URS

November 30, 2004

Mr. Robert Schultz
Hazardous Services Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Re: Additional Site Investigation Report and Work Plan for Offsite Investigation
Atlantic Richfield Company Service Station #2107
3310 Park Boulevard
Oakland, California
Fuel Leak Case No. RO0002526
URS Project No. 38486908.0013601

Dear Mr. Schultz:

At the request of Atlantic Richfield Company, Remediation Management (RM- a BP affiliated company), URS Corporation (URS) is pleased to submit this *Additional Site Investigation Report* on the investigation of the lateral and vertical extent of soil and groundwater contamination at ARCO Service Station #2107, located at 3310 Park Boulevard in Oakland, California (the Site, Figures 1 and 2). This report has been prepared in response to a directive letter from Alameda County Environmental Health (ACEH), dated August 30, 2004 (Attachment A) pursuant to the Regional Water Quality Control Board's authority under Section 13267 of the California Water Code. The letter requested that RM submit a report further characterizing the extent of soil and groundwater contamination due to a release of fuel hydrocarbons discovered during the removal and replacement of gasoline product lines and dispensers on January 7, 2003. An Unauthorized Release Report was issued on January 21, 2003 (Attachment B).

1.0 SITE BACKGROUND

The background information and previous work conducted on and off Site was furnished to URS by RM. URS has relied on the information provided to prepare this document and is neither responsible for, nor has confirmed the accuracy of the information contained in the documents reviewed.

1.1 Site Description

The Site is located at 3310 Park Boulevard in Oakland, California (Figures 1 and 2) and is an active gasoline service station. The Site is bound by East 34th Street to the north, Park Boulevard

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to the west, and commercial buildings to the south and east. The majority of the property is concrete and asphalt paved.

Current Site structures include three double-walled fiberglass underground gasoline storage tanks (USTs); two pump islands with a total of eight dispensers, and a convenience store.

1.2 Previous Work

In January of 1987, underground storage tanks were removed from the Site. Soil samples revealed elevated levels of benzene, toluene, ethylbenzene, and xylenes (BTEX) and free product was reported in the groundwater seeping into the excavation. In May 1989, Applied GeoSystems performed reconnaissance to evaluate the condition of the two existing Site wells (Applied GeoSystems, Inc., 1989). Free product was found in both (MW-1 and MW-2). Additional investigations were performed by GeoSystems in April and July 1990 (Applied GeoSystems, Inc., 1990). RESNA performed a subsurface investigation in June and October 1992 to further delineate the plume (RESNA, 1992).

A groundwater extraction and treatment (GWET) system began operating on January 25, 1993. The system utilized an aeration tank and activated carbon to treat the groundwater prior to discharging to the sanitary sewer. The system was shut down on May 9, 1995 due to low hydrocarbon removal rates. Pacific Environmental Group, Inc. presented the Site for closure in June 1996 based on the following:

- Affected soil was removed during tank and piping removals and
- The GWET system was effective in reducing dissolved hydrocarbons in groundwater.

ACEH confirmed no further action was required at the Site in the *Remedial Action Completion Certification* letter dated July 11, 1997. All remediation and monitoring equipment were removed from the Site, except remediation piping, which was left under the main driveway. No additional environmental work was completed at the Site until product line removal and upgrade construction activities in October and November of 2002. Environmental soil samples collected along the product lines during the construction activities indicated a potential release and an Unauthorized Release Report was issued for the Site on January 21, 2003. Field activities are summarized in the *URS Product Line Removal and Upgrade Soil Sampling Report* dated January 31, 2003.

Following the Unauthorized Release Report (Fuel Leak Case # RO0002526), ACEH sent a letter to RM on April 25, 2003 requesting a soil and groundwater investigation at the site. URS submitted a *Work Plan for Additional Investigation* on June 11, 2003 proposing the installation of four groundwater monitoring wells at the Site. URS received a voicemail directive from ACEH to complete a soil and groundwater investigation prior to the installation of monitoring wells at the Site. In response, URS submitted an *Addendum to Work Plan for Additional Investigation* on October 29, 2003 proposing 10 soil borings. ACEH requested several modifications to the *Addendum to Work Plan for Additional Investigation* in a letter dated

January 9, 2004. URS submitted a *Second Addendum to Work Plan for Additional Investigation* at the site on March 11, 2004.

URS began fieldwork at the Site on March 30, 2004. Due to adverse drilling conditions, only three soil borings were advanced (SB-1, SB-2, and SB-5) and fieldwork was rescheduled. URS returned to the Site on May 7, 2004 and advanced three additional borings at the site (SB-3, SB-4, and SB-6). A *Site Investigation Report and Well Installation Work Plan* was submitted on behalf of RM to ACEH on August 12, 2004. On August 30, 2004, URS received a letter from ACEH requesting additional fieldwork at the site to complete the scope of work proposed in the original work plan and addendum. ACEH additionally requested depth discrete groundwater sampling.

1.3 Site Hydrogeology

Regionally, the site lies within the hydrogeologic feature known as the East Bay Plain Groundwater Basin (CRWQCB, 1999). Deep groundwater occurs in mostly confined aquifers consisting of unconsolidated Tertiary to Quaternary age deposits. Some unconfined shallow water bearing deposits of Quaternary age exist within this basin, including under the subject property. The consolidated basement rocks underlying the Quaternary and Tertiary age deposits are considered to be non-water bearing due to their poor yields.

The Site lies within the Oakland sub-area of the San Francisco Basin. The San Francisco Basin is one of two basins that occupy the East Bay Plain Groundwater Basin. The water bearing deposits are composed of coalescing alluvial fans sloping westward from the Diablo Range to the east (CRWQCB, 1999). The alluvial deposits range from 300 to 700 ft. in thickness, and the sequence lacks any well-defined aquitards. The primary shallow, water-bearing formation is the Merritt Sand. The Merritt Sand is a discontinuous formation with an approximate thickness of 65 ft. Below the Merritt Sand are a series of thin alternating aquifers and aquitards (Muir, 1993).

The Site is underlain by gravel, gravelly clay, and silt fill from 0 to 5 feet below ground surface (bgs) and interbedded silty clay, clayey silt and silty sand from 5 to 30 feet (bgs) (RESNA 1992). Based on monitoring well data, groundwater has been encountered at depths of 5.31 to 9.32 ft bgs. Historically, the groundwater flow direction beneath the Site has been to the northwest at a gradient of approximately 0.09 feet per foot.

The Site has been leveled by cutting into the hillside. There is a cement retaining wall along the south side of the property with weep holes for run-off from the hillside. It is possible that the backfilled UST cavity, which is down gradient from the retaining wall, may be collecting run-off water. This water collecting in the UST cavity may be running out of the cavity and down gradient, which is likely the cause of the shallow first encountered water at boring locations along the north side of the property.

1.4 Surface Water

Based on the review of area topographic maps produced by the United States Geological Survey, two surface water bodies were located within a two-mile radius of the Site. Lake Merritt and the San Francisco Bay are located approximately 1.1 miles and 1.8 miles to the west of the Site, respectively.

2.0 FIELD ACTIVITIES

Prior to initiating field activities, URS obtained necessary Alameda County Public Works soil boring permit, prepared a Site-specific Health and Safety Plan (HASP) for the proposed work, cleared the Site for subsurface utilities, and completed the URS pre-drilling checklist. Utility clearance included notifying Underground Service Alert (USA) a minimum of 48 hours prior to initiating the field investigation and securing the services of Cruz Brothers, a private utility locating company, to confirm the absence of underground utilities at each boring location.

The HASP was provided to all personnel and a copy of the HASP was on-site at all times. A safety tailgate meeting was conducted daily to review the hazards and the daily scope of work, including but not limited to drilling, utility clearance, and general safety.

2.1 Soil Borings and Hydropunches

Six soil borings (SB) and six hydropunches (HP) were advanced under the supervision of URS field geologists with the use of a track-mounted Geoprobe 6610DT drill rig equipped with a two-inch inner diameter direct-push set up by Vironex, a California state-licensed drilling contractor of San Leandro, CA. An air knife or hand auger was used to clear boring locations to at least 5 ft bgs to avoid damaging utilities that may have been missed by USA or the private utility locator. In most cases a soil boring was advanced first and then a hydropunch was advanced next to it. The rational for this method was that based on the lithology and moisture content of the soil from the boring, water-bearing intervals for collecting depth discrete groundwater samples could be assessed. Soil borings were advanced to depths of approximately 27.5 to 32.5 feet below ground surface (bgs) to collect soil samples. In the boring HP-3 and boring SB-10/HP-7, both soil and groundwater were sampled from the same borehole. At HP-3, URS sampled soil from the hydropunch boring at 39.5 and 46 ft. bgs to augment the soil analytical data previously collected at SB-3 on May 7, 2004. At the boring location for SB-10/HP-7, only one borehole was feasible, so both soil and depth discrete groundwater samples were taken. As a result, there are several gaps in lithology on these boring logs where hydropunches were advanced. Soil boring logs from this investigation and the two earlier investigations are included in this report as Attachment C.

2.1.1 Soil Sampling and Analyses

As requested by ACEH, URS collected soil samples for chemical analysis based on field screening of sample location, lithology, odor, and color. Criteria for sample collection included any changes in lithology or any indication of the potential presence of petroleum hydrocarbons. Samples were also collected at five-foot intervals when possible. Each soil sample was covered at each end with Teflon™ sheeting, capped with plastic end caps, labeled, and placed in an ice-filled cooler for preservation. Sample labels included sample name, sample depth interval, sampling time and date, analytical methods and sampler's initials. All samples were transported under chain-of-custody protocol to Sequoia Analytical Laboratories, a California State-certified analytical laboratory located in Morgan Hill. Soil samples were analyzed for gasoline range organics (GRO), benzene, toluene, ethylbenzene, and xylene (BTEX), and fuel additives using EPA Method 8260B.

