	
SPT 1				wet Sand lens wet Sand lens wet Sand lens					9 12 12	
S				Coarse Sand, pea Gravel	SC/GC	wet			18	
S 3				Fine Sandy Clay	CL	very moist	stiff	gray	8 10	
S									5	
S				wet lens		wet		rust with gray	8 11	
SPT 2						very moist			12 4	
S				Silty Clay	CL	wet			5 12	
				Clayey Sand and fine Gravel	SC/GC	very moist	stiff		15 4	
				Silty Clay	CL	moist			7	

5 10 15 20

REGISTERED GEOLOGIST GERARD L. SLATTERY No. 5038 STATE OF CALIFORNIA

SHELL OIL COMPANY
500 40th Street
Oakland, California

Project No.
88-44-361-20

Converse Environmental West

Drawing No.
A-4

LOG OF BORING NO. EW-1

DRILLED: 6/28/90	EL: n/a	WL TAKEN: n/a	EQUIPMENT: 3.75"x 8" / 7.25"x 12" H.S..

DEPTH	SAMPLE	WATER LEVEL	SYMBOL	MOISTURE	CONSISTENCY	COLOR	DESCRIPTION		WELL CONSTRUCTION	BLOWS/6IN.	O.V.H. (ppm)	T.P.H. (ppm)
				moist	loose	light brown	0.2' CONCRETE. Pea GRAVEL. (Fill)					
				moist	medium	black	Silty CLAY, trace Gravel.	CL				
5	1					dark gray	Gravelly CLAY.	CL		5		
				moist	medium dense	tan	Fine SAND.	SP		6		
	S				loose	tan	Fine SAND.	SP		2 2 3		
				slightly moist	stiff	dark gray	Silty CLAY.	CL		8		
	S									5		
				slightly moist	stiff	dark gray	Silty CLAY.	CL		9		
	2						Silty CLAY, some fine Sand.	CL		8		
10				moist	dense		Clayey GRAVEL.	GC		17		
	S				medium dense	dark gray	Clayey GRAVEL.	GC		15 12		
				slightly moist	very stiff	tan	Silty CLAY.	CL		14 16 7		
	S									18		
				slightly moist	very stiff	grayish brown	Silty CLAY.	CL		15 14		
	3									15		
15				slightly moist	very stiff	tan	Silty CLAY, trace Gravel.	CL		11 10		
	S									14		
				slightly moist	hard	tan	Silty CLAY, trace Gravel.	CL		18 20		
	S									10		
				slightly moist	very stiff	light brown	Silty Clay, tr fine Sand.	CL		15 19 21		
	4									7		
20				slightly moist	hard	brown	Silty CLAY.	CL		18		

SHELL OIL COMPANY
500 40th Street
Oakland, California

Project No.
88-44-361-2

Converse Environmental West

Drawing No.
A-5

LOG OF BORING NO. EW-1

continued - page 2

DEPTH (ft)	SAMPLE	WATER LEVEL	SYMBOL	MOISTURE	CONSISTENCY	COLOR	DESCRIPTION		WELL CONSTRUCTION	BLOWS/6IN.	O.V.A. (ppm)
							Silty CLAY.	CL		7	
	S			slightly moist	hard	reddish brown	Silty CLAY, trace Gravel.	CL		19	
				moist			Last 2' Clayey Sandy Gravel.			20	
										22	
	S						Sandy GRAVEL, some Silt, trace Clay.	GM		12	
										17	
							0.2' Sandy CLAY.			20	
				very moist	dense	reddish brown	Sandy GRAVEL, some Silt.	GM		22	
	S						Gravelly CLAY.	GC		5	
25				wet	medium dense	brown	Sandy GRAVEL, some Clay, some Silt.	GM		11	
										12	
	S						Gravelly SAND, some Silt.	GC		15	
							Increasing Gravel.			17	
				wet	dense	brown	Sandy GRAVEL, some Silt.	GM		18	
										12	
	S									18	
					medium dense		Silty SAND, some Gravel, trace Clay.	SC/GC		20	
				wet		brown				22	
	S			wet			fine to coarse Sandy fine to coarse GRAVEL.	GM		15	
30					dense	brown				23	
										15	
	S						Increasing Gravel.			16	
					dense					19	
				wet		brown	Sandy GRAVEL.	GP		24	
										17	
	S					brown	Sandy GRAVEL.	GP		18	
					v stiff	brown	Silty CLAY, tr fine Sand.	CL		20	
				wet						23	
	S						Sandy GRAVEL.	GP		17	
				wet			Fine to medium GRAVEL, some Sand, some Clay.	GP		22	
35										22	
	S									20	
				wet		brown				14	
						rusty red	GRAVEL, little SAND.	GP		17	
	S									16	
						rd brn	Silty fine SAND.	SM		22	
				moist			Fine SAND and GRAVEL, some Silt.	GP		50/5"	
	S				very dense					16	
40				moist	very dense	brown	Silty Sandy GRAVEL.	GM		24	

SHELL OIL COMPANY
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Oakland, California

Project No.
88-44-361-2

Converse Environmental West

Drawing No.
A-6

LOG OF BORING NO. EW-1

continued - page 3

DEPTH	SAMPLE	WATER LEVEL	SYMBOL	MOISTURE	CONSISTENCY	COLOR	DESCRIPTION		WELL CONSTRUCTION	BLOWS/6IN.	O.V.M. (ppm)	T.P.H. (ppm)
				moist			Sandy CLAY, some GRAVEL.	CL		12		
	S									13		
						brown				27		
					hard		Sandy CLAY, some GRAVEL.	CL		29		
										6		
	S						Gravelly SAND, some Clay.	SC		23		
										33		
				moist						60		
					very dense	brown						
45												
	S									6		
				slightly moist	very stiff	tan	Silty CLAY, some black organics.	CL		14		
50										12		
	S									16		
										19		
				slightly moist	very stiff	tan	Silty CLAY.	CL		22		
										10		
	S									15		
				slightly moist	hard	reddish brown	Silty CLAY.	CL		20		
							Sandy CLAY.	CL		26		
55							Total Depth of Boring: 44 ft Below Ground Surface.					
							Casing: blank 4" ID schedule 40 PVC pipe.					
							Screen: slotted 4" ID schedule 40 PVC pipe. (0.020" slot)					
							Filter Pack: 12/20 Sand.					
60												

CERTIFIED ENGINEERING GEOLOGIST
CHARLES R. COMSTOCK
No. 1010
STATE OF CALIFORNIA

incorrect 6'

SHELL OIL COMPANY
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Oakland, California

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88-44-361-20

Converse Environmental West

Drawing No.
A-7

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

LOG OF BORING NO. OMW-10

continued - page 2

DEPTH (ft)	SAMPLE	WATER LEVEL	SYMBOL	MOISTURE	CONSISTENCY	COLOR	DESCRIPTION	WELL CONSTRUCTION	BLOWS/FT.	O.V.
				v. moist		lt. brwn.	F. Sandy CLAY, tr. Gravel. CL		22	
				moist			Clayey f. SAND, lt. Grvl. SC			
				moist	medium		F. Sandy CLAY, lt. Gravel. CL		25	0
				v. moist	m. dense	lt. brwn.	Fine Sandy GRAVEL. GP			
	P			moist	medium	gray brown	Fine Sandy CLAY. CL Fine Sandy CLAY, rust stains.		7 10	0
25							Total Depth of Boring: 24 ft Below Ground Surface.			
30										
35										
40										

REGISTERED PROFESSIONAL GEOLOGIST
[illegible] W. Gerke
No. 110

SHELL OIL COMPANY
500 40th Street
Oakland, California

Project No.
88-44-361-(

Converse Environmental West

Drawing No.
A-9

LOG OF BORING NO. MW-4

[illegible]/23/89	ELEVATION:	WL TAKEN: 5/23/89	EQUIPMENT: 8"x 3-3/4" & 12"x 8"

SAMPLE	WATER LEVEL	SYMBOL	MOISTURE	PLASTICITY	COLOR	DESCRIPTION	WELL CONSTRUCTION	BLOWS/FT.	T.P.H Kg/Kg	TESTS
			moist	loose medium	brown	GRAVELLY SAND (Fill) GP-SP				
					black	SILTY CLAY and GRAVELS CL Decreasing gravel				
D					tan mottled rust	SILTY CLAY Trace gravel		10 38		
D				stiff	brown mottled rust			45		
2								19		
				medium dense		SANDY GRAVEL GM Trace silt.		39		
					tan	LENS CLAY CL				
					gray	LENS GRAVEL GM				
	▼		wet	medium	tan	SILTY CLAY CL and fine SAND		19		
D				medium dense		SANDY GRAVEL and SILT GM		24		
			very moist	stiff		SILTY CLAY CL some GRAVEL				
				medium				36		
			very moist		tan mottled rust			17		
						Increasing SAND Bottom of Hole: 20 ft.				

5 10 15 20

REGISTERED PROFESSIONAL ENGINEER Douglas W. Chatham No. 1110 STATE OF CALIFORNIA

SHELL OIL COMPANY
500 40th Street
Oakland, California

Project No.
88-44-361-01

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Drawing No.
A-4

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

LOG OF BORING NO. OMW-10

11-13-89	ELEVATION:	WL TAKEN: n/a	EQUIPMENT: 3 3/4"x 8" Hollow-Stem Auge

DEPTH	SAMPLE	WATER LEVEL	SYMBOL	MOISTURE	CONSISTENCY	COLOR	DESCRIPTION	WELL CONSTRUCTION	BLOWS/FT.	O.V.H. (ppm)	T.P.H. (ppm)
						light brown	Silty SAND and GRAVEL SM/GM baserock.				
				moist	medium	black	Silty CLAY, CL trace fine Sand, stained olive. Increasing staining.			0	
5	1			slightly moist	medium	dark gray	Fine Sandy CLAY, CL trace Gravel, stained olive. No odor. Increasing SAND and GRAVEL.		18	0	
10	2			slightly moist	medium	dark gray	Fine to medium Sandy CLAY, CL little Gravel. Mottled olive and rust stains.		14	0	
15	3			moist	stiff	light brown	Silty CLAY, trace fine Sand.		16	0	
				wet		lt. brwn	F to m Sndy GRVL, tr Cly. GW		23	0	
20				v. moist	medium		F. Sandy CLAY, tr Gravel. CL				

REGISTERED PROFESSIONAL ENGINEER

SHELL OIL COMPANY
500 40th Street
Oakland, California

Project No.
88-44-361-C

Converse Environmental West

Drawing No.
A-8

LOG OF BORING NO. [illegible]-5

[illegible]-19-89	ELEVATION:	WL TAKEN: 9-19-[illegible]	EQUIPMENT: 8"x 12" Hollow Stem Auger

SAMPLE NO.	WATER	SYMBOL	MOISTURE	CONSISTENCY	COLOR	DESCRIPTION		WELL CONSTRUCTION	BLOWS/FT.	O.V.H. (ppm)	T.P.H. (ppm)
			slightly moist	medium dense	dark brown	Gravelly SA[illegible] SILT some rubble [illegible])					
				medium		Sandy SILT increasing Clay	ML				
1					brown	Silty CLAY trace Sand, [illegible] Gravel	CL		9	0	
2					brown mottled gray	Silty CLAY [illegible] SAND black tubel[illegible]	CL		11	0	
3			moist	medium	light brown mottled rust and gray	Sandy CLAY s[illegible]lt	CL		14	0	
4	▼		moist	medium		Fine Sandy CL[illegible] SILT	CL		15	0	
			very moist								
			wet								
						Total Depth of [illegible]: 20 ft. Below Ground [illegible]					

SHELL OIL COMPANY
500 40th Street
Oakland, California

Project No.
88-44-361-01

Converse Environmental Consultants California

Drawing No.
A-2

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

LOG OF BORING NO. MW-5

[redacted]-19-89	ELEVATION:	WL TAKEN: 9-19-89	EQUIPMENT: 8"x 12" Hollow Stem Auger

WATER	SYMBOL	MOISTURE	CONSISTENCY	COLOR	DESCRIPTION		WELL CONSTRUCTION	BLOWS/FT.	O.V.H. (ppm)	T.P.H. (ppm)
		slightly moist	medium dense	dark brown	Gravelly SAND and SILT some rubble (Fill)					
			medium		Sandy SILT increasing Clay	ML				
	1			brown	Silty CLAY trace Sand, trace Gravel	CL		9	0	
	2			brown mottled gray	Silty CLAY and fine SAND black tubelets	CL		11	0	
	3	moist	medium	light brown mottled rust and gray	Sandy CLAY som Silt	CL		14	0	
▼	4	moist	medium		Fine Sandy CLAY and SILT	CL		15	0	
		very moist								
		wet								
					Total Depth of Boring: 20 ft. Below Ground Surface					

SHELL OIL COMPANY
500 40th Street
Oakland, California

Project No.
88-44-361-01

Converse Environmental Consultants California

Drawing No.
A-2

LOG OF BORING NO. OMW-10

[redacted] 11-13-89	ELEVATION:	WL TAKEN: n/a	EQUIPMENT: 3 3/4"x 8" Hollow-Stem Auge

DEPTH	SAMPLE	WATER LEVEL	SYMBOL	MOISTURE	CONSISTENCY	COLOR	DESCRIPTION	WELL CONSTRUCTION	BLOWS/FT.	O.V.M. (ppm)	T.P.H. (ppm)
						light brown	Silty SAND and GRAVEL SM/GM baserock.				
				moist	medium	black	Silty CLAY, CL trace fine Sand, stained olive.			0	
							Increasing staining.				
5	1			slightly moist	medium	dark gray	Fine Sandy CLAY, CL trace Gravel, stained olive. No odor.		18	0	
							Increasing SAND and GRAVEL.				
10	2			slightly moist	medium	dark gray	Fine to medium Sandy CLAY, CL little Gravel. Mottled olive and rust stains.		14	0	
						light brown				0	
15	3			moist	stiff		Silty CLAY, trace fine Sand.		16		
				wet		lt. brwn	F to m Sndy GRVL, tr Cly. GW		23		
20				v. moist	medium		F. Sandy CLAY, tr Gravel. CL			0	

SHELL OIL COMPANY
500 40th Street
Oakland, California

Project No.
88-44-361-C

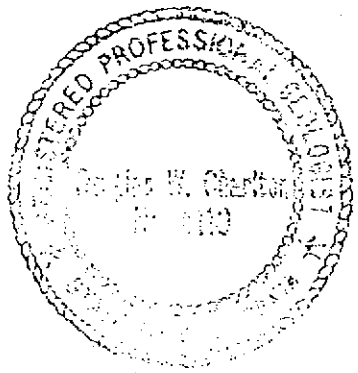
Converse Environmental West

Drawing No.
A-8

LOG OF BORING NO. OMW-10

continued - page 2

DEPTH (ft)	SAMPLE	WATER LEVEL	SYMBOL	MOISTURE	CONSISTENCY	COLOR	DESCRIPTION	WELL CONSTRUCTION	BLOWS/FT.	P.V.
				v. moist		lt. brwn.	F. Sandy CLAY, tr. Gravel. CL		22	
				moist			Clayey f. SAND, lt. Grvl. SC			
				moist	medium		F. Sandy CLAY, lt. Gravel. CL		25	0
				v. moist	m. dense	lt. brwn.	Fine Sandy GRAVEL. GP			
	P			moist	medium	gray brown	Fine Sandy CLAY. CL Fine Sandy CLAY, rust stains.		7 10	0
25							Total Depth of Boring: 24 ft Below Ground Surface.			
30										
35										
40										



SHELL OIL COMPANY
500 40th Street
Oakland, California

Project No.
88-44-361-(

Converse Environmental West

Drawing No.
A-9

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

LOG OF BORING NO. MW-4

5/23/89	ELEVATION:	WL TAKEN: 5/23/89	EQUIPMENT: 8"x 3-3/4" & 12"x 8"

SAMPLE	WATER LEVEL	SYMBOL	MOISTURE	PLASTICITY	COLOR	DESCRIPTION		WELL CONSTRUCTION	BLOWS/FT.	T.P.H Mg/Kg	TESTS
			moist	loose medium	brown	GRAVELLY SAND (Fill)	GP-SP				
					black	SILTY CLAY and GRAVELS Decreasing gravel	CL				
D									10		
5					tan mottled rust	SILTY CLAY Trace gravel			38		
D				stiff	brown mottled rust				45		
2									19		
10				medium dense		SANDY GRAVEL Trace silt.	GM		39		
					tan	LENS CLAY	CL				
					gray	LENS GRAVEL	GM				
	▼		wet	medium	tan	SILTY CLAY and fine SAND	CL		19		
D				medium dense		SANDY GRAVEL and SILT	GM		24		
15			very moist	stiff		SILTY CLAY some GRAVEL	CL				
				medium					36		
			very moist		tan mottled rust				17		
20						Increasing SAND Bottom of Hole: 20 ft.					

SHELL OIL COMPANY
500 40th Street
Oakland, California

Project No.
88-44-361-01

Converse Environmental Consultants California

Drawing No.
A-4

LOG OF BORING NO. OMW-11

Start: 11/21/91
Completion: 11/21/91
Water Measure: 11/22/91

Geologist: C. Brown
Assistant Geol.: N/A
Drilling Co.: A.T.D.

Driller/Helper: N/A
Drilling Method: Hollow Stem A...
Auger/Bit Dia.: 3.75" x 8" - 7.25" x ...

DEPTH (FT)	SAMPLE	WATER LEVEL	SYMBOL	WELL CONSTRUCT.	DESCRIPTION		MOISTURE	SOIL CONSISTENCY OR ROCK HARDNESS	COLOR	BLOWS / 6"	PERCENT RECOVER...
					8" Concrete, 7" Base				gray brown		
							moist	dense			
					Silty Clay	CL		stiff	black		
	S 1						moist	stiff	brown	4 9	
5											
	S 2				Clayey Sand, little fine Gravel	SC	moist	medium dense	gray with rust	5 13	
10	S									10	
	S									14	
	SPT 1						moist to very moist			16 18 9 11 14 18	
	3 S				Slightly Clayey, coarse Sand, trace to little fine Gravel	SP/SC	wet	loose		5 5	
15	S				Fine Sandy Clay	CL	very moist	stiff	gray with rust	4 5	
	S									5 7	
	SPT 2				Clayey fine Sand	SC		medium dense		4 5	
					Silty fine Sand	SP/SM			brown	6 6	
	S				Coarse Sand and fine Gravel, trace Clay	GP/GC	wet			9 20	
20											

REGISTERED GEOLOGIST
GERARD L. SLATTERY
No. 5038
STATE OF CALIFORNIA

SHELL OIL COMPANY
500 40th Street
Oakland, California

Project No.
88-44-361-20

Converse Environmental West

Drawing No.
A-2

LOG OF BORING NO. OMW-11

Continued - Page 2

SAMPLE	WATER LEVEL	SYMBOL	WELL CONSTRUCT.	DESCRIPTION		MOISTURE	SOIL CONSISTENCY OR ROCK HARDNESS	COLOR	BLOWS / 6"	PERCENT RECOVERY
S				Clayey coarse Sand and fine Gravel	SC/GC	wet	dense	brown	11	
									19	
S				Fine Gravelly coarse Sand, trace Clay	SP				21	
									16	
S P T 3				Very Sandy Clay/Clayey Sand	CL/SC			rust with gray	4	
									5	
									10	
				Fine Gravelly fine to medium Sand	SP			gray	11	

Total Depth of Boring: 24 ft.

Casing: Blank 4" ID Sch. 40 PVC
Screen: Slotted 4" ID Sch. 40 PVC, 0.020" slots
Filter Pack: 2/12 sand

REGISTERED GEOLOGIST
GERARD L. SLATTERY
No. 5038
STATE OF CALIFORNIA

SHELL OIL COMPANY
500 40th Street
Oakland, California

Project No.
88-44-361-20

Converse Environmental West

Drawing No.
A-3

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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LOG OF BORING NO. EW-1

DRILLED: 6/28/90	EL: n/a	WL TAKEN: n/a	EQUIPMENT: 3.75"x 8" / 7.25"x 12" H.S.

DEPTH	SAMPLE	WATER LEVEL	SYMBOL	MOISTURE	CONSISTENCY	COLOR	DESCRIPTION		WELL CONSTRUCTION	BLOWS/6IN.	O.V.M. (ppm)	I.P.H. (ppm)
				moist	loose	light brown	0.2' CONCRETE. Pea GRAVEL. (Fill)					
				moist	medium	black	Silty CLAY, trace Gravel.	CL				
5	1					dark gray	Gravelly CLAY.	CL		5		
				moist	medium dense	tan	Fine SAND.	SP		6		
	S				loose	tan	Fine SAND.	SP		2 2 3		
				slightly moist	stiff	dark gray	Silty CLAY.	CL		8		
	S									5		
				slightly moist	stiff	dark gray	Silty CLAY.	CL		9		
	2						Silty CLAY, some fine Sand.	CL		8		
10				moist	dense		Clayey GRAVEL.	GC		17		
	S				medium dense	dark gray	Clayey GRAVEL.	GC		15 12		
				slightly moist	very stiff	tan	Silty CLAY.	CL		14 16 7		
	S									18 15		
				slightly moist	very stiff	grayish brown	Silty CLAY.	CL		14 15		
	3											
15				slightly moist	very stiff	tan	Silty CLAY, trace Gravel.	CL		11 10		
	S									14 18		
				slightly moist	hard	tan	Silty CLAY, trace Gravel.	CL		20 10		
	S									15 19		
				slightly moist	very stiff	light brown	Silty Clay, tr fine Sand.	CL		21 7		
	4			slightly moist	hard	brown	Silty CLAY.	CL		18		
20												

SHELL OIL COMPANY
500 40th Street
Oakland, California

Project No.
88-44-361-2

Converse Environmental West

Drawing No.
A-5

LOG OF BORING NO. OMW-12

[redacted]/91
12/2/91

Geologist: C. Brown
Assistant Geol.: N/A
Drilling Co.: A.T.D.

Driller/Helper: N/A
Drilling Method: Hollow Stem Auger
Auger/Bit Dia.: 3.75" x 8" - 7.25" x 13"

SAMPLE	WATER LEVEL	SYMBOL	WELL CONSTRUCT.	DESCRIPTION		MOISTURE	SOIL CONSISTENCY OR ROCK HARDNESS	COLOR	BLOWS / 6"	PERCENT RECOVERY
				~8" Concrete, 8" Base, 6" Fill						
				6" layer Gravel						
				Silty Clay	CL	moist	stiff	black		
S 1				trace black specks				brown	10 10	
S 2				Clayey Sand	SC	moist	medium dense	gray with rust	6 18	
S				Fine Sandy Silt	ML				16	
S				Clayey Sand, little fine Gravel	SC	very moist to wet		red brown	11 11 16	
SPT 1				wet Sand lens wet Sand lens wet Sand lens					9 12 12	
S				Coarse Sand, pea Gravel	SC/GC	wet			18	
S 3				Fine Sandy Clay	CL	very moist	stiff	gray	8 10	
S									5	
S				wet lens		wet		rust with gray	8 11	
SPT 2						very moist			12 4	
S				Silty Clay	CL				5 12	
						wet			15	
				Clayey Sand and fine Gravel	SC/GC	very moist	stiff		4	
				Silty Clay	CL	moist			7	

REGISTERED GEOLOGIST
GERARD L. SLATTERY
No. 5038
STATE OF CALIFORNIA

SHELL OIL COMPANY
500 40th Street
Oakland, California

Project No.
88-44-361-20

Converse Environmental West

Drawing No.
A-4

LOG OF BORING NO. OMW-12

Continued - Page 2

DEPTH (FT)	SAMPLE	WATER LEVEL	SYMBOL	WELL CONSTRUCT.	DESCRIPTION	MOISTURE	SOIL CONSISTENCY OR ROCK HARDNESS	COLOR	BLOWS/6"	PERCENT RECOVERY
	S				Silty Clay CL	moist	stiff	rust with gray	5 8	
	S								6 7	
	SPT 3				Becoming Sandy				4 5 6 8	
25					Total Depth of Boring: 24 ft. Casing: Blank 4" ID Sch. 40 PVC Screen: Slotted 4" ID Sch. 40 PVC, 0.020" slots Filter Pack: 2/12 sand					
30										
35										
40										

REGISTERED GEOLOGIST
GERARD L. SLATTERY
No. 5038
STATE OF CALIFORNIA

SHELL OIL COMPANY
500 40th Street
Oakland, California

Project No.
88-44-361-20

Converse Environmental West

Drawing No.
A-5

GRIBI Associates
Geological and Environmental Consulting Services

February 7, 2005

Dr. Larry Fusch
The Surgery Center
3875 Telegraph Avenue
Oakland, CA 94609

Subject: Report of Phase II Environmental Site Assessment
The Surgery Center, 3875 Telegraph Avenue, Oakland, California
GA Project No. 256-01-01

Dear Dr. Fusch:

Gribi Associates is pleased to submit this report documenting a recently-completed Phase II Environmental Site Assessment (ESA) for the Surgery Center property located at 3875 Telegraph Avenue in Oakland, California. Phase II ESA activities included the drilling and sampling of five soil borings, B-1 through B-5, at the site. Borings B-1, B-2, and B-3 were sited on the adjacent west BART MacArther Station parking lot to assess soil and groundwater quality in an expected downgradient direction from a former gas station located on the north half of the Surgery Center property. Borings B-4 and B-5 were located on the south Surgery Center parking lot to assess soil and groundwater quality relative to both the former north site gas station and a gas station formerly located on the south side of the Surgery Center property. The goal of the Phase II activities was to assess environmental conditions relative to the past operation of identified gas stations at the site.

Field and laboratory analytical results from the five investigative borings seem to delineate southwest-trending soil and groundwater gasoline-range hydrocarbon plumes. These hydrocarbon plumes appear to have originated in the proximity of the former dispenser islands associated with the former northerly site gas station, and to have migrated in a general southwesterly direction beneath the BART parking lot and Apgar Street. The downgradient (southwest) extent of soil and groundwater impacts was not defined during this investigation.

Based on soil and groundwater laboratory analytical results, it appears that the gasoline hydrocarbon releases are fairly old. While field logging suggested significant hydrocarbon impacts, concentrations of gasoline constituents in soil samples were relatively low, indicating significant natural attenuation over time. In addition, although some soil and grab groundwater samples showed detectable concentrations of MTBE using EPA Method 8021B, MTBE confirmation analysis of some of these samples using EPA Method 8260B showed no detectable MTBE. Thus, the identified gasoline releases pre-date MTBE inception in the 1980s.

Relative to possible environmental or human health risks, results of this investigation indicate that, due to the degraded nature of the detected gasoline range hydrocarbons, these residual hydrocarbons in soil and groundwater do not pose a significant environmental risk for continued commercial use of the property. The highest risk posed by residual gasoline is from possible indoor air exposure to Benzene vapors that might have migrated upwards into the site building from the subsurface.

1090 Adams Street, Suite K • Benicia • California • 94510 • Phone (707)748-7743 • Fax (707)748-7763

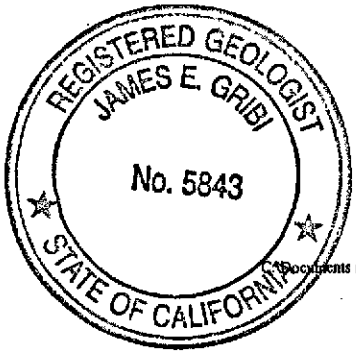
Regulatory environmental screening levels (ESLs) developed by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) for Benzene in soil and groundwater for indoor air exposure at commercial sites are 0.50 mg/kg and 6.4 mg/l, respectively. Of the 18 soil samples analyzed, only two samples from boring B-4, collected at 15 feet and 20 feet in depth, showed Benzene levels (0.630 mg/kg and 1.4 mg/kg) that exceed the soil ESL. Also, of the five grab groundwater samples, only the sample from B-4 showed a Benzene concentration (21.0 mg/l) that exceeds the groundwater ESL. It is worth noting that the grab groundwater samples were collected from soil borings after coring through possible gasoline-impacted soils; thus, groundwater hydrocarbon concentrations from the borings are undoubtedly artificially high and not representative of true groundwater quality.

As directed by The Surgery Center, results of this investigation will be reported to the appropriate regulatory agencies, and, subject to regulatory agency input, a workplan will be developed to address the gasoline impacts identified during this investigation. Possible future activities might generally include: (1) Conducting additional investigation, to include installation of groundwater monitoring wells and, perhaps, additional soil borings; (2) Conducting feasibility assessments (if necessary) and developing a Remedial Action Plan (RAP); (3) Implementing the RAP; and (4) Conducting verification sampling to assess remediation effectiveness.

We appreciate the opportunity to present this report for your review. Please call if you have any questions or require additional information.

Very truly yours,

James E. Gribi
Registered Geologist
California No. 5843



For Matthew A. Rosman
Engineer

JEG/ct

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FIGURES

APPENDICES

1.0 INTRODUCTION

This report documents a Phase II Environmental Site Assessment (ESA) conducted for the Surgery Center property located at 3875 Telegraph Avenue in Oakland, California (see Figure 1 and Figure 2). Phase II ESA activities included the drilling and sampling of five soil borings, B-1 through B-5, at the site. The goal of the Phase II activities was to assess environmental conditions relative to the past operation of identified gas stations at the site.

1.1 Site Background

The project site lies on a gently southwest-sloping plain approximately one and three-quarter miles east from the San Francisco Bay and approximately one and one-half miles north from Lake Merritt. The elevation at the project site is approximately 83 feet above mean sea level. The project site is located in a predominantly mixed residential and commercial area of Oakland. Based on our experience on numerous sites throughout the Bay Area, we would expect groundwater flow at the project site to be to the southwest towards the San Francisco Bay.

Historical records for the site area indicate that two gas stations were located on the site in the 1930s, one on the south side of the site at 3851 Telegraph Avenue, and the other on the north side of the site at 3881 Telegraph Avenue. The south gas station was apparently in operation for only a short time period between perhaps 1925 and 1935. There were two gas stations on the north side of the site, one from perhaps 1925 until 1945, and the other from about 1952 until 1984. The south gas station would have been located in the location of the current Surgery Center parking lot, and the two north gas stations would have been located primarily in the location of the current Surgery Center building. Groundwater is present beneath the site at a depth of about 20 feet below grade, and would generally be expected to flow in a southwest direction towards San Francisco Bay.

Terracon drilled and sampled six borings, B-1 through B-6, at the site in August 2001. Three of these borings, B-1, B-2 and B-3, were located in the south parking lot, and three borings, B-4, B-5, and B-6, were located on the extreme north side of the site. The only significant soil hydrocarbon impacts were encountered at about groundwater depth in borings B-1 and B-2, located in the southwest corner of the site. The only significant groundwater hydrocarbon impact was encountered in the grab groundwater sample from boring B-1, located in the extreme southwest corner of the site. These hydrocarbon impacts appear to represent gasoline-range hydrocarbons, and, while the soil hydrocarbon results show proportionally low levels of Benzene, the grab groundwater sample from B-1 shows a relatively high concentration of Benzene, at 11,000 micrograms per liter (ug/l). Soils beneath the site consist primarily of clays, with occasional thin, discontinuous clayey gravel and clayey sand layers.

1.2 Scope of Work

Gribi Associates was contracted by The Surgery Center to conduct the following scope of work.

- **Task 1 Conduct prefield activities.**
- **Task 2 Conduct drilling and sampling activities.**
- **Task 3 Conduct laboratory analyses.**

- **Task 4 Prepare report of findings.**

These tasks were conducted in accordance with generally accepted sampling guidelines and protocols.

1.3 Limitations

The services provided under this contract as described in this report include professional opinions and judgments based on data collected. These services have been provided according to generally accepted environmental protocol. The opinions and conclusions contained in this report are typically based on information obtained from:

1. Observations and measurements made by our field staff.
2. Contacts and discussions with regulatory agencies and others.
3. Review of available hydrogeologic data.