2.1.2 Groundwater Sampling and Analyses

Six hydropunches were advanced to collect one to three depth discrete groundwater samples per boring location. A sheathed four-foot 0.010- inch slotted screen was pushed to the base of the desired sampling interval. The drilling rods were then pulled back four feet to expose the slotted screen and allow groundwater to flow into the rod. Groundwater was drawn up through disposable Teflon™ tubing fitted with a check ball on the down hole end. The groundwater was pumped directly into HCl preserved 40-milliliter volatile organic analysis containers (VOAs), which were immediately sealed and labeled. Labels included sample name, sample depth interval, sampling time and date, analytical methods and sampler's initials. VOAs were stored in a cooler packed with ice. All samples were transported under chain-of-custody protocol to Sequoia Analytical Laboratories. Groundwater samples were analyzed for GRO, BTEX, and fuel additives using EPA Method 8260B.

First water was encountered at boring locations at depths ranging from approximately 1.5 ft. bgs (SB-6) to 20 ft. bgs (SB-8). When corrected for elevation, the range of first encountered water is approximately 117.5 ft. above mean sea level (msl) (SB-6) to 105 ft. msl. All soil borings and hydropunches down gradient (north and northwest) from the UST cavity had shallow depths to first water (1.5 ft to 5.5 ft. bgs) Borings up gradient (south and southeast) or cross gradient (east) from the UST complex had deeper depths to first water (16 ft- 20 ft. bgs).

2.2 Decontamination

Drilling and sampling equipment was decontaminated to prevent cross-contamination of the soil and groundwater samples. Equipment was decontaminated before work began and after each use unless disposable equipment was used. Decontamination was done in two phases, as described below:

The drill rig, downhole drilling and sampling equipment, and other associated equipment were decontaminated prior to arrival at the Site. Drilling rods, soil sampling equipment, and the hydropunch sampler were decontaminated during and after field activities by scrubbing with an Alconox and water solution in a shallow rig-mounted basin.

2.3 Waste Disposal

Investigation-derived wastes, which include soil cuttings and decontamination water, were temporarily stored on-site in 55-gallon, DOT-approved 17H drums, pending characterization and disposal. URS coordinated the transportation and disposal of the soil and groundwater at a California regulated facility by Dillard Environmental Services, a state-licensed waste transporter from Byron, CA.

3.0 RESULTS

3.1 Soil Analytical Results

URS submitted 26 soil samples from the six boring locations to Sequoia Analytical Laboratory and analyzed for GRO, BTEX, and fuel additives by EPA Method 8260B. Soil analytical results are presented in Table 1. Copies of laboratory analytical reports and chain-of-custody records are presented in Attachment D.

Soil analytical results are summarized as follows:

- GRO were detected above the laboratory reporting limit in five samples at concentrations ranging from 0.31 milligrams per kilogram (mg/kg) (SB-11-6.5) to 220 mg/kg (SB-11-11.5).
- Xylenes were detected above the laboratory reporting limit in two samples with concentrations of 0.011 mg/kg (SB-8-29.5) and 0.012 (SB-11-29.5) mg/kg. Benzene, ethylbenzene, and toluene were not detected above their respective laboratory reporting limit in any of the samples collected during this investigation.
- MTBE was detected above the laboratory reporting limit in ten samples at concentrations ranging from 0.0069 mg/kg (SB-9-19.5) to 0.56 mg/kg (SB-9-13.5).
- Tert-Butyl Alcohol (TBA) was detected above the laboratory reporting limit in three samples at concentrations ranging from 0.026 mg/kg (SB-8-6.0) to 0.48 mg/kg (SB-8-6.0 and SB-10-14.0).
- Di-isopropal ether was detected above the laboratory reporting limit in one sample at a concentration of 0.0056 mg/kg (SB-7-16.0)
- No other fuel additives were detected at or above their respective laboratory reporting limits.

3.2 Groundwater Analytical Data

As requested by ACEH, URS submitted twelve groundwater samples to Sequoia Analytical Laboratory for chemical analysis. Samples were analyzed for GRO, BTEX, and fuel additives using EPA Method 8260B. Groundwater analytical results are presented in Table 2. Copies of laboratory analytical reports and chain-of-custody records are presented in Attachment D.

Groundwater analytical results are summarized as follows:

- GRO were detected above the laboratory reporting limit in six of the twelve samples taken at concentrations ranging from 72 micrograms per liter (µg/L) (HP-6-30) to 1,300 µg/L (HP-7-20).
- Benzene was detected above the laboratory reporting limit in three samples at concentrations ranging from 0.64 µg/L (HP-3-35) to 1.6 µg/L (HP-4-18).
- Toluene was detected above the laboratory reporting limit in eight samples at concentrations ranging from 7.0 µg/L (HP-5-18) to 38 µg/L (HP-4-18).
- Ethylbenzene was detected above the laboratory reporting limit in seven samples at concentrations ranging from 0.94 µg/L (HP-5-18) to 5.4 µg/L (HP-4-18).
- Xylenes were detected above the laboratory reporting limit in eight samples at concentrations ranging from 6.2 µg/L (HP-5-18) to 27 µg/L (HP-4-18).
- MTBE was detected above the laboratory reporting limit in seven samples at concentrations ranging from 6.6 µg/L (HP-6-30) to 3,700 µg/L (HP-7-30).
- Tert-Butyl Alcohol (TBA) was detected above the laboratory reporting limit in one sample (HP-6-20) at a concentration of 76 µg/L.
- No other fuel additives were detected at or above their respective laboratory reporting limits.

4.0 RECOMMENDATIONS

URS proposes continuing the soil and water investigation offsite to delineate the lateral and vertical extent of the contaminant plume. The proposed soil boring, hydropunches, and well locations are based on data from the most recent investigation as well as information in the Product Line Removal and Upgrade Soil Sampling Report. The proposed locations are shown on Figure 2.

4.1 Offsite Soil and Groundwater Investigation

URS proposes advancing soil borings and hydropunches along the north side of Park Boulevard as shown on Figure 2. The locations were selected because they are hydraulically down gradient from soil boring and hydropunch locations from this investigation (SB-3/HP-3, SB-7/HP-4, SB-9/HP-6, SB-10/HP-7, and SB-11/HP-8). Prior to initiating field activities, URS will obtain

the necessary Alameda County Public Works soil boring permit and a City of Oakland Excavation Permit, prepare a Site-specific Health and Safety Plan (HASP) for the proposed work, clear the Site for subsurface utilities, and complete the URS pre-drilling checklist. Utility clearance will include notifying Underground Service Alert (USA) a minimum of 48 hours prior to initiating the field investigation and securing the services of Cruz Brothers, a private utility locating company, to confirm the absence of underground utilities at each boring location.

The proposed soil borings and hydropunches will be advanced to approximately 30 ft. bgs. Soil and groundwater sampling procedures will follow the procedures used in this investigation as outlined in Section 2 of this report. Sample handling, equipment decontamination, and surveying procedures are will also follow the procedures used for this investigation.

4.2 Offsite Investigation Report

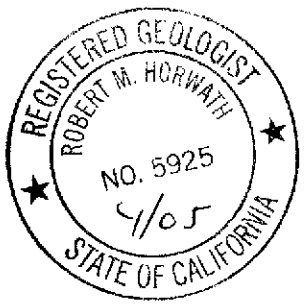
Upon completion of field activities and receipt of all laboratory analytical data, URS will prepare and provide ACEH with an Offsite Investigation Report. The report will include the following information requested by ACEH to develop an initial Conceptual Site Model: boring logs, cross sections, isoconcentration maps, a well survey, preferential pathway assessment, analytical results and interpretation and recommendations for additional work, if necessary.

4.3 Proposed Schedule

Upon receiving written approval of this Work Plan from the ACEH, URS will proceed with the proposed work. URS will obtain all necessary permits to complete the proposed work. URS anticipates submitting the Offsite Investigation Report to the ACEH within 60 days of receipt of all laboratory analytical results from drilling activities.

We appreciate the opportunity to submit this *Additional Site Investigation Report and Work Plan for Offsite Investigation* to the ACEH and trust that this document meets with your approval. Please notify us of your approval as soon as practical. If you have any questions or concerns, feel free to contact us at (510) 893-3600.

Sincerely,



URS CORPORATION

Scott Robinson
Project Manager

Robert Horwath, R.G.
Portfolio Manager

Enclosures:

Table 1	Soil Analytical Data
Table 2	Groundawter Analytical Data
Figure 1	Site Location Map
Figure 2	Site Map with Proposed Soil Boring
Attachment A	Alameda County Environmental Health Agency (August 30, 2004)
Attachment B	Unauthorized Release Report (January 21, 2003)
Attachment C	ACPWA Soil Boring Permit and Soil Borings Logs
Attachment D	Laboratory Procedures and Results
Attachment E	Survey Data

References:

Applied GeoSystems, Inc., 1989.

Applied GeoSystems, Inc., 1990.

California Regional Water Quality Control Board (CRWQCB), San Francisco Bay Region, 1999. East Bay Plain Groundwater Basin Beneficial Use Evaluation Report, June 1999.

Muir, Kenneth, 1993. Geologic Framework of the East Bay Plain Groundwater Basin, prepared for the Alameda County Flood Control and Water Conservation District, Alameda County, California.

RESNA, 1992. Subsurface Environmental Investigation, ARCO Station 2107, Oakland, CA.

RESNA and Associates. December 30, 1990.

URS, 2003. Product Line Removal and Upgrade Soil Sampling Report, ARCO Service Station No. 2107, 3310 Park Boulevard, Oakland, California. URS Corporation. January 31, 2003.

cc: Mr. Paul Supple, RM (Electronic uploaded to ENFOS)

Table 1
Soil Analytical Data
ARCO Service Station #2107
3310 Park Blvd, Oakland, CA

Soil Sample ID	Sample Depth (feet bgs)	Sample Elevation (feet msl)	Date Sampled	GRO/ TPH-g (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylenes (mg/kg)	t-Butyl Alcohol (TBA) (mg/kg)	Methyl-tert butyl-ether (MTBE) (mg/kg)	Di-isopropal ether (DIPE) (mg/kg)	Ethyl-t-Butyl-Ether (ETBE) (mg/kg)	t-Amyl Methyl Ether (TAME) (mg/kg)	Ethanol (mg/kg)
SB-1-5	5	123.26	3/30/04	ND<1.2	ND<0.0061	**0.096**	ND<0.0061	**0.016**	ND<0.012	ND<0.0061	ND<0.012	ND<0.0061	ND<0.0061	ND<0.1
SB-1-10	10	118.26	3/30/04	ND<1.3	ND<0.0063	ND<0.0063	ND<0.0063	ND<0.0063	ND<0.013	ND<0.0063	ND<0.013	ND<0.0063	ND<0.0063	ND<0.1
SB-1-15	15	113.26	3/30/04	ND<1.2	ND<0.0059	ND<0.0059	ND<0.0059	ND<0.0059	ND<0.012	ND<0.0059	ND<0.012	ND<0.0059	ND<0.0059	ND<0.1
SB-1-18	18	110.26	3/30/04	ND<1.2	ND<0.0059	ND<0.0059	ND<0.0059	ND<0.0059	ND<0.012	ND<0.0059	ND<0.012	ND<0.0059	ND<0.0059	ND<0.1
SB-2-5	5	121.53	3/30/04	ND<1.3	ND<0.0067	ND<0.0067	ND<0.0067	ND<0.0067	ND<0.013	ND<0.0067	ND<0.013	ND<0.0067	ND<0.0067	ND<0.1
SB-2-10	10	116.53	3/30/04	ND<1.2	ND<0.0061	ND<0.0061	ND<0.0061	ND<0.0061	ND<0.012	ND<0.0061	ND<0.012	ND<0.0061	ND<0.0061	ND<0.1
SB-2-15	15	111.53	3/30/04	ND<1.2	ND<0.0060	ND<0.0060	ND<0.0060	ND<0.0060	ND<0.012	ND<0.0060	ND<0.012	ND<0.0060	ND<0.0060	ND<0.1
SB-2-20	20	106.53	3/30/04	ND<1.2	ND<0.0062	ND<0.0062	ND<0.0062	ND<0.0062	ND<0.012	ND<0.0062	ND<0.012	ND<0.0062	ND<0.0062	ND<0.1
SB-2-23	23	103.53	3/30/04	ND<1.2	ND<0.0060	ND<0.0060	ND<0.0060	ND<0.0060	ND<0.012	ND<0.0060	ND<0.012	ND<0.0060	ND<0.0060	ND<0.1
SB-3-8.0	8	115.87	5/7/04	ND< 1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	**0.024**	ND<0.01	ND<0.0050	ND<0.0050	ND<0.1
SB-3-13	13	110.87	5/7/04	ND< 1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	**0.027**	ND<0.01	ND<0.0050	ND<0.0050	ND<0.1
SB-3-18	18	105.87	5/7/04	ND< 1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	**0.19**	ND<0.0050	ND<0.01	ND<0.0050	ND<0.0050	ND<0.1
SB-3-23.0	23	100.87	5/7/04	ND< 1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	**0.29**	**0.027**	ND<0.01	ND<0.0050	ND<0.0050	ND<0.1
SB-3-26.5	26.5	97.37	5/7/04	ND< 1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.0050	ND<0.01	ND<0.0050	ND<0.0050	ND<0.1
SB-3-31.0	31	92.87	5/7/04	ND< 1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.0050	ND<0.01	ND<0.0050	ND<0.0050	ND<0.1
HP-3-39.5	39.5	84.37	10/15/04	ND<0.1	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.020	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	NA
HP-3-46	46	77.87	10/15/04	ND<0.1	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.020	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	NA
SB-4-1.0	1	NM	5/7/04	**350**	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<25
SB-5-8	8	114.96	3/30/04	ND<1.1	ND<0.0056	ND<0.0056	ND<0.0056	ND<0.0056	ND<0.011	ND<0.0056	ND<0.011	ND<0.0056	ND<0.0056	ND<0.1
SB-5-16	16	106.96	3/30/04	ND<1.3	ND<0.0065	ND<0.0065	ND<0.0065	ND<0.0065	**0.016**	ND<0.0065	ND<0.013	ND<0.0065	0.0066	ND<0.1
SB-5-19	19	103.96	3/30/04	ND<1.2	ND<0.0059	ND<0.0059	ND<0.0059	ND<0.0059	ND<0.012	ND<0.0059	ND<0.012	ND<0.0059	ND<0.0059	ND<0.1
SB-6-1.0	1	NM	5/7/04	ND< 1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.0050	ND<0.01	ND<0.0050	ND<0.0050	ND<0.1
SB-7- 6.0	6	120.22	10/14/04	ND<0.10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.020	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	NA
SB-7- 11.5	11.5	114.72	10/14/04	ND<0.10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.020	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	NA
SB-7- 16.0	16	110.22	10/14/04	ND<0.10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.020	ND<0.0050	**0.0056**	ND<0.0050	ND<0.0050	NA
SB-7- 19.5	19.5	106.72	10/14/04	ND<0.10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.020	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	NA
SB-8-6.0	6	118.82	10/15/04	ND<0.1	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	**0.048**	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	NA
SB-8-14.0	14	110.82	10/15/04	ND<0.10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.020	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	NA
SB-8-16.0	16	108.82	10/15/04	ND<0.10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.020	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	NA
SB-8-25.0	25	99.82	10/15/04	ND<0.10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.020	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	NA

Table 1
Soil Analytical Data
ARCO Service Station #2107
3310 Park Blvd, Oakland, CA

Soil Sample ID	Sample Depth (feet bgs)	Sample Elevation (feet msl)	Date Sampled	GRO/ TPH-g (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylenes (mg/kg)	t-Butyl Alcohol (TBA) (mg/kg)	Methyl-tert butyl-ether (MTBE) (mg/kg)	Di-isopropal ether (DIPE) (mg/kg)	Ethyl-t-Butyl-Ether (ETBE) (mg/kg)	t-Amyl Methyl Ether (TAME) (mg/kg)	Ethanol (mg/kg)
SB-8-29.5	29.5	95.32	10/15/04	ND<0.10	ND<0.0050	ND<0.0050	ND<0.0050	**0.011**	ND<0.020	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	NA
SB-9-10.5	10.5	112.29	10/14/04	ND<0.10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.020	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	NA
SB-9-13.5	13.5	109.29	10/14/04	ND<2.5	ND<0.050	ND<0.050	ND<0.050	ND<0.050	ND<5.0	**0.56**	ND<0.025	ND<0.025	ND<0.025	NA
SB-9-17.5	17.5	105.29	10/14/04	ND<0.50	ND<0.025	ND<0.025	ND<0.025	ND<0.025	ND<0.10	**0.22**	ND<0.025	ND<0.025	ND<0.025	NA
SB-9-19.5	19.5	103.29	10/14/04	ND<0.10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	**0.026**	**0.0069**	ND<0.0050	ND<0.0050	ND<0.0050	NA
SB-10-6.5	6.5	115.29	10/20/04	**0.51**	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.020	**0.025**	ND<0.0050	ND<0.0050	ND<0.0050	NA
SB-10-14.0	14	107.79	10/20/04	ND<0.10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	**0.048**	**0.034**	ND<0.0050	ND<0.0050	ND<0.0050	NA
SB-10-20.5	20.5	101.29	10/20/04	ND<2.5	ND<0.050	ND<0.050	ND<0.050	ND<0.050	ND<5.0	**0.21**	ND<0.025	ND<0.025	ND<0.025	NA
SB-10-22.5	22.5	99.29	10/20/04	ND<0.10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.020	**0.059**	ND<0.0050	ND<0.0050	ND<0.0050	NA
SB-10-31.5	31.5	90.29	10/20/04	ND<0.10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.020	**0.011**	ND<0.0050	ND<0.0050	ND<0.0050	NA
SB-11-6.5	6.5	113.73	10/14/04	**0.31**	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.020	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	NA
SB-11-11.5	11.5	108.73	10/14/04	**220**	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.25	ND<0.12	ND<0.12	ND<0.12	ND<0.12	NA
SB-11-16.5	16.5	103.73	10/14/04	**14**	ND<0.050	ND<0.050	ND<0.050	ND<0.050	ND<5.0	ND<0.025	ND<0.025	ND<0.025	ND<0.025	NA
SB-11-21.5	21.5	98.73	10/14/04	**24**	ND<0.050	ND<0.050	ND<0.050	ND<0.050	ND<5.0	ND<0.025	ND<0.025	ND<0.025	ND<0.025	NA
SB-11-26.0	26	94.23	10/14/04	ND<0.10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.020	**0.012**	ND<0.0050	ND<0.0050	ND<0.0050	NA
SB-11-28.5	28.5	91.73	10/14/04	ND<0.10	ND<0.0050	ND<0.0050	ND<0.0050	**0.012**	ND<0.020	**0.022**	ND<0.0050	ND<0.0050	ND<0.0050	NA

Notes:

1) Samples analyzed by EPA method 8260B.
2) Concentrations above laboratory reporting limits in **bold**.

bgs = below ground surface
GRO = Gasoline Range Organics
mg/kg = milligrams per kilogram
msl = mean sea level
NA = Not analyzed
ND< = Not detected below stated laboratory reporting limit
NM = Not measured
TPH-g = Total petroleum hydrocarbons as gasoline