2.0 DESCRIPTION OF FIELD ACTIVITIES

Soil boring and sampling activities were conducted on Saturday, January 8, 2005 using direct push coring equipment. All activities were conducted in accordance with applicable State and Federal guidelines and statutes.

2.1 Prefield Activities

Prior to beginning drilling activities, a permit was obtained from BART, and a soil boring permit was obtained from the Alameda County Public Works Agency. Copies of these permits are contained in Appendix A. Prior to drilling, proposed soil boring locations were marked with white paint, and Underground Services Alert was notified at least 48 hours prior to drilling. Also, prior to beginning field activities, ForeSite conducted an underground utilities survey to attempt to locate any possible buried structures related to the former gas station and to clear proposed drilling locations. Also, prior to beginning field activities, a Site Safety Plan was issued to the drilling crew, and a tailgate safety meeting was conducted.

2.2 Location of Soil Borings

Locations of the six borings are shown on Figure 2. Borings B-1, B-2, and B-3 were sited on the adjacent west BART MacArther Station parking lot, in an expected downgradient groundwater flow direction from the former north site gas station. In order to determine whether or not the hydrocarbon impacts in the previous Terracon boring B-1 groundwater sample originated from the more recent north site gas station, boring B-4 was sited on the north side of the south parking lot, between boring Terracon boring B-1 and the former north gas station. Boring B-5 was located immediately southwest, in the expected downgradient groundwater flow direction, from the former south project site gas station. Note that the BART parking lot is situated about eight to ten feet lower in elevation than the Surgery Center parking lot.

2.3 Drilling and Sampling of Soil Borings

The five investigative soil borings were drilled to depths ranging from 16 feet to 20 feet below surface grade by Gregg Drilling using direct push hydraulically-driven soil coring equipment. This coring

system allowed for the retrieval of almost continuous soil cores, which were contained in a clear plastic acetate tube, nested inside a stainless steel core barrel. After the core barrel was brought to the surface and exposed, the core was examined, logged, and field screened for hydrocarbons by a qualified geologist using sight and smell. Boring logs for the five borings are contained in Appendix C. Following completion, the six investigative borings were grouted to match existing grade using a cement\sand slurry.

Subsurface soils were sampled at approximately four-foot intervals starting at about eight feet in depth. After the sample and core barrel were raised to the surface, each sample was collected as follows: (1) The filled acetate tube was exposed for visual examination; (2) The selected sample interval was collected by cutting the sample and acetate plastic tubing to the desired length (typically about six inches); (3) The ends of the selected sample were quickly wrapped with Teflon sheets or aluminum foil, capped with plastic end caps, labeled and wrapped tightly with tape; and (4) The sealed soil sample was labeled and immediately placed in cold storage for transport to the analytical laboratory under formal chain-of-custody. All coring and sampling equipment was thoroughly cleaned and decontaminated between each sample collection by triple rinsing first with water, then with dilute tri-sodium phosphate solution, and finally with distilled water.

One grab groundwater sample was collected from each of the five borings. In boring B-1, groundwater rose in the open boring from about 16 feet in depth to about 3.5 feet in depth; thus, this grab groundwater sample was collected using a disposable bailer. In boring B-2, surface water (possibly irrigation water) entered the boring within the top three feet; thus, in attempting this grab groundwater sample, we pushed the closed rods to 16 feet and then allowed groundwater to enter the hollow rods from the bottom, and sampled using a clean small-diameter stainless steel bailer. Grab groundwater samples from borings B-3, B-4, and B-5 were collected as follows: (1) 1-1/4-inch diameter well casing was placed in the boring, with about five feet of slotted screen on the bottom; (2) using a clean stainless steel bailer, groundwater was poured directly from the bailer into laboratory-supplied containers; and (3) each sample container was tightly sealed, labeled, and placed in cold storage for transport to the laboratory under formal chain-of-custody.

2.4 Laboratory Analysis of Soil and Groundwater Samples

A total of 18 soil samples and five grab groundwater samples were analyzed for the following parameters.

USEPA 8015M Total Petroleum Hydrocarbons as Gasoline (TPH-G)
USEPA 8020 Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX)
USEPA 8020 Methyl tert-Butyl Ether (MTBE)

In addition, three samples were analyzed for the following parameters:

USEPA 8015M Total Petroleum Hydrocarbons as Diesel (TPH-D)

Also, one selected soil sample from B-3 and the water samples from B-2 and B-5 were analyzed for the following parameters:

USEPA 8260 Oxygenates (TBA, MTBE, DIPE, ETBE, TAME)

In addition, one soil sample each from B-2 and B-4 was analyzed for the following parameters

USEPA 6010 Total Lead

All analyses were conducted by SunStar Laboratories, Inc., a California-certified analytical laboratory, with standard turnaround on results.

3.0 RESULTS OF INVESTIGATION

3.1 General Subsurface Conditions

Soils encountered in the five borings were generally similar, consisting of silts and clays, with occasional thin sand and gravel layers (see Figure 3). In the BART parking lot borings B-1, B-2, and B-3, a sand and gravel layer was encountered from about three feet to six feet in depth. This gravel/sand layer appears to correspond to a gravel layer encountered in the Surgery Center borings B-4 and B-5, which were about nine feet higher than the BART parking lot borings, from about 13 feet to 15 feet in depth. A deeper sand and gravel layer was encountered in BART parking lot borings B-2 and B-3, and in Surgery Center parking lot boring B-4.

Moderate to strong hydrocarbon odors were noted in soils in BART parking lot borings B-1, B-2, and B-3 from about seven feet to 15 feet in depth, with the strongest odors noted in soils in borings B-2 and B-3. Moderate hydrocarbon odors were noted in Surgery Center parking lot boring B-4 below about eight feet in depth, slight to moderate hydrocarbon odors were noted in Surgery Center parking lot boring B-5 below about eight feet in depth. Hydrocarbon sheens were observed in the grab groundwater samples B-3 and B-4.

3.2 Results of Laboratory Analyses

Soil and grab groundwater analytical results are summarized in Table 1, and on Figure 4 and Figure 5, respectively. The laboratory data report for soil and groundwater samples is contained in Appendix C.

Table 1
SUMMARY OF ANALYTICAL RESULTS
The Surgery Center Site

Sample ID	Sample Matrix	Sample Depth	Concentration (ppm) TPH-D	TPH-G	B	T	E	X	MTBE	OX/TC	PB
B-1-7.5	Soil	7.5 ft	--	<0.5	<0.0050	<0.0050	<0.0050	<0.010	<0.020	--	--
B-1-11.5	Soil	11.5 ft	--	<0.5	<0.0050	<0.0050	<0.0050	<0.010	<0.020	--	--
B-1-13.0	Soil	13.0 ft	--	18.0	<0.0050	0.014	0.120	0.027	0.120	--	--
B-1-15.0	Soil	15.0 ft	--	0.77	<0.0050	<0.0050	<0.0050	<0.010	<0.020	--	--
B-1-16.0	Soil	16.0 ft	--	4.4	<0.0050	0.013	0.026	<0.010	0.030	--	--
B-1-W	Water	(3.7 ft)	--	0.240	<0.0010	<0.0010	0.0091	<0.0020	<0.0040	--	--
B-2-7.0	Soil	7.0 ft	--	190	<0.0050	0.710	4.1	7.8	0.200	--	--
B-2-14.0	Soil	14.0 ft	190	670	0.440	<0.0050	0.140	0.410	0.200	--	3.4
B-2-W	Water	(1.0 ft)	--	14.0	0.220	<0.0010	0.380	0.540	0.034[1]	ND	--
B-3-7.5	Soil	7.5 ft	--	65	0.075	0.052	0.500	0.212	0.220	--	--
B-3-11.5	Soil	11.5 ft	--	170	<0.0050	1.8	2.8	14.8	0.370[1]	ND	--
B-3-15.0	Soil	15.0 ft	--	5.0	0.130	0.0084	0.020	0.078	<0.020	--	--
B-3-W	Water	(9.0 ft)	--	80.0	3.8	1.7	5.4	21.8	<0.100	--	--
B-4-7.5	Soil	7.5 ft	--	<0.50	<0.0050	<0.0050	<0.0050	<0.010	<0.020	--	--
B-4-11.5	Soil	11.5 ft	<10	<0.50	<0.0050	<0.0050	<0.0050	<0.010	<0.020	--	--
B-4-15.0	Soil	15.0 ft	--	39.0	0.630	<0.0050	1.5	3.6	0.058	--	--
B-4-19.5	Soil	19.5 ft	--	90.0	1.4	1.1	2.0	9.3	0.180	--	4.2
B-4-W	Water	(16.0 ft)	--	140.0	21.0	1.7	8.5	33.6	<0.0040	--	--
B-5-7.5	Soil	7.5 ft	<10	1.4	<0.0050	<0.0050	<0.0050	<0.010	<0.020	--	--
B-5-11.5	Soil	11.5 ft	--	<0.5	<0.0050	<0.0050	<0.0050	<0.010	<0.020	--	--
B-5-15.5	Soil	15.5 ft	--	16.0	<0.0050	<0.0050	0.054	<0.010	<0.020	--	--
B-5-19.5	Soil	19.5 ft	--	1.1	<0.0005	<0.0005	0.013	0.020	<0.020	--	--
B-5-W	Water	(13.7 ft)	--	130.0	<0.0010	<0.0010	8.0	6.68	0.390[1]	ND	--
Soil ESL-Residential			500[2]	100[2]	0.18	180	4.7	45	2.0	various	200[2]
Soil ESL-Commercial/Industrial			500[2]	400[2]	0.50	420	13	100	5.6	various	750[2]
Groundwater ESL-Residential			--	--	1.9	530	52	160	48	various	--
Groundwater ESL-Comm./Ind.			--	--	6.4	530	180	160	160	various	--

Table 1 Notes

TPH-D = Total Petroleum Hydrocarbons as Diesel
TPH-G = Total Petroleum Hydrocarbons as Gasoline
B = Benzene
T = Toluene
E = Ethyl benzene
X = Xylene
MTBE = Methyl Tert-butyl Ether
OXYG = Oxygenates by EPA Method 8260B. Includes Methyl Tert-butyl Ether (MTBE), Tert-amyl Methyl Ether (TAME), Tert-butyl Alcohol (TBA), Di-isopropyl Ether (DIPE), and Ethyl Tert-butyl Ether (ETBE).
-- = Not analyzed for this analyte.

<1.0 = Not detected above the expressed value.
ESL = Soil and Groundwater Environmental Screening Levels for evaluation of potential impacts to indoor air (residential and commercial/industrial land use), as contained in *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, San Francisco Bay Regional Water Quality Control Board, Interim Final, July 2003, Appendix I, Tables E-1a and E-1b.
1 = Sample also analyzed for full Oxygenate analysis, including MTBE confirmation.
2 = Shallow soil ESL, residential and commercial/industrial land use (Appendix 1, Tables B-1 and B-2, respectively).

4.0 CONCLUSIONS

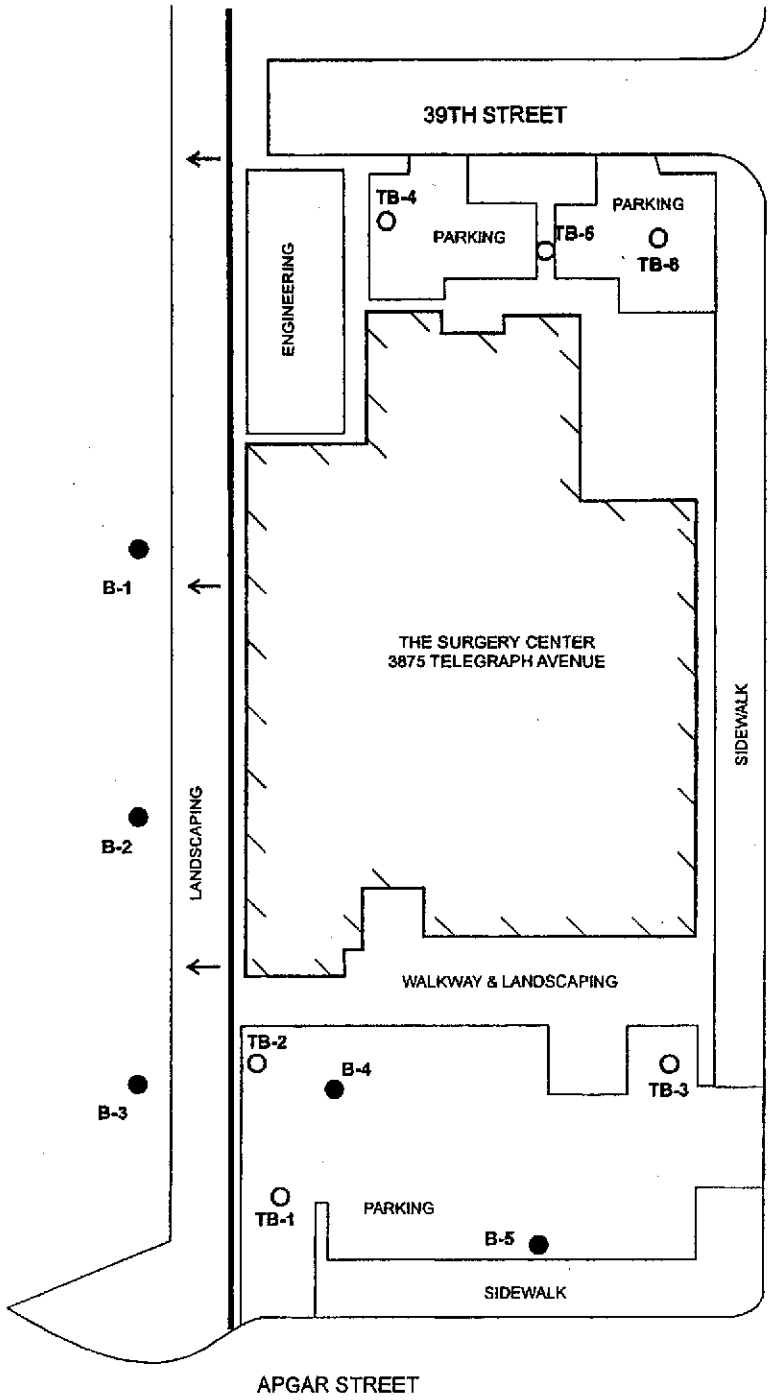
Field and laboratory analytical results from the five investigative borings seem to delineate southwest-trending soil and groundwater gasoline-range hydrocarbon plumes. These hydrocarbon plumes appear to have originated in the proximity of the former dispenser islands associated with the former northerly site gas station, and to have migrated in a general southwesterly direction beneath the BART parking lot and Apgar Street. The downgradient (southwest) extent of soil and groundwater impacts was not defined during this investigation.

Based on soil and groundwater laboratory analytical results, it appears that the gasoline hydrocarbon releases are fairly old. While field logging suggested significant hydrocarbon impacts, concentrations of gasoline constituents in soil samples were relatively low, indicating significant natural attenuation over time. In addition, although some soil and grab groundwater samples showed detectable concentrations of MTBE using EPA Method 8021B, MTBE confirmation analysis of some of these samples using EPA Method 8260B showed no detectable MTBE. Thus, the identified gasoline releases pre-date MTBE inception in the 1980s.

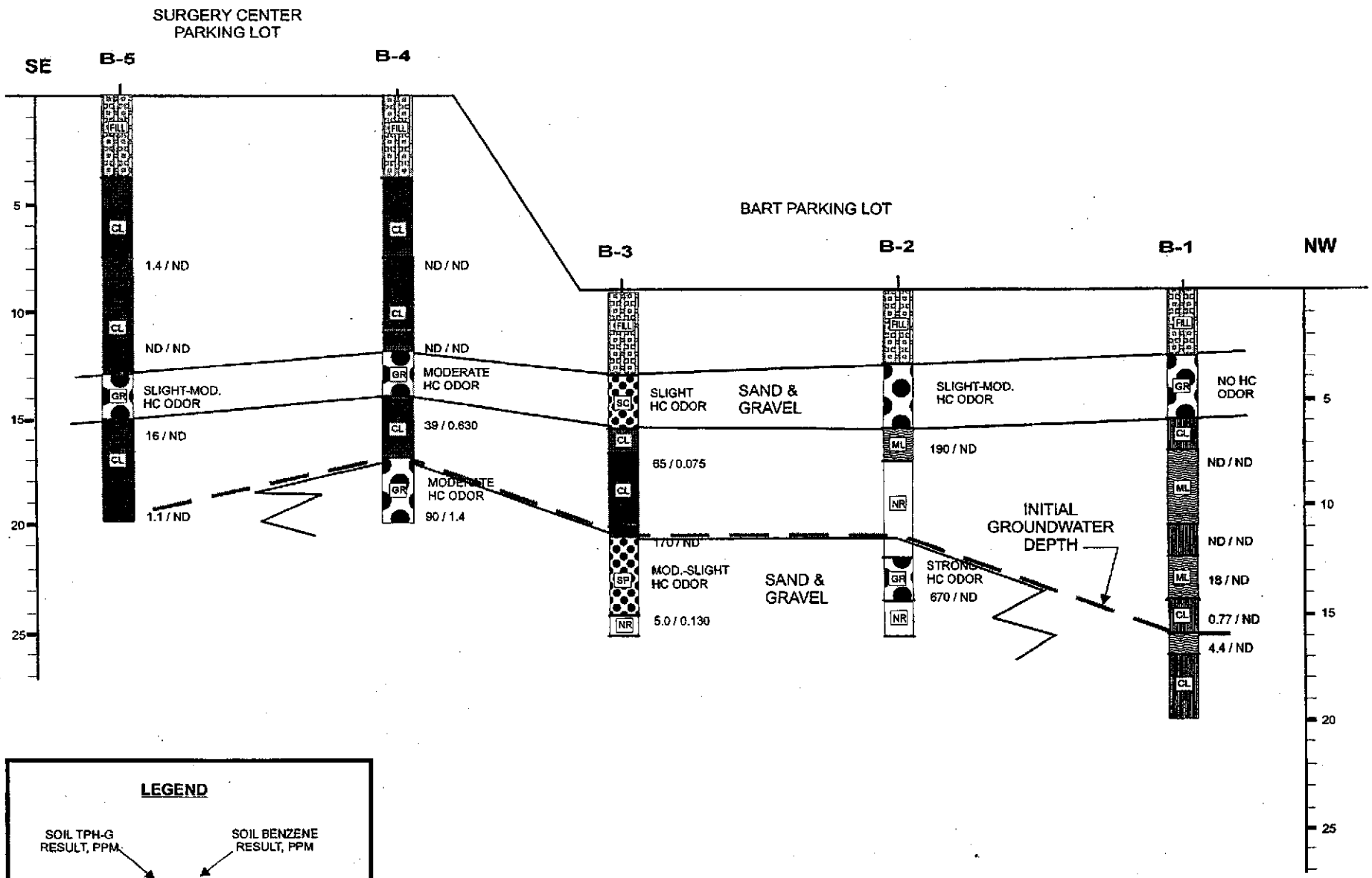
Relative to possible environmental or human health risks, results of this investigation indicate that, due to the degraded nature of the detected gasoline range hydrocarbons, these residual hydrocarbons in soil and groundwater do not pose a significant environmental risk for continued commercial use of the property. The highest risk posed by residual gasoline is from possible indoor air exposure to Benzene vapors that might have migrated upwards into the site building from the subsurface. Regulatory environmental screening levels (ESLs) developed by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) for Benzene in soil and groundwater for indoor air exposure at commercial sites are 0.50 mg/kg and 6.4 mg/l, respectively. Of the 18 soil samples analyzed, only two samples from boring B-4, collected at 15 feet and 20 feet in depth, showed Benzene levels (0.630 mg/kg and 1.4 mg/kg) that exceed the soil ESL. Also, of the five grab groundwater samples, only the sample from B-4 showed a Benzene concentration (21.0 mg/l) that exceeds the groundwater ESL. It is worth noting that the grab groundwater samples were collected from soil borings after coring through possible gasoline-impacted soils; thus, groundwater hydrocarbon concentrations from the borings are undoubtedly artificially high and not representative of true groundwater quality.

5.0 RECOMMENDATIONS

As directed by The Surgery Center, results of this investigation will be reported to the appropriate regulatory agencies, and, subject to regulatory agency input, a workplan will be developed to address the gasoline impacts identified during this investigation. Possible future activities might generally include: (1) Conducting additional investigation, to include installation of groundwater monitoring wells and, perhaps, additional soil borings; (2) Conducting feasibility assessments (if necessary) and developing a Remedial Action Plan (RAP); (3) Implementing the RAP; and (4) Conducting verification sampling to assess remediation effectiveness.



DESIGNED BY:	CHECKED BY:	**SITE PLAN**	DATE: 02/01/05	FIGURE: 2
DRAWN BY: JG	SCALE:	THE SURGERY CENTER 3875 TELEGRAPH AVENUE OAKLAND, CALIFORNIA	**GRIBI Associates**	
PROJECT NO: 263-01-01				

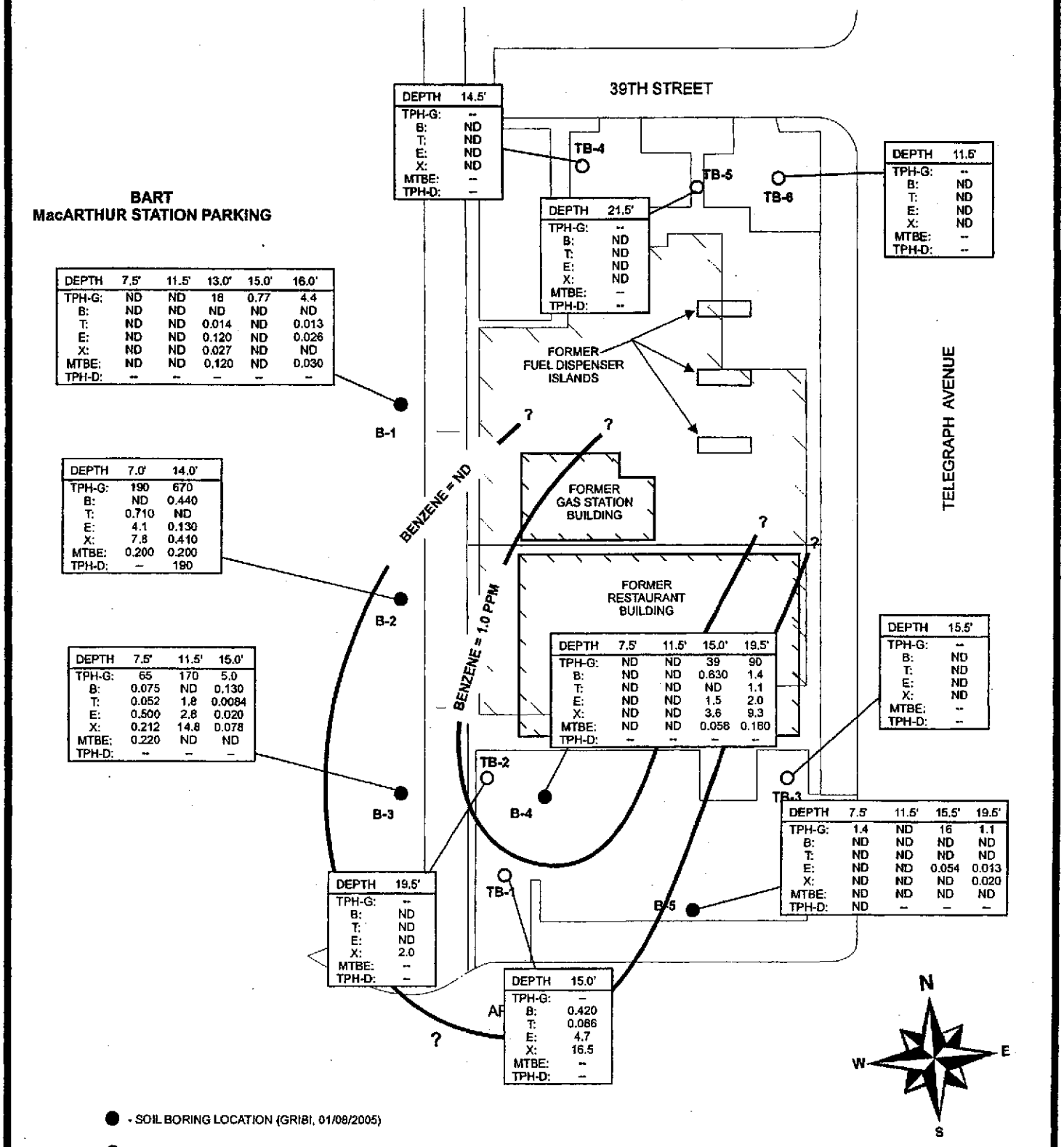


DESIGNED BY:	CHECKED BY:
DRAWN BY: JG	SCALE:
PROJECT NO:	

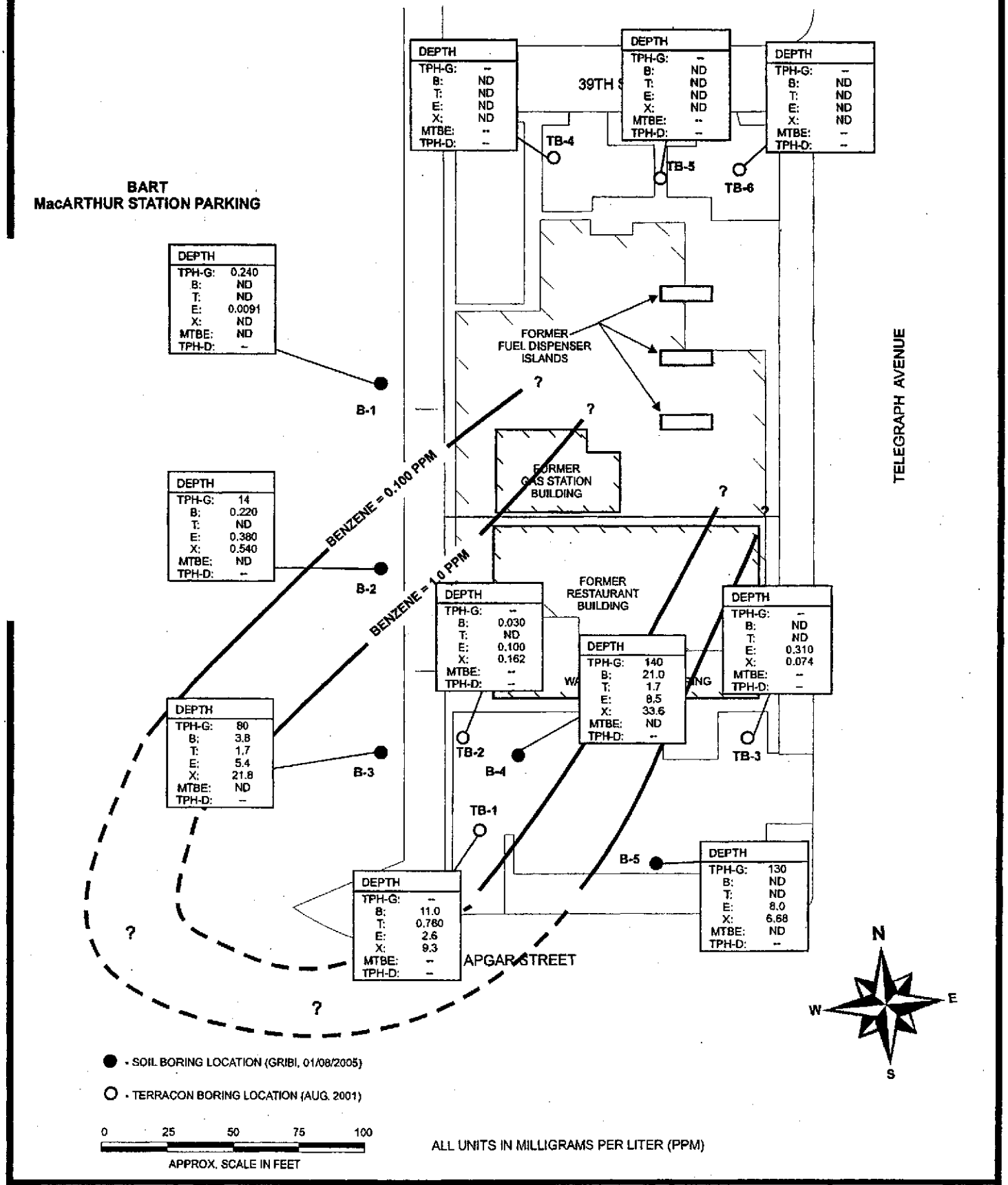
SOUTHEAST-NORTHWEST CROSS SECTION
THE SURGERY CENTER
3875 TELEGRAPH AVENUE
OAKLAND, CALIFORNIA

DATE: 02/07/05 | FIGURE: 3

GRIBI Associates



DESIGNED BY:	CHECKED BY:	**SOIL HYDROCARBON RESULTS**	DATE: 02/01/05	FIGURE: 4
DRAWN BY: JG	SCALE:	THE SURGERY CENTER 3875 TELEGRAPH AVENUE OAKLAND, CALIFORNIA	**GRIBI Associates**	
PROJECT NO: 263-01-01				



DESIGNED BY:	CHECKED BY:	**GRAB GROUNDWATER HYDROCARBON SAMPLES**	DATE: 02/01/05	FIGURE: 5
DRAWN BY: JG	SCALE:	THE SURGERY CENTER 3875 TELEGRAPH AVENUE OAKLAND, CALIFORNIA	**GRIBI Associates**	
PROJECT NO: 263-01-01				

LOG OF SOIL BORING

GRIBI Associates

BORING NUMBER : B-1

BORING LOCATION: 3875 TELEGRAPH AVE
NORTH BART PARKING

BORING TYPE: INVESTIGATIVE BORING

PROJECT NAME: SURGERY CENTER

PROJECT NUMBER: 263-01-01

START DATE: 01/08/05

COMPLETION DATE: 01/08/05

SHEET 1 OF 1

DRILLING CONTRACTOR: GREGG

DRILLING METHOD: GEOPROBE

BOREHOLE DIAMETER: 2.5 INCHES

COMPLETION METHOD: GROUT

BORING TOTAL DEPTH: 20.0 FEET

GROUNDWATER DEPTH: 3.65 FEET

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING & BLOW COUNTS (▽ - INITIAL, ▼ - FINAL)	USCS	LOG OF MATERIAL	PIEZOMETER/ WELL INSTALLATION
				▽	FILL	0.0 - 3.0 ft. Asphalt and base gravel **FILL** (red-brown).	
5					GR	3.0 - 6.0 ft. Red-brown clayey **GRAVEL**, moist, soft, no odor/sheen	
	B-1-7.5	7.5 FT.			CL	6.0 - 7.5 ft. Olive sandy to gravelly **CLAY**, soft to firm, slight hydrocarbon odor	
10					ML	7.5 - 11.0 ft. Olive clayey **SILT**, soft, moist to wet, moderate hydrocarbon odor	
	B-1-11.5	11.5 FT.				11.0 - 12.5 ft. Olive silty **CLAY**, firm, moist, slight hydrocarbon odor	
	B-1-13.0	13.0 FT.			ML	12.5 - 14.5 ft. Olive clayey **SILT**, firm, moist to wet, moderate hydrocarbon odor	
15	B-1-15.5	15.5 FT.		▼	CL	14.5 - 16.5 ft. Red-brown silty **CLAY**, firm, moist, none to slight hydrocarbon odor	
	B-1-16.0	16.0 FT.				16.0 - 17.0 ft. Olive clayey **SILT**, slight to moderate hydrocarbon odor	
					CL	17.0 to 20.0 ft. Red-brown gravelly **CLAY**, firm, dense, no odor/sheen	
20						TOTAL DEPTH: 20.0 FT GROUNDWATER: 3.65 FT.	
25							