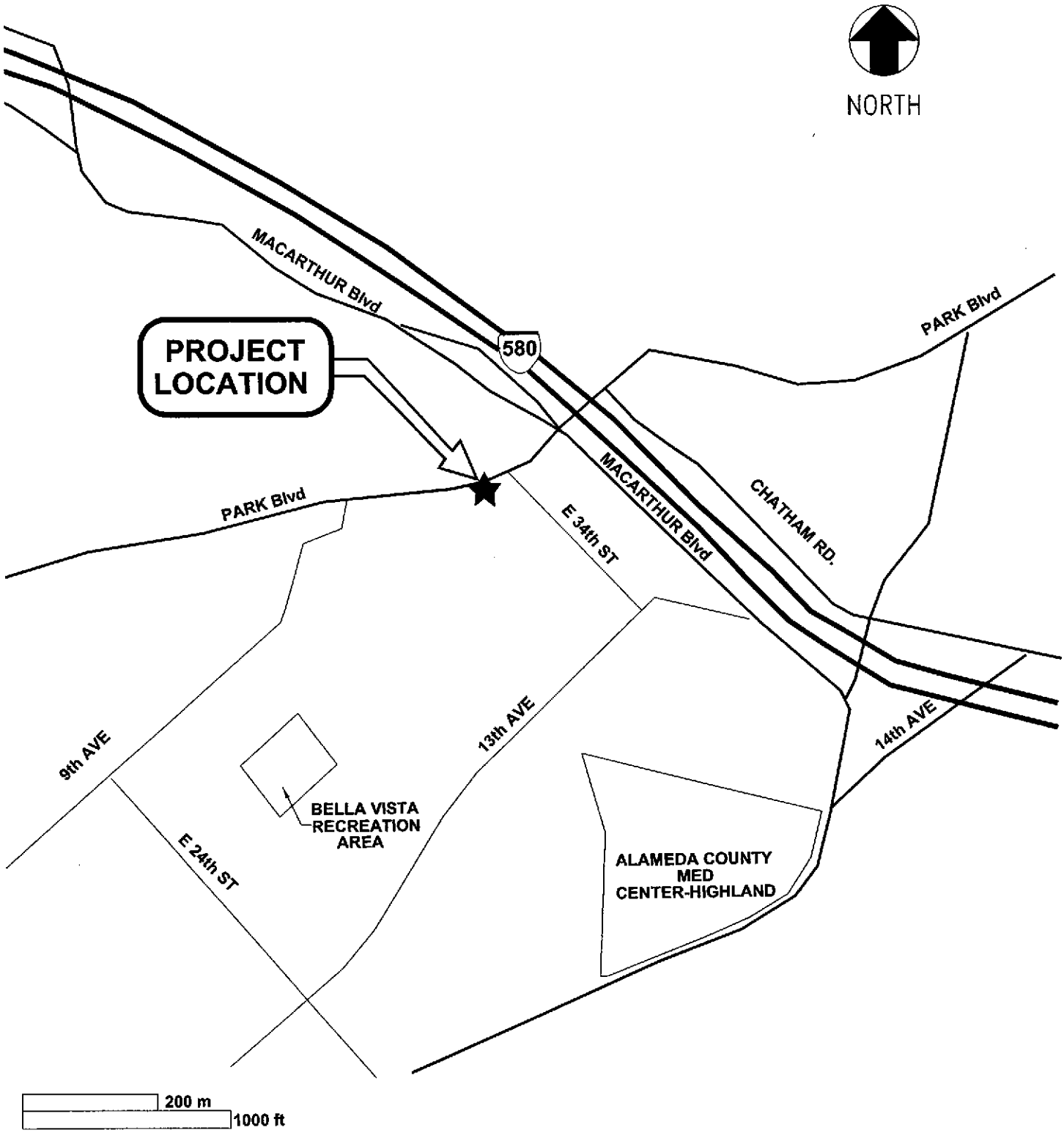
Table 2
Groundwater Analytical Data
ARCO Service Station #2107
3310 Park Blvd, Oakland, CA

Sample ID	Elevation (msl)	Sample Depth/ Interval (feet bgs)	Sample elevation (msl)	Date Sampled	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)	t-Butyl Alcohol (TBA) (µg/L)	MTBE (µg/L)	Di-isopropal ether (DIPE) (µg/L)	Ethyl-t-Butyl-Ether (ETBE) (µg/L)	tert-Amyl Methyl Ether (TAME) (µg/L)	Ethanol (µg/L)
SB-1	128.26	18.5	109.8	03/30/04	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<50
SB-2	126.532	23	103.532	03/30/04	ND<50	ND<0.50	**1.4**	ND<0.50	ND<1.0	ND<5.0	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<50
SB-3	123.867	32	91.867	05/07/04	**88**	ND<0.50	ND<0.50	ND<0.50	ND<1.0	**110**	**34**	ND<1.0	ND<0.50	**1.1**	ND<50
SB-5	122.964	19.5	103.464	03/30/04	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	**45**	**34**	ND<1.0	ND<0.50	ND<0.50	ND<50
HP-3-35	123.867	31-35	88.9- 92.9	10/15/04	ND<50	**0.64**	**10**	**1.5**	**8.9**	ND<5.0	**3.8**	ND<1.0	ND<0.50	ND<0.50	ND<50
HP-4-18	126.217	18-22	104.2- 108.2	10/14/04	**140**	**1.6**	**38**	**5.4**	**27**	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA
HP-4-30	126.217	26-30	96.2- 100.2	10/14/04	**96**	**0.91**	**23**	**3.5**	**17**	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA
HP-5-18	124.821	18-22	102.8- 106.8	10/20/04	ND<50	ND<0.50	**7**	**0.94**	**6.2**	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA
HP-5-29	124.821	25-29	95.8- 99.8	10/20/04	ND<50	ND<0.50	**9.2**	**1.2**	**7**	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA
HP-6-8	122.792	8-12	110.8- 114.8	10/14/04	ND<250	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<100	**92**	ND<2.5	ND<2.5	ND<2.5	NA
HP-6-20	122.792	16-20	102.8- 106.8	10/14/04	**170**	ND<1.0	**15**	**2.9**	**16**	**76**	**82**	ND<1.0	ND<1.0	ND<1.0	NA
HP-6-30	122.792	26-30	92.8- 96.8	10/14/04	**72**	ND<0.50	**13**	**2.2**	**13**	ND<20	**6.6**	ND<0.50	ND<0.50	ND<0.50	NA
HP-7-20	121.791	16-20	101.8- 105.8	10/20/04	**1300**	ND<10	ND<10	ND<10	ND<10	ND<400	**1200**	ND<10	ND<10	ND<10	NA
HP-7-30	121.791	26-30	91.8- 95.8	10/20/04	ND<5,000	ND<50	ND<50	ND<50	ND<50	ND<2,000	**3700**	ND<50	ND<50	ND<50	NA
HP-8-27	120.229	23-27	93.2- 97.2	10/15/04	ND<2,500	ND<25	28	ND<25	**28**	ND<1,000	**2100**	ND<25	ND<25	ND<25	NA
HP-8-34	120.229	30-34	86.2- 90.2	10/15/04	ND<2,500	ND<25	ND<25	ND<25	ND<25	ND<1,000	**880**	ND<25	ND<25	ND<25	NA

Notes:

1) Groundwater samples analyzed by EPA method 8260B.
2) Concentrations above laboratory reporting limits in **bold**.
3) SB- indicates groundwater grab sample from bottom of soil boring. HP- indicates depth distrete groundwater sample using a hydropunch.

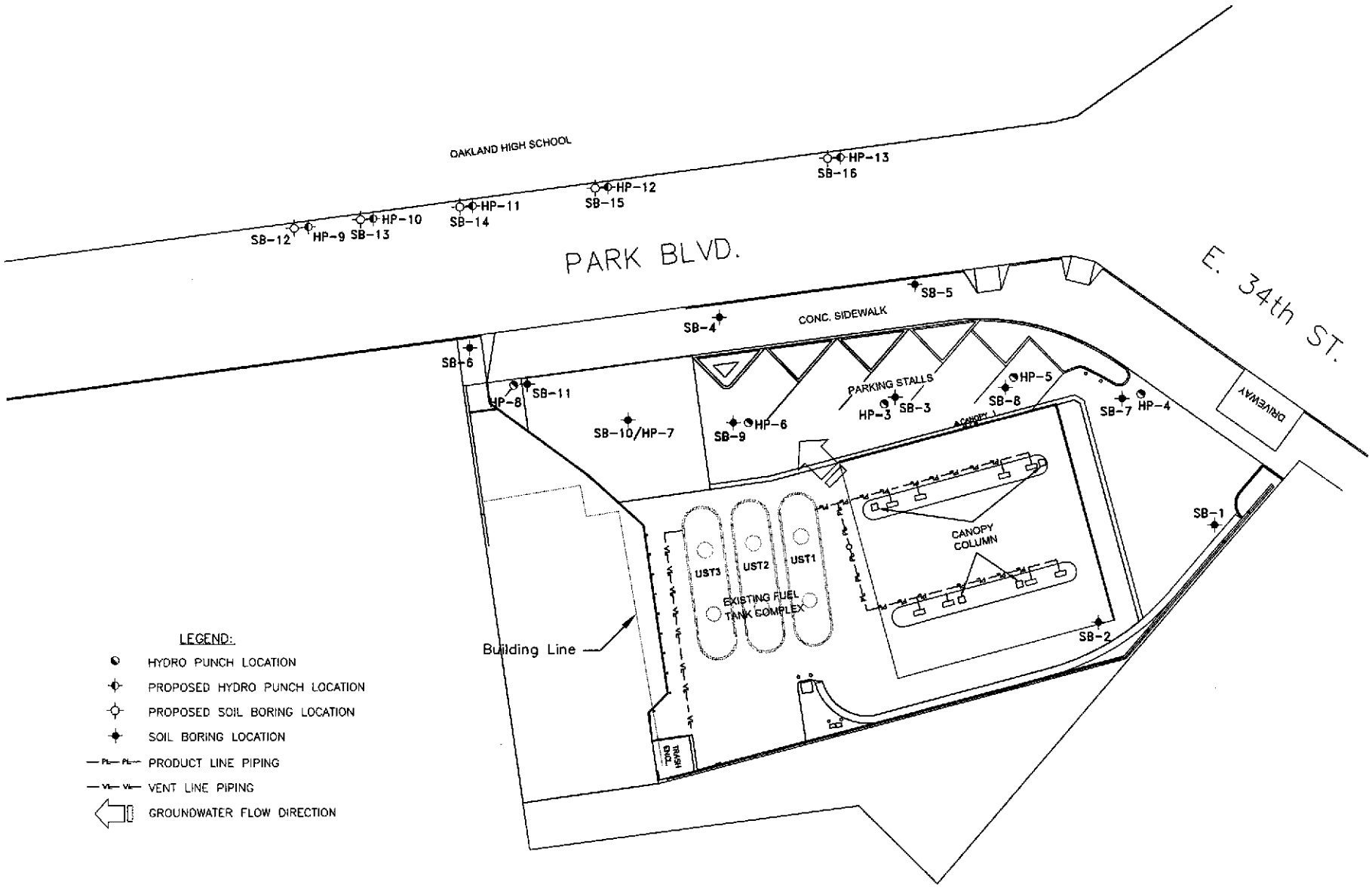
bgs = below ground surface
ESL =Environmental Screening Level
GRO = Gasoline Range Organics
(mg/L) = micrograms per litre
msl =Mean sea level
MTBE = methyl tertiary butyl ether.
NA = Not Analyzed
ND< = Not detected below stated laboratory reporting limit
TPH-g = Total petroleum hydrocarbons as gasoline



URS	Project No. 38486908 ARCO Service Station #2107 3310 Park Boulevard Oakland, California	SITE LOCATION MAP	FIGURE 1

Nov 30, 2004 - 3:35pm
X:\x_env_waste\BP GEM\Sites\Scott Robinson\Paul Supple\2107\Soil Investigation\Drawings\SITE-LOCATION.dwg

Nov 30, 2004 - 3:36pm
X:\x_env_waste\BP GEM\Sites\Scott Robinson\Paul Supple\2107\Soil Investigation\Drawings\PROP-SB-MW.dwg



URS	Project No. 38486908 ARCO Service Station #2107 3310 Park Boulevard Oakland, California	**PROPOSED OFFSITE SOIL BORING LOCATIONS AND PROPOSED ONSITE MONITORING WELL LOCATIONS**

FIGURE
2

Attachment A

Alameda County Environmental Health Agency
(August 30, 2004)

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

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

August 30, 2004

Paul Supple
Atlantic Richfield Company
P.O. Box 6549
Moraga, CA 94570

Subject: Fuel Leak Case No. RO0002526, ARCO #2107, Active Automobile Service Station at 3100 Park Blvd., Oakland, California

Dear Mr. Supple:

Alameda County Environmental Health (ACEH) has reviewed your August 12, 2004, *Site Investigation Report and Well Installation Workplan* prepared by URS Corporation for the above-referenced site. The scope of work performed was not consistent with the March 11, 2004 *Second Addendum to Work Plan for Additional Investigation*. The ACEH-approved March 11, 2004 Workplan Addendum proposed 10 soil borings to groundwater. Only 4 borings were completed to groundwater. No explanation for the variance was provided. There is currently insufficient data to adequately define the extent of soil and groundwater contamination at the site. In addition, we do not concur with URS' proposed technical approach for follow-up investigation. Consequently your investigation report and workplan are not approved. We request that you: 1) complete the previously approved temporary borings and grab groundwater sampling, 2) submit a replacement investigation report with workplan, and 3) address the technical comments below by the due date specified below.

TECHNICAL COMMENTS

1. Groundwater Definition

Rather than installing monitoring wells, ACEH requests that the lateral and vertical extents of groundwater contamination be defined. Please perform depth discrete groundwater sampling from temporary borings and, if necessary, use temporary piezometers to evaluate the groundwater gradient. Depending on the level of confidence in site characterization, and on the need for active site remediation, extended groundwater monitoring *may or may not* be required. We request that you collect data consistent with your March 11 workplan addendum, then evaluate the need for additional temporary borings. If you determine that no additional borings should be required to define the dissolved plume, we request that you support your determination using 1) isoconcentration maps for each depth interval and contaminant of concern and 2) cross-sections drawn perpendicular to and along the plume axis showing vertical distribution of contamination. These critical supporting documents will be used to either appropriately site monitoring wells or to help justify no further action at the site. Please include either a workplan for further soil and groundwater sampling from temporary borings or your isoconcentration maps and cross sections in the report requested below.

2. Depth Discrete Groundwater Sampling

URS collected groundwater samples from the bottoms of the soil borings using disposable bailers. This methodology does not appear appropriate for collecting representative groundwater samples at the site. In boring SB-3, for example, first encountered water was

reported at 5.5 ft bgs. Saturated silty sand was logged between 25 and 26.5 ft bgs. Sand was encountered between 31 ft bgs and the total explored depth of 32 ft bgs. The grab groundwater sample from boring SB-3 was apparently collected as a composite of the entire boring, representing groundwater from 5.5 ft bgs through 32 ft bgs. Groundwater sample SB-3 contained 88 ug/L GRO, 110 ug/L TBA, 34 ug/L MTBE, and 1.1 ug/L TAME. We request that you evaluate each identified water-bearing zone. If the sand encountered at 31 ft bgs has been impacted, additional depth-discrete groundwater sampling will be required to define the vertical extent of contamination. The objectives of depth-discrete groundwater sampling are to 1) determine representative concentrations for comparison to risk-based screening levels and other criteria; 2) define the vertical extent of impact; and 3) characterize concentrations within potential preferential flow paths such as sands or gravels of higher estimated permeability. Please include your evaluation in the report requested below.

3. Regional Hydrogeologic Study

We request that you perform a study of the regional geologic and hydrogeologic setting for your site by reviewing the available technical literature for the area. The objectives of a regional geologic and hydrogeologic study are to 1) provide data to develop an initial Conceptual Site Model (CSM), 2) identify regional hydrogeologic features - and phenomena such as historical water level fluctuations - that could influence or control the migration of contamination, and 3) determine the appropriate scope of initial investigation activities. Background information for your review includes but is not limited to regional geologic maps, United States Geological Survey (USGS) technical reports and documents, Department of Water Resources (DWR) Bulletins, Regional Water Quality Control Board reports on the groundwater basin, data from contaminant investigations in the area, and driller's reports from the well survey requested below (Comment #3). Provide a narrative discussion of the regional geologic and hydrogeologic setting obtained from your background study. Include an evaluation of the potential significance of regional geologic features on site contaminant migration. Use photocopies of regional geologic maps, groundwater contours, cross-sections, etc., to illustrate your results and include a list of the technical references reviewed. Report your results as part of the report requested below.

4. Environmental Screening

We request that you evaluate your results using either the RWQCB-SFBR ESLs or the protocol detailed in ASTM E1739-95(2002) *Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites*. Please include your evaluation in the report requested below.

5. Report Submittals

The subject report was not submitted under cover from Atlantic Richfield Co. certifying the work, and it did not include a statement of professional certification. In addition, the analytical results do not appear to have been uploaded into the State Geotracker database, as no confirmation was provided in the report. Please include these items in the report requested below.

REPORT REQUEST

Please complete the investigation described in your March 11, 2004 workplan addendum and submit a Soil and Groundwater Investigation Report which addresses the comments above by **October 15, 2004**. CCR, Title 23, Chapter 16 requires your compliance with this request.

PROFESSIONAL CERTIFICATION AND CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested we will consider referring your case to the County District Attorney or other appropriate agency, for enforcement. California Health and Safety Code, Section 25299.76 authorizes ACEH enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Please call me at (510) 567-6719 with any questions regarding this case.

Sincerely,

Robert W. Schultz, R.G.
Hazardous Materials Specialist

cc: Scott Robinson, URS Corporation, 500 12th St., Ste. 200, Oakland, CA 94607-4014
Donna Drogos, ACEH
Robert W. Schultz, ACEH

"Schultz, Robert, Env. Health" <robert.schultz@acgov.org>

09/20/2004 04:08 PM

To: "'Supple, Paul V'" <SUPPLPV@bp.com>
cc: scott_robinson@urscorp.com
Subject: RE: ARCO 2107 Extension Request

Paul:
Your request for a deadline extension is acceptable. Per your request and as discussed, please submit the requested report by December 1, 2004.
Sincerely,
Bob Schultz
ACEH

-----Original Message-----
From: Supple, Paul V [mailto:SUPPLPV@bp.com]
Sent: Monday, September 20, 2004 3:48 PM
To: Schultz, Robert, Env. Health
Cc: scott_robinson@urscorp.com
Subject: ARCO 2107 Extension Request

Bob,
I need to request an extension for the ARCO 2107 Soil and Groundwater investigation Report that is due on October 15. We are having a tough time scheduling a driller to do the geoprobe & hydropunch work. We have been talking with Gregg, Vironex, & Precision about dates and it is looking like the soonest we can get to the site will be mid to late October. We can do a rush on sample analysis once the work is done and have a report produced by November 15.

Thanks.

Paul Supple
Environmental Business Manager
Atlantic Richfield Company
(a BP affiliated company)
(925) 299-8891
Fax (925) 299-8872

Attachment B

Unauthorized Release Report
(January 21, 2003)

BP West Coast Products LLC
4 Centerpointe Drive, LPR4-451
La Palma, California 90623-1066

Mailing Address: Box 6038
Artesia, CA 90702-6038

Voice (530) 308-0495
Fax (209) 744-2671
Email SchettJ1@bp.com

Tuesday, January 21, 2003
11:04 AM

via Facsimile

Alameda County Environmental Health
1131 Harbor Bay Parkway, #240
Alameda, CA 94502-6577
Attention: Mr. Ariu Levi
FAX: (510) 337-9335

Re: ARCO Facility No. 2107

Dear Mr. Levi:

With this, I am transmitting an Underground Storage Tank Unauthorized Release Report in connection with an incident at the facility noted above. Please feel free to call me at (530) 308-0495 with any questions.

Best regards,

John Schetter
Environmental Compliance Specialist
BP West Coast Retail Unit

c: San Francisco Bay Regional Water Quality Region 2
Terri Harlan / LPR4-464
File

UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT

EMERGENCY: ☐ YES ☒ NO

HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? ☐ YES ☒ NO

REPORT DATE: 01/20/03 (M M D D Y Y)

CASE #:

REPORTED BY

NAME OF INDIVIDUAL FILING REPORT: John Schetter

PHONE: (530) 308-0495

SIGNATURE:

REPRESENTING: ☒ OWNER/OPERATOR ☐ REGIONAL BOARD ☐ LOCAL AGENCY ☐ OTHER

COMPANY OR AGENCY NAME: BP West Coast Products LLC

ADDRESS: Four Centerpointe Drive, LPR4-460 (STREET) La Palma (CITY) CA (STATE) 90623 (ZIP)

RESPONSIBLE PARTY

NAME: BP West Coast Products LLC ☐ UNKNOWN

CONTACT PERSON: John Schetter

PHONE: (530) 308-0495

ADDRESS: Four Centerpointe Drive, LPR4-451 (STREET) La Palma (CITY) CA (STATE) 90623 (ZIP)

SITE LOCATION

FACILITY NAME (IF APPLICABLE): Arco Facility No. 2107

OPERATOR: NHON HA

PHONE: 510-532-1716

ADDRESS: 3310 PARK BLVD (STREET) Oakland (CITY) Alameda (COUNTY) 94610 (ZIP)

CROSS STREET: Macarthur Blvd.