LOG OF SOIL BORING

GRIBI Associates

SHEET 1 OF 1

BORING NUMBER : B-2

BORING LOCATION: 3875 TELEGRAPH AVE
MIDDLE BART PARKING

BORING TYPE: INVESTIGATIVE BORING

PROJECT NAME: SURGERY CENTER

PROJECT NUMBER: 263-01-01

START DATE: 01/08/05

COMPLETION DATE: 01/08/05

DRILLING CONTRACTOR: GREGG

DRILLING METHOD: GEOPROBE

BOREHOLE DIAMETER: 2.5 INCHES

COMPLETION METHOD: GROUT

BORING TOTAL DEPTH: 16.0 FEET

GROUNDWATER DEPTH: 1.0 FEET

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING & BLOW COUNTS (▼ - INITIAL, ▼ - FINAL)	USCS	LOG OF MATERIAL	PIEZOMETER/ WELL INSTALLATION
				▼ ▼	FILL	0.0 - 3.5 ft. Asphalt and base gravel **FILL**.	
5				PID = 11		3.5 - 6.5 ft. Olive clayey **GRAVEL**, moist to wet, loose, slight to moderate hydrocarbon odor	
	B-2-7.5	7.5 FT.		PID = 101	ML	6.5 - 8.0 ft. Olive clayey **SILT**, soft, moist, moderate to strong hydrocarbon odor, grades to clayey sand	
10					NR	8.0 - 13.0 ft. **NO RECOVERY**	
					GR	13.0 - 14.5 ft. Olive sandy **GRAVEL**, soft, fine to occasional coarse gravel, clay, moist to wet	
	B-2 -14.0	14.0 FT.		PID = 24			
15					NR	14.0 - 16.0 ft. **NO RECOVERY**	
						TOTAL DEPTH: 16.0 FT GROUNDWATER: 1.0 FT.	
20							
25							

LOG OF SOIL BORING

GRIBI Associates

SHEET 1 OF 1

BORING NUMBER : B-3

BORING LOCATION: 3875 TELEGRAPH AVE SOUTH BART PARKING

BORING TYPE: INVESTIGATIVE BORING

PROJECT NAME: SURGERY CENTER

PROJECT NUMBER: 263-01-01

START DATE: 01/08/05

COMPLETION DATE: 01/08/05

DRILLING CONTRACTOR: GREGG

DRILLING METHOD: GEOPROBE

BOREHOLE DIAMETER: 2.5 INCHES

COMPLETION METHOD: GROUT

BORING TOTAL DEPTH: 16.0 FEET

GROUNDWATER DEPTH: 9.0 FEET

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING & BLOW COUNTS (▽ - INITIAL, ▼ - FINAL)	USCS	LOG OF MATERIAL	PIEZOMETER\ WELL INSTALLATION
					FILL	0.0 - 4.0 ft. Asphalt and base gravel **FILL**.	
5					SC	4.0 - 5.5 ft. Olive green clayey **SAND**, moist, soft, slight hydrocarbon odor	
					CL	5.5 - 7.5 ft. Olive green silty **CLAY**, dense, moist, slight to moderate hydrocarbon odor	
	B-3-7.5	7.5 FT.		PID = 27			
				▼	CL	7.5 - 11.5 ft. Sandy **CLAY**, soft, moist to wet, strong hydrocarbon odor	
10							
	B-3-11.5	11.5 FT.		PID = 389 ▽			
					SP	11.5 - 15.0 ft. Olive green gravelly SAND, loose to firm, moderate to strong hydrocarbon odor	
15	B-3-15.0	15.0 FT.			NR	15.0 - 16.0 ft. NO RECOVERY	
						TOTAL DEPTH: 16.0 FT GROUNDWATER: 9.0 FT.	
20							
25							

LOG OF SOIL BORING

GRIBI Associates

SHEET 1 OF 1

BORING NUMBER : B-4

BORING LOCATION: 3875 TELEGRAPH AVE
WEST SURGERY PARKING

BORING TYPE: INVESTIGATIVE BORING

PROJECT NAME: SURGERY CENTER

PROJECT NUMBER: 263-01-01

START DATE: 01/08/05

COMPLETION DATE: 01/08/05

DRILLING CONTRACTOR: GREGG

DRILLING METHOD: GEOPROBE

BOREHOLE DIAMETER: 2.5 INCHES

COMPLETION METHOD: GROUT

BORING TOTAL DEPTH: 20.0 FEET

GROUNDWATER DEPTH: 16.0 FEET

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING & BLOW COUNTS (▽ - INITIAL, ▼ - FINAL)	USCS	LOG OF MATERIAL	PIEZOMETER/ WELL INSTALLATION
					FILL	0.0 - 4.0 ft. Asphalt and base gravel **FILL**.	
5					CL	4.0 - 8.5 ft. Olive **CLAY**, dense, firm, slight hydrocarbon odor	
	B-4-7.5	7.5 FT.					
10					CL	8.5 - 12.0 ft. Olive gravelly **CLAY**, firm, dense, moist, moderate hydrocarbon odor	
	B-4-11. 5	11.5 FT.		PID = 27			
					GR	12.0 - 14.0 ft. **GRAVEL**, loose, moderate hydrocarbon odor	
15				PID = 421 ▼	CL	14.0 - 17.0 ft. Olive gravelly **CLAY**, sandy, moist to wet, moderate to strong hydrocarbon odor	
	B-4 -15.5	15.5 FT.		▽			
					GR	17.0 - 20.0 ft. Olive-brown silty to sandy **GRAVEL**, firm, moist to wet, moderate hydrocarbon odor.	
20	B-4 -19.5	19.5 FT.		PID = 154			
						TOTAL DEPTH: 20.0 FT GROUNDWATER: 16.0 FT.	
25							

LOG OF SOIL BORING

SHEET 1 OF 1

BORING NUMBER : B-5

BORING LOCATION: 3875 TELEGRAPH AVE
EAST SURGERY PARKING

GRIBI Associates

DRILLING CONTRACTOR: GREGG

DRILLING METHOD: GEOPROBE

BOREHOLE DIAMETER: 2.5 INCHES

COMPLETION METHOD: GROUT

BORING TYPE: INVESTIGATIVE BORING

PROJECT NAME: SURGERY CENTER

START DATE: 01/08/05

BORING TOTAL DEPTH: 20.0 FEET

PROJECT NUMBER: 263-01-01

COMPLETION DATE: 01/08/05

GROUNDWATER DEPTH: 13.7 FEET

DEPTH SCALE (FEET)	SAMPLE NO.	SAMPLE DEPTH	INTERVAL	PID READING & BLOW COUNTS (▽ - INITIAL, ▼ - FINAL)	USCS	LOG OF MATERIAL	PIEZOMETER/ WELL INSTALLATION
					FILL	0.0 - 4.0 ft. Asphalt and base gravel **FILL**.	
5					CL	4.0 - 8.5 ft. Grey-brown silty **CLAY**, dense, slight to moderate hydrocarbon odor	
	B-5-7.5	7.5 FT.					
10					CL	8.5 - 13.0 ft. Olive green silty **CLAY**, dense, firm, moist, localized sands, moderate to strong hydrocarbon odor	
	B-5-11. 5	11.5 FT.					
				▼	GR	13.0 - 15.0 ft. Olive clayey **GRAVEL**, firm, moist, slight to moderate hydrocarbon odor	
15	B-5 -15.5	15.5 FT.					
					CL	15.0 - 20.0 ft. Olive **CLAY**, dense, firm, moist, moderate hydrocarbon odor	
	B-5 -19.5	19.5 FT.		▼			
20						TOTAL DEPTH: 20.0 FT GROUNDWATER: 13.65 FT.	
25							

APPENDIX B

BORING LOGS

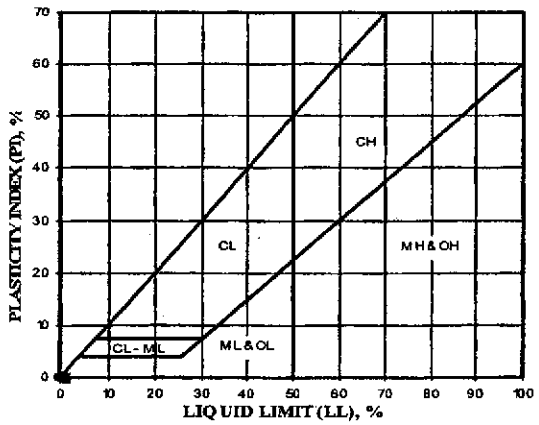
U.S.C.S. METHOD OF SOIL CLASSIFICATION

MAJOR DIVISIONS		SYMBOL	TYPICAL NAMES
COARSE-GRAINED SOILS (More than 1/2 of soil >No. 200 sieve size)	GRAVELS (More than 1/2 of coarse fraction > No. 4 sieve size)	GW	Well graded gravels or gravel-sand mixtures, little or no fines
		GP	Poorly graded gravels or gravel-sand mixtures, little or no fines
		GM	Silty gravels, gravel-sand-silt mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
	SANDS (More than 1/2 of coarse fraction <No. 4 sieve size)	SW	Well graded sands or gravelly sands, little or no fines
		SP	Poorly graded sands or gravelly sands, little or no fines
		SM	Silty sands, sand-silt mixtures
		SC	Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS (More than 1/2 of soil <No. 200 sieve size)	SILTS & CLAYS Liquid Limit <50	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean
		OL	Organic silts and organic silty clays of low plasticity
	SILTS & CLAYS Liquid Limit >50	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
		CH	Inorganic clays of high plasticity, fat clays
		OH	Organic clays of medium to high plasticity, organic silty clays, organic silts
HIGHLY ORGANIC SOILS		Pt	Peat and other highly organic soils

GRAIN SIZE CHART

CLASSIFICATION	RANGE OF GRAIN SIZE	
	U.S. Standard Sieve Size	Grain Size in Millimeters
BOULDERS	Above 12"	Above 305
COBBLES	12" to 3"	305 to 76.2
GRAVEL	3" to No. 4	76.2 to 4.76
Coarse	3" to 3/4"	76.2 to 19.1
Fine	3/4" to No. 4	19.1 to 4.76
SAND	No. 4 to No. 200	4.76 to 0.075
Coarse	No. 4 to No. 10	4.76 to 2.00
Medium	No. 10 to No. 40	2.00 to 0.420
Fine	No. 40 to No. 200	0.420 to 0.075
SILT & CLAY	Below No. 200	Below 0.075

PLASTICITY CHART



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U.S.C.S. METHOD OF SOIL CLASSIFICATION

BORING LOG EXPLANATION SHEET

DEPTH (feet)	SAMPLES: Bulk	SAMPLES: Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	
0	■							Bulk sample.
		■						Modified split-barrel drive sampler.
		X						No recovery with modified split-barrel drive sampler.
		▮						Sample retained by others.
		╱						Standard Penetration Test (SPT).
5		╱						No recovery with a SPT.
		▯	XX/XX					Shelby tube sample. Distance pushed in inches/length of sample recovered in inches.
		╲						No recovery with Shelby tube sampler.
		▯						Continuous Push Sample.
				♀				Seepage.
10				▽				Groundwater encountered during drilling.
				▼				Groundwater measured after drilling.
						▒	SM	ALLUVIUM: Solid line denotes unit change.
								Dashed line denotes material change.
								Attitudes: Strike/Dip b: Bedding c: Contact j: Joint f: Fracture F: Fault cs: Clay Seam s: Shear bss: Basal Slide Surface sf: Shear Fracture sz: Shear Zone sbs: Sheared Bedding Surface
15								
20								The total depth line is a solid line that is drawn at the bottom of the boring.

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BORING LOG

EXPLANATION OF BORING LOG SYMBOLS

PROJECT NO.	DATE	FIGURE
	Rev. 01/03	

DATE DRILLED 2/25/05 BORING NO. B-1

GROUND ELEVATION 80'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY KML LOGGED BY KML REVIEWED BY JDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0									CONCRETE: Approximately 9" thick.
								GP	FILL: Dark brown, moist, sandy GRAVEL; coarse sand; gravel up to 2" in diameter; petroleum odor.
				▽		0.0		CL	ALLUVIUM: Greenish black, silty CLAY; petroleum odor. Dark brown; saturated.
5									
10									Total Depth = 8.0 feet bgs. Groundwater encountered during drilling at 3.0 feet bgs. Boring backfilled with cement grout on 2/25/05.
15									
20									

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-1

DATE DRILLED 2/25/05 BORING NO. B-2

GROUND ELEVATION 80'± MSL SHEET 1 OF 2

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								CONCRETE: Approximately 18" thick.
							GP	FILL:
							CL	Dark brown, moist, sandy GRAVEL; coarse sand; gravel up to 2" in diameter; petroleum odor.
								ALLUVIUM:
								Greenish black, silty CLAY.
								Brown with red mottling, moist, sandy CLAY; medium sand.
							SP	Brown, moist, gravelly SAND; medium sand; gravel up to 2" in diameter.
5					0.0			
							CL	Brown, moist, silty CLAY.
								Sandy CLAY; medium sand.
10					0.0			
								Gravel up to 1.5" in diameter.
								Silty CLAY.
15								
20								

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-2

DATE DRILLED 2/25/05 BORING NO. B-2

GROUND ELEVATION 80'± MSL SHEET 2 OF 2

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
20							CL	ALLUVIUM: (Continued) Brown, moist, silty CLAY.
25								Total Depth = 24.0 feet bgs. No groundwater encountered in boring. Boring backfilled with cement grout on 2/25/05.
30								
35								
40								

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-3

DATE DRILLED 2/27/05 BORING NO. B-3

GROUND ELEVATION 80'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY KML LOGGED BY KML REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							CL	FILL: Dark brown, moist, silty CLAY with gravel.
							CL	ALLUVIUM: Greenish black, moist, silty CLAY. Brown; sandy CLAY; medium sand.
5					0.0		SP	Brown, moist, gravelly SAND; medium sand; gravel up to 1.5" in diameter.
							CL	Brown, moist, silty CLAY.
10					0.0			Black; moist to damp; gravelly CLAY; organic debris (wood chips). Light brown; moist; silty CLAY.
15							SP	Light brown, moist, gravelly SAND lense.
							CL	Light brown, moist, silty CLAY.
					0.0			Total Depth = 18.0 feet bgs. Groundwater encountered at 18.0 feet bgs. Boring backfilled with cement grout on 2/27/05.
20								

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-4

DATE DRILLED 2/25/05 BORING NO. B-4

GROUND ELEVATION 80'± MSL SHEET 1 OF 2

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								ASPHALT: Approximately 4" thick.
							GP	FILL:
							SP	Brown, moist, sandy GRAVE; coarse sand; medium gravel.
								Brown, moist, clayey SAND; medium sand.
							CL	ALLUVIUM:
								Reddish brown, moist, sandy CLAY.
								Silty CLAY.
5					0.0			
								Sandy CLAY with sparse gravel.
								Green; silty CLAY with sparse gravel.
10					0.0			
			▽					Silty CLAY.
15								
								Brown; gravelly CLAY.
								Silty CLAY.
20								Dark greenish black; sandy CLAY; medium sand.

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-5

DATE DRILLED 2/25/05 BORING NO. B-4

GROUND ELEVATION 80'± MSL SHEET 2 OF 2

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES: Bulk	SAMPLES: Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
20									Total Depth = 20.0 feet bgs. Groundwater encountered at 12.0 feet bgs. Boring backfilled with cement grout on 2/25/05.
25									
30									
35									
40									

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-6

DATE DRILLED 2/27/05 BORING NO. B-5

GROUND ELEVATION 80'± MSL SHEET 1 OF 2

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT ____ DROP ____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								ASPHALT: Approximately 4" thick.
							GP	FILL: Brown, moist, sandy GRAVEL; coarse sand; gravel up to 2" in diameter.
							CL	ALLUVIUM: Brown, moist, sandy CLAY; medium sand.
5					0.0			Petroleum odor.
							GP	Brown, moist, sandy GRAVEL; medium sand; gravel up to 1.5" in diameter; petroleum odor.
10			▽		5.1		CL	Brown, moist, sandy CLAY. Damp; silty CLAY.
							SP	Brown, moist, gravelly SAND.
15							CL	Brown, moist, sandy CLAY.
							GP	Brown, moist, GRAVEL.
20					5.9			

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-7

DATE DRILLED 2/27/05 BORING NO. B-5

GROUND ELEVATION 80'± MSL SHEET 2 OF 2

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
20									Total Depth = 20.0 feet bgs. Groundwater encountered at 11.0 feet bgs. Boring backfilled with cement grout on 2/27/05.
25									
30									
35									
40									

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-8

DATE DRILLED 2/25/05 BORING NO. B-6

GROUND ELEVATION 70'± MSL SHEET 1 OF 2

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								CONCRETE: Approximately 3" thick.
							SP	FILL:
							CL	Light brown, dry, coarse gravelly SAND; gravel up to 2" in diameter.
								Black, moist, sandy CLAY.
							SP	Reddish brown, moist, gravelly SAND.
							CL	ALLUVIUM:
								Black, moist, silty CLAY.
								Brown.
5					0.0			
								Sandy CLAY; medium sand.
							SP	Greenish gray, moist, coarse SAND with clay.
							CL	Greenish gray, moist, sandy CLAY; medium sand.
10					0.0			
			▽					Greenish brown; gravelly sandy CLAY; coarse sand; gravel up to 1" in diameter.
15								
							GP	Brown, moist, sandy GRAVEL; medium sand; gravel up to 1" in diameter.
20								

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-9

DATE DRILLED 2/25/05 BORING NO. B-6

GROUND ELEVATION 70'± MSL SHEET 2 OF 2

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES: Bulk	SAMPLES: Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
20									Total Depth = 20.0 feet bgs. Groundwater encountered at 11.0 feet bgs. Boring backfilled with cement grout on 2/25/05.
25									
30									
35									
40									

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-10

DATE DRILLED 2/26/05 BORING NO. B-7

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY KML LOGGED BY KML REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								ASPHALT CONCRETE: Approximately 8" thick.
							GP	Brown, moist, sandy GRAVEL; coarse sand; gravel up to 1" in diameter.
			▽				CL	Brown, moist, silty CLAY; no odor.
								Sandy clay with gravel; medium sand; gravel up to 1.5" in diameter.
5					0.0			
								Green gray with red mottling, moist, silty CLAY; gravel up to 0.5" in diameter.
10					0.0			
15					0.0			Total Depth = 15.0 feet bgs. Groundwater encountered at 3.0 feet bgs. Boring backfilled with cement grout on 2/26/05.
20								

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-11

DATE DRILLED 2/25/05 BORING NO. B-8

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY KML LOGGED BY KML REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								CONCRETE: Approximately 6" thick.
							GP	FILL:
							CL	Reddish brown, moist, sandy GRAVEL; coarse sand; gravel up to 2" in diameter.
								Gray brown, moist to damp, sandy CLAY; petroleum odor.
			▽				CL	ALLUVIUM:
								Gray brown, moist, silty CLAY; petroleum odor.
5					0.0			
								Greenish gray; gravelly clay; gravel to 0.5" in diameter.
10					5.0			
								Total Depth = 11.0 feet bgs.
								Groundwater encountered at 3.0 feet bgs.
								Boring backfilled with cement grout on 2/25/05.
15								
20								

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-12

DATE DRILLED 2/25/05 BORING NO. B-9

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							CL	FILL: Brown, moist, sandy CLAY; no odor.
							CL	ALLUVIUM: Brown, moist, silty CLAY.
5					0.0			Gravel up to 1.5" in diameter; petroleum odor.
								Greenish brown; sandy CLAY; coarse sand.
10					0.0			Reddish brown; silty clay; no odor.
			▽					Gravel up to 2" in diameter.
15								Total Depth = 15.0 feet bgs. Groundwater encountered at 13.0 feet bgs. Boring backfilled with cement grout on 2/25/05.
20								

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-13

DATE DRILLED 2/26/05 BORING NO. B-10

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY KML LOGGED BY KML REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							CL	FILL: Brown, moist, sandy CLAY; medium sand.
							CL	ALLUVIUM: Brown, moist, silty CLAY; no odor.
					0.0			
5								Green with orange mottling.
								Gravel 1" to 2" in diameter.
10					0.0			Blue gray; petroleum odor.
15			▽		0.0			Brown with red mottling; sandy gravelly clay; no odor; fine sand; gravel up to 2" in diameter.
								Total Depth = 19.0 feet bgs. Groundwater encountered at 17.0 feet bgs. Boring backfilled with cement grout on 2/26/05.
20								

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-14

DATE DRILLED 6/4/05 BORING NO. B-11

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY KML LOGGED BY KML REVIEWED BY _____

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							CL	FILL: Brown, moist, sandy CLAY; no odor; gravel approximately 1.2" in diameter.
					0.0		CL	ALLUVIUM: Brown, moist, silty CLAY; no odor.
5					0.0			Greenish brown; gravel to 1/4" in diameter; slight petroleum odor.
10					200			Strong petroleum odor.
15			▽		150		SP	Greenish brown, wet, gravelly clayey SAND; gravel up to 1" in diameter.
								Total Depth = 16 feet bgs. Groundwater encountered during drilling at 15 feet bgs. Boring backfilled with portland cement on 6/4/05.
20								

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	06/05	B-15

DATE DRILLED 2/26/05 BORING NO. B-12

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY KML LOGGED BY KML REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								CONCRETE: Approximately 10" thick.
							CL	FILL: Reddish brown, moist, gravelly CLAY; gravel up to 2" in diameter; no odor.
							CL	ALLUVIUM: Brown, moist, silty CLAY; no odor; gravel up to 1" in diameter.
5					0.0			Brown with red mottling.
10					0.0			Brown; wet; gravelly silty clay; gravel up to 0.5" in diameter.
15			▽					
20								Total Depth = 17.0 feet bgs. Groundwater encountered at 13.0 feet bgs. Boring backfilled with cement grout on 2/26/05.

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-16

DATE DRILLED 2/27/05 BORING NO. B-13

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES: Bulk / Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							SP	ASPHALT: Approximately 4" thick. FILL: Brown, moist, coarse gravelly SAND; gravel up to 2" in diameter; slight odor.
					0.0		CL	ALLUVIUM: Brown, moist, silty CLAY; no odor.
5					3.9			Greenish gray; sandy clay; medium sand.
							GP	Greenish gray, moist, clayey sandy GRAVEL; medium sand; gravel to 1" in diameter.
							CL	Reddish brown, moist, sandy CLAY; medium sand; petroleum odor. Gravelly silty clay.
10					0.0			
15			▽					
							GP	Reddish brown, moist, sandy GRAVEL.
20								Total Depth = 19.0 feet bgs. Groundwater encountered at 15.0 feet bgs. Boring backfilled with cement grout on 2/27/05.

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-17

DATE DRILLED 2/27/05 BORING NO. B-14

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								ASPHALT: Approximately 4" thick.
							SP	FILL: Brown, moist, coarse gravelly SAND; gravel up to 2" in diameter.
					0.0		CL	ALLUVIUM: Brown, moist, silty CLAY.
5					0.0		GP	Brown, wet, sandy GRAVEL; coarse sand; gravel up to 2" in diameter.
			▽				SP	Reddish brown, moist, clayey SAND.
					0.0		GP	Reddish brown, moist, sandy GRAVEL.
								Total Depth = 8.0 feet bgs. Groundwater encountered at 7.5 feet bgs. Boring backfilled with cement grout on 2/27/05.
10								
15								
20								

Ninyo & Moore

BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-18

DATE DRILLED 2/27/05 BORING NO. B-15

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								ASPHALT: Approximately 4" thick.
							SP	FILL: Brown, moist, coarse gravelly SAND; gravel up to 2" in diameter.
					0.0		CL	ALLUVIUM: Brown, moist, silty CLAY.
5					0.0		SP	Greenish gray, wet, coarse gravelly SAND; gravel up to 2" in diameter.
			▽				CL	Greenish gray, moist, sandy CLAY with gravel; medium sand; gravel up to 2" in diameter.
10								Total Depth = 9.0 feet bgs. Groundwater encountered at 7.0 feet bgs. Boring backfilled with cement grout on 2/27/05.
15								
20								

Ninyo & Moore

BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-19

DATE DRILLED 2/27/05 BORING NO. B-16

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								ASPHALT: Approximately 4" thick.
							SP	FILL: Brown, moist, coarse gravelly SAND; gravel up to 2" in diameter.
					300		CL	ALLUVIUM: Brown, moist, silty CLAY.
5					700			Greenish gray; sandy clay; strong petroleum odor.
							SP	Greenish gray, moist, medium gravelly SAND; gravel up to 2" in diameter; strong petroleum odor.
			▽		500			
10							CL	Greenish gray, moist, sandy CLAY; strong petroleum odor.
								Total Depth = 13.0 feet bgs. Groundwater encountered at 8.5 feet bgs. Boring backfilled with cement grout on 2/27/05.
15								
20								

Ninyo & Moore

BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-20

DATE DRILLED 6/4/05 BORING NO. B-16A

GROUND ELEVATION _____ SHEET 1 OF 2

METHOD OF DRILLING Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY KML LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							SP	ASPHALT: Approximately 3" thick. FILL: Brown, moist, coarse, gravelly clayey SAND; gravel up to 2" in diameter no odor.
					0.0		CL	ALLUVIUM: Brown, moist, silty CLAY; slight petroleum odor.
								Greenish brown.
5					0.0			
								Gravel up to 1/4" in diameter.
10								
								No gravel.
15			▽		5.0			Brown; wet; fine sand; slight petroleum odor.
20								

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	06/05	B-21

DATE DRILLED 6/4/05 BORING NO. B-16A

GROUND ELEVATION _____ SHEET 2 OF 2

METHOD OF DRILLING Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY KML LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
20								Total Depth = 20 feet bgs. Groundwater encountered at 16 feet bgs. Boring backfilled with portland cement on 6/4/05.
25								
30								
35								
40								

Ninyo & Moore

BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	06/05	B-22

DATE DRILLED 6/4/05 BORING NO. B-16B

GROUND ELEVATION _____ SHEET 1 OF 2

METHOD OF DRILLING Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY KML LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							SP	ASPHALT: Approximately 3" thick. FILL: Reddish brown, moist, coarse, gravelly clayey SAND; no odor.
					0.0		CL	ALLUVIUM: Brown, moist, silty CLAY; slight petroleum odor.
5					0.0			Gravel up to 1/4" in diameter.
10								No gravel.
15			▽		0.0			Brown; damp; fine sand; slight petroleum odor.
20								

Ninyo & Moore

BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	06/05	B-23

DATE DRILLED 6/4/05 BORING NO. B-16B

GROUND ELEVATION _____ SHEET 2 OF 2

METHOD OF DRILLING Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY KML LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
20									Total Depth = 20 feet bgs. Groundwater encountered at 16.5 feet bgs. Boring backfilled with portland cement on 6/4/05.
25									
30									
35									
40									

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	06/05	B-24

DATE DRILLED 2/27/05 BORING NO. B-17

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								ASPHALT: Approximately 4" thick.
							SP	FILL: Brown, moist, medium gravelly SAND; gravel up to 2" in diameter.
					5.0		CL	ALLUVIUM: Brown, moist, silty CLAY.
5					28		GP	Greenish gray, moist, sandy GRAVEL; petroleum odor.
							SP	Greenish gray, moist, medium gravelly SAND; gravel up to 1" in diameter; petroleum odor.
							CL	Greenish gray, moist, sandy CLAY; medium sand; petroleum odor.
							SP	Greenish gray, moist, medium gravelly SAND; gravel up to 1" in diameter; petroleum odor.
10			▽		0.0		CL	Greenish gray, moist, sandy CLAY; medium sand; petroleum odor.
							SP	Greenish gray, moist, medium gravelly SAND; gravel up to 1" in diameter; petroleum odor.
15								Total Depth = 15.0 feet bgs. Groundwater encountered at 10.0 feet bgs. Boring backfilled with cement grout on 2/27/05.
20								

Ninyo & Moore

BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-25

DATE DRILLED 2/27/05 BORING NO. B-18

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES: Bulk	SAMPLES: Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								SP	ASPHALT: Approximately 4" thick. FILL: Brown, moist, coarse gravelly SAND; gravel up to 2" in diameter.
				▽		0.0		CL	ALLUVIUM: Brown, moist, silty CLAY.
5						0.0			Reddish brown, moist, sandy CLAY; medium sand.
10									Total Depth = 9.0 feet bgs. Groundwater encountered at 3.3 feet bgs. Boring backfilled with cement grout on 2/27/09.
15									
20									

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-26

DATE DRILLED 2/27/05 BORING NO. B-19

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								ASPHALT: Approximately 4" thick.
							SP	FILL: Brown, moist, medium gravelly SAND; gravel up to 2" in diameter.
					2.2		CL	Brown, moist, silty CLAY.
							SP	Greenish gray, moist, clayey gravelly SAND; petroleum odor.
5					23			
			▽		29			
								Total Depth = 9.0 feet bgs. Groundwater encountered at 7.0 feet bgs. Boring backfilled with cement grout on 2/27/05.
10								
15								
20								

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-27

DATE DRILLED 2/26/05 BORING NO. B-20

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							SP	ASPHALT: Approximately 3" thick. FILL: Brown, moist, medium gravelly SAND; gravel up to 2" in diameter.
			▽				CL	ALLUVIUM: Brown, moist, sandy CLAY; medium sand; gravel up to 1" in diameter. Greenish gray; petroleum odor.
5								Total Depth = 5.0 feet bgs. Groundwater encountered at 4.0 feet bgs. Boring backfilled with cement grout on 2/26/05.
10								
15								
20								

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-28

DATE DRILLED 2/26/05 BORING NO. B-21

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY KML LOGGED BY KML REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							SP	ASPHALT: Approximately 4" thick. FILL: Brown, moist, medium gravelly SAND; gravel up to 2" in diameter.
							CL	ALLUVIUM: Brown, moist, sandy CLAY; medium sand; gravel up to 2" in diameter.
5			▽					Greenish brown; silty clay; petroleum odor.
								Total Depth = 9.0 feet bgs. Groundwater encountered at 5.0 feet bgs. Boring backfilled with cement grout on 2/26/05.
10								
15								
20								

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-29

DATE DRILLED 2/26/05 BORING NO. B-22

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							SP	ASPHALT: Approximately 3" thick. FILL: Brown, moist, gravelly SAND.
			▽		0.0		CL	ALLUVIUM: Greenish gray, sandy gravelly CLAY; medium to coarse sand; gravel up to 2" in diameter; petroleum odor.
5					0.2			Sandy clay; medium sand. Reddish brown.
10								Greenish gray; damp. Reddish brown; moist; gravel up to 1" in diameter.
15								
20								Total Depth = 17.0 feet bgs. Groundwater encountered at 3.0 feet bgs. Boring backfilled with cement grout on 2/26/05.

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-30

DATE DRILLED 2/26/05 BORING NO. B-23

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								ASPHALT: Approximately 4" thick.
					0.0		SP	FILL: Brown, moist, gravelly SAND; gravel up to 2" in diameter; petroleum odor.
5					81		CL	ALLUVIUM: Gray brown, moist, gravelly CLAY; petroleum odor.
			▽		0.1			Reddish brown; gravelly sandy clay; medium sand; gravel up to 1" in diameter.
10							SP	Reddish brown, moist, medium gravelly SAND with clay; gravel up to 1" in diameter.
15							CL	Brown gray, moist, sandy CLAY; medium sand.
20								Total Depth = 16.0 feet bgs. Groundwater encountered at 8.0 feet bgs. Boring backfilled with cement grout on 2/26/05.

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-31

DATE DRILLED 2/26/05 BORING NO. B-24

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								ASPHALT: Approximately 4" thick.
							SP	FILL: Brown, moist, coarse gravelly SAND; gravel up to 2" in diameter; no odor.
					0.0			
							CL	Gray brown, moist, gravelly CLAY; gravel up to 1" in diameter.
5			▽					
					3.8		SP	Reddish brown, wet, medium gravelly SAND; gravel up to 1" in diameter; petroleum odor.
								Total Depth = 9.0 feet bgs. Groundwater encountered at 5.0 feet bgs. Boring backfilled with cement grout on 2/26/05.
10								
15								
20								

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-32

DATE DRILLED 2/26/05 BORING NO. B-25

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES: Bulk	SAMPLES: Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0									ASPHALT: Approximately 4" thick.
						2.2		SP	FILL: Brownish red, moist, gravelly SAND.
				▽				CL	ALLUVIUM: Greenish gray, moist, gravelly sandy CLAY; medium to coarse sand; gravel up to 1" in diameter.
5						5.3			Sandy clay; medium sand; petroleum odor. Reddish brown; sandy gravelly clay.
10									Total Depth = 9.0 feet bgs. Groundwater encountered at 3.5 feet bgs. Boring backfilled with cement grout on 2/26/05.
15									
20									

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BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-33

DATE DRILLED 2/26/05 BORING NO. B-26

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							SP	ASPHALT: Approximately 3" thick. FILL: Brown, moist, coarse gravelly SAND; gravel up to 2" in diameter.
			▽		0.0		CL	Reddish brown, moist, sandy CLAY; petroleum odor.
5					0.0			Brownish gray; sandy gravelly clay; medium sand; gravel up to 1" in diameter.
10								Total Depth = 9.0 feet bgs. Groundwater encountered at 3.0 feet.bgs. Boring backfilled with cement grout on 2/26/05.
15								
20								

Ninyo & Moore

BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-34

DATE DRILLED 2/26/05 BORING NO. B-27

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							SP	ASPHALT: Approximately 3" thick. FILL: Reddish brown, moist, gravelly SAND.
			▽				CL	ALLUVIUM: Greenish brown, moist, sandy CLAY; medium sand.
5					0.0			Reddish brown; sandy gravelly clay; medium sand; gravel up to 1" in diameter.
							SP	Reddish brown, moist, medium clayey SAND.
10							CL	Brown, moist, sandy gravelly CLAY; medium sand; gravel up to 1" in diameter.
								Total Depth = 13.0 feet bgs. Groundwater encountered at 4.0 feet bgs. Boring backfilled with cement grout on 2/26/05.
15								
20								

Ninyo & Moore

BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-35

DATE DRILLED 2/27/05 BORING NO. B-28

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							SP	ASPHALT: Approximately 3" thick. FILL: Reddish brown, moist, coarse gravelly SAND; gravel up to 2" in diameter.
			▽		0.0		CL	ALLUVIUM: Greenish gray, moist, sandy CLAY; medium sand; petroleum odor.
5					0.0			Brown with red mottling.
10								Total Depth = 9.0 feet bgs. Groundwater encountered at 4.0 feet.bgs. Boring backfilled with cement grout on 2/27/05.
15								
20								

Ninyo & Moore

BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-36

DATE DRILLED 2/26/05 BORING NO. B-29

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							SP	ASPHALT: Approximately 3" thick. FILL: Brown, moist, coarse gravelly SAND; gravel up to 2" in diameter; petroleum odor.
					0.0		CL	ALLUVIUM: Reddish brown, moist, sandy gravelly CLAY; medium sand; gravel up to 1" in diameter.
					0.0		SP	Greenish gray, moist, gravelly SAND with clay; strong petroleum odor.
5			▽		0.0			
							CL	Greenish gray, moist, sandy CLAY; strong gasoline odor.
10								Total Depth = 9.0 feet bgs. Groundwater encountered at 5.5 feet.bgs. Boring backfilled with cement grout on 2/26/05.
15								
20								

Ninyo & Moore

BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-37

DATE DRILLED 2/25/05 BORING NO. B-30

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT ____ DROP ____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							SP	ASPHALT: Approximately 3" thick. FILL: Reddish brown, moist, coarse gravelly SAND; gravel up to 2" in diameter.
			▽		0.0		CL	ALLUVIUM: Reddish brown, moist, sandy CLAY; medium sand; petroleum odor.
5					5.0			
					4.2			Gravel up to 2" in diameter.
10								Total Depth = 8.0 feet bgs. Groundwater encountered at 3.5 feet.bgs. Boring backfilled with cement grout on 2/25/05.
15								
20								

Ninyo & Moore

BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-38

DATE DRILLED 2/26/05 BORING NO. B-31

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							SP	ASPHALT: Approximately 3" thick. FILL: Greenish gray, moist, coarse gravelly SAND; gravel up to 1.5" in diameter.
5							CL	ALLUVIUM: Reddish brown, moist, sandy CLAY; petroleum odor.
10			▽					Total Depth = 8.0 feet bgs. Groundwater encountered at 8.0 feet.bgs. Boring backfilled with cement grout on 2/26/05.
15								
20								

Ninyo & Moore

BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-39

DATE DRILLED 2/26/05 BORING NO. B-32

GROUND ELEVATION 60'± MSL SHEET 1 OF 1

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY DBB LOGGED BY DBB REVIEWED BY JDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								SP	ASPHALT: Approximately 3" thick. FILL: Greenish gray, moist, coarse gravelly SAND; gravel up to 2" in diameter.
						0.0		CL	ALLUVIUM: Reddish brown, moist, sandy gravelly CLAY; medium sand; gravel up to 1" in diameter.
5						2.5		SP	Gray, moist, medium gravelly SAND; gravel up to 1" in diameter.
								CL	Reddish brown, moist, sandy CLAY; medium sand; petroleum odor.
10						1.2			Silty clay.
				▽					Total Depth = 12.0 feet bgs. Groundwater encountered at 12.0 feet.bgs. Boring backfilled with cement grout on 2/26/05.
15									
20									

Ninyo & Moore

BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-40

DATE DRILLED 2/25/05 BORING NO. B-33

GROUND ELEVATION 60'± MSL SHEET 1 OF 2

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY KML LOGGED BY KML REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								CONCRETE: Approximately 6" thick.
							CL	FILL: Reddish brown, silty CLAY with gravel; gravel up to 1" in diameter; no odor.
							CL	ALLUVIUM: Brown, moist, CLAY; no odor.
5					0.0			
10					0.3			Red mottling.
15					3.4			Petroleum odor.
			▽					Greenish gray; slight petroleum odor.
20								Brown; gravelly clay; gravel up to 0.5" in diameter.

Ninyo & Moore

BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-41

DATE DRILLED 2/25/05 BORING NO. B-33

GROUND ELEVATION 60'± MSL SHEET 2 OF 2

METHOD OF DRILLING Hand Auger / Direct Push

DRIVE WEIGHT _____ DROP _____

SAMPLED BY KML LOGGED BY KML REVIEWED BY JDH

DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	PID READING (PPM)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
20								Total Depth = 20.0 feet bgs. Groundwater encountered at 17.0 feet bgs. Boring backfilled with cement grout on 2/25/05.
25								
30								
35								
40								

Ninyo & Moore

BORING LOG

MACARTHUR BART TRANSIT STATION
OAKLAND, CALIFORNIA

PROJECT NO.	DATE	FIGURE
400834018	03/05	B-42

APPENDIX C

LABORATORY ANALYTICAL REPORTS

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

Ninyo & Moore
1956 Webster St.
Suite 400
Oakland, CA 94612

Date: 17-JUN-05
Lab Job Number: 179843
Project ID: STANDARD
Location: MacArthur BART

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 NELAC and pertain only to those samples which were submitted for analysis.

Reviewed by: _____
Project Manager

Reviewed by: _____
Operations Manager

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**179843**
Client:	**Ninyo & Moore**
Location:	**MacArthur BART**
Request Date:	**06/06/05**
Samples Received:	**06/06/05**

This hardcopy data package contains sample and QC results for six soil samples and three water samples, requested for the above referenced project on 06/06/05. The samples were received on ice and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B and EPA 8021B) Water:
High surrogate recovery was observed for trifluorotoluene (FID) in W16A (lab # 179843-002); the corresponding bromofluorobenzene (FID) surrogate recovery was within limits. No other analytical problems were encountered.

TPH-Purgeables and/or BTXE by GC (EPA 8015B and EPA 8021B) Soil:
No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B) Water:
No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B) Soil:
No analytical problems were encountered.

CHAIN OF CUSTODY FORM

Page 1 of 1

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

C&T LOGIN # 179843

Analyses

Sampler: Kris Larsen

Project No: 140283401.8

Report To: " "

Project Name: MacArthur BART

Company: Nimbus & Moore

Project P.O.:

Telephone: (510) 633-5640

Turnaround Time: Normal

Fax: (510) 633-5647

Laboratory Number	Sample ID.	Sampling Date Time	Matrix: Soil	Matrix: Water	Matrix: Waste	# of Containers	Preservative: HCL	Preservative: H_2SO	Preservative: HNO_3	Preservative: ICE	Field Notes	TPH-G/BTEX 8015/8021	TPH-D
-1	W-11	6/4-1300		X		5	4					X	X
-2	W16A	6/4-1345		X		4	4					X	
-3	W16G	6/4-1510		X		4	4					X	
-4	SB11-2.5	6/4	X			1						X	X
-5	SB11-5.5											X	X
-6	SB11-15										Hold Sample	X	X
-7	SB16A-2												X
-8	SB16A-5												X
-9	SB16A-15										Hold Sample		X
-10	SB16B-2												X
-11	SB16B-5												X
-12	SB16B-15										Hold Sample		X

For Laboratory Use

Notes:

RFC'D intact; on ICE

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
B Brizzy	6/6/05 9:50	[signature]	6/6/05 9:50
	DATE/TIME		DATE/TIME
	DATE/TIME		DATE/TIME

Signature

Subject: RE: MacArthur BART - C&T Login Summary (179843)
From: "Kris Larson" <klarson@ninyoandmoore.com>
Date: Tue, 7 Jun 2005 07:45:08 -0700
To: "Lisa Brooker" <lisa@ctberk.com>

Lisa,
I'm sorry, please ignore my last e-mail. What I meant to ask was to change the analysis for samples SB16A-2, SB16A-5, SB16A-15, SB16B-2, SB16B-5 and SB16B-15 from TPH-D using 8015 to TPH-G/BTEX using Method EPA 8015/8021. Please don NOT analyze the samples for TPH-D and keep samples SB16A-15 and SB16B-15 on hold. Sorry for the inconvenience.

Regards,
Kristopher M. Larson
Senior Project Environmental Geologist
Ninyo & Moore
1956 Webster Street, Suite 400
Oakland, California 94610
Ph: 510-633-5640
Fax: 510-633-5646

-----Original Message-----
From: Lisa Brooker [mailto:lisa@ctberk.com]
Sent: Monday, June 06, 2005 12:20 PM
To: Kris Larson
Subject: MacArthur BART - C&T Login Summary (179843)

<< File: MacArthur BART - C&T Login Summary (179843).htm >>

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	179843	Location:	MacArthur BART
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD		
Matrix:	Water	Sampled:	06/04/05
Units:	ug/L	Received:	06/06/05
Batch#:	102661	Analyzed:	06/06/05

Field ID:	W-11	Lab ID:	179843-001
Type:	SAMPLE	Diln Fac:	10.00

Analyte	Result	RL	Analysis
Gasoline C7-C12	32,000	500	EPA 8015B
Benzene	ND	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
Ethylbenzene	2,700	5.0	EPA 8021B
m,p-Xylenes	980	5.0	EPA 8021B
o-Xylene	14 C	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	119	63-141	EPA 8015B
Bromofluorobenzene (FID)	94	79-139	EPA 8015B
Trifluorotoluene (PID)	100	63-133	EPA 8021B
Bromofluorobenzene (PID)	87	79-128	EPA 8021B

Field ID:	W16A	Lab ID:	179843-002
Type:	SAMPLE	Diln Fac:	1.000

Analyte	Result	RL	Analysis
Gasoline C7-C12	4,100	50	EPA 8015B
Benzene	49	0.50	EPA 8021B
Toluene	25 C	0.50	EPA 8021B
Ethylbenzene	170	0.50	EPA 8021B
m,p-Xylenes	400	0.50	EPA 8021B
o-Xylene	97	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	154 *	63-141	EPA 8015B
Bromofluorobenzene (FID)	90	79-139	EPA 8015B
Trifluorotoluene (PID)	118	63-133	EPA 8021B
Bromofluorobenzene (PID)	89	79-128	EPA 8021B

*= Value outside of QC limits; see narrative
C= Presence confirmed, but RPD between columns exceeds 40%
D= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	179843	Location:	MacArthur BART
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD		
Matrix:	Water	Sampled:	06/04/05
Units:	ug/L	Received:	06/06/05
Batch#:	102661	Analyzed:	06/06/05

Field ID:	W16B	Lab ID:	179843-003
Type:	SAMPLE	Diln Fac:	5.000

Analyte	Result	RL	Analysis
Gasoline C7-C12	20,000	250	EPA 8015B
Benzene	560	2.5	EPA 8021B
Toluene	71	2.5	EPA 8021B
Ethylbenzene	800	2.5	EPA 8021B
m,p-Xylenes	1,600	2.5	EPA 8021B
o-Xylene	440	2.5	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	137	63-141	EPA 8015B
Bromofluorobenzene (FID)	96	79-139	EPA 8015B
Trifluorotoluene (PID)	103	63-133	EPA 8021B
Bromofluorobenzene (PID)	96	79-128	EPA 8021B

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC296300		

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

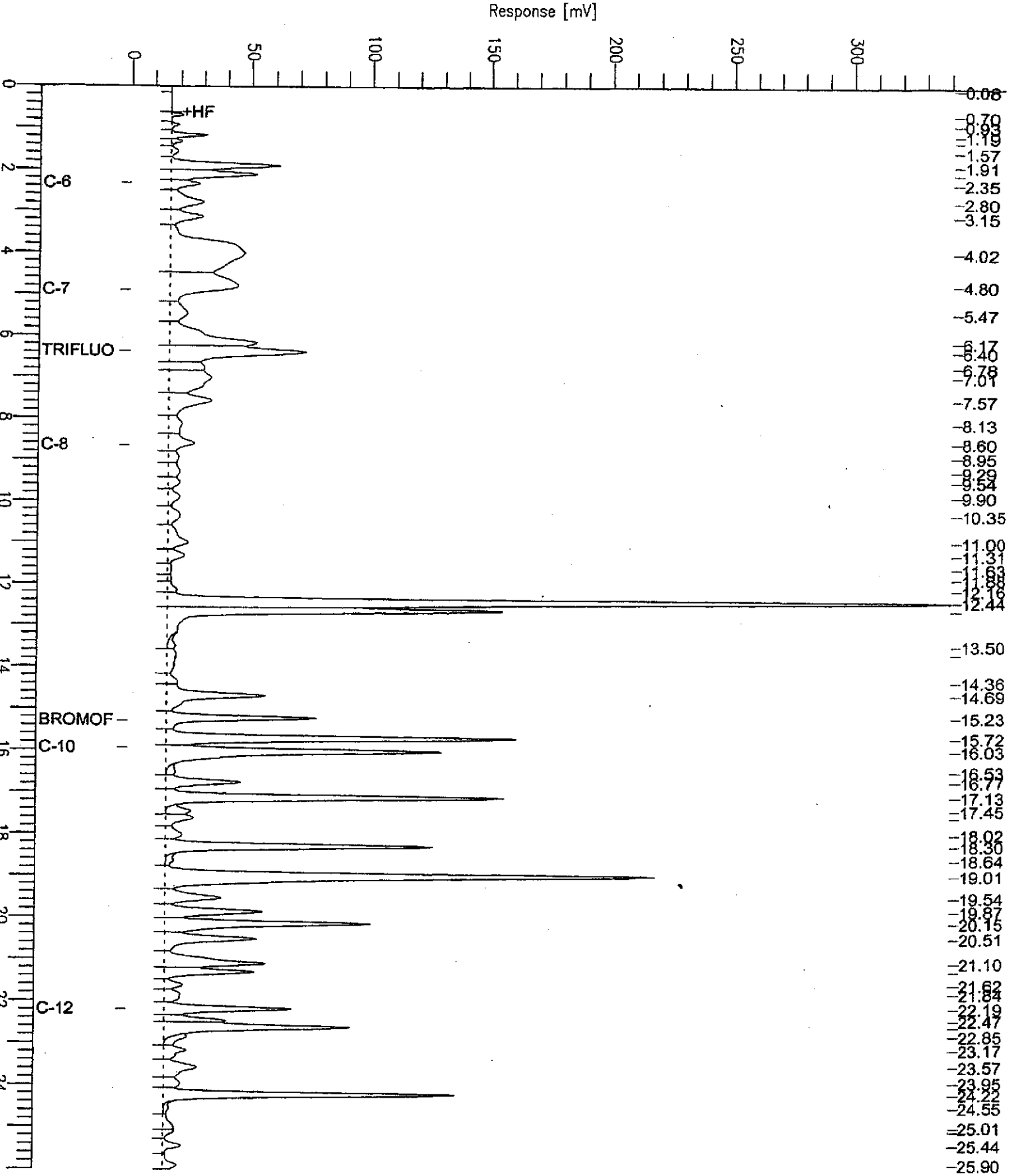
Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	87	63-141	EPA 8015B
Bromofluorobenzene (FID)	86	79-139	EPA 8015B
Trifluorotoluene (PID)	83	63-133	EPA 8021B
Bromofluorobenzene (PID)	86	79-128	EPA 8021B

*= Value outside of QC limits; see narrative
C= Presence confirmed, but RPD between columns exceeds 40%
ND= Not Detected
RL= Reporting Limit

GC07 TVH 'A' Data File RTX 502

Sample Name : 179843-001,102661
FileName : G:\GC07\DATA\157A008.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: -0 mV

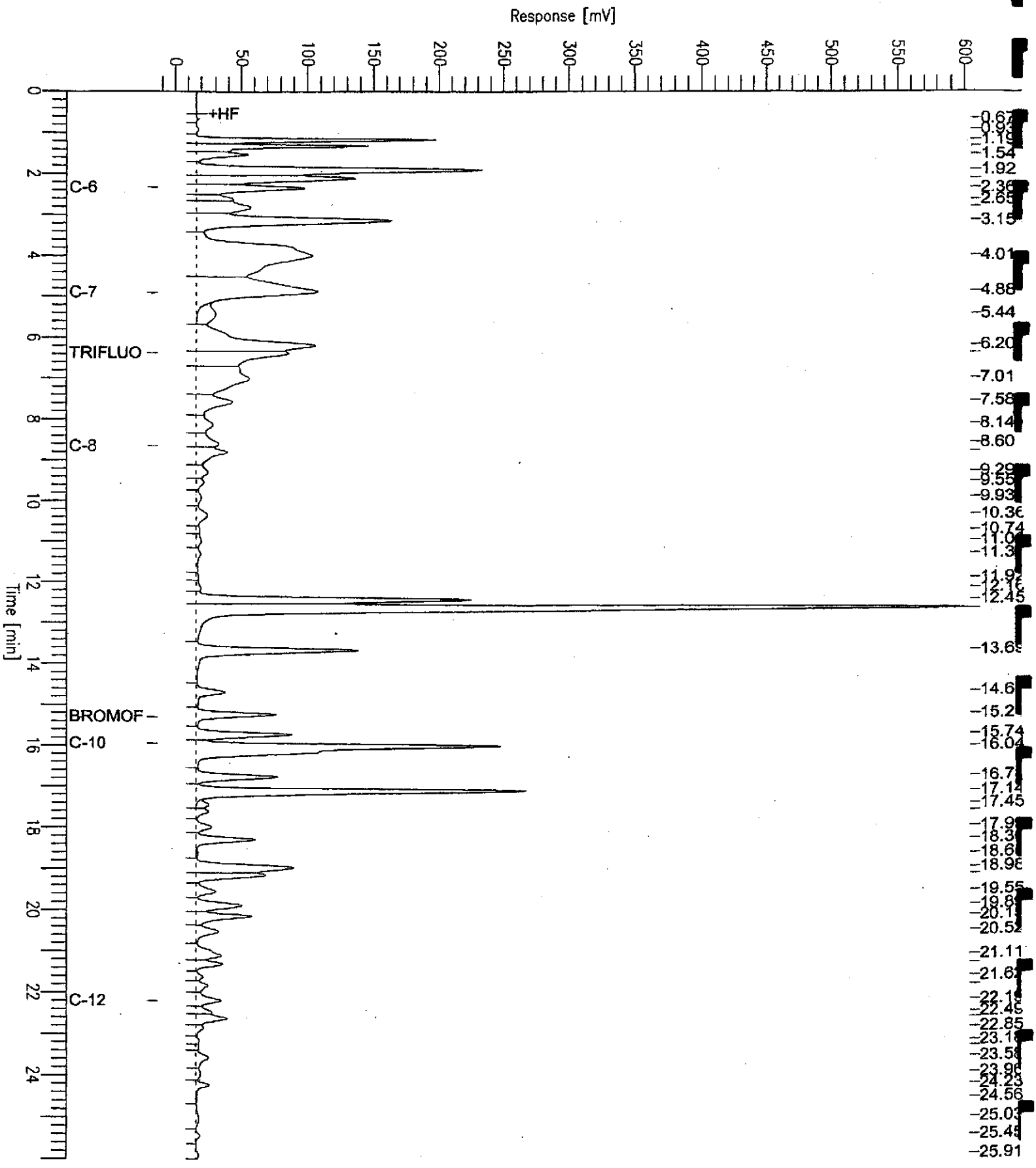
Sample #: a7.0 Page 1 of 1
Date : 6/7/05 06:53 AM
Time of Injection: 6/6/05 01:00 PM
Low Point : -0.36 mV High Point : 340.71 mV
Plot Scale: 341.1 mV



GC07 TVH 'A' Data File RTX 502

Sample Name : 179843-002,102661
FileName : G:\GC07\DATA\157A006.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: -14 mV

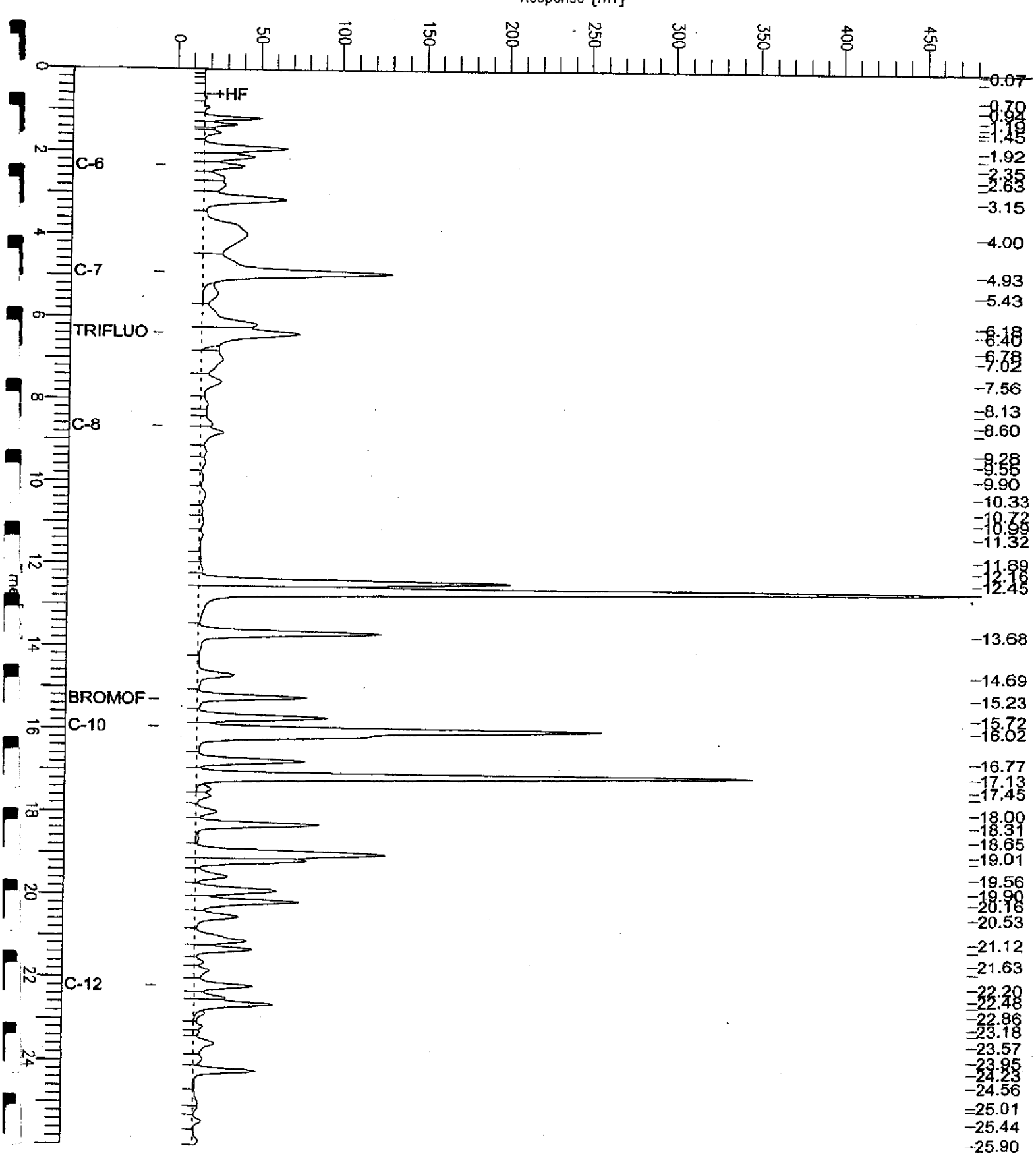
Sample #: a1.9 Page 1 of 1
Date : 6/7/05 06:53 AM
Time of Injection: 6/6/05 11:49 AM
Low Point : -13.53 mV High Point : 604.53 mV
Plot Scale: 618.1 mV



GC07 TVH 'A' Data File RTX 502

Sample Name : 179843-003,102661
FileName : G:\GC07\DATA\157A009.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: -7 mV

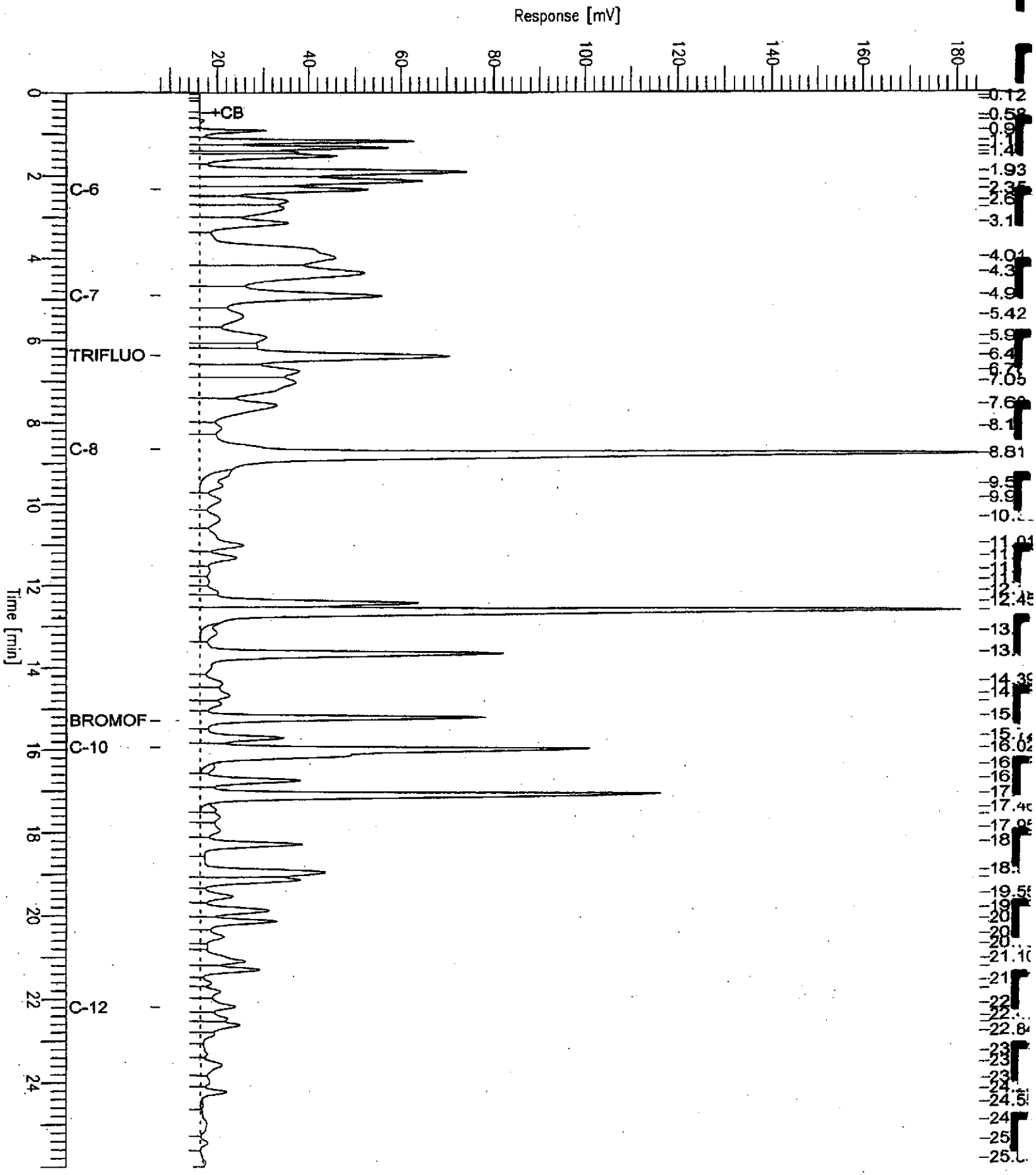
Sample #: a7.0 Page 1 of 1
Date : 6/7/05 06:53 AM
Time of Injection: 6/6/05 01:35 PM
Low Point : -7.28 mV High Point : 480.21 mV
Plot Scale: 487.5 mV



GC07 TVH 'A' Data File RTX 502

Sample Name : ccv/lcs,qc296302,102661,S601,5/5000
FileName : G:\GC07\DATA\157A003.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 8 mV

Sample #: Page 1 of 1
Date : 6/6/05 08:48 AM
Time of Injection: 6/6/05 08:20 AM
Low Point : 7.84 mV High Point : 184.50 mV
Plot Scale: 176.7 mV



Curtis & Tompkins, Ltd.

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	179843	Location:	MacArthur BART
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC296301	Batch#:	102661
Matrix:	Water	Analyzed:	06/06/05
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Benzene	20.00	22.46	112	80-120
Toluene	20.00	21.60	108	80-120
Ethylbenzene	20.00	21.54	108	80-120
m,p-Xylenes	20.00	19.64	98	80-120
o-Xylene	20.00	21.57	108	80-120

Surrogate	%REC	Limits
Trifluorotoluene (PID)	89	63-133
Bromofluorobenzene (PID)	93	79-128

Curtis & Tompkins, Ltd.

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	179843	Location:	MacArthur BART
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC296302	Batch#:	102661
Matrix:	Water	Analyzed:	06/06/05
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,101	105	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	104	63-141
Bromofluorobenzene (FID)	90	79-139

Curtis & Tompkins, Ltd.