IMPLEMENTING AGENCIES

LOCAL AGENCY — AGENCY NAME: Alameda County Enviromental Health

CONTACT PERSON: Ariu Levi

PHONE: (510) 567-6862

REGIONAL BOARD: California Regional Water Quality Board 2

PHONE: (510) 622-2460

SUBSTANCE INVOLVED

(1) NAME: Gasoline — QUANTITY LOST (GALLONS): ☒ UNKNOWN

(2) ☐ UNKNOWN

DISCOVERY/ABATEMENT

DATE DISCOVERED: 01/20/03

HOW DISCOVERED: ☐ TANK TEST ☐ INVENTORY CONTROL ☐ TANK REMOVAL ☐ SUBSURFACE MONITORING ☒ OTHER Line Replacement ☐ NUISANCE CONDITIONS

DATE DISCHARGE BEGAN: ☒ UNKNOWN

HAS DISCHARGE BEEN STOPPED? ☒ YES ☐ NO IF YES, DATE: 01/20/03

METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY)

☐ REMOVE CONTENTS ☐ CLOSE TANK & REMOVE ☐ REPAIR PIPING
☐ REPAIR TANK ☐ CLOSE TANK & FILL IN PLACE ☐ CHANGE PROCEDURE
☐ REPLACE TANK ☒ OTHER Replace product piping

SOURCE/CAUSE

SOURCE OF DISCHARGE: ☐ TANK LEAK ☒ UNKNOWN ☐ PIPING LEAK ☐ OTHER

CAUSE(S): ☐ OVERFILL ☐ RUPTURE/FAILURE ☐ SPILL ☐ CORROSION ☒ UNKNOWN ☐ OTHER

CASE TYPE

CHECK ONLY ONE

☐ UNDETERMINED ☒ SOIL ONLY ☐ GROUNDWATER ☐ DRINKING WATER – (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)

CURRENT STATUS

CHECK ONLY ONE

☐ NO ACTION TAKEN ☐ PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED ☒ POLLUTION CHARACTERIZATION
☐ LEAK BEING CONFIRMED ☐ PRELIMINARY SITE ASSESSMENT UNDERWAY ☐ POST CLEANUP MONITORING IN PROGRESS
☐ REMEDIATION PLAN ☐ CASE CLOSED (CLEANUP COMPLETED OR UNNECESSARY) ☐ CLEANUP UNDERWAY

REMEDIAL ACTION

CHECK APPROPRIATE ACTION(S) (SEE BACK FOR DETAILS)

☐ CAP SITE (CD) ☐ EXCAVATE & DISPOSE (ED) ☐ REMOVE FREE PRODUCT (FP) ☐ ENHANCED BIO DEGRADATION (IT)
☐ CONTAINMENT BARRIER (CB) ☐ EXCAVATE & TREAT (ET) ☐ PUMP & TREAT GROUNDWATER (GR) ☐ REPLACE SUPPLY (RS)
☐ VACUUM EXTRACT (VE) ☐ NO ACTION REQUIRED (NA) ☐ TREATMENT AT HOOKUP (HU) ☐ VENT SOIL (VS)
☒ OTHER TBD

COMMENTS

MtBE detected in soil sample S-D-7.5 @ 19 ppm. A soil report for the line upgrade will be issued soon.

Attachment C

ACPWA Soil Boring Permit and Soil Boring Logs

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670 6633 James Yoo
FAX (510) 782-1939 www.acfcwcd.org

APPLICANTS: PLEASE ATTACH A SITE MAP FOR ALL DRILLING PERMIT APPLICATIONS
DESTRUCTION OF WELLS OVER 45 FEET REQUIRES A SEPARATE PERMIT APPLICATION

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 3310 PARK BLVD
OAKLAND, CA
(ARCO SITE #2107)

CLIENT
Name BP/AMOCO MAIL CODE 8040
Address P.O. WARRENVILLE RD. N Phone 630-434-6219
City LISLE, IL Zip 60532

APPLICANT
Name URS CORP / KEVIN UNO Fax 510-874-3268
Address 1333 BROADWAY Phone 510-874-3239
City OAKLAND Zip 94612

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	☐	General	☐
Water Supply	☐	Contamination	☐
Monitoring	☐	Well Destruction	☐

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐	Auger	☐
Cable	☐	Other	☐		

DRILLER'S NAME GREGG DRILLING + TESTING

DRILLER'S LICENSE NO C57 - 485165

WELL PROJECTS
Drill Hole Diameter ____ in. Maximum
Casing Diameter ____ in Depth ____ ft.
Surface Seal Depth ____ ft Owner's Well Number ____

GEOTECHNICAL/CONTAMINATION PROJECTS
Number of Borings 17 Maximum
Hole Diameter 2 in Depth 25 ft

STARTING DATE 9/27/04 (CLEAR HOLES TO 5' bgs W/AIR KNIFE)
COMPLETION DATE 10/15/04 (ADVANCE SOIL BORINGS AND HYDROPUNCH)

FOR OFFICE USE
PERMIT NUMBER W04-1013
WELL NUMBER
APN

PERMIT CONDITIONS
Circled Permit Requirements Apply

A. GENERAL
1. A permit application should be submitted so as to arrive at the ACFWA office five days prior to proposed starting date.
2. Submit to ACFWA within 60 days after completion of permitted original Department of Water Resources Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL/CONTAMINATION
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind, or with compacted native

E. CATHODIC
Fill hole anode zone with concrete placed by tremie.

F. WELL DESTRUCTION
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

APPROVED _____ DATE 9-23-04

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE _____ DATE 9/23/04

PLEASE PRINT NAME KEVIN UNO

Rev 5-11-04

URS

1333 Broadway, Suite 800
Oakland, California 94612

LOG OF BORING

Borehole ID: SB-1

Total Depth: 18.5'

PROJECT INFORMATION	DRILLING INFORMATION
Project: Soil and Water Investigation	**Drilling Company:** Gregg Drilling and Testing, Inc.
Site Location: 3310 Park Blvd., Oakland, CA	**Driller:** Paul Rogers
Project Manager: Scott Robinson	**Type of Drilling Rig:** Geoprobe
RG: James Durkin	**Drilling Method:** 2" Direct Push
Geologist: Chris Sheridan	**Sampling Method:** Continuous Core
Job Number: 38486908.0013601	**Date(s) Drilled:** 3/30/04

BORING INFORMATION

Groundwater Depth: NA	**Boring Location:** East corner of property, near entrance on East 34th St.
Air Knife or Hand Auger Depth: 5.0 feet	**Boring Diameter:** 2"
Coordinates: X -122.2344641 Y 37.8031429	**Boring Type:** Exploratory

Elevation (ft msl)	Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
128	0		CONCRETE					
			SILTY GRAVELLY CLAY: dark brown (7.5 YR 3/3), clay with silt and fine to coarse gravel and sand; soft; no plasticity, moist.	CL				Boring grouted with neat Portland Cement. Top 3" finished to grade with cement.
126	2							
124	4							
			Low plasticity.		0	SB-1-5		
122	6							
120	8							
					0			
118	10		Moderately stiff to stiff.			SB-1-10		
116	12				6			
114	14				0			
						SB-1-15		
112	16							
						SB-1-18		
110	18		SILTY SANDY GRAVEL: brown (7.5 YR 5/3) subangular to angular gravel, sand, silt, little clay; well graded, moist. EOB: Refusal @18.5' bgs.	GW	0			

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1333 Broadway, Suite 800
Oakland, California 94612

LOG OF BORING

Borehole ID: SB-2

Total Depth: 23.0'

PROJECT INFORMATION	DRILLING INFORMATION
Project: Soil and Water Investigation	**Drilling Company:** Gregg Drilling and Testing, Inc.
Site Location: 3310 Park Blvd., Oakland, CA	**Driller:** Paul Rogers
Project Manager: Scott Robinson	**Type of Drilling Rig:** Geoprobe
RG: James Durkin	**Drilling Method:** 2" Direct Push
Geologist: Chris Sheridan	**Sampling Method:** Continuous Core
Job Number: 38486908.0013601	**Date(s) Drilled:** 3/30/04

BORING INFORMATION

Groundwater Depth: 16'	**Boring Location:** Under east corner of canopy
Air Knife or Hand Auger Depth: 5 feet	**Boring Diameter:** 2"
Coordinates: X -122.2345458 Y 37.8030865	**Boring Type:** Exploratory

Elevation (ft msl)	Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
126	0		CONCRETE					
			Air knifed to 5' bgs					Borehole grouted with neat Portland Cement. Top 3" finished to grade with cement.
124	2				0			
122	4							
			SILTY CLAY: brown (7.5 YR 4/3) clay with silt and fine to coarse sand; soft, moist, low plasticity.	CL		SB-2-5		
120	6				0			
118	8							
					6			
116	10		CLAYEY SILT: brown (7.5 YR 4/3), silt with clay and trace fine to coarse gravel and sand; moist, slight plasticity.	ML		SB-2-10		
			SAND: brown, fine; moist.	SP	0			
114	12		SILTY CLAY: brown (7.5 YR 3/4), clay with silt; moist, low plasticity.	CL				
					0			
112	14		Wet.			SB-2-15		
110	16							
					0			
108	18		Some gravel.		0			
106	20					SB-2-20		
					0			
104	22		EOB: Refusal @23.0' bgs.			SB-2-23		Groundwater grab sample SB-2.

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1333 Broadway, Suite 800
Oakland, California 94612

LOG OF BORING

Borehole ID: SB-3

Total Depth: 32.0 ft. bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Soil and Water Investigation	**Drilling Company:** Gregg Drilling and Testing, Inc.
Site Location: 3310 Park Blvd., Oakland, CA	**Driller:** Paul Rogers
Project Manager: Scott Robinson	**Type of Drilling Rig:** Geoprobe
RG: James Durkin	**Drilling Method:** 2" Direct Push
Geologist: Kevin Uno	**Sampling Method:** Continuous Core
Job Number: 38486908.0013601	**Date(s) Drilled:** 5/7/04

BORING INFORMATION

Groundwater Depth: 5.5 ft. bgs	**Boring Location:** Parking stall across from pump #6.
Air Knife or Hand Auger Depth: 5 feet	**Boring Diameter:** 2"
Coordinates: X -122.2347087 Y 37.8032083	**Boring Type:** Exploratory

Elevation (ft msl)	Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
122	0		ASPHALT: 3"	FILL				
	2		NO RECOVERY: Air knifed to 5'bgs.					Boring grouted with neat Portland Cement. Top 3" finished to grade with cement.
120	4							
118	6			NR				
116	8		SILTY CLAY: Grey, mottled light brown clay with little silt, little rounded fine gravel, and trace sand; stiff, wet, medium plasticity.	CL	9.9	SB-3-8		
114	10							
112	12				7.7	SB-3-13		
110	14		Black, round clasts (1.0-3.0 mm).					
108	16							Groundwater samples were collected from boring HP-3.
106	18				no odor	SB-3-18		
104	20							
102	22		SILTY SANDY CLAY: light brown clay, silt with fine to medium sand; rootlets, trace organic material. Stiff, wet; medium plasticity.					
100	24				12.2	SB-3-23		

URS

LOG OF BORING

Borehole ID: SB-3

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Recovery	Sample ID / Comments
98 / 26		SILTY SAND: light brown, fine to coarse sand with little silt, loose, saturated.	SM			
96 / 28		CLAYEY SANDY SILT: grey, mottled light brown, silt, some clay and little fine to coarse sand and trace gravel, moderately stiff, wet, medium plasticity.	ML	12.1	SB-3-26	
94 / 30				no odor	SB-3-31	
92 / 32		SAND: light brown, mostly coarse sand, little silt, trace gravel. Moderately dense, saturated. EOB: 32.0 ft. bgs.	SM			

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1333 Broadway, Suite 800
Oakland, California 94612

LOG OF BORING

Borehole ID: SB-4

Total Depth: 2.0 ft. bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Soil and Water Investigation	**Drilling Company:** Gregg Drilling and Testing, Inc.
Site Location: 3310 Park Blvd., Oakland, CA	**Driller:** Paul Rogers
Project Manager: Scott Robinson	**Type of Drilling Rig:** Hand Auger
RG: James Durkin	**Drilling Method:** Hand Auger
Geologist: Kevin Uno	**Sampling Method:** Hand packed brass tube.
Job Number: 38486908.0013601	**Date(s) Drilled:** 5/7/04
BORING INFORMATION	
Groundwater Depth: 2.0 ft. bgs	**Boring Location:** Sidewalk along Park Blvd.
Air Knife or Hand Auger Depth: NA	**Boring Diameter:** 2 inch
Coordinates: X NA Y NA	**Boring Type:** Exploratory

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		CONCRETE: 9"					
		SAND: **FILL**, dark gray, sand with silt. Strong hydrocarbon odor. Wet.	SP	HC odor	SB-4-1.0		Boring grouted with neat Portland Cement. Top 3" finished to grade with cement.
2		EOB 2.0 ft' bgs. Boring abandoned when sloughing prevented air-knifing or hand augering to 5 ft. bgs.					

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1333 Broadway, Suite 800
Oakland, California 94612

LOG OF BORING

Borehole ID: SB-5

Total Depth: 19.5'

PROJECT INFORMATION	DRILLING INFORMATION
Project: Soil and Water Investigation	**Drilling Company:** Gregg Drilling and Testing, Inc.
Site Location: 3310 Park Blvd., Oakland, CA	**Driller:** Paul Rogers
Project Manager: Scott Robinson	**Type of Drilling Rig:** Geoprobe
RG: James Durkin	**Drilling Method:** 2" Direct Push
Geologist: Chris Sheridan	**Sampling Method:** Continuous Core
Job Number: 38486908.0013601	**Date(s) Drilled:** 3/30/04

BORING INFORMATION	
Groundwater Depth: 4.0'	**Boring Location:** Sidewalk along Park Blvd near intersection w/E 34th St
Air Knife or Hand Auger Depth: 5 feet	**Boring Diameter:** 2"
Coordinates: X -122.2346814 Y 37.8032765	**Boring Type:** Exploratory

Elevation (ft msl)	Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
122	0		ASPHALT: 3"					
			Air knifed to 5'bgs.					Boring grouted with neat Portland Cement. Top 3" finished to grade with cement.
120	2							
	4							▽
118			5.0-8.0' bgs: No Recovery.					
	6							
116								
	8		SILTY CLAY: brown to dark brown (5Y 3/1) clay with some silt and few fine to medium sand, soft, wet, low to moderate plasticity.	CL	0	SB-5-8		
114								
	10				0			
112								
	12		12.0-16.0' bgs: No Recovery.		6			
110								
	14							
108								
	16		First two feet of sample were slough (16.0-18.0').			SB-5-16		
106					0			
	18		SANDY GRAVEL: brown (5Y 3/3) angular to subangular fine gravel with some sand, few clay and silt, stiff, wet.	GW				Groundwater grab sample at 19.5' bgs.
104			EOB: Refusal @ 19.5 ft. bgs		0	SB-5-19		

URS

1333 Broadway, Suite 800
Oakland, California 94612

LOG OF BORING

Borehole ID: SB-6

Total Depth: 2.0 ft. bgs

PROJECT INFORMATION	DRILLING INFORMATION
Project: Soil and Water Investigation	**Drilling Company:** Gregg Drilling and Testing, Inc.
Site Location: 3310 Park Blvd., Oakland, CA	**Driller:** Paul Rogers
Project Manager: Scott Robinson	**Type of Drilling Rig:** Hand Auger
RG: James Durkin	**Drilling Method:** Hand Auger
Geologist: Kevin Uno	**Sampling Method:** Hand packed brass tube.
Job Number: 38486908.0013601	**Date(s) Drilled:** 5/7/04

BORING INFORMATION	
Groundwater Depth: 2.0 ft. bgs	**Boring Location:** Sidewalk along Park Blvd.
Air Knife or Hand Auger Depth: NA	**Boring Diameter:** 2 inch
Coordinates: X NA Y NA	**Boring Type:** Exploratory

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
0		CONCRETE: 9"					Boring grouted with neat Portland Cement. Top 3" finished to grade with cement.
		SAND: (FILL), dark gray sand with silt. Strong hydrocarbon odor; wet.	SP	HC odor	SB-6-1.0		
2		EOB: 2.0 ft. bgs. Boring abandoned when sloughing prevented air-knifing or hand augering to 5 ft. bgs.					

URS

1333 Broadway, Suite 800
Oakland, California 94612

LOG OF BORING

Borehole ID: SB-7

Total Depth: 30 ft

PROJECT INFORMATION	DRILLING INFORMATION
Project: Soil and Water Investigation	**Drilling Company:** Vironex
Site Location: 3310 Park Blvd., Oakland, CA	**Driller:** Paul White
Project Manager: Scott Robinson	**Type of Drilling Rig:** Geoprobe 6610DT
RG: Bob Horwath	**Drilling Method:** 2" Direct Push
Geologist: Kevin Uno	**Sampling Method:** Continuous Core
Job Number: 38486908.0013601	**Date(s) Drilled:** 10/14/04

BORING INFORMATION

Groundwater Depth: 16'	**Boring Location:** Along curb at E 34th St. entrance to Site.
Air Knife or Hand Auger Depth: Air knife to 5' bgs	**Boring Diameter:** 2"
Coordinates: X -122.2345316 Y 37.8032140	**Boring Type:** Exploratory

Elevation (ft msl)	Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
126	0		ASPHALT: 3"	GP				
			SANDY CLAYEY GRAVEL: (2.5Y 3/3) Dark olive brown. 60% gravel, 25% sand, 10 silt, 5% clay. Loose, moist, low plasticity.					Boring grouted with neat Portland Cement. Top 3" finished to grade with cement.
124	2		CLAYEY SILT: (2.5Y 2.5/1) Black. 75% silt, 25% clay. Moderately stiff, moist, low to medium plasticity.	ML				
122	4		60% silt, 40% clay. Medium plasticity.					
			SILTY SAND: (2.5Y 3/2) Very dark greyish brown. 65% fine sand, 30% silt, 5% clay. Loose, moist to wet, low plasticity.	SM				
120	6		SANDY SILT: (2.5Y 4/2) Dark grayish brown. 65% silt, 20% sand, 15% clay, trace gravel. Stiff, moist, low plasticity.	ML		SB-7-6.0		
118	8		NO RECOVERY		0			
116	10		CLAYEY SILT: (2.5Y 4/2) Dark grayish brown. 75% silt, 15% clay, 10% sand. Stiff, moist, medium plasticity.	ML				
114	12		Oxidation, mottling (Very dark gray and olive).			SB-7-11.5		
112	14		NO RECOVERY					
110	16		SANDY CLAYEY SILT: (2.5Y 4/2) Dark grayish brown. 65% silt, 25% sand, 10% clay. Mottling (Very dark gray and olive), stiff, moist to wet, medium plastlcity.		0	SB-7-16.0		
108	18				No Odor			Groundwater samples were collected from boring HP-4.
106	20		NO RECOVERY		No Odor	SB-7-19.5		
104	22							
	24							

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LOG OF BORING

Borehole ID: SB-7

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Recovery	Sample ID / Comments
102						
100		CLAYEY SILT: Recovered cutting shoe: Olive. 85% silt, 15% clay, trace sand and clay.	ML			
26		NO RECOVERY				
98						
28						
30		GRAVELLY SILTY SAND: Recovered cutting shoe: Olive brown. 65% fine to coarse sand, 25% gravel, 10% silt. Moist to wet, no plasticity. EOB: Refusal @30.0' bgs.	SW			

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1333 Broadway, Suite 800
Oakland, California 94612

LOG OF BORING

Borehole ID: SB-8

Total Depth: 30 ft

PROJECT INFORMATION	DRILLING INFORMATION
Project: Soil and Water Investigation	**Drilling Company:** Vironex
Site Location: 3310 Park Blvd., Oakland, CA	**Driller:** Paul White
Project Manager: Scott Robinson	**Type of Drilling Rig:** Geoprobe 6610 DT
RG: Bob Horwath	**Drilling Method:** 2" Direct Push
Geologist: Kevin Uno	**Sampling Method:** Continuous Core
Job Number: 38486908.0013601	**Date(s) Drilled:** 10/15/04