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	179843	Location:	MacArthur BART
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	102661
MSS Lab ID:	179854-001	Sampled:	06/06/05
Matrix:	Water	Received:	06/06/05
Units:	ug/L	Analyzed:	06/06/05
Diln Fac:	1.000		

Type: MS Lab ID: QC296391

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	26.27	2,000	1,734	85	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	91	63-141
Bromofluorobenzene (FID)	83	79-139

Type: MSD Lab ID: QC296392

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,931	95	80-120	11	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	63-141
Bromofluorobenzene (FID)	88	79-139

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	179843	Location:	MacArthur BART
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD		
Matrix:	Soil	Sampled:	06/04/05
Basis:	as received	Received:	06/06/05
Diln Fac:	1.000		

Field ID:	SB11-2.5	Batch#:	102660
Type:	SAMPLE	Analyzed:	06/06/05
Lab ID:	179843-004		

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	1.0	mg/Kg	EPA 8015B
Benzene	ND	5.0	ug/Kg	EPA 8021B
Toluene	ND	5.0	ug/Kg	EPA 8021B
Ethylbenzene	ND	5.0	ug/Kg	EPA 8021B
m,p-Xylenes	ND	5.0	ug/Kg	EPA 8021B
o-Xylene	ND	5.0	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	96	60-138	EPA 8015B
Bromofluorobenzene (FID)	97	66-148	EPA 8015B
Trifluorotoluene (PID)	95	62-126	EPA 8021B
Bromofluorobenzene (PID)	98	72-133	EPA 8021B

Field ID:	SB11-5.5	Batch#:	102660
Type:	SAMPLE	Analyzed:	06/06/05
Lab ID:	179843-005		

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	1.0	mg/Kg	EPA 8015B
Benzene	ND	5.0	ug/Kg	EPA 8021B
Toluene	ND	5.0	ug/Kg	EPA 8021B
Ethylbenzene	ND	5.0	ug/Kg	EPA 8021B
m,p-Xylenes	ND	5.0	ug/Kg	EPA 8021B
o-Xylene	ND	5.0	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	95	60-138	EPA 8015B
Bromofluorobenzene (FID)	98	66-148	EPA 8015B
Trifluorotoluene (PID)	95	62-126	EPA 8021B
Bromofluorobenzene (PID)	98	72-133	EPA 8021B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	179843	Location:	MacArthur BART
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD		
Matrix:	Soil	Sampled:	06/04/05
Basis:	as received	Received:	06/06/05
Diln Fac:	1.000		

Field ID:	SB16A-2	Batch#:	102692
Type:	SAMPLE	Analyzed:	06/07/05
Lab ID:	179843-007		

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	1.1	mg/Kg	EPA 8015B
Benzene	ND	5.3	ug/Kg	EPA 8021B
Toluene	ND	5.3	ug/Kg	EPA 8021B
Ethylbenzene	ND	5.3	ug/Kg	EPA 8021B
m,p-Xylenes	ND	5.3	ug/Kg	EPA 8021B
o-Xylene	ND	5.3	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	103	60-138	EPA 8015B
Bromofluorobenzene (FID)	110	66-148	EPA 8015B
Trifluorotoluene (PID)	106	62-126	EPA 8021B
Bromofluorobenzene (PID)	111	72-133	EPA 8021B

Field ID:	SB16A-5	Batch#:	102692
Type:	SAMPLE	Analyzed:	06/07/05
Lab ID:	179843-008		

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	1.1	mg/Kg	EPA 8015B
Benzene	ND	5.4	ug/Kg	EPA 8021B
Toluene	ND	5.4	ug/Kg	EPA 8021B
Ethylbenzene	ND	5.4	ug/Kg	EPA 8021B
m,p-Xylenes	ND	5.4	ug/Kg	EPA 8021B
o-Xylene	ND	5.4	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	96	60-138	EPA 8015B
Bromofluorobenzene (FID)	99	66-148	EPA 8015B
Trifluorotoluene (PID)	99	62-126	EPA 8021B
Bromofluorobenzene (PID)	101	72-133	EPA 8021B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	179843	Location:	MacArthur BART
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD		
Matrix:	Soil	Sampled:	06/04/05
Basis:	as received	Received:	06/06/05
Diln Fac:	1.000		

Field ID:	SB16B-2	Batch#:	102692
Type:	SAMPLE	Analyzed:	06/07/05
Lab ID:	179843-010		

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	0.99	mg/Kg	EPA 8015B
Benzene	ND	5.0	ug/Kg	EPA 8021B
Toluene	ND	5.0	ug/Kg	EPA 8021B
Ethylbenzene	ND	5.0	ug/Kg	EPA 8021B
m,p-Xylenes	ND	5.0	ug/Kg	EPA 8021B
o-Xylene	ND	5.0	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	102	60-138	EPA 8015B
Bromofluorobenzene (FID)	103	66-148	EPA 8015B
Trifluorotoluene (PID)	97	62-126	EPA 8021B
Bromofluorobenzene (PID)	103	72-133	EPA 8021B

Field ID:	SB16B-5	Batch#:	102692
Type:	SAMPLE	Analyzed:	06/07/05
Lab ID:	179843-011		

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	1.1	mg/Kg	EPA 8015B
Benzene	9.7	5.3	ug/Kg	EPA 8021B
Toluene	ND	5.3	ug/Kg	EPA 8021B
Ethylbenzene	ND	5.3	ug/Kg	EPA 8021B
m,p-Xylenes	ND	5.3	ug/Kg	EPA 8021B
o-Xylene	ND	5.3	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	91	60-138	EPA 8015B
Bromofluorobenzene (FID)	95	66-148	EPA 8015B
Trifluorotoluene (PID)	95	62-126	EPA 8021B
Bromofluorobenzene (PID)	97	72-133	EPA 8021B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	179843	Location:	MacArthur BART
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD		
Matrix:	Soil	Sampled:	06/04/05
Basis:	as received	Received:	06/06/05
Diln Fac:	1.000		

Type:	BLANK	Batch#:	102660
Lab ID:	QC296297	Analyzed:	06/06/05

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	1.0	mg/Kg	EPA 8015B
Benzene	ND	5.0	ug/Kg	EPA 8021B
Toluene	ND	5.0	ug/Kg	EPA 8021B
Ethylbenzene	ND	5.0	ug/Kg	EPA 8021B
m,p-Xylenes	ND	5.0	ug/Kg	EPA 8021B
o-Xylene	ND	5.0	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	97	60-138	EPA 8015B
Bromofluorobenzene (FID)	99	66-148	EPA 8015B
Trifluorotoluene (PID)	97	62-126	EPA 8021B
Bromofluorobenzene (PID)	99	72-133	EPA 8021B

Type:	BLANK	Batch#:	102692
Lab ID:	QC296433	Analyzed:	06/07/05

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	1.0	mg/Kg	EPA 8015B
Benzene	ND	5.0	ug/Kg	EPA 8021B
Toluene	ND	5.0	ug/Kg	EPA 8021B
Ethylbenzene	ND	5.0	ug/Kg	EPA 8021B
m,p-Xylenes	ND	5.0	ug/Kg	EPA 8021B
o-Xylene	ND	5.0	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	96	60-138	EPA 8015B
Bromofluorobenzene (FID)	100	66-148	EPA 8015B
Trifluorotoluene (PID)	98	62-126	EPA 8021B
Bromofluorobenzene (PID)	100	72-133	EPA 8021B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	179843	Location:	MacArthur BART
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8021B
Type:	LCS	Basis:	as received
Lab ID:	QC296298	Diln Fac:	1.000
Matrix:	Soil	Batch#:	102660
Units:	ug/Kg	Analyzed:	06/06/05

Analyte	Spiked	Result	%REC	Limits
Benzene	100.0	109.4	109	80-120
Toluene	100.0	105.3	105	80-120
Ethylbenzene	100.0	100.1	100	80-120
m,p-Xylenes	100.0	91.28	91	80-120
o-Xylene	100.0	93.57	94	80-120

Surrogate	%REC	Limits
Trifluorotoluene (PID)	102	62-126
Bromofluorobenzene (PID)	110	72-133

Curtis & Tompkins, Ltd.

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	179843	Location:	MacArthur BART
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Basis:	as received
Lab ID:	QC296299	Diln Fac:	1.000
Matrix:	Soil	Batch#:	102660
Units:	mg/Kg	Analyzed:	06/06/05

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	10.35	103	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	117	60-138
Bromofluorobenzene (FID)	112	66-148

Curtis & Tompkins, Ltd.

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	179843	Location:	MacArthur BART
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8021B
Type:	LCS	Basis:	as received
Lab ID:	QC296434	Diln Fac:	1.000
Matrix:	Soil	Batch#:	102692
Units:	ug/Kg	Analyzed:	06/07/05

Analyte	Spiked	Result	%REC	Limits
Benzene	100.0	110.2	110	80-120
Toluene	100.0	101.4	101	80-120
Ethylbenzene	100.0	98.83	99	80-120
m,p-Xylenes	100.0	91.06	91	80-120
o-Xylene	100.0	94.03	94	80-120

Surrogate	%REC	Limits
Trifluorotoluene (PID)	97	62-126
Bromofluorobenzene (PID)	102	72-133

Curtis & Tompkins, Ltd.

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	179843	Location:	MacArthur BART
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Basis:	as received
Lab ID:	QC296435	Diln Fac:	1.000
Matrix:	Soil	Batch#:	102692
Units:	mg/Kg	Analyzed:	06/07/05

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	10.27	103	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	113	60-138
Bromofluorobenzene (FID)	105	66-148

Curtis & Tompkins, Ltd.

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	179843	Location:	MacArthur BART
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	SB11-2.5	Diln Fac:	1.000
MSS Lab ID:	179843-004	Batch#:	102660
Matrix:	Soil	Sampled:	06/04/05
Units:	mg/Kg	Received:	06/06/05
Basis:	as received	Analyzed:	06/06/05

Type: MS **Lab ID:** QC296362

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<0.1101	9.615	9.395	98	43-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	117	60-138
Bromofluorobenzene (FID)	109	66-148

Type: MSD **Lab ID:** QC296363

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.64	10.22	96	43-120	2	27

Surrogate	%REC	Limits
Trifluorotoluene (FID)	113	60-138
Bromofluorobenzene (FID)	107	66-148

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	179843	Location:	MacArthur BART
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	SB16A-2	Diln Fac:	1.000
MSS Lab ID:	179843-007	Batch#:	102692
Matrix:	Soil	Sampled:	06/04/05
Units:	mg/Kg	Received:	06/06/05
Basis:	as received	Analyzed:	06/07/05

Type: MS Lab ID: QC296465

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<0.1172	9.804	9.581	98	43-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	119	60-138
Bromofluorobenzene (FID)	108	66-148

Type: MSD Lab ID: QC296466

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.42	10.79	104	43-120	6	27

Surrogate	%REC	Limits
Trifluorotoluene (FID)	117	60-138
Bromofluorobenzene (FID)	107	66-148

PD= Relative Percent Difference

12.0

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	179843	Location:	MacArthur BART
Client:	Ninyo & Moore	Prep:	EPA 3520C
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	W-11	Sampled:	06/04/05
Matrix:	Water	Received:	06/06/05
Units:	ug/L	Prepared:	06/07/05
Batch#:	102734		

Type:	SAMPLE	Diln Fac:	10.00
Lab ID:	179843-001	Analyzed:	06/09/05

Analyte	Result	RL
Diesel C10-C24	25,000 L Y	500

Surrogate	%REC	Limits
Hexacosane	DO	55-143

Type:	BLANK	Analyzed:	06/08/05
Lab ID:	QC296607	Cleanup Method:	EPA 3630C
Diln Fac:	1.000		

Analyte	Result	RL
Diesel C10-C24	ND	50

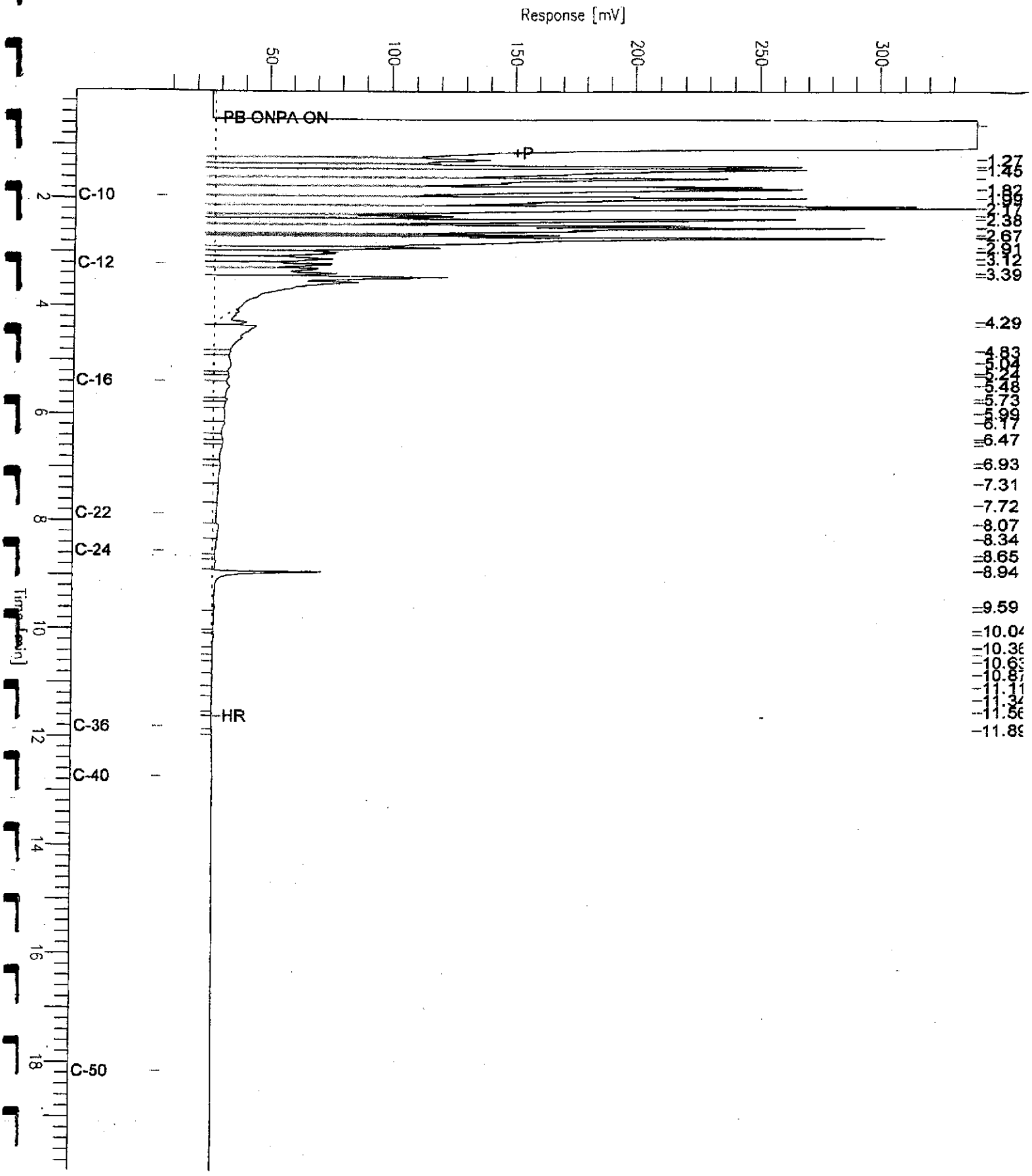
Surrogate	%REC	Limits
Hexacosane	108	55-143

L= Lighter hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Chromatogram

Sample Name : 179843-001,102734
FileName : G:\GC15\CHB\160B007.RAW
Method : BTEH159S.MTH
Start Time : 0.01 min End Time : 19.99 min
Scale Factor: 0.0 Plot Offset: 7 mV

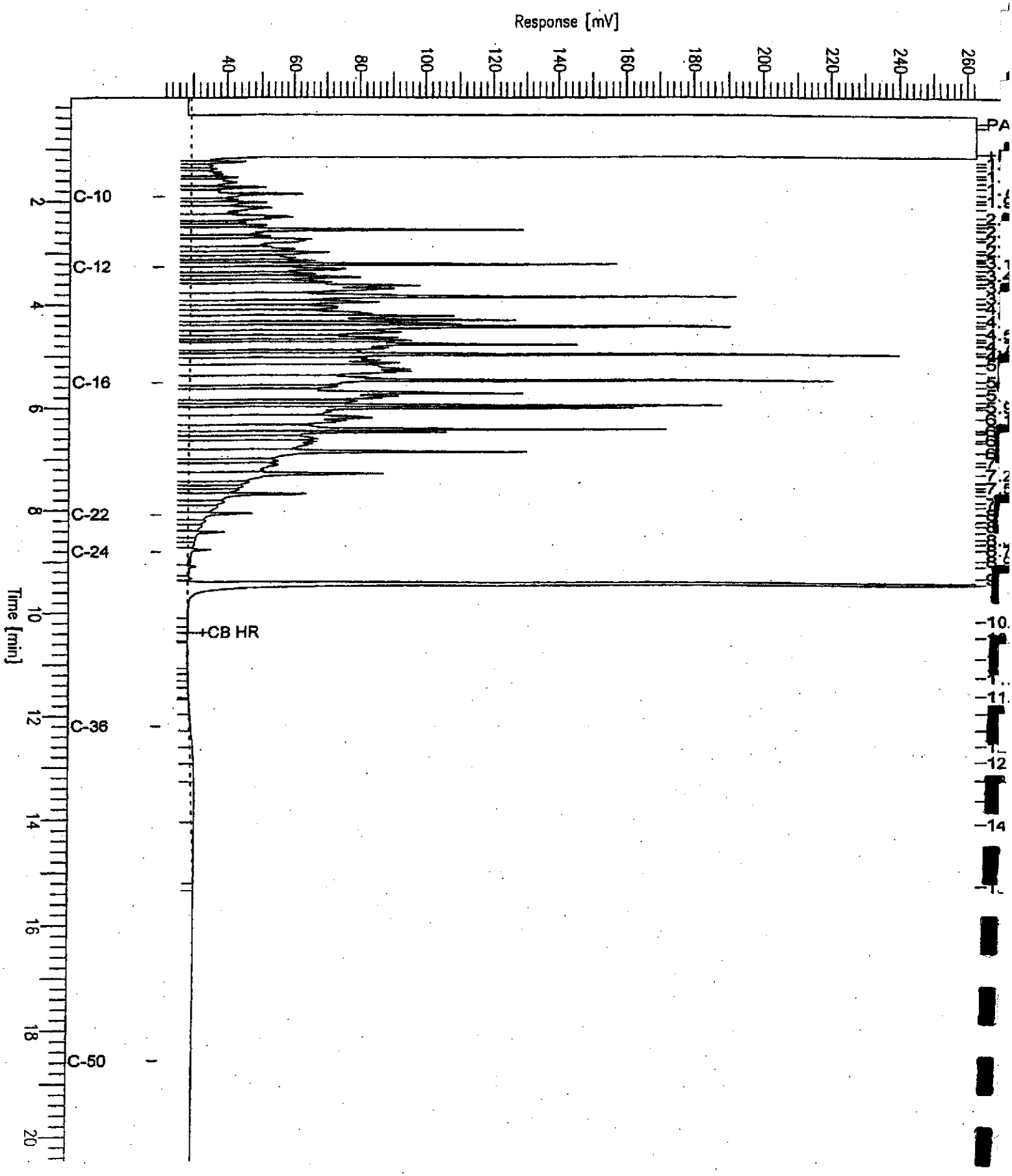
Sample #: 102734 Page 1 of 1
Date : 6/9/05 01:51 PM
Time of Injection: 6/9/05 01:11 PM
Low Point : 7.12 mV High Point : 339.66 mV
Plot Scale: 332.5 mV



Chromatogram

Sample Name : ccv,S778,dsl
FileName : G:\GC11\CHA\158A003.RAW
Method : ATEH156S.MTH
Start Time : 0.01 min End Time : 20.45 min
Scale Factor: 0.0 Plot Offset: 21 mV

Sample #: 500mg/L Page 1 of 1
Date : 6/7/05 10:48 AM
Time of Injection: 6/7/05 10:06 AM
Low Point : 21.30 mV High Point : 262.59 mV
Plot Scale: 241.3 mV



Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	179843	Location:	MacArthur BART
Client:	Ninyo & Moore	Prep:	EPA 3520C
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC296608	Batch#:	102734
Matrix:	Water	Prepared:	06/07/05
Units:	ug/L	Analyzed:	06/08/05

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,686	107	50-133

Surrogate	%REC	Limits
Hexacosane	115	55-143

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	179843	Location:	MacArthur BART
Client:	Ninyo & Moore	Prep:	EPA 3520C
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	102734
MSS Lab ID:	179727-002	Sampled:	05/26/05
Matrix:	Water	Received:	05/27/05
Units:	ug/L	Prepared:	06/07/05
Diln Fac:	1.000	Analyzed:	06/08/05

Type: MS
Lab ID: QC296609

Cleanup Method: EPA 3630C

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	<20.61	2,500	2,788	112	42-127

Surrogate	%REC	Limits
Hexacosane	122	55-143

Type: MSD
Lab ID: QC296610

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,464	99	42-127	12	45

Surrogate	%REC	Limits
Hexacosane	112	55-143

RPD= Relative Percent Difference

18.0

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	179843	Location:	MacArthur BART
Client:	Ninyo & Moore	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Matrix:	Soil	Sampled:	06/04/05
Units:	mg/Kg	Received:	06/06/05
Basis:	as received	Prepared:	06/08/05
Diln Fac:	1.000	Analyzed:	06/09/05
Batch#:	102772		

ield ID: SB11-2.5 Lab ID: 179843-004
ype: SAMPLE

Analyte	Result	RL
Diesel C10-C24	1.8 H Y	1.0

Surrogate	%REC	Limits
Hexacosane	88	51-136

ield ID: SB11-5.5 Lab ID: 179843-005
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	ND	1.0

Surrogate	%REC	Limits
Hexacosane	87	51-136

Type: BLANK Cleanup Method: EPA 3630C
b ID: QC296759

Analyte	Result	RL
Diesel C10-C24	ND	1.0

Surrogate	%REC	Limits
Hexacosane	107	51-136

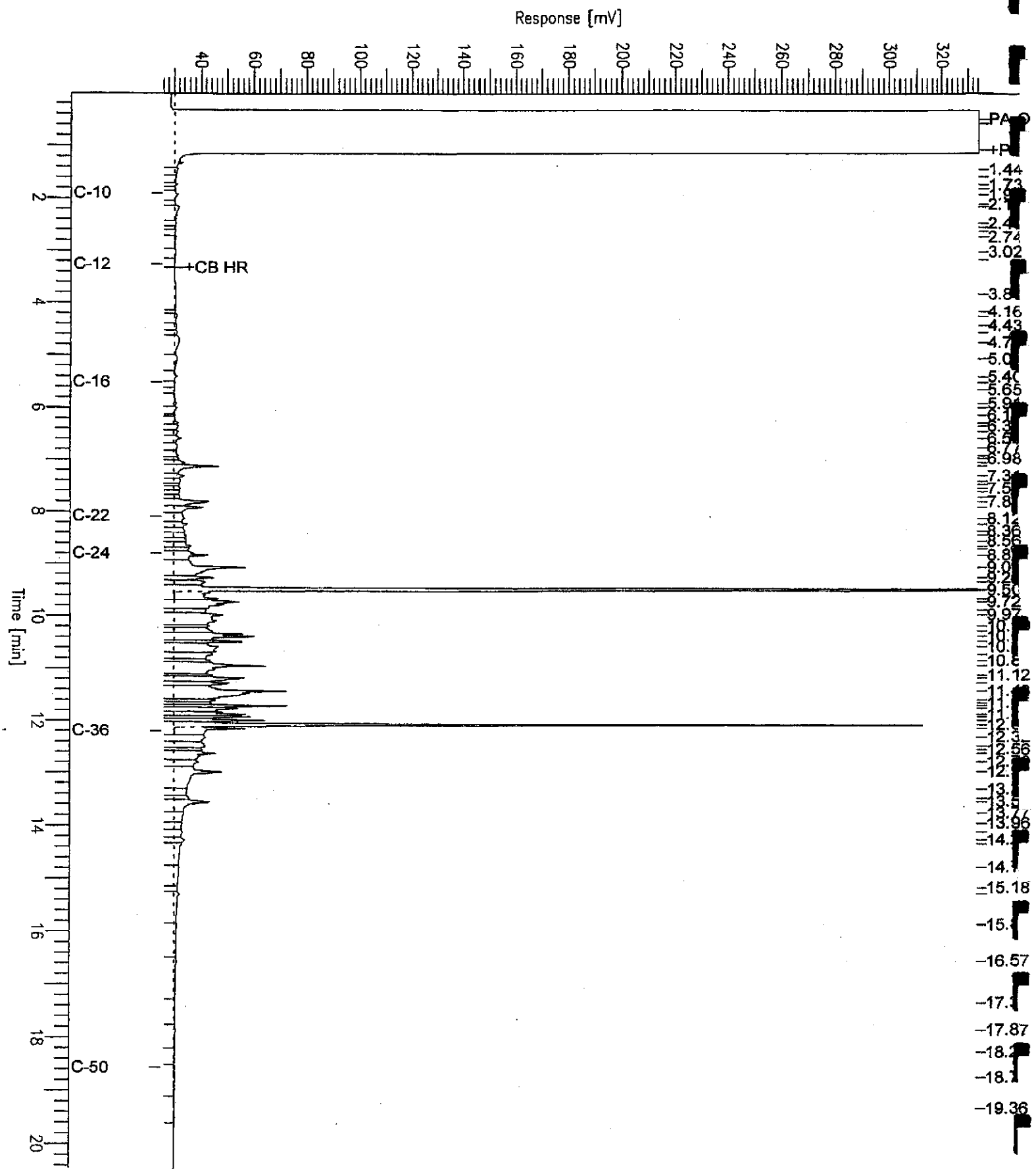
H= Heavier hydrocarbons contributed to the quantitation
Y= Sample exhibits chromatographic pattern which does not resemble standard
D= Not Detected
L= Reporting Limit

13.0

Chromatogram

Sample Name : 179843-004,102772
FileName : G:\GC11\CHA\160A008.RAW
Method : ATEH156S.MTH
Start Time : 0.01 min End Time : 20.45 min
Scale Factor: 0.0 Plot Offset: 25 mV

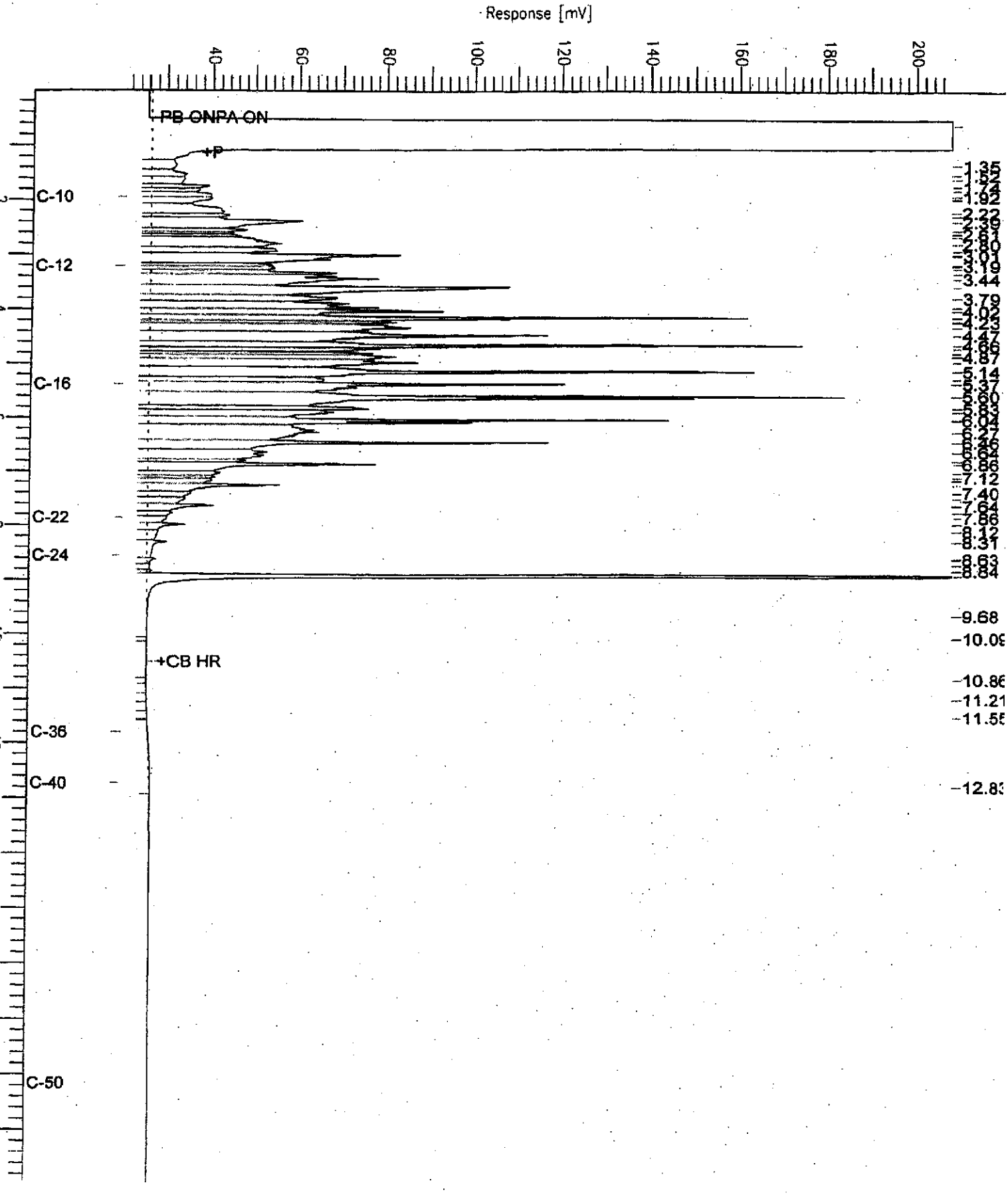
Sample #: 102772 Page 1 of 1
Date : 6/9/05 07:25 PM
Time of Injection: 6/9/05 06:37 PM
Low Point : 25.24 mV High Point : 334.27 mV
Plot Scale: 309.0 mV



Chromatogram

[redacted]mple Name : ccv,S778,dsl
[redacted]leName : G:\GC15\CHB\160B003.RAW
Method : BTEH159S.MTH
Start Time : 0.01 min End Time : 19.99 min
[redacted]le Factor: 0.0 Plot Offset: 21 mV

Sample #: 500mg/L Page 1 of 1
Date : 6/9/05 11:31 AM
Time of Injection: 6/9/05 11:05 AM
Low Point : 20.70 mV High Point : 207.94 mV
Plot Scale: 187.2 mV



Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	179843	Location:	MacArthur BART
Client:	Ninyo & Moore	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC296760	Batch#:	102772
Matrix:	Soil	Prepared:	06/08/05
Units:	mg/Kg	Analyzed:	06/09/05
Basis:	as received		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.77	38.32	77	52-137

Surrogate	%REC	Limits
Hexacosane	78	51-136

Curtis & Tompkins, Ltd.

atch QC Report

Total Extractable Hydrocarbons

Lab #:	179843	Location:	MacArthur BART
Client:	Ninyo & Moore	Prep:	SHAKER TABLE
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	102772
MSS Lab ID:	179774-016	Sampled:	05/31/05
Matrix:	Soil	Received:	06/01/05
Units:	mg/Kg	Prepared:	06/08/05
Basis:	as received	Analyzed:	06/10/05
Diln Fac:	1.000		

Type: MS Cleanup Method: EPA 3630C
ab ID: QC296761

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	<0.2970	50.21	46.47	93	11-169

Surrogate	%REC	Limits
Hexacosane	92	51-136

ype: MSD Cleanup Method: EPA 3630C
ab ID: QC296762

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	49.94	52.84	106	11-169	13	49

Surrogate	%REC	Limits
Hexacosane	108	51-136

D= Relative Percent Difference

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0506288

Work Order Summary

CLIENT:	Mr. Kris Larson Ninyo & Moore 1956 Webster St. Suite 400 Oakland, CA 94612	**BILL TO:**	Mr. Kris Larson Ninyo & Moore 1956 Webster St. Suite 400 Oakland, CA 94612
PHONE:	510-633-5640	**P.O. #**	
FAX:	510-633-5646	**PROJECT #**	400834018 McArthur BART
DATE RECEIVED:	06/13/2005	**CONTACT:**	Taryn Badal
DATE COMPLETED:	06/24/2005		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	SG-6	Modified TO-15	0.0 "Hg
02A	SG-7	Modified TO-15	0.0 "Hg
03A	SG-8	Modified TO-15	0.0 "Hg
04A	Lab Blank	Modified TO-15	NA
04B	Lab Blank	Modified TO-15	NA
05A	CCV	Modified TO-15	NA
05B	CCV	Modified TO-15	NA
06A	LCS	Modified TO-15	NA
06B	LCS	Modified TO-15	NA

CERTIFIED BY: Linda J. Fruman DATE: 06/24/05

Laboratory Director

Certfication numbers: AR DEQ - 03-084-0, CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/04, Expiration date: 06/30/05
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Air Toxics Ltd. Introduces the Electronic Report

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This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 .FAX (916) 985-1020
Hours 8:00 A.M to 6:00 P.M. Pacific

Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases. A list of these compounds is available.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The reported CCV for each daily batch may be derived from more than one individual analytical file due to the client's request for non-standard compounds (Freon 134a).

Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

All Quality Control Limit failures and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated Peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

LABORATORY NARRATIVE
Modified TO-15
Ninyo & Moore
Workorder# 0506288

Three 1 Liter Summa Canister samples were received on June 13, 2005. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis. See the data sheets for the reporting limits for each compound.

Method modifications taken to run these samples include:

Requirement	*TO-15*	*ATL Modifications*
BFB acceptance criteria	CLP protocol (TO-15)	SW-846 protocol
Concentration of IS spike	10 ppbv (TO-15)	25 ppbv
Dilutions for initial calibration	Dynamic dilutions or static using canisters	Syringe dilutions
Daily CCV	+- 30% Difference	</= 30% Difference with two allowed out up to </=40%.; flag and narrate outliers
Primary ions for Quantification	Freon 114: 85, Carbon Tetrachloride: 117, Trichloroethene: 130, Ethyl Benzene, m,p- and o-Xylene: 91, Vinyl Acetate: 43, 2-Butanone: 43, 4-Methyl-2-Pentanone: 43.	Freon 114: 135, Carbon Tetrachloride: 119, Trichloroethene: 95, Ethyl Benzene, m,p- and o-Xylene: 106, Vinyl Acetate: 86, 2-Butanone: 72, 4-Methyl-2-Pentanone: 58.
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Sample Drying System	Nafion Dryer (TO-14A)	Multisorbent
Sample Load Volume	400 mL (TO-14A)	Varied to 0.2 L.
Blank Acceptance Criteria.	< 0.20 ppbv (TO-14A)	< RL
BFB Absolute Abundance Criteria (TO-14A)	Within 10% of that from the previous day.	CCV internal standard area counts are compared to ICAL, corrective action for > 40 % D.
Initial Calibration	+- 30 %RSD (TO-14A)	</= 30 % RSD with 2 compounds allowed out to </= 40 % RSD.
IS Recoveries	Within 40% of mean over ICAL for blanks, and within 40 % of daily CCV for samples. (TO-15)	Within 40% of CCV recoveries for blank and samples.

AIR TOXICS LTD.

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SG-6

Lab ID#: 0506288-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Ethanol	5.4	36	10	68
Acetone	5.4	140	13	330
Carbon Disulfide	1.3	5.0	4.2	16
Methylene Chloride	1.3	2.1	4.7	7.2
Hexane	1.3	5.0	4.7	18
2-Butanone (Methyl Ethyl Ketone)	1.3	7.5	4.0	22
Tetrahydrofuran	1.3	2.3	4.0	6.9
2,2,4-Trimethylpentane	1.3	300	6.3	1400
Benzene	1.3	3.3	4.3	11
Toluene	1.3	4.4	5.1	17
m,p-Xylene	1.3	2.0	5.8	8.7

Client Sample ID: SG-7

Lab ID#: 0506288-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Ethanol	7.6	36	14	67
Acetone	7.6	200	18	470
Carbon Disulfide	1.9	4.7	5.9	15
Hexane	1.9	120	6.7	420
2-Butanone (Methyl Ethyl Ketone)	1.9	11	5.6	34
Tetrahydrofuran	1.9	3.1	5.6	9.2
Cyclohexane	1.9	60	6.6	210
2,2,4-Trimethylpentane	1.9	510	8.9	2400
Benzene	1.9	110	6.1	360
Heptane	1.9	25	7.8	100
Toluene	1.9	3.9	7.2	14
Ethyl Benzene	1.9	3.6	8.3	16
m,p-Xylene	1.9	2.4	8.3	11
Freon 134a	7.6	120	32	510

Client Sample ID: SG-8

Lab ID#: 0506288-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Ethanol	13	65	25	120
Acetone	13	170	32	400
Carbon Disulfide	3.4	6.7	10	21
Hexane	3.4	42	12	150

Client Sample ID: SG-8

Lab ID#: 0506288-03A

2-Butanone (Methyl Ethyl Ketone)	3.4	8.8	9.9	26
Tetrahydrofuran	3.4	3.8	9.9	11
Cyclohexane	3.4	23	12	81
2,2,4-Trimethylpentane	3.4	960	16	4500
Benzene	3.4	4.9	11	16
Heptane	3.4	32	14	130
Toluene	3.4	7.6	13	29
Ethyl Benzene	3.4	3.6	15	16
m,p-Xylene	3.4	5.0	15	22
Propylbenzene	3.4	4.2	16	20
Freon 134a	13	160	56	690

AIR TOXICS LTD.

Client Sample ID: SG-6

Lab ID#: 0506288-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	1.3	Not Detected	6.6	Not Detected
Freon 114	1.3	Not Detected	9.4	Not Detected
Chloromethane	5.4	Not Detected	11	Not Detected
Vinyl Chloride	1.3	Not Detected	3.4	Not Detected
1,3-Butadiene	1.3	Not Detected	3.0	Not Detected
Bromomethane	1.3	Not Detected	5.2	Not Detected
Chloroethane	1.3	Not Detected	3.5	Not Detected
Freon 11	1.3	Not Detected	7.6	Not Detected
Ethanol	5.4	36	10	68
Freon 113	1.3	Not Detected	10	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.3	Not Detected
Acetone	5.4	140	13	330
2-Propanol	5.4	Not Detected	13	Not Detected
Carbon Disulfide	1.3	5.0	4.2	16
3-Chloropropene	5.4	Not Detected	17	Not Detected
Methylene Chloride	1.3	2.1	4.7	7.2
Methyl tert-butyl ether	1.3	Not Detected	4.8	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.3	Not Detected
Hexane	1.3	5.0	4.7	18
Vinyl Acetate	5.4	Not Detected	19	Not Detected
1,1-Dichloroethane	1.3	Not Detected	5.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.3	7.5	4.0	22
cis-1,2-Dichloroethene	1.3	Not Detected	5.3	Not Detected
Tetrahydrofuran	1.3	2.3	4.0	6.9
Chloroform	1.3	Not Detected	6.6	Not Detected
1,1,1-Trichloroethane	1.3	Not Detected	7.3	Not Detected
Cyclohexane	1.3	Not Detected	4.6	Not Detected
Carbon Tetrachloride	1.3	Not Detected	8.5	Not Detected
2,2,4-Trimethylpentane	1.3	300	6.3	1400
Benzene	1.3	3.3	4.3	11
1,2-Dichloroethane	1.3	Not Detected	5.4	Not Detected
Heptane	1.3	Not Detected	5.5	Not Detected
Trichloroethene	1.3	Not Detected	7.2	Not Detected
1,2-Dichloropropane	1.3	Not Detected	6.2	Not Detected
1,4-Dioxane	5.4	Not Detected	19	Not Detected
Bromodichloromethane	1.3	Not Detected	9.0	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	6.1	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.5	Not Detected
Toluene	1.3	4.4	5.1	17
trans-1,3-Dichloropropene	1.3	Not Detected	6.1	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	7.3	Not Detected
Tetrachloroethene	1.3	Not Detected	9.1	Not Detected

AIR TOXICS LTD.

Client Sample ID: SG-6

Lab ID#: 0506288-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Hexanone	5.4	Not Detected	22	Not Detected
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	10	Not Detected
Chlorobenzene	1.3	Not Detected	6.2	Not Detected
Ethyl Benzene	1.3	Not Detected	5.8	Not Detected
m,p-Xylene	1.3	2.0	5.8	8.7
o-Xylene	1.3	Not Detected	5.8	Not Detected
Styrene	1.3	Not Detected	5.7	Not Detected
Bromoform	1.3	Not Detected	14	Not Detected
Cumene	1.3	Not Detected	6.6	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	9.2	Not Detected
Propylbenzene	1.3	Not Detected	6.6	Not Detected
4-Ethyltoluene	1.3	Not Detected	6.6	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.6	Not Detected
1,2,4-Trimethylbenzene	1.3	Not Detected	6.6	Not Detected
1,3-Dichlorobenzene	1.3	Not Detected	8.1	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	8.1	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	7.0	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	8.1	Not Detected
1,2,4-Trichlorobenzene	5.4	Not Detected U J	40	Not Detected U J
Hexachlorobutadiene	5.4	Not Detected	57	Not Detected
Freon 134a	5.4	Not Detected	22	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	86	70-130

AIR TOXICS LTD.

Client Sample ID: SG-7

Lab ID#: 0506288-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	1.9	Not Detected	9.4	Not Detected
Freon 114	1.9	Not Detected	13	Not Detected
Chloromethane	7.6	Not Detected	16	Not Detected
Vinyl Chloride	1.9	Not Detected	4.9	Not Detected
1,3-Butadiene	1.9	Not Detected	4.2	Not Detected
Bromomethane	1.9	Not Detected	7.4	Not Detected
Chloroethane	1.9	Not Detected	5.0	Not Detected
Freon 11	1.9	Not Detected	11	Not Detected
Ethanol	7.6	36	14	67
Freon 113	1.9	Not Detected	15	Not Detected
1,1-Dichloroethene	1.9	Not Detected	7.6	Not Detected
Acetone	7.6	200	18	470
2-Propanol	7.6	Not Detected	19	Not Detected
Carbon Disulfide	1.9	4.7	5.9	15
3-Chloropropene	7.6	Not Detected	24	Not Detected
Methylene Chloride	1.9	Not Detected	6.6	Not Detected
Methyl tert-butyl ether	1.9	Not Detected	6.9	Not Detected
trans-1,2-Dichloroethene	1.9	Not Detected	7.6	Not Detected
Hexane	1.9	120	6.7	420
Vinyl Acetate	7.6	Not Detected	27	Not Detected
1,1-Dichloroethane	1.9	Not Detected	7.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.9	11	5.6	34
cis-1,2-Dichloroethene	1.9	Not Detected	7.6	Not Detected
Tetrahydrofuran	1.9	3.1	5.6	9.2
Chloroform	1.9	Not Detected	9.3	Not Detected
1,1,1-Trichloroethane	1.9	Not Detected	10	Not Detected
Cyclohexane	1.9	60	6.6	210
Carbon Tetrachloride	1.9	Not Detected	12	Not Detected
2,2,4-Trimethylpentane	1.9	510	8.9	2400
Benzene	1.9	110	6.1	360
1,2-Dichloroethane	1.9	Not Detected	7.7	Not Detected
Heptane	1.9	25	7.8	100
Trichloroethene	1.9	Not Detected	10	Not Detected
1,2-Dichloropropane	1.9	Not Detected	8.8	Not Detected
1,4-Dioxane	7.6	Not Detected	28	Not Detected
Bromodichloromethane	1.9	Not Detected	13	Not Detected
cis-1,3-Dichloropropene	1.9	Not Detected	8.7	Not Detected
4-Methyl-2-pentanone	1.9	Not Detected	7.8	Not Detected
Toluene	1.9	3.9	7.2	14
trans-1,3-Dichloropropene	1.9	Not Detected	8.7	Not Detected
1,1,2-Trichloroethane	1.9	Not Detected	10	Not Detected
Tetrachloroethene	1.9	Not Detected	13	Not Detected

AIR TOXICS LTD.

Client Sample ID: SG-7

Lab ID#: 0506288-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Hexanone	7.6	Not Detected	31	Not Detected
Dibromochloromethane	1.9	Not Detected	16	Not Detected
1,2-Dibromoethane (EDB)	1.9	Not Detected	15	Not Detected
Chlorobenzene	1.9	Not Detected	8.8	Not Detected
Ethyl Benzene	1.9	3.6	8.3	16
m,p-Xylene	1.9	2.4	8.3	11
o-Xylene	1.9	Not Detected	8.3	Not Detected
Styrene	1.9	Not Detected	8.1	Not Detected
Bromoform	1.9	Not Detected	20	Not Detected
Cumene	1.9	Not Detected	9.4	Not Detected
1,1,2,2-Tetrachloroethane	1.9	Not Detected	13	Not Detected
Propylbenzene	1.9	Not Detected	9.4	Not Detected
4-Ethyltoluene	1.9	Not Detected	9.4	Not Detected
1,3,5-Trimethylbenzene	1.9	Not Detected	9.4	Not Detected
1,2,4-Trimethylbenzene	1.9	Not Detected	9.4	Not Detected
1,3-Dichlorobenzene	1.9	Not Detected	11	Not Detected
1,4-Dichlorobenzene	1.9	Not Detected	11	Not Detected
alpha-Chlorotoluene	1.9	Not Detected	9.9	Not Detected
1,2-Dichlorobenzene	1.9	Not Detected	11	Not Detected
1,2,4-Trichlorobenzene	7.6	Not Detected	57	Not Detected
Hexachlorobutadiene	7.6	Not Detected	81	Not Detected
Freon 134a	7.6	120	32	510

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	90	70-130

AIR TOXICS LTD.

Client Sample ID: SG-8

Lab ID#: 0506288-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	3.4	Not Detected	17	Not Detected
Freon 114	3.4	Not Detected	24	Not Detected
Chloromethane	13	Not Detected	28	Not Detected
Vinyl Chloride	3.4	Not Detected	8.6	Not Detected
1,3-Butadiene	3.4	Not Detected	7.4	Not Detected
Bromomethane	3.4	Not Detected	13	Not Detected
Chloroethane	3.4	Not Detected	8.9	Not Detected
Freon 11	3.4	Not Detected	19	Not Detected
Ethanol	13	65	25	120
Freon 113	3.4	Not Detected	26	Not Detected
1,1-Dichloroethene	3.4	Not Detected	13	Not Detected
Acetone	13	170	32	400
2-Propanol	13	Not Detected	33	Not Detected
Carbon Disulfide	3.4	6.7	10	21
3-Chloropropene	13	Not Detected	42	Not Detected
Methylene Chloride	3.4	Not Detected	12	Not Detected
Methyl tert-butyl ether	3.4	Not Detected	12	Not Detected
trans-1,2-Dichloroethene	3.4	Not Detected	13	Not Detected
Hexane	3.4	42	12	150
Vinyl Acetate	13	Not Detected	47	Not Detected
1,1-Dichloroethane	3.4	Not Detected	14	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.4	8.8	9.9	26
cis-1,2-Dichloroethene	3.4	Not Detected	13	Not Detected
Tetrahydrofuran	3.4	3.8	9.9	11
Chloroform	3.4	Not Detected	16	Not Detected
1,1,1-Trichloroethane	3.4	Not Detected	18	Not Detected
Cyclohexane	3.4	23	12	81
Carbon Tetrachloride	3.4	Not Detected	21	Not Detected
2,2,4-Trimethylpentane	3.4	960	16	4500
Benzene	3.4	4.9	11	16
1,2-Dichloroethane	3.4	Not Detected	14	Not Detected
Heptane	3.4	32	14	130
Trichloroethene	3.4	Not Detected	18	Not Detected
1,2-Dichloropropane	3.4	Not Detected	16	Not Detected
1,4-Dioxane	13	Not Detected	48	Not Detected
Bromodichloromethane	3.4	Not Detected	22	Not Detected
cis-1,3-Dichloropropene	3.4	Not Detected	15	Not Detected
4-Methyl-2-pentanone	3.4	Not Detected	14	Not Detected
Toluene	3.4	7.6	13	29
trans-1,3-Dichloropropene	3.4	Not Detected	15	Not Detected
1,1,2-Trichloroethane	3.4	Not Detected	18	Not Detected
Tetrachloroethene	3.4	Not Detected	23	Not Detected

AIR TOXICS LTD.

Client Sample ID: SG-8

Lab ID#: 0506288-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Hexanone	13	Not Detected	55	Not Detected
Dibromochloromethane	3.4	Not Detected	29	Not Detected
1,2-Dibromoethane (EDB)	3.4	Not Detected	26	Not Detected
Chlorobenzene	3.4	Not Detected	15	Not Detected
Ethyl Benzene	3.4	3.6	15	16
m,p-Xylene	3.4	5.0	15	22
o-Xylene	3.4	Not Detected	15	Not Detected
Styrene	3.4	Not Detected	14	Not Detected
Bromoform	3.4	Not Detected	35	Not Detected
Cumene	3.4	Not Detected	16	Not Detected
1,1,2,2-Tetrachloroethane	3.4	Not Detected	23	Not Detected
Propylbenzene	3.4	4.2	16	20
4-Ethyltoluene	3.4	Not Detected	16	Not Detected
1,3,5-Trimethylbenzene	3.4	Not Detected	16	Not Detected
1,2,4-Trimethylbenzene	3.4	Not Detected	16	Not Detected
1,3-Dichlorobenzene	3.4	Not Detected	20	Not Detected
1,4-Dichlorobenzene	3.4	Not Detected	20	Not Detected
alpha-Chlorotoluene	3.4	Not Detected	17	Not Detected
1,2-Dichlorobenzene	3.4	Not Detected	20	Not Detected
1,2,4-Trichlorobenzene	13	Not Detected U J	100	Not Detected U J
Hexachlorobutadiene	13	Not Detected	140	Not Detected
Freon 134a	13	160	56	690

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	89	70-130

AIR TOXICS LTD.

Client Sample ID: Lab Blank

Lab ID#: 0506288-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected

AIR TOXICS LTD.

Client Sample ID: Lab Blank

Lab ID#: 0506288-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected U J	15	Not Detected U J
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Freon 134a	2.0	Not Detected	8.3	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	91	70-130

AIR TOXICS LTD.

Client Sample ID: Lab Blank

Lab ID#: 0506288-04B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected

AIR TOXICS LTD.

Client Sample ID: Lab Blank

Lab ID#: 0506288-04B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Freon 134a	2.0	Not Detected	8.3	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	90	70-130

AIR TOXICS LTD.

Client Sample ID: CCV

Lab ID#: 0506288-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	%Recovery
Freon 12	79
Freon 114	75
Chloromethane	95
Vinyl Chloride	76
1,3-Butadiene	88
Bromomethane	80
Chloroethane	72
Freon 11	90
Ethanol	76
Freon 113	112
1,1-Dichloroethene	88
Acetone	82
2-Propanol	84
Carbon Disulfide	88
3-Chloropropene	84
Methylene Chloride	88
Methyl tert-butyl ether	74
trans-1,2-Dichloroethene	73
Hexane	76
Vinyl Acetate	75
1,1-Dichloroethane	79
2-Butanone (Methyl Ethyl Ketone)	82
cis-1,2-Dichloroethene	83
Tetrahydrofuran	76
Chloroform	76
1,1,1-Trichloroethane	83
Cyclohexane	85
Carbon Tetrachloride	95
2,2,4-Trimethylpentane	83
Benzene	74
1,2-Dichloroethane	86
Heptane	82
Trichloroethene	81
1,2-Dichloropropane	88
1,4-Dioxane	93
Bromodichloromethane	90
cis-1,3-Dichloropropene	88
4-Methyl-2-pentanone	90
Toluene	82
trans-1,3-Dichloropropene	86
1,1,2-Trichloroethane	82
Tetrachloroethene	82

AIR TOXICS LTD.

Client Sample ID: CCV

Lab ID#: 0506288-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	%Recovery
2-Hexanone	95
Dibromochloromethane	98
1,2-Dibromoethane (EDB)	84
Chlorobenzene	81
Ethyl Benzene	82
m,p-Xylene	78
o-Xylene	82
Styrene	78
Bromoform	106
Cumene	79
1,1,2,2-Tetrachloroethane	84
Propylbenzene	78
4-Ethyltoluene	74
1,3,5-Trimethylbenzene	80
1,2,4-Trimethylbenzene	72
1,3-Dichlorobenzene	76
1,4-Dichlorobenzene	76
alpha-Chlorotoluene	81
1,2-Dichlorobenzene	73
1,2,4-Trichlorobenzene	68 Q
Hexachlorobutadiene	75
Freon 134a	120

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	97	70-130

AIR TOXICS LTD.

Client Sample ID: CCV

Lab ID#: 0506288-05B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	%Recovery
Freon 12	77
Freon 114	74
Chloromethane	93
Vinyl Chloride	74
1,3-Butadiene	87
Bromomethane	80
Chloroethane	71
Freon 11	89
Ethanol	74
Freon 113	113
1,1-Dichloroethene	85
Acetone	81
2-Propanol	83
Carbon Disulfide	86
3-Chloropropene	82
Methylene Chloride	85
Methyl tert-butyl ether	72
trans-1,2-Dichloroethene	70
Hexane	74
Vinyl Acetate	73
1,1-Dichloroethane	76
2-Butanone (Methyl Ethyl Ketone)	79
cis-1,2-Dichloroethene	81
Tetrahydrofuran	74
Chloroform	74
1,1,1-Trichloroethane	82
Cyclohexane	83
Carbon Tetrachloride	93
2,2,4-Trimethylpentane	82
Benzene	73
1,2-Dichloroethane	83
Heptane	79
Trichloroethene	80
1,2-Dichloropropane	86
1,4-Dioxane	91
Bromodichloromethane	88
cis-1,3-Dichloropropene	86
4-Methyl-2-pentanone	90
Toluene	80
trans-1,3-Dichloropropene	84
1,1,2-Trichloroethane	81
Tetrachloroethene	81

AIR TOXICS LTD.

Client Sample ID: CCV

Lab ID#: 0506288-05B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	%Recovery
2-Hexanone	92
Dibromochloromethane	97
1,2-Dibromoethane (EDB)	82
Chlorobenzene	80
Ethyl Benzene	80
m,p-Xylene	77
o-Xylene	81
Styrene	77
Bromoform	104
Cumene	78
1,1,2,2-Tetrachloroethane	83
Propylbenzene	78
4-Ethyltoluene	74
1,3,5-Trimethylbenzene	78
1,2,4-Trimethylbenzene	72
1,3-Dichlorobenzene	76
1,4-Dichlorobenzene	75
alpha-Chlorotoluene	82
1,2-Dichlorobenzene	74
1,2,4-Trichlorobenzene	71
Hexachlorobutadiene	78
Freon 134a	119

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	98	70-130

AIR TOXICS LTD.

Client Sample ID: LCS

Lab ID#: 0506288-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	%Recovery
Freon 12	90
Freon 114	84
Chloromethane	107
Vinyl Chloride	86
1,3-Butadiene	121
Bromomethane	94
Chloroethane	76
Freon 11	104
Ethanol	65
Freon 113	129
1,1-Dichloroethene	106
Acetone	100
2-Propanol	90
Carbon Disulfide	116
3-Chloropropene	92
Methylene Chloride	108
Methyl tert-butyl ether	92
trans-1,2-Dichloroethene	108
Hexane	99
Vinyl Acetate	78
1,1-Dichloroethane	90
2-Butanone (Methyl Ethyl Ketone)	89
cis-1,2-Dichloroethene	109
Tetrahydrofuran	87
Chloroform	87
1,1,1-Trichloroethane	85
Cyclohexane	107
Carbon Tetrachloride	104
2,2,4-Trimethylpentane	89
Benzene	79
1,2-Dichloroethane	89
Heptane	98
Trichloroethene	87
1,2-Dichloropropane	88
1,4-Dioxane	76
Bromodichloromethane	108
cis-1,3-Dichloropropene	98
4-Methyl-2-pentanone	76
Toluene	93
trans-1,3-Dichloropropene	106
1,1,2-Trichloroethane	93
Tetrachloroethene	95

AIR TOXICS LTD.

Client Sample ID: LCS

Lab ID#: 0506288-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	%Recovery
2-Hexanone	62
Dibromochloromethane	126
1,2-Dibromoethane (EDB)	93
Chlorobenzene	95
Ethyl Benzene	95
m,p-Xylene	93
o-Xylene	96
Styrene	122
Bromoform	141 Q
Cumene	83
1,1,2,2-Tetrachloroethane	101
Propylbenzene	124
4-Ethyltoluene	83
1,3,5-Trimethylbenzene	100
1,2,4-Trimethylbenzene	96
1,3-Dichlorobenzene	92
1,4-Dichlorobenzene	94
alpha-Chlorotoluene	83
1,2-Dichlorobenzene	94
1,2,4-Trichlorobenzene	93
Hexachlorobutadiene	98
Freon 134a	Not Spiked

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	100	70-130

AIR TOXICS LTD.

Client Sample ID: LCS

Lab ID#: 0506288-06B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	%Recovery
Freon 12	87
Freon 114	82
Chloromethane	87
Vinyl Chloride	82
1,3-Butadiene	101
Bromomethane	86
Chloroethane	73
Freon 11	88
Ethanol	62
Freon 113	102
1,1-Dichloroethene	96
Acetone	96
2-Propanol	90
Carbon Disulfide	100
3-Chloropropene	99
Methylene Chloride	93
Methyl tert-butyl ether	85
trans-1,2-Dichloroethene	106
Hexane	96
Vinyl Acetate	81
1,1-Dichloroethane	90
2-Butanone (Methyl Ethyl Ketone)	86
cis-1,2-Dichloroethene	106
Tetrahydrofuran	85
Chloroform	84
1,1,1-Trichloroethane	80
Cyclohexane	101
Carbon Tetrachloride	98
2,2,4-Trimethylpentane	87
Benzene	78
1,2-Dichloroethane	87
Heptane	95
Trichloroethene	85
1,2-Dichloropropane	85
1,4-Dioxane	74
Bromodichloromethane	107
cis-1,3-Dichloropropene	97
4-Methyl-2-pentanone	74
Toluene	92
trans-1,3-Dichloropropene	103
1,1,2-Trichloroethane	88
Tetrachloroethene	89

AIR TOXICS LTD.

Client Sample ID: LCS

Lab ID#: 0506288-06B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	%Recovery
2-Hexanone	61
Dibromochloromethane	120
1,2-Dibromoethane (EDB)	90
Chlorobenzene	91
Ethyl Benzene	92
m,p-Xylene	89
o-Xylene	91
Styrene	120
Bromoform	134
Cumene	80
1,1,2,2-Tetrachloroethane	98
Propylbenzene	122
4-Ethyltoluene	82
1,3,5-Trimethylbenzene	97
1,2,4-Trimethylbenzene	96
1,3-Dichlorobenzene	90
1,4-Dichlorobenzene	92
alpha-Chlorotoluene	85
1,2-Dichlorobenzene	91
1,2,4-Trichlorobenzene	86
Hexachlorobutadiene	90
Freon 134a	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	99	70-130

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

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Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0506162

Work Order Summary

CLIENT:	Mr. Kris Larson Ninyo & Moore 1956 Webster St. Suite 400 Oakland, CA 94612	**BILL TO:**	Mr. Kris Larson Ninyo & Moore 1956 Webster St. Suite 400 Oakland, CA 94612
PHONE:	510-633-5640	**P.O. #**	
FAX:	510-633-5646	**PROJECT #**	400-34018 McArthur BART
DATE RECEIVED:	06/07/2005	**CONTACT:**	Taryn Badal
DATE COMPLETED:	06/24/2005		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	SG-1	Modified TO-15	2.0 "Hg
01AA	SG-1 Duplicate	Modified TO-15	2.0 "Hg
02A	SG-2	Modified TO-15	6.5 "Hg
03A	SG-3	Modified TO-15	1.0 "Hg
04A	SG-4	Modified TO-15	3.0 "Hg
05A	SG-5	Modified TO-15	3.0 "Hg
06A	SG-9	Modified TO-15	0.5 "Hg
07A	SG-10	Modified TO-15	0.0 "Hg
08A	SG-11	Modified TO-15	1.0 "Hg
09A	SG-12	Modified TO-15	4.0 "Hg
10A	SG-13	Modified TO-15	0.5 "Hg
11A	SG-14	Modified TO-15	1.0 "Hg
12A	SG-15	Modified TO-15	1.5 "Hg
13A	Lab Blank	Modified TO-15	NA
13B	Lab Blank	Modified TO-15	NA
14A	CCV	Modified TO-15	NA
14B	CCV	Modified TO-15	NA

Continued on next page

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@ AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0506162

Work Order Summary

CLIENT:	Mr. Kris Larson Ninyo & Moore 1956 Webster St. Suite 400 Oakland, CA 94612	**BILL TO:**	Mr. Kris Larson Ninyo & Moore 1956 Webster St. Suite 400 Oakland, CA 94612
PHONE:	510-633-5640	**P.O. #**	
FAX:	510-633-5646	**PROJECT #**	400-34018 McArthur BART
DATE RECEIVED:	06/07/2005	**CONTACT:**	Taryn Badal
DATE COMPLETED:	06/24/2005		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
15A	LCS	Modified TO-15	NA
15B	LCS	Modified TO-15	NA

CERTIFIED BY: Linda A. Freeman DATE: 06/24/05

Laboratory Director

Certfication numbers: AR DEQ - 03-084-0, CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/04, Expiration date: 06/30/05
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-15
Ninyo & Moore
Workorder# 0506162

Eleven 1 Liter Summa Canister and one 1 Liter Silonite Canister samples were received on June 07, 2005. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis. See the data sheets for the reporting limits for each compound.

Method modifications taken to run these samples include:

Requirement	*TO-15*	*ATL Modifications*
BFB acceptance criteria	CLP protocol (TO-15)	SW-846 protocol
Concentration of IS spike	10 ppbv (TO-15)	25 ppbv
Dilutions for initial calibration	Dynamic dilutions or static using canisters	Syringe dilutions
Daily CCV	+- 30% Difference	</= 30% Difference with two allowed out up to </=40%.; flag and narrate outliers
Primary ions for Quantification	Freon 114: 85, Carbon Tetrachloride: 117, Trichloroethene: 130, Ethyl Benzene, m,p- and o-Xylene: 91, Vinyl Acetate: 43, 2-Butanone: 43, 4-Methyl-2-Pentanone: 43.	Freon 114: 135, Carbon Tetrachloride: 119, Trichloroethene: 95, Ethyl Benzene, m,p- and o-Xylene: 106, Vinyl Acetate: 86, 2-Butanone: 72, 4-Methyl-2-Pentanone: 58.
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Sample Drying System	Nafion Dryer (TO-14A)	Multisorbent
Sample Load Volume	400 mL (TO-14A)	Varied to 0.2 L.
Blank Acceptance Criteria.	< 0.20 ppbv (TO-14A)	<RL
BFB Absolute Abundance Criteria (TO-14A)	Within 10% of that from the previous day.	CCV internal standard area counts are compared to ICAL, corrective action for > 40 % D.
Initial Calibration	+- 30 %RSD (TO-14A)	</= 30 % RSD with 2 compounds allowed out to </= 40 % RSD.
IS Recoveries	Within 40% of mean over ICAL for blanks, and within 40 % of daily CCV for samples. (TO-15)	Within 40% of CCV recoveries for blank and samples.

Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases. A list of these compounds is available.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The reported CCV for each daily batch may be derived from more than one individual analytical file due to the client's request for non-standard compounds (Freon 134a).

Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

All Quality Control Limit failures and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated Peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SG-1

Lab ID#: 0506162-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Acetone	3500	5400	8200	13000
2-Propanol	3500	30000	8500	75000
Carbon Disulfide	860	3100	2700	9700
Hexane	860	1200	3000	4200
Cyclohexane	860	4500	3000	16000
2,2,4-Trimethylpentane	860	300000	4000	1400000
Toluene	860	910	3200	3400

Client Sample ID: SG-1 Duplicate

Lab ID#: 0506162-01AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Acetone	3500	5400	8200	13000
2-Propanol	3500	32000	8500	78000
Carbon Disulfide	860	3300	2700	10000
Hexane	860	1200	3000	4300
Cyclohexane	860	4500	3000	15000
2,2,4-Trimethylpentane	860	300000	4000	1400000
Toluene	860	950	3200	3600

Client Sample ID: SG-2

Lab ID#: 0506162-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Acetone	210	1100	490	2600
2-Propanol	210	470	510	1100
Hexane	52	91	180	320
Tetrahydrofuran	52	120	150	360
Cyclohexane	52	300	180	1000
2,2,4-Trimethylpentane	52	15000	240	70000

Client Sample ID: SG-3

Lab ID#: 0506162-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	10	43	23	95
Acetone	42	350	99	840
Carbon Disulfide	10	11	32	34
Hexane	10	22	37	78

Client Sample ID: SG-3

Lab ID#: 0506162-03A

2-Butanone (Methyl Ethyl Ketone)	10	11	31	33
Tetrahydrofuran	10	16	31	46
Cyclohexane	10	210	36	730
2,2,4-Trimethylpentane	10	2000	49	9200
Benzene	10	20	33	65

Client Sample ID: SG-4

Lab ID#: 0506162-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Acetone	330	1100	790	2600
Hexane	83	380	290	1300
Cyclohexane	83	2800	280	9800
2,2,4-Trimethylpentane	83	25000	390	120000
Benzene	83	540	260	1700

Client Sample ID: SG-5

Lab ID#: 0506162-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Hexane	150	5500	530	20000
Cyclohexane	150	2400	510	8100
2,2,4-Trimethylpentane	150	6000	700	28000
Benzene	150	44000	480	140000
Heptane	150	1200	610	5000
Toluene	150	1300	560	4800
Ethyl Benzene	150	430	650	1900
m,p-Xylene	150	350	650	1500

Client Sample ID: SG-9

Lab ID#: 0506162-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Ethanol	4.1	53	7.7	100
Acetone	4.1	360	9.7	850
2-Propanol	4.1	4.5	10	11
Carbon Disulfide	1.0	1.5	3.2	4.7
Hexane	1.0	6.2	3.6	22
2-Butanone (Methyl Ethyl Ketone)	1.0	14	3.0	42
Cyclohexane	1.0	3.3	3.5	11
2,2,4-Trimethylpentane	1.0	23	4.8	110
Benzene	1.0	2.9	3.3	9.2
Heptane	1.0	1.7	4.2	7.1
Toluene	1.0	5.5	3.9	21
m,p-Xylene	1.0	2.7	4.4	12
o-Xylene	1.0	1.2	4.4	5.0

Client Sample ID: SG-9

Lab ID#: 0506162-06A

1,2,4-Trimethylbenzene	1.0	1.1	5.0	5.5

Client Sample ID: SG-10

Lab ID#: 0506162-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	1.0	28	2.2	61
Ethanol	4.0	9.9	7.6	19
Acetone	4.0	100	9.6	250
Carbon Disulfide	1.0	3.6	3.1	11
Hexane	1.0	6.6	3.6	23
2-Butanone (Methyl Ethyl Ketone)	1.0	4.6	3.0	13
Cyclohexane	1.0	5.4	3.5	18
2,2,4-Trimethylpentane	1.0	51	4.7	240
Benzene	1.0	6.3	3.2	20
Heptane	1.0	1.0	4.1	4.3
Toluene	1.0	2.8	3.8	10
m,p-Xylene	1.0	1.3	4.4	5.7

Client Sample ID: SG-11

Lab ID#: 0506162-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Ethanol	4.2	57	7.9	110
Acetone	4.2	350	9.9	820
2-Propanol	4.2	19	10	47
Carbon Disulfide	1.0	1.6	3.2	5.0
Hexane	1.0	18	3.7	65
2-Butanone (Methyl Ethyl Ketone)	1.0	12	3.1	35
Cyclohexane	1.0	8.9	3.6	30
2,2,4-Trimethylpentane	1.0	230	4.9	1100
Benzene	1.0	11	3.3	34
Heptane	1.0	6.8	4.3	28
Toluene	1.0	14	3.9	54
Tetrachloroethene	1.0	3.5	7.1	24
Ethyl Benzene	1.0	4.4	4.5	19
m,p-Xylene	1.0	8.7	4.5	38
o-Xylene	1.0	3.5	4.5	15
Propylbenzene	1.0	1.4	5.1	7.0
4-Ethyltoluene	1.0	1.9	5.1	9.4
1,2,4-Trimethylbenzene	1.0	1.8	5.1	8.8
Freon 134a	4.2	11	17	44

Client Sample ID: SG-12

Lab ID#: 0506162-09A

Client Sample ID: SG-14

Lab ID#: 0506162-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	1.0	38	2.3	85
Ethanol	4.2	23	7.9	43
Acetone	4.2	220	9.9	510
Carbon Disulfide	1.0	3.5	3.2	11
Hexane	1.0	10	3.7	35
2-Butanone (Methyl Ethyl Ketone)	1.0	11	3.1	33
Cyclohexane	1.0	4.6	3.6	16
2,2,4-Trimethylpentane	1.0	33	4.9	150
Benzene	1.0	9.4	3.3	30
Heptane	1.0	2.2	4.3	8.9
Toluene	1.0	6.2	3.9	23
m,p-Xylene	1.0	2.8	4.5	12
o-Xylene	1.0	1.2	4.5	5.2
4-Ethyltoluene	1.0	1.1	5.1	5.2
1,2,4-Trimethylbenzene	1.0	1.3	5.1	6.3
Freon 134a	4.2	7.0	17	29

Client Sample ID: SG-15

Lab ID#: 0506162-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Acetone	4.3	15	10	36
2-Butanone (Methyl Ethyl Ketone)	1.1	1.4	3.1	4.2
2,2,4-Trimethylpentane	1.1	4.7	5.0	22

Client Sample ID: SG-12

Lab ID#: 0506162-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Ethanol	4.7	18	8.8	34
Acetone	4.7	140	11	340
2-Propanol	4.7	18	11	45
Carbon Disulfide	1.2	8.6	3.6	27
Hexane	1.2	34	4.1	120
2-Butanone (Methyl Ethyl Ketone)	1.2	7.0	3.4	21
Chloroform	1.2	6.0	5.7	29
Cyclohexane	1.2	26	4.0	90
2,2,4-Trimethylpentane	1.2	230	5.4	1100
Benzene	1.2	20	3.7	63
Heptane	1.2	8.6	4.8	35
Trichloroethene	1.2	2.2	6.3	12
Toluene	1.2	14	4.4	54
Tetrachloroethene	1.2	32	7.9	220
Ethyl Benzene	1.2	4.4	5.0	19
m,p-Xylene	1.2	7.8	5.0	34
o-Xylene	1.2	2.8	5.0	12
4-Ethyltoluene	1.2	1.4	5.7	6.7
1,2,4-Trimethylbenzene	1.2	1.4	5.7	6.9
Freon 134a	4.7	7.2	19	30

Client Sample ID: SG-13

Lab ID#: 0506162-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	1.0	22	2.3	48
Ethanol	4.1	69	7.7	130
Acetone	4.1	180	9.7	430
2-Propanol	4.1	14	10	34
Carbon Disulfide	1.0	2.8	3.2	8.8
Hexane	1.0	14	3.6	49
2-Butanone (Methyl Ethyl Ketone)	1.0	15	3.0	45
Cyclohexane	1.0	11	3.5	39
2,2,4-Trimethylpentane	1.0	88	4.8	410
Benzene	1.0	12	3.3	38
Heptane	1.0	4.1	4.2	17
Toluene	1.0	13	3.9	49
Ethyl Benzene	1.0	13	4.4	55
m,p-Xylene	1.0	16	4.4	70
o-Xylene	1.0	5.2	4.4	22
Propylbenzene	1.0	1.4	5.0	6.8
4-Ethyltoluene	1.0	2.0	5.0	10
1,2,4-Trimethylbenzene	1.0	1.5	5.0	7.6

AIR TOXICS LTD.

Client Sample ID: SG-1

Lab ID#: 0506162-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	860	Not Detected	4300	Not Detected
Freon 114	860	Not Detected U J	6000	Not Detected U J
Chloromethane	3500	Not Detected	7100	Not Detected
Vinyl Chloride	860	Not Detected	2200	Not Detected
1,3-Butadiene	860	Not Detected	1900	Not Detected
Bromomethane	860	Not Detected	3400	Not Detected
Chloroethane	860	Not Detected	2300	Not Detected
Freon 11	860	Not Detected	4900	Not Detected
Ethanol	3500	Not Detected	6500	Not Detected
Freon 113	860	Not Detected	6600	Not Detected
1,1-Dichloroethene	860	Not Detected	3400	Not Detected
Acetone	3500	5400	8200	13000
2-Propanol	3500	30000	8500	75000
Carbon Disulfide	860	3100	2700	9700
3-Chloropropene	3500	Not Detected	11000	Not Detected
Methylene Chloride	860	Not Detected	3000	Not Detected
Methyl tert-butyl ether	860	Not Detected	3100	Not Detected
trans-1,2-Dichloroethene	860	Not Detected	3400	Not Detected
Hexane	860	1200	3000	4200
Vinyl Acetate	3500	Not Detected	12000	Not Detected
1,1-Dichloroethane	860	Not Detected	3500	Not Detected
2-Butanone (Methyl Ethyl Ketone)	860	Not Detected	2600	Not Detected
cis-1,2-Dichloroethene	860	Not Detected	3400	Not Detected
Tetrahydrofuran	860	Not Detected	2600	Not Detected
Chloroform	860	Not Detected	4200	Not Detected
1,1,1-Trichloroethane	860	Not Detected	4700	Not Detected
Cyclohexane	860	4500	3000	16000
Carbon Tetrachloride	860	Not Detected	5400	Not Detected
2,2,4-Trimethylpentane	860	300000	4000	1400000
Benzene	860	Not Detected	2800	Not Detected
1,2-Dichloroethane	860	Not Detected	3500	Not Detected
Heptane	860	Not Detected	3500	Not Detected
Trichloroethene	860	Not Detected	4600	Not Detected
1,2-Dichloropropane	860	Not Detected	4000	Not Detected
1,4-Dioxane	3500	Not Detected	12000	Not Detected
Bromodichloromethane	860	Not Detected	5800	Not Detected
cis-1,3-Dichloropropene	860	Not Detected	3900	Not Detected
4-Methyl-2-pentanone	860	Not Detected	3500	Not Detected
Toluene	860	910	3200	3400
trans-1,3-Dichloropropene	860	Not Detected	3900	Not Detected
1,1,2-Trichloroethane	860	Not Detected	4700	Not Detected
Tetrachloroethene	860	Not Detected	5900	Not Detected

AIR TOXICS LTD.

Client Sample ID: SG-1

Lab ID#: 0506162-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Hexanone	3500	Not Detected	14000	Not Detected
Dibromochloromethane	860	Not Detected	7400	Not Detected
1,2-Dibromoethane (EDB)	860	Not Detected	6600	Not Detected
Chlorobenzene	860	Not Detected	4000	Not Detected
Ethyl Benzene	860	Not Detected	3800	Not Detected
m,p-Xylene	860	Not Detected	3800	Not Detected
o-Xylene	860	Not Detected	3800	Not Detected
Styrene	860	Not Detected	3700	Not Detected
Bromoform	860	Not Detected	8900	Not Detected
Cumene	860	Not Detected	4200	Not Detected
1,1,2,2-Tetrachloroethane	860	Not Detected	5900	Not Detected
Propylbenzene	860	Not Detected	4200	Not Detected
4-Ethyltoluene	860	Not Detected	4200	Not Detected
1,3,5-Trimethylbenzene	860	Not Detected	4200	Not Detected
1,2,4-Trimethylbenzene	860	Not Detected	4200	Not Detected
1,3-Dichlorobenzene	860	Not Detected	5200	Not Detected
1,4-Dichlorobenzene	860	Not Detected	5200	Not Detected
alpha-Chlorotoluene	860	Not Detected	4500	Not Detected
1,2-Dichlorobenzene	860	Not Detected	5200	Not Detected
1,2,4-Trichlorobenzene	3500	Not Detected	26000	Not Detected
Hexachlorobutadiene	3500	Not Detected	37000	Not Detected
Freon 134a	3500	Not Detected	14000	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	114	70-130
4-Bromofluorobenzene	96	70-130

AIR TOXICS LTD.

Client Sample ID: SG-1 Duplicate

Lab ID#: 0506162-01AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	860	Not Detected	4300	Not Detected
Freon 114	860	Not Detected U J	6000	Not Detected U J
Chloromethane	3500	Not Detected	7100	Not Detected
Vinyl Chloride	860	Not Detected	2200	Not Detected
1,3-Butadiene	860	Not Detected	1900	Not Detected
Bromomethane	860	Not Detected	3400	Not Detected
Chloroethane	860	Not Detected	2300	Not Detected
Freon 11	860	Not Detected	4900	Not Detected
Ethanol	3500	Not Detected	6500	Not Detected
Freon 113	860	Not Detected	6600	Not Detected
1,1-Dichloroethene	860	Not Detected	3400	Not Detected
Acetone	3500	5400	8200	13000
2-Propanol	3500	32000	8500	78000
Carbon Disulfide	860	3300	2700	10000
3-Chloropropene	3500	Not Detected	11000	Not Detected
Methylene Chloride	860	Not Detected	3000	Not Detected
Methyl tert-butyl ether	860	Not Detected	3100	Not Detected
trans-1,2-Dichloroethene	860	Not Detected	3400	Not Detected
Hexane	860	1200	3000	4300
Vinyl Acetate	3500	Not Detected	12000	Not Detected
1,1-Dichloroethane	860	Not Detected	3500	Not Detected
2-Butanone (Methyl Ethyl Ketone)	860	Not Detected	2600	Not Detected
cis-1,2-Dichloroethene	860	Not Detected	3400	Not Detected
Tetrahydrofuran	860	Not Detected	2600	Not Detected
Chloroform	860	Not Detected	4200	Not Detected
1,1,1-Trichloroethane	860	Not Detected	4700	Not Detected
Cyclohexane	860	4500	3000	15000
Carbon Tetrachloride	860	Not Detected	5400	Not Detected
2,2,4-Trimethylpentane	860	300000	4000	1400000
Benzene	860	Not Detected	2800	Not Detected
1,2-Dichloroethane	860	Not Detected	3500	Not Detected
Heptane	860	Not Detected	3500	Not Detected
Trichloroethene	860	Not Detected	4600	Not Detected
1,2-Dichloropropane	860	Not Detected	4000	Not Detected
1,4-Dioxane	3500	Not Detected	12000	Not Detected
Bromodichloromethane	860	Not Detected	5800	Not Detected
cis-1,3-Dichloropropene	860	Not Detected	3900	Not Detected
4-Methyl-2-pentanone	860	Not Detected	3500	Not Detected
Toluene	860	950	3200	3600
trans-1,3-Dichloropropene	860	Not Detected	3900	Not Detected
1,1,2-Trichloroethane	860	Not Detected	4700	Not Detected
Tetrachloroethene	860	Not Detected	5900	Not Detected

AIR TOXICS LTD.

Client Sample ID: SG-1 Duplicate

Lab ID#: 0506162-01AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Hexanone	3500	Not Detected	14000	Not Detected
Dibromochloromethane	860	Not Detected	7400	Not Detected
1,2-Dibromoethane (EDB)	860	Not Detected	6600	Not Detected
Chlorobenzene	860	Not Detected	4000	Not Detected
Ethyl Benzene	860	Not Detected	3800	Not Detected
m,p-Xylene	860	Not Detected	3800	Not Detected
o-Xylene	860	Not Detected	3800	Not Detected
Styrene	860	Not Detected	3700	Not Detected
Bromoform	860	Not Detected	8900	Not Detected
Cumene	860	Not Detected	4200	Not Detected
1,1,2,2-Tetrachloroethane	860	Not Detected	5900	Not Detected
Propylbenzene	860	Not Detected	4200	Not Detected
4-Ethyltoluene	860	Not Detected	4200	Not Detected
1,3,5-Trimethylbenzene	860	Not Detected	4200	Not Detected
1,2,4-Trimethylbenzene	860	Not Detected	4200	Not Detected
1,3-Dichlorobenzene	860	Not Detected	5200	Not Detected
1,4-Dichlorobenzene	860	Not Detected	5200	Not Detected
alpha-Chlorotoluene	860	Not Detected	4500	Not Detected
1,2-Dichlorobenzene	860	Not Detected	5200	Not Detected
1,2,4-Trichlorobenzene	3500	Not Detected	26000	Not Detected
Hexachlorobutadiene	3500	Not Detected	37000	Not Detected
Freon 134a	3500	Not Detected	14000	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	114	70-130
4-Bromofluorobenzene	96	70-130

AIR TOXICS LTD.

Client Sample ID: SG-2

Lab ID#: 0506162-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	52	Not Detected	250	Not Detected
Freon 114	52	Not Detected	360	Not Detected
Chloromethane	210	Not Detected	420	Not Detected
Vinyl Chloride	52	Not Detected	130	Not Detected
1,3-Butadiene	52	Not Detected	110	Not Detected
Bromomethane	52	Not Detected	200	Not Detected
Chloroethane	52	Not Detected	140	Not Detected
Freon 11	52	Not Detected	290	Not Detected
Ethanol	210	Not Detected	390	Not Detected
Freon 113	52	Not Detected	390	Not Detected
1,1-Dichloroethene	52	Not Detected	200	Not Detected
Acetone	210	1100	490	2600
2-Propanol	210	470	510	1100
Carbon Disulfide	52	Not Detected	160	Not Detected
3-Chloropropene	210	Not Detected	640	Not Detected
Methylene Chloride	52	Not Detected	180	Not Detected
Methyl tert-butyl ether	52	Not Detected	180	Not Detected
trans-1,2-Dichloroethene	52	Not Detected	200	Not Detected
Hexane	52	91	180	320
Vinyl Acetate	210	Not Detected	720	Not Detected
1,1-Dichloroethane	52	Not Detected	210	Not Detected
2-Butanone (Methyl Ethyl Ketone)	52	Not Detected	150	Not Detected
cis-1,2-Dichloroethene	52	Not Detected	200	Not Detected
Tetrahydrofuran	52	120	150	360
Chloroform	52	Not Detected	250	Not Detected
1,1,1-Trichloroethane	52	Not Detected	280	Not Detected
Cyclohexane	52	300	180	1000
Carbon Tetrachloride	52	Not Detected	320	Not Detected
2,2,4-Trimethylpentane	52	15000	240	70000
Benzene	52	Not Detected	160	Not Detected
1,2-Dichloroethane	52	Not Detected	210	Not Detected
Heptane	52	Not Detected	210	Not Detected
Trichloroethene	52	Not Detected	280	Not Detected
1,2-Dichloropropane	52	Not Detected	240	Not Detected
1,4-Dioxane	210	Not Detected	740	Not Detected
Bromodichloromethane	52	Not Detected	340	Not Detected
cis-1,3-Dichloropropene	52	Not Detected	230	Not Detected
4-Methyl-2-pentanone	52	Not Detected	210	Not Detected
Toluene	52	Not Detected	190	Not Detected
trans-1,3-Dichloropropene	52	Not Detected	230	Not Detected
1,1,2-Trichloroethane	52	Not Detected	280	Not Detected
Tetrachloroethene	52	Not Detected	350	Not Detected

AIR TOXICS LTD.

Client Sample ID: SG-2

Lab ID#: 0506162-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Hexanone	210	Not Detected	840	Not Detected
Dibromochloromethane	52	Not Detected	440	Not Detected
1,2-Dibromoethane (EDB)	52	Not Detected	400	Not Detected
Chlorobenzene	52	Not Detected	240	Not Detected
Ethyl Benzene	52	Not Detected	220	Not Detected
m,p-Xylene	52	Not Detected	220	Not Detected
o-Xylene	52	Not Detected	220	Not Detected
Styrene	52	Not Detected	220	Not Detected
Bromoform	52	Not Detected	530	Not Detected
Cumene	52	Not Detected	250	Not Detected
1,1,2,2-Tetrachloroethane	52	Not Detected	350	Not Detected
Propylbenzene	52	Not Detected	250	Not Detected
4-Ethyltoluene	52	Not Detected	250	Not Detected
1,3,5-Trimethylbenzene	52	Not Detected	250	Not Detected
1,2,4-Trimethylbenzene	52	Not Detected	250	Not Detected
1,3-Dichlorobenzene	52	Not Detected	310	Not Detected
1,4-Dichlorobenzene	52	Not Detected	310	Not Detected
alpha-Chlorotoluene	52	Not Detected	270	Not Detected
1,2-Dichlorobenzene	52	Not Detected	310	Not Detected
1,2,4-Trichlorobenzene	210	Not Detected	1500	Not Detected
Hexachlorobutadiene	210	Not Detected	2200	Not Detected
Freon 134a	210	Not Detected	860	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	115	70-130
4-Bromofluorobenzene	90	70-130

AIR TOXICS LTD.

Client Sample ID: SG-3

Lab ID#: 0506162-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	10	Not Detected	52	Not Detected
Freon 114	10	Not Detected	73	Not Detected
Chloromethane	42	Not Detected	86	Not Detected
Vinyl Chloride	10	Not Detected	27	Not Detected
1,3-Butadiene	10	43	23	95
Bromomethane	10	Not Detected	40	Not Detected
Chloroethane	10	Not Detected	28	Not Detected
Freon 11	10	Not Detected	59	Not Detected
Ethanol	42	Not Detected	79	Not Detected
Freon 113	10	Not Detected	80	Not Detected
1,1-Dichloroethene	10	Not Detected	41	Not Detected
Acetone	42	350	99	840
2-Propanol	42	Not Detected	100	Not Detected
Carbon Disulfide	10	11	32	34
3-Chloropropene	42	Not Detected	130	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Methyl tert-butyl ether	10	Not Detected	38	Not Detected
trans-1,2-Dichloroethene	10	Not Detected	41	Not Detected
Hexane	10	22	37	78
Vinyl Acetate	42	Not Detected	150	Not Detected
1,1-Dichloroethane	10	Not Detected	42	Not Detected
2-Butanone (Methyl Ethyl Ketone)	10	11	31	33
cis-1,2-Dichloroethene	10	Not Detected	41	Not Detected
Tetrahydrofuran	10	16	31	46
Chloroform	10	Not Detected	51	Not Detected
1,1,1-Trichloroethane	10	Not Detected	57	Not Detected
Cyclohexane	10	210	36	730
Carbon Tetrachloride	10	Not Detected	66	Not Detected
2,2,4-Trimethylpentane	10	2000	49	9200
Benzene	10	20	33	65
1,2-Dichloroethane	10	Not Detected	42	Not Detected
Heptane	10	Not Detected	43	Not Detected
Trichloroethene	10	Not Detected	56	Not Detected
1,2-Dichloropropane	10	Not Detected	48	Not Detected
1,4-Dioxane	42	Not Detected	150	Not Detected
Bromodichloromethane	10	Not Detected	70	Not Detected
cis-1,3-Dichloropropene	10	Not Detected	47	Not Detected
4-Methyl-2-pentanone	10	Not Detected	43	Not Detected
Toluene	10	Not Detected	39	Not Detected
trans-1,3-Dichloropropene	10	Not Detected	47	Not Detected
1,1,2-Trichloroethane	10	Not Detected	57	Not Detected
Tetrachloroethene	10	Not Detected	71	Not Detected

AIR TOXICS LTD.

Client Sample ID: SG-3

Lab ID#: 0506162-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Hexanone	42	Not Detected	170	Not Detected
Dibromochloromethane	10	Not Detected	89	Not Detected
1,2-Dibromoethane (EDB)	10	Not Detected	80	Not Detected
Chlorobenzene	10	Not Detected	48	Not Detected
Ethyl Benzene	10	Not Detected	45	Not Detected
m,p-Xylene	10	Not Detected	45	Not Detected
o-Xylene	10	Not Detected	45	Not Detected
Styrene	10	Not Detected	44	Not Detected
Bromoform	10	Not Detected	110	Not Detected
Cumene	10	Not Detected	51	Not Detected
1,1,2,2-Tetrachloroethane	10	Not Detected	72	Not Detected
Propylbenzene	10	Not Detected	51	Not Detected
4-Ethyltoluene	10	Not Detected	51	Not Detected
1,3,5-Trimethylbenzene	10	Not Detected	51	Not Detected
1,2,4-Trimethylbenzene	10	Not Detected	51	Not Detected
1,3-Dichlorobenzene	10	Not Detected	63	Not Detected
1,4-Dichlorobenzene	10	Not Detected	63	Not Detected
alpha-Chlorotoluene	10	Not Detected	54	Not Detected
1,2-Dichlorobenzene	10	Not Detected	63	Not Detected
1,2,4-Trichlorobenzene	42	Not Detected	310	Not Detected
Hexachlorobutadiene	42	Not Detected	440	Not Detected
Freon 134a	42	Not Detected	170	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	111	70-130
4-Bromofluorobenzene	90	70-130

AIR TOXICS LTD.

Client Sample ID: SG-4

Lab ID#: 0506162-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	83	Not Detected	410	Not Detected
Freon 114	83	Not Detected U J	580	Not Detected U J
Chloromethane	330	Not Detected	680	Not Detected
Vinyl Chloride	83	Not Detected	210	Not Detected
1,3-Butadiene	83	Not Detected	180	Not Detected
Bromomethane	83	Not Detected	320	Not Detected
Chloroethane	83	Not Detected	220	Not Detected
Freon 11	83	Not Detected	470	Not Detected
Ethanol	330	Not Detected	620	Not Detected
Freon 113	83	Not Detected	640	Not Detected
1,1-Dichloroethene	83	Not Detected	330	Not Detected
Acetone	330	1100	790	2600
2-Propanol	330	Not Detected	820	Not Detected
Carbon Disulfide	83	Not Detected	260	Not Detected
3-Chloropropene	330	Not Detected	1000	Not Detected
Methylene Chloride	83	Not Detected	290	Not Detected
Methyl tert-butyl ether	83	Not Detected	300	Not Detected
trans-1,2-Dichloroethene	83	Not Detected	330	Not Detected
Hexane	83	380	290	1300
Vinyl Acetate	330	Not Detected	1200	Not Detected
1,1-Dichloroethane	83	Not Detected	340	Not Detected
2-Butanone (Methyl Ethyl Ketone)	83	Not Detected	240	Not Detected
cis-1,2-Dichloroethene	83	Not Detected	330	Not Detected
Tetrahydrofuran	83	Not Detected	240	Not Detected
Chloroform	83	Not Detected	400	Not Detected
1,1,1-Trichloroethane	83	Not Detected	450	Not Detected
Cyclohexane	83	2800	280	9800
Carbon Tetrachloride	83	Not Detected	520	Not Detected
2,2,4-Trimethylpentane	83	25000	390	120000
Benzene	83	540	260	1700
1,2-Dichloroethane	83	Not Detected	340	Not Detected
Heptane	83	Not Detected	340	Not Detected
Trichloroethene	83	Not Detected	450	Not Detected
1,2-Dichloropropane	83	Not Detected	380	Not Detected
1,4-Dioxane	330	Not Detected	1200	Not Detected
Bromodichloromethane	83	Not Detected	560	Not Detected
cis-1,3-Dichloropropene	83	Not Detected	380	Not Detected
4-Methyl-2-pentanone	83	Not Detected	340	Not Detected
Toluene	83	Not Detected	310	Not Detected
trans-1,3-Dichloropropene	83	Not Detected	380	Not Detected
1,1,2-Trichloroethane	83	Not Detected	450	Not Detected
Tetrachloroethene	83	Not Detected	560	Not Detected

AIR TOXICS LTD.

Client Sample ID: SG-4

Lab ID#: 0506162-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Hexanone	330	Not Detected	1400	Not Detected
Dibromochloromethane	83	Not Detected	710	Not Detected
1,2-Dibromoethane (EDB)	83	Not Detected	640	Not Detected
Chlorobenzene	83	Not Detected	380	Not Detected
Ethyl Benzene	83	Not Detected	360	Not Detected
m,p-Xylene	83	Not Detected	360	Not Detected
o-Xylene	83	Not Detected	360	Not Detected
Styrene	83	Not Detected	350	Not Detected
Bromoform	83	Not Detected	860	Not Detected
Cumene	83	Not Detected	410	Not Detected
1,1,2,2-Tetrachloroethane	83	Not Detected	570	Not Detected
Propylbenzene	83	Not Detected	410	Not Detected
4-Ethyltoluene	83	Not Detected	410	Not Detected
1,3,5-Trimethylbenzene	83	Not Detected	410	Not Detected
1,2,4-Trimethylbenzene	83	Not Detected	410	Not Detected
1,3-Dichlorobenzene	83	Not Detected	500	Not Detected
1,4-Dichlorobenzene	83	Not Detected	500	Not Detected
alpha-Chlorotoluene	83	Not Detected	430	Not Detected
1,2-Dichlorobenzene	83	Not Detected	500	Not Detected
1,2,4-Trichlorobenzene	330	Not Detected	2500	Not Detected
Hexachlorobutadiene	330	Not Detected	3500	Not Detected
Freon 134a	330	Not Detected	1400	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	117	70-130
4-Bromofluorobenzene	87	70-130

AIR TOXICS LTD.

Client Sample ID: SG-5

Lab ID#: 0506162-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	150	Not Detected	740	Not Detected
Freon 114	150	Not Detected U J	1000	Not Detected U J
Chloromethane	600	Not Detected	1200	Not Detected
Vinyl Chloride	150	Not Detected	380	Not Detected
1,3-Butadiene	150	Not Detected	330	Not Detected
Bromomethane	150	Not Detected	580	Not Detected
Chloroethane	150	Not Detected	390	Not Detected
Freon 11	150	Not Detected	840	Not Detected
Ethanol	600	Not Detected	1100	Not Detected
Freon 113	150	Not Detected	1100	Not Detected
1,1-Dichloroethene	150	Not Detected	590	Not Detected
Acetone	600	Not Detected	1400	Not Detected
2-Propanol	600	Not Detected	1500	Not Detected
Carbon Disulfide	150	Not Detected	460	Not Detected
3-Chloropropene	600	Not Detected	1900	Not Detected
Methylene Chloride	150	Not Detected	520	Not Detected
Methyl tert-butyl ether	150	Not Detected	540	Not Detected
trans-1,2-Dichloroethene	150	Not Detected	590	Not Detected
Hexane	150	5500	530	20000
Vinyl Acetate	600	Not Detected	2100	Not Detected
1,1-Dichloroethane	150	Not Detected	600	Not Detected
2-Butanone (Methyl Ethyl Ketone)	150	Not Detected	440	Not Detected
cis-1,2-Dichloroethene	150	Not Detected	590	Not Detected
Tetrahydrofuran	150	Not Detected	440	Not Detected
Chloroform	150	Not Detected	730	Not Detected
1,1,1-Trichloroethane	150	Not Detected	820	Not Detected
Cyclohexane	150	2400	510	8100
Carbon Tetrachloride	150	Not Detected	940	Not Detected
2,2,4-Trimethylpentane	150	6000	700	28000
Benzene	150	44000	480	140000
1,2-Dichloroethane	150	Not Detected	600	Not Detected
Heptane	150	1200	610	5000
Trichloroethene	150	Not Detected	800	Not Detected
1,2-Dichloropropane	150	Not Detected	690	Not Detected
1,4-Dioxane	600	Not Detected	2200	Not Detected
Bromodichloromethane	150	Not Detected	1000	Not Detected
cis-1,3-Dichloropropene	150	Not Detected	680	Not Detected
4-Methyl-2-pentanone	150	Not Detected	610	Not Detected
Toluene	150	1300	560	4800
trans-1,3-Dichloropropene	150	Not Detected	680	Not Detected
1,1,2-Trichloroethane	150	Not Detected	820	Not Detected
Tetrachloroethene	150	Not Detected	1000	Not Detected

AIR TOXICS LTD.

Client Sample ID: SG-5

Lab ID#: 0506162-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Hexanone	600	Not Detected	2400	Not Detected
Dibromochloromethane	150	Not Detected	1300	Not Detected
1,2-Dibromoethane (EDB)	150	Not Detected	1100	Not Detected
Chlorobenzene	150	Not Detected	690	Not Detected
Ethyl Benzene	150	430	650	1900
m,p-Xylene	150	350	650	1500
o-Xylene	150	Not Detected	650	Not Detected
Styrene	150	Not Detected	640	Not Detected
Bromoform	150	Not Detected	1500	Not Detected
Cumene	150	Not Detected	730	Not Detected
1,1,2,2-Tetrachloroethane	150	Not Detected	1000	Not Detected
Propylbenzene	150	Not Detected	730	Not Detected
4-Ethyltoluene	150	Not Detected	730	Not Detected
1,3,5-Trimethylbenzene	150	Not Detected	730	Not Detected
1,2,4-Trimethylbenzene	150	Not Detected	730	Not Detected
1,3-Dichlorobenzene	150	Not Detected	900	Not Detected
1,4-Dichlorobenzene	150	Not Detected	900	Not Detected
alpha-Chlorotoluene	150	Not Detected	770	Not Detected
1,2-Dichlorobenzene	150	Not Detected	900	Not Detected
1,2,4-Trichlorobenzene	600	Not Detected	4400	Not Detected
Hexachlorobutadiene	600	Not Detected	6400	Not Detected
Freon 134a	600	Not Detected	2500	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 1 Liter Silonite Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	88	70-130

AIR TOXICS LTD.

Client Sample ID: SG-9

Lab ID#: 0506162-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	1.0	Not Detected	5.1	Not Detected
Freon 114	1.0	Not Detected U J	7.2	Not Detected U J
Chloromethane	4.1	Not Detected	8.5	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
Bromomethane	1.0	Not Detected	4.0	Not Detected
Chloroethane	1.0	Not Detected	2.7	Not Detected
Freon 11	1.0	Not Detected	5.8	Not Detected
Ethanol	4.1	53	7.7	100
Freon 113	1.0	Not Detected	7.8	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Acetone	4.1	360	9.7	850
2-Propanol	4.1	4.5	10	11
Carbon Disulfide	1.0	1.5	3.2	4.7
3-Chloropropene	4.1	Not Detected	13	Not Detected
Methylene Chloride	1.0	Not Detected	3.6	Not Detected
Methyl tert-butyl ether	1.0	Not Detected	3.7	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Hexane	1.0	6.2	3.6	22
Vinyl Acetate	4.1	Not Detected	14	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.0	14	3.0	42
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Chloroform	1.0	Not Detected	5.0	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Cyclohexane	1.0	3.3	3.5	11
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
2,2,4-Trimethylpentane	1.0	23	4.8	110
Benzene	1.0	2.9	3.3	9.2
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
Heptane	1.0	1.7	4.2	7.1
Trichloroethene	1.0	Not Detected	5.5	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.7	Not Detected
1,4-Dioxane	4.1	Not Detected	15	Not Detected
Bromodichloromethane	1.0	Not Detected	6.9	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.2	Not Detected
Toluene	1.0	5.5	3.9	21
trans-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Tetrachloroethene	1.0	Not Detected	7.0	Not Detected

AIR TOXICS LTD.

Client Sample ID: SG-9

Lab ID#: 0506162-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Hexanone	4.1	Not Detected	17	Not Detected
Dibromochloromethane	1.0	Not Detected	8.7	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.9	Not Detected
Chlorobenzene	1.0	Not Detected	4.7	Not Detected
Ethyl Benzene	1.0	Not Detected	4.4	Not Detected
m,p-Xylene	1.0	2.7	4.4	12
o-Xylene	1.0	1.2	4.4	5.0
Styrene	1.0	Not Detected	4.4	Not Detected
Bromoform	1.0	Not Detected	10	Not Detected
Cumene	1.0	Not Detected	5.0	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.0	Not Detected
Propylbenzene	1.0	Not Detected	5.0	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.0	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,2,4-Trimethylbenzene	1.0	1.1	5.0	5.5
1,3-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.3	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,2,4-Trichlorobenzene	4.1	Not Detected	30	Not Detected
Hexachlorobutadiene	4.1	Not Detected	44	Not Detected
Freon 134a	4.1	Not Detected	17	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	89	70-130

AIR TOXICS LTD.

Client Sample ID: SG-10

Lab ID#: 0506162-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	1.0	Not Detected	5.0	Not Detected
Freon 114	1.0	Not Detected U J	7.1	Not Detected U J
Chloromethane	4.0	Not Detected	8.3	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
1,3-Butadiene	1.0	28	2.2	61
Bromomethane	1.0	Not Detected	3.9	Not Detected
Chloroethane	1.0	Not Detected	2.7	Not Detected
Freon 11	1.0	Not Detected	5.7	Not Detected
Ethanol	4.0	9.9	7.6	19
Freon 113	1.0	Not Detected	7.7	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.0	Not Detected
Acetone	4.0	100	9.6	250
2-Propanol	4.0	Not Detected	9.9	Not Detected
Carbon Disulfide	1.0	3.6	3.1	11
3-Chloropropene	4.0	Not Detected	13	Not Detected
Methylene Chloride	1.0	Not Detected	3.5	Not Detected
Methyl tert-butyl ether	1.0	Not Detected	3.6	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected
Hexane	1.0	6.6	3.6	23
Vinyl Acetate	4.0	Not Detected	14	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.0	4.6	3.0	13
cis-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Chloroform	1.0	Not Detected	4.9	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.5	Not Detected
Cyclohexane	1.0	5.4	3.5	18
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
2,2,4-Trimethylpentane	1.0	51	4.7	240
Benzene	1.0	6.3	3.2	20
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
Heptane	1.0	1.0	4.1	4.3
Trichloroethene	1.0	Not Detected	5.4	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.7	Not Detected
1,4-Dioxane	4.0	Not Detected	14	Not Detected
Bromodichloromethane	1.0	Not Detected	6.8	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.1	Not Detected
Toluene	1.0	2.8	3.8	10
trans-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.5	Not Detected
Tetrachloroethene	1.0	Not Detected	6.8	Not Detected

AIR TOXICS LTD.

Client Sample ID: SG-10

Lab ID#: 0506162-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Hexanone	4.0	Not Detected	16	Not Detected
Dibromochloromethane	1.0	Not Detected	8.6	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.8	Not Detected
Chlorobenzene	1.0	Not Detected	4.6	Not Detected
Ethyl Benzene	1.0	Not Detected	4.4	Not Detected
m,p-Xylene	1.0	1.3	4.4	5.7
o-Xylene	1.0	Not Detected	4.4	Not Detected
Styrene	1.0	Not Detected	4.3	Not Detected
Bromoform	1.0	Not Detected	10	Not Detected
Cumene	1.0	Not Detected	5.0	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	6.9	Not Detected
Propylbenzene	1.0	Not Detected	5.0	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.0	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.2	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,2,4-Trichlorobenzene	4.0	Not Detected	30	Not Detected
Hexachlorobutadiene	4.0	Not Detected	43	Not Detected
Freon 134a	4.0	Not Detected	17	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	92	70-130

AIR TOXICS LTD.

Client Sample ID: SG-11

Lab ID#: 0506162-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	1.0	Not Detected	5.2	Not Detected
Freon 114	1.0	Not Detected U J	7.3	Not Detected U J
Chloromethane	4.2	Not Detected	8.6	Not Detected
Vinyl Chloride	1.0	Not Detected	2.7	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
Bromomethane	1.0	Not Detected	4.0	Not Detected
Chloroethane	1.0	Not Detected	2.8	Not Detected
Freon 11	1.0	Not Detected	5.9	Not Detected
Ethanol	4.2	57	7.9	110
Freon 113	1.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Acetone	4.2	350	9.9	820
2-Propanol	4.2	19	10	47
Carbon Disulfide	1.0	1.6	3.2	5.0
3-Chloropropene	4.2	Not Detected	13	Not Detected
Methylene Chloride	1.0	Not Detected	3.6	Not Detected
Methyl tert-butyl ether	1.0	Not Detected	3.8	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Hexane	1.0	18	3.7	65
Vinyl Acetate	4.2	Not Detected	15	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.0	12	3.1	35
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.1	Not Detected
Chloroform	1.0	Not Detected	5.1	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.7	Not Detected
Cyclohexane	1.0	8.9	3.6	30
Carbon Tetrachloride	1.0	Not Detected	6.6	Not Detected
2,2,4-Trimethylpentane	1.0	230	4.9	1100
Benzene	1.0	11	3.3	34
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
Heptane	1.0	6.8	4.3	28
Trichloroethene	1.0	Not Detected	5.6	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,4-Dioxane	4.2	Not Detected	15	Not Detected
Bromodichloromethane	1.0	Not Detected	7.0	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.3	Not Detected
Toluene	1.0	14	3.9	54
trans-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.7	Not Detected
Tetrachloroethene	1.0	3.5	7.1	24

AIR TOXICS LTD.

Client Sample ID: SG-11

Lab ID#: 0506162-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Hexanone	4.2	Not Detected	17	Not Detected
Dibromochloromethane	1.0	Not Detected	8.9	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	8.0	Not Detected
Chlorobenzene	1.0	Not Detected	4.8	Not Detected
Ethyl Benzene	1.0	4.4	4.5	19
m,p-Xylene	1.0	8.7	4.5	38
o-Xylene	1.0	3.5	4.5	15
Styrene	1.0	Not Detected	4.4	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Cumene	1.0	Not Detected	5.1	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.2	Not Detected
Propylbenzene	1.0	1.4	5.1	7.0
4-Ethyltoluene	1.0	1.9	5.1	9.4
1,3,5-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,2,4-Trimethylbenzene	1.0	1.8	5.1	8.8
1,3-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.4	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,2,4-Trichlorobenzene	4.2	Not Detected	31	Not Detected
Hexachlorobutadiene	4.2	Not Detected	44	Not Detected
Freon 134a	4.2	11	17	44

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	92	70-130

AIR TOXICS LTD.

Client Sample ID: SG-12

Lab ID#: 0506162-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Chloromethane	4.7	Not Detected	9.6	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Bromomethane	1.2	Not Detected	4.5	Not Detected
Chloroethane	1.2	Not Detected	3.1	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
Ethanol	4.7	18	8.8	34
Freon 113	1.2	Not Detected	8.9	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	4.7	140	11	340
2-Propanol	4.7	18	11	45
Carbon Disulfide	1.2	8.6	3.6	27
3-Chloropropene	4.7	Not Detected	14	Not Detected
Methylene Chloride	1.2	Not Detected	4.0	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.2	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	34	4.1	120
Vinyl Acetate	4.7	Not Detected	16	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.2	7.0	3.4	21
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.4	Not Detected
Chloroform	1.2	6.0	5.7	29
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Cyclohexane	1.2	26	4.0	90
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
2,2,4-Trimethylpentane	1.2	230	5.4	1100
Benzene	1.2	20	3.7	63
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Heptane	1.2	8.6	4.8	35
Trichloroethene	1.2	2.2	6.3	12
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	14	4.4	54
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	32	7.9	220

AIR TOXICS LTD.

Client Sample ID: SG-12

Lab ID#: 0506162-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Hexanone	4.7	Not Detected	19	Not Detected
Dibromochloromethane	1.2	Not Detected	9.9	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.0	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	4.4	5.0	19
m,p-Xylene	1.2	7.8	5.0	34
o-Xylene	1.2	2.8	5.0	12
Styrene	1.2	Not Detected	5.0	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.7	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
Propylbenzene	1.2	Not Detected	5.7	Not Detected
4-Ethyltoluene	1.2	1.4	5.7	6.7
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	1.4	5.7	6.9
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	34	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
Freon 134a	4.7	7.2	19	30

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	108	70-130
4-Bromofluorobenzene	90	70-130

AIR TOXICS LTD.

Client Sample ID: SG-13

Lab ID#: 0506162-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	1.0	Not Detected	5.1	Not Detected
Freon 114	1.0	Not Detected	7.2	Not Detected
Chloromethane	4.1	Not Detected	8.5	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
1,3-Butadiene	1.0	22	2.3	48
Bromomethane	1.0	Not Detected	4.0	Not Detected
Chloroethane	1.0	Not Detected	2.7	Not Detected
Freon 11	1.0	Not Detected	5.8	Not Detected
Ethanol	4.1	69	7.7	130
Freon 113	1.0	Not Detected	7.8	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Acetone	4.1	180	9.7	430
2-Propanol	4.1	14	10	34
Carbon Disulfide	1.0	2.8	3.2	8.8
3-Chloropropene	4.1	Not Detected	13	Not Detected
Methylene Chloride	1.0	Not Detected	3.6	Not Detected
Methyl tert-butyl ether	1.0	Not Detected	3.7	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Hexane	1.0	14	3.6	49
Vinyl Acetate	4.1	Not Detected	14	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.0	15	3.0	45
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.0	Not Detected
Chloroform	1.0	Not Detected	5.0	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Cyclohexane	1.0	11	3.5	39
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
2,2,4-Trimethylpentane	1.0	88	4.8	410
Benzene	1.0	12	3.3	38
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
Heptane	1.0	4.1	4.2	17
Trichloroethene	1.0	Not Detected	5.5	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.7	Not Detected
1,4-Dioxane	4.1	Not Detected	15	Not Detected
Bromodichloromethane	1.0	Not Detected	6.9	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.2	Not Detected
Toluene	1.0	13	3.9	49
trans-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Tetrachloroethene	1.0	Not Detected	7.0	Not Detected

AIR TOXICS LTD.

Client Sample ID: SG-13

Lab ID#: 0506162-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Hexanone	4.1	Not Detected	17	Not Detected
Dibromochloromethane	1.0	Not Detected	8.7	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.9	Not Detected
Chlorobenzene	1.0	Not Detected	4.7	Not Detected
Ethyl Benzene	1.0	13	4.4	55
m,p-Xylene	1.0	16	4.4	70
o-Xylene	1.0	5.2	4.4	22
Styrene	1.0	Not Detected	4.4	Not Detected
Bromoform	1.0	Not Detected	10	Not Detected
Cumene	1.0	Not Detected	5.0	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.0	Not Detected
Propylbenzene	1.0	1.4	5.0	6.8
4-Ethyltoluene	1.0	2.0	5.0	10
1,3,5-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,2,4-Trimethylbenzene	1.0	1.5	5.0	7.6
1,3-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.3	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,2,4-Trichlorobenzene	4.1	Not Detected	30	Not Detected
Hexachlorobutadiene	4.1	Not Detected	44	Not Detected
Freon 134a	4.1	Not Detected	17	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	91	70-130

AIR TOXICS LTD.

Client Sample ID: SG-14

Lab ID#: 0506162-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	1.0	Not Detected	5.2	Not Detected
Freon 114	1.0	Not Detected	7.3	Not Detected
Chloromethane	4.2	Not Detected	8.6	Not Detected
Vinyl Chloride	1.0	Not Detected	2.7	Not Detected
1,3-Butadiene	1.0	38	2.3	85
Bromomethane	1.0	Not Detected	4.0	Not Detected
Chloroethane	1.0	Not Detected	2.8	Not Detected
Freon 11	1.0	Not Detected	5.9	Not Detected
Ethanol	4.2	23	7.9	43
Freon 113	1.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Acetone	4.2	220	9.9	510
2-Propanol	4.2	Not Detected	10	Not Detected
Carbon Disulfide	1.0	3.5	3.2	11
3-Chloropropene	4.2	Not Detected	13	Not Detected
Methylene Chloride	1.0	Not Detected	3.6	Not Detected
Methyl tert-butyl ether	1.0	Not Detected	3.8	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Hexane	1.0	10	3.7	35
Vinyl Acetate	4.2	Not Detected	15	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.0	11	3.1	33
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Tetrahydrofuran	1.0	Not Detected	3.1	Not Detected
Chloroform	1.0	Not Detected	5.1	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.7	Not Detected
Cyclohexane	1.0	4.6	3.6	16
Carbon Tetrachloride	1.0	Not Detected	6.6	Not Detected
2,2,4-Trimethylpentane	1.0	33	4.9	150
Benzene	1.0	9.4	3.3	30
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
Heptane	1.0	2.2	4.3	8.9
Trichloroethene	1.0	Not Detected	5.6	Not Detected
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,4-Dioxane	4.2	Not Detected	15	Not Detected
Bromodichloromethane	1.0	Not Detected	7.0	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.3	Not Detected
Toluene	1.0	6.2	3.9	23
trans-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.7	Not Detected
Tetrachloroethene	1.0	Not Detected	7.1	Not Detected

AIR TOXICS LTD.

Client Sample ID: SG-14

Lab ID#: 0506162-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Hexanone	4.2	Not Detected	17	Not Detected
Dibromochloromethane	1.0	Not Detected	8.9	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	8.0	Not Detected
Chlorobenzene	1.0	Not Detected	4.8	Not Detected
Ethyl Benzene	1.0	Not Detected	4.5	Not Detected
m,p-Xylene	1.0	2.8	4.5	12
o-Xylene	1.0	1.2	4.5	5.2
Styrene	1.0	Not Detected	4.4	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Cumene	1.0	Not Detected	5.1	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.2	Not Detected
Propylbenzene	1.0	Not Detected	5.1	Not Detected
4-Ethyltoluene	1.0	1.1	5.1	5.2
1,3,5-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,2,4-Trimethylbenzene	1.0	1.3	5.1	6.3
1,3-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.4	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.3	Not Detected
1,2,4-Trichlorobenzene	4.2	Not Detected	31	Not Detected
Hexachlorobutadiene	4.2	Not Detected	44	Not Detected
Freon 134a	4.2	7.0	17	29

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	90	70-130

AIR TOXICS LTD.

Client Sample ID: SG-15

Lab ID#: 0506162-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	1.1	Not Detected	5.3	Not Detected
Freon 114	1.1	Not Detected	7.4	Not Detected
Chloromethane	4.3	Not Detected	8.8	Not Detected
Vinyl Chloride	1.1	Not Detected	2.7	Not Detected
1,3-Butadiene	1.1	Not Detected	2.4	Not Detected
Bromomethane	1.1	Not Detected	4.1	Not Detected
Chloroethane	1.1	Not Detected	2.8	Not Detected
Freon 11	1.1	Not Detected	6.0	Not Detected
Ethanol	4.3	Not Detected	8.0	Not Detected
Freon 113	1.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.2	Not Detected
Acetone	4.3	15	10	36
2-Propanol	4.3	Not Detected	10	Not Detected
Carbon Disulfide	1.1	Not Detected	3.3	Not Detected
3-Chloropropene	4.3	Not Detected	13	Not Detected
Methylene Chloride	1.1	Not Detected	3.7	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	3.8	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
Hexane	1.1	Not Detected	3.8	Not Detected
Vinyl Acetate	4.3	Not Detected	15	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.1	1.4	3.1	4.2
cis-1,2-Dichloroethene	1.1	Not Detected	4.2	Not Detected
Tetrahydrofuran	1.1	Not Detected	3.1	Not Detected
Chloroform	1.1	Not Detected	5.2	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	5.8	Not Detected
Cyclohexane	1.1	Not Detected	3.7	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.7	Not Detected
2,2,4-Trimethylpentane	1.1	4.7	5.0	22
Benzene	1.1	Not Detected	3.4	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.3	Not Detected
Heptane	1.1	Not Detected	4.4	Not Detected
Trichloroethene	1.1	Not Detected	5.7	Not Detected
1,2-Dichloropropane	1.1	Not Detected	4.9	Not Detected
1,4-Dioxane	4.3	Not Detected	15	Not Detected
Bromodichloromethane	1.1	Not Detected	7.1	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.4	Not Detected
Toluene	1.1	Not Detected	4.0	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	4.8	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.8	Not Detected
Tetrachloroethene	1.1	Not Detected	7.2	Not Detected

AIR TOXICS LTD.

Client Sample ID: SG-15

Lab ID#: 0506162-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Hexanone	4.3	Not Detected	17	Not Detected
Dibromochloromethane	1.1	Not Detected	9.1	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.2	Not Detected
Chlorobenzene	1.1	Not Detected	4.9	Not Detected
Ethyl Benzene	1.1	Not Detected	4.6	Not Detected
m,p-Xylene	1.1	Not Detected	4.6	Not Detected
o-Xylene	1.1	Not Detected	4.6	Not Detected
Styrene	1.1	Not Detected	4.5	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
Cumene	1.1	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.3	Not Detected
Propylbenzene	1.1	Not Detected	5.2	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.2	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.2	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.2	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.5	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.4	Not Detected
1,2,4-Trichlorobenzene	4.3	Not Detected	32	Not Detected
Hexachlorobutadiene	4.3	Not Detected	45	Not Detected
Freon 134a	4.3	Not Detected	18	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	88	70-130

AIR TOXICS LTD.

Client Sample ID: Lab Blank

Lab ID#: 0506162-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected

AIR TOXICS LTD.

Client Sample ID: Lab Blank

Lab ID#: 0506162-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Freon 134a	2.0	Not Detected	8.3	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	90	70-130

AIR TOXICS LTD.

Client Sample ID: Lab Blank

Lab ID#: 0506162-13B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (pptv)	Amount (pptv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected

AIR TOXICS LTD.

Client Sample ID: Lab Blank

Lab ID#: 0506162-13B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Freon 134a	2.0	Not Detected	8.3	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	90	70-130

AIR TOXICS LTD.

Client Sample ID: CCV

Lab ID#: 0506162-14A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	%Recovery
Freon 12	76
Freon 114	68 Q
Chloromethane	91
Vinyl Chloride	76
1,3-Butadiene	92
Bromomethane	80
Chloroethane	72
Freon 11	87
Ethanol	81
Freon 113	107
1,1-Dichloroethene	89
Acetone	87
2-Propanol	90
Carbon Disulfide	90
3-Chloropropene	89
Methylene Chloride	92
Methyl tert-butyl ether	77
trans-1,2-Dichloroethene	74
Hexane	80
Vinyl Acetate	80
1,1-Dichloroethane	80
2-Butanone (Methyl Ethyl Ketone)	84
cis-1,2-Dichloroethene	85
Tetrahydrofuran	80
Chloroform	77
1,1,1-Trichloroethane	83
Cyclohexane	86
Carbon Tetrachloride	94
2,2,4-Trimethylpentane	86
Benzene	75
1,2-Dichloroethane	84
Heptane	81
Trichloroethene	81
1,2-Dichloropropane	89
1,4-Dioxane	93
Bromodichloromethane	89
cis-1,3-Dichloropropene	88
4-Methyl-2-pentanone	94
Toluene	83
trans-1,3-Dichloropropene	88
1,1,2-Trichloroethane	83
Tetrachloroethene	82

AIR TOXICS LTD.

Client Sample ID: CCV

Lab ID#: 0506162-14A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	%Recovery
2-Hexanone	97
Dibromochloromethane	99
1,2-Dibromoethane (EDB)	84
Chlorobenzene	82
Ethyl Benzene	82
m,p-Xylene	80
o-Xylene	82
Styrene	80
Bromoform	106
Cumene	80
1,1,2,2-Tetrachloroethane	84
Propylbenzene	80
4-Ethyltoluene	75
1,3,5-Trimethylbenzene	82
1,2,4-Trimethylbenzene	74
1,3-Dichlorobenzene	78
1,4-Dichlorobenzene	76
alpha-Chlorotoluene	83
1,2-Dichlorobenzene	74
1,2,4-Trichlorobenzene	72
Hexachlorobutadiene	77
Freon 134a	118

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	98	70-130

AIR TOXICS LTD.

Client Sample ID: CCV

Lab ID#: 0506162-14B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	%Recovery
Freon 12	78
Freon 114	75
Chloromethane	94
Vinyl Chloride	76
1,3-Butadiene	89
Bromomethane	79
Chloroethane	71
Freon 11	90
Ethanol	78
Freon 113	111
1,1-Dichloroethene	88
Acetone	83
2-Propanol	86
Carbon Disulfide	88
3-Chloropropene	88
Methylene Chloride	90
Methyl tert-butyl ether	76
trans-1,2-Dichloroethene	73
Hexane	76
Vinyl Acetate	78
1,1-Dichloroethane	79
2-Butanone (Methyl Ethyl Ketone)	81
cis-1,2-Dichloroethene	83
Tetrahydrofuran	77
Chloroform	76
1,1,1-Trichloroethane	83
Cyclohexane	85
Carbon Tetrachloride	95
2,2,4-Trimethylpentane	83
Benzene	74
1,2-Dichloroethane	84
Heptane	79
Trichloroethene	82
1,2-Dichloropropane	87
1,4-Dioxane	92
Bromodichloromethane	89
cis-1,3-Dichloropropene	87
4-Methyl-2-pentanone	91
Toluene	81
trans-1,3-Dichloropropene	86
1,1,2-Trichloroethane	82
Tetrachloroethene	83

AIR TOXICS LTD.

Client Sample ID: CCV

Lab ID#: 0506162-14B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	%Recovery
2-Hexanone	96
Dibromochloromethane	98
1,2-Dibromoethane (EDB)	83
Chlorobenzene	81
Ethyl Benzene	82
m,p-Xylene	78
o-Xylene	81
Styrene	78
Bromoform	106
Cumene	78
1,1,2,2-Tetrachloroethane	83
Propylbenzene	79
4-Ethyltoluene	74
1,3,5-Trimethylbenzene	80
1,2,4-Trimethylbenzene	73
1,3-Dichlorobenzene	76
1,4-Dichlorobenzene	75
alpha-Chlorotoluene	82
1,2-Dichlorobenzene	73
1,2,4-Trichlorobenzene	70
Hexachlorobutadiene	77
Freon 134a	121

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	97	70-130

AIR TOXICS LTD.

Client Sample ID: LCS

Lab ID#: 0506162-15A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	%Recovery
Freon 12	87
Freon 114	80
Chloromethane	88
Vinyl Chloride	84
1,3-Butadiene	102
Bromomethane	89
Chloroethane	73
Freon 11	90
Ethanol	65
Freon 113	104
1,1-Dichloroethene	100
Acetone	101
2-Propanol	94
Carbon Disulfide	106
3-Chloropropene	96
Methylene Chloride	98
Methyl tert-butyl ether	90
trans-1,2-Dichloroethene	109
Hexane	99
Vinyl Acetate	84
1,1-Dichloroethane	92
2-Butanone (Methyl Ethyl Ketone)	88
cis-1,2-Dichloroethene	110
Tetrahydrofuran	88
Chloroform	86
1,1,1-Trichloroethane	84
Cyclohexane	106
Carbon Tetrachloride	101
2,2,4-Trimethylpentane	89
Benzene	79
1,2-Dichloroethane	87
Heptane	95
Trichloroethene	86
1,2-Dichloropropane	86
1,4-Dioxane	76
Bromodichloromethane	107
cis-1,3-Dichloropropene	98
4-Methyl-2-pentanone	77
Toluene	94
trans-1,3-Dichloropropene	106
1,1,2-Trichloroethane	92
Tetrachloroethene	92

AIR TOXICS LTD.

Client Sample ID: LCS

Lab ID#: 0506162-15A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	%Recovery
2-Hexanone	63
Dibromochloromethane	123
1,2-Dibromoethane (EDB)	92
Chlorobenzene	94
Ethyl Benzene	94
m,p-Xylene	92
o-Xylene	94
Styrene	125
Bromoform	139
Cumene	84
1,1,2,2-Tetrachloroethane	101
Propylbenzene	127
4-Ethyltoluene	92
1,3,5-Trimethylbenzene	94
1,2,4-Trimethylbenzene	101
1,3-Dichlorobenzene	94
1,4-Dichlorobenzene	95
alpha-Chlorotoluene	89
1,2-Dichlorobenzene	95
1,2,4-Trichlorobenzene	94
Hexachlorobutadiene	98
Freon 134a	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	100	70-130

AIR TOXICS LTD.

Client Sample ID: LCS

Lab ID#: 0506162-15B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	%Recovery
Freon 12	80
Freon 114	75
Chloromethane	100
Vinyl Chloride	77
1,3-Butadiene	122
Bromomethane	83
Chloroethane	71
Freon 11	93
Ethanol	68
Freon 113	119
1,1-Dichloroethene	88
Acetone	89
2-Propanol	92
Carbon Disulfide	96
3-Chloropropene	92
Methylene Chloride	91
Methyl tert-butyl ether	80
trans-1,2-Dichloroethene	89
Hexane	82
Vinyl Acetate	69
1,1-Dichloroethane	75
2-Butanone (Methyl Ethyl Ketone)	83
cis-1,2-Dichloroethene	92
Tetrahydrofuran	79
Chloroform	72
1,1,1-Trichloroethane	71
Cyclohexane	88
Carbon Tetrachloride	86
2,2,4-Trimethylpentane	91
Benzene	66 Q
1,2-Dichloroethane	74
Heptane	79
Trichloroethene	72
1,2-Dichloropropane	72
1,4-Dioxane	76
Bromodichloromethane	89
cis-1,3-Dichloropropene	81
4-Methyl-2-pentanone	77
Toluene	78
trans-1,3-Dichloropropene	90
1,1,2-Trichloroethane	77
Tetrachloroethene	79

AIR TOXICS LTD.

Client Sample ID: LCS

Lab ID#: 0506162-15B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	%Recovery
2-Hexanone	64
Dibromochloromethane	104
1,2-Dibromoethane (EDB)	79
Chlorobenzene	79
Ethyl Benzene	79
m,p-Xylene	78
o-Xylene	79
Styrene	102
Bromoform	119
Cumene	83
1,1,2,2-Tetrachloroethane	88
Propylbenzene	125
4-Ethyltoluene	71
1,3,5-Trimethylbenzene	81
1,2,4-Trimethylbenzene	80
1,3-Dichlorobenzene	78
1,4-Dichlorobenzene	79
alpha-Chlorotoluene	79
1,2-Dichlorobenzene	79
1,2,4-Trichlorobenzene	86
Hexachlorobutadiene	89
Freon 134a	Not Spiked

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	98	70-130

PHYSICAL PROPERTIES DATA

PROJECT NAME: MacArthur BART
PROJECT NO: 400834018

	METHODOLOGY:	ASTM D2216	API RP40		API RP40		API RP40	WALKLEY-BLACK	API RP40
									25.0 PSI CONFINING STRESS
SAMPLE ID.	DEPTH, ft.	SAMPLE ORIENT. (1)	MOISTURE CONTENT (% wt)	DENSITY BULK (g/cc)	DENSITY GRAIN (g/cc)	POROSITY, %Vb (2) TOTAL	POROSITY, %Vb (2) AIR FILLED	TOTAL PORE FLUID SATURATIONS, (% Pv) (3)	TOTAL ORGANIC CARBON mg/kg	NATIVE STATE EFFECTIVE PERMEABILITY TO AIR (4) (millidarcy)
B16B-5'	5.00	V	22.2	1.57	2.63	40.5	5.7	86.0	700	0.892
B16B-1'	1.00	V	18.0	1.70	2.64	35.5	4.9	86.2	3150	3.09

(1) Sample Orientation: H = horizontal; V = vertical (2) Total Porosity = no pore fluids in place; all interconnected pore channels; Air Filled = pore channels not occupied by pore fluids (3) Water = 0.9981 g/cc; Hydrocarbon = 0.7500 g/cc (4) Native State = As received with pore fluids in place Vb = Bulk Volume, cc; Pv = Pore Volume, cc; ND = Not Detected