BORING INFORMATION	
Groundwater Depth: 20'	**Boring Location:** Located in parking stall closest to E 34th St. entrance.
Air Knife or Hand Auger Depth: Hand auger to 5' bgs	**Boring Diameter:** 2"
Coordinates: X -122.2346152 Y 37.8032190	**Boring Type:** Exploratory

Elevation (ft msl)	Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
124	0		ASPHALT: 2"					
	2		SANDY CLAYEY GRAVEL: (2.5Y 3/3) Dark olive brown. 60% gravel, 25% sand, 10 silt, 5% clay. Loose, moist, low plasticity.	GM				Boring grouted with neat Portland Cement. Top 3" finished to grade with cement.
122			CLAYEY SILT: (2.5Y 2.5/1) Black. 88% silt, 10% clay, 2% sand. Moderately stiff, moist, low to medium plasticity.	ML				
	4							
120			SANDY SILT: 70% silt, 20% fine sand, 10% clay. Stiff, moist to wet, low plasticity.					
	6		CLAYEY SILT: (10Y 4/1) Dark greenish gray. 85% silt, 15% clay. Stiff, moist, medium plasticity.			SB-8-6.0		
118								
	8							
116								
	10							
114								
	12							
112								
	14					SB-8-14		
110			CLAYEY SANDY SILT: (2.5Y 4/3) Olive brown. 70% silt, 15% clay, 15% sand. Stiff, moist to wet, medium plasticity.					Groundwater samples were collected from boring HP-5.
	16		Mottling: Dark olive brown and olive brown.			SB-8-16.0		
108								
	18							
106								
	20					SB-8-19.5		▽
104			NO RECOVERY					
	22							
102								
	24							

URS

LOG OF BORING

Borehole ID: SB-8

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Recovery	Sample ID / Comments
100						
26		CLAYEY SILT: 75% silt, 20% clay, 5% fine sand. Moderately stiff, moist, low to medium plasticity.	ML			
98						
28						
96		SILTY SAND: 65% fine sand, 30% silt, 5% clay. Moist to wet, no to low plasticity.	SM		SB-8-29.5	30 ft. bgs: End of Boring
30		CLAYEY SILT: 70% silt, 30% clay. Very stiff, moist, medium plasticity.	ML			

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1333 Broadway, Suite 800
Oakland, California 94612

LOG OF BORING

Borehole ID: SB-9

Total Depth: 27.5 ft.

PROJECT INFORMATION	DRILLING INFORMATION
Project: Arco Site 2107 Soil and Water Investigation	**Drilling Company:** Vironex
Site Location: 3310 Park Blvd., Oakland, CA	**Driller:** Paul White
Project Manager: Scott Robinson	**Type of Drilling Rig:** Geoprobe 6610 DT
RG: Bob Horwath	**Drilling Method:** 2" Direct Push
Geologist: Kevin Uno	**Sampling Method:** Continuous Core
Job Number: 38486908.0013601	**Date(s) Drilled:** 10/14/04

BORING INFORMATION

Groundwater Depth: 2.5 ft. bgs	**Boring Location:** Parking stall closest to Park Blvd..
Air Knife or Hand Auger Depth: Airknife to 5' bgs	**Boring Diameter:** 2"
Coordinates: X -122.2348093 Y 37.8031964	**Boring Type:** Exploratory

Elevation (ft msl)	Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
122	0		ASPHALT: 4"					
			SANDY GRAVEL: (2.5Y 3/3) Dark olive brown. 60% gravel, 25% sand, 10 silt, 5% clay. Loose, moist, low plasticity.	GM				
120	2							▽
			GRAVELLY CLAY: (10GY 4/1) Dark greenish gray. 60% clay, 25% gravel, 15% silt. Stiff, wet, high plasticity.	CL				
118	4							
			NO RECOVERY					
116	6							Boring grouted with neat Portland Cement. Top 3" finished to grade with cement.
114	8							
112	10		SANDY GRAVEL: (2.5Y 3/1) Very dark gray. 55% fine to medium subangular gravel, 30% fine to coarse sand, 10% silt, 5% clay. Stiff, wet, low plasticity.	ML		SB-9-10.5		
			CLAYEY SILT: (2.5Y 5/3) Light olive brown. 80% silt, 20% clay. Mottling, stiff, wet, medium plasticity.					
110	12					SB-9-13.0		
108	14		NO RECOVERY					
			CLAYEY SILT: (2.5Y 5/3) Light olive brown. 80% silt, 20% clay. Mottling, stiff, wet, medium plasticity.	ML				Groundwater samples were collected from boring HP-6.
106	16		GRAVELLY SANDY SILT: 40% silt, 30% gravel, 25% sand, 5% clay. Mottling, stiff, wet, no to low plasticity.					
			SANDY SILT: 90% silt, 10% fine sand. Wet; low plasticity. Grades to silty sand.			SB-9-17.5		
104	18							
			SILTY SAND: 60% fine sand, 40% silt. Wet; low plasticity. Grades to silty sand.	SM		SB-9-19.5		
102	20		SANDY GRAVELLY SILT: 50% silt, 25% sand, 15% gravel, 10% clay. Wet, no to low plasticity.	ML				
			NO RECOVERY					
100	22							
	24		GRAVELLY SILT: 50% silt, 25% gravel, 10% fine sand, 15% clay.	ML				

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LOG OF BORING

Borehole ID: SB-9

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Recovery	Sample ID / Comments
98		Wet, no to low plasticity.				
26		SILTY SAND: 2.5Y 4/3 Olive brown. 70% sand, 30% silt. Moist, no plasticity.	SM			
96						

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1333 Broadway, Suite 800
Oakland, California 94612

LOG OF BORING

Borehole ID: SB-10

Total Depth: 32 ft.

PROJECT INFORMATION	DRILLING INFORMATION
Project: Arco Site 2107 Soil and Water Investigation	**Drilling Company:** Vironex
Site Location: 3310 Park Blvd., Oakland, CA	**Driller:** Paul White
Project Manager: Scott Robinson	**Type of Drilling Rig:** Geoprobe 6610 DT
RG: Bob Horwath	**Drilling Method:** 2" Direct Push
Geologist: Kevin Uno	**Sampling Method:** Continuous Core
Job Number: 38486908.0013601	**Date(s) Drilled:** 10/20/04

BORING INFORMATION	
Groundwater Depth: 1.3 ft. bgs	**Boring Location:** Middle of driveway on Park Blvd..
Air Knife or Hand Auger Depth: Hand auger to 5' bgs	**Boring Diameter:** 2"
Coordinates: X -122.2348842 Y 37.8031970	**Boring Type:** Exploratory

Elevation (ft msl)	Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
120	0–2		ASPHALT: 3" SANDY GRAVEL: (2.5Y 3/3) Dark olive brown. Gravel and concrete pieces (to 1.0 ft. bgs), sand, and clay. Loose, moist to wet, low plasticity.	GM				
118	2–4		CLAYEY SILT: (10Y 2.5/1) Greenish black. 70% silt, 20% clay, 5% fine to coarse rounded sand and gravel. Stiff, moist, medium plasticity.	ML				
116	4–6							Boring grouted with neat Portland Cement. Top 3" finished to grade with cement.
114	6–8					SB-10-6.5		
112	8–10		(2.5Y 4/3) Olive brown.					
110	10–12		Core sample sleeve destroyed from 10-13.5 ft. bgs.					
108	12–14							
106	14–16		Mottling. NO RECOVERY			SB-10-14.0		Groundwater samples collected from boring labeled as HP-7.
104	16–18		NO RECOVERY: Hydropunch: HP-7-20					
102	18–20							
100	20–22		CLAYEY SANDY SILT: (5Y 4/2) Olive gray. 70% silt, 20% clay, 10% sand. Moderately stiff to stiff, moist, medium plasticity. SILTY SAND: (2.5Y 5/4) Light olive brown. 45% sand, 40% silt, 15% clay. Moist, dense, no to low plasticity.	ML SM		SB-10-20.5		
98	22–24		CLAYEY SANDY SILT: (5Y 4/2) Olive gray. 70% silt, 20% clay, 10% sand. Moderately stiff to stiff, moist, medium plasticity.	ML		SB-10-22.5		

URS

LOG OF BORING

Borehole ID: SB-10

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Recovery	Sample ID / Comments
96 / 26		NO RECOVERY				
		NO RECOVERY: Hydropunch: HP-7-30				
94 / 28						
92 / 30		GRAVELLY SILTY SAND: (2.5Y 4/3) Olive brown. 45% sand, 30% subangular to angular gravel, 20% silt, 5% clay. Moderately dense, moist, no plasticity.	SM		SB-10-31.5	
90 / 32		Refusal: End of Boring at 32' bgs				

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1333 Broadway, Suite 800
Oakland, California 94612

LOG OF BORING

Borehole ID: SB-11

Total Depth: 30 ft.

PROJECT INFORMATION	DRILLING INFORMATION
Project: Arco Site 2107 Soil and Water Investigation	**Drilling Company:** Vironex
Site Location: 3310 Park Blvd., Oakland, CA	**Driller:** Paul White
Project Manager: Scott Robinson	**Type of Drilling Rig:** Geoprobe 6610 DT
RG: Bob Horwath	**Drilling Method:** 2" Direct Push
Geologist: Kevin Uno	**Sampling Method:** Continuous Core
Job Number: 38486908.0013601	**Date(s) Drilled:** 10/14/04

BORING INFORMATION

Groundwater Depth: 3.8 ft. bgs	**Boring Location:** W side of driveway on Park Blvd..
Air Knife or Hand Auger Depth: Airknife to 5' bgs	**Boring Diameter:** 2"
Coordinates: X -122.2349568 Y 37.8032163	**Boring Type:** Exploratory

Elevation (ft msl)	Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Sample ID	Recovery	Comments
120	0		ASPHALT: 6"					
			SANDY GRAVEL: (2.5Y 3/3) Dark olive brown. 60% gravel, 25% sand, 10 silt, 5% clay. Loose, moist, low plasticity.	GM				
118	2		CLAYEY SILT: (10Y 2.5/1) Greenish black. 70% silt, 20% clay, 10% fine to coarse rounded gravel. Moderately stiff, moist, medium plasticity.	ML				
116	4							▽
								Boring grouted with neat Portland Cement. Top 3" finished to grade with cement.
114	6		2.5Y 2.5/1 Black					
						SB-11-6.5		
112	8		Increase to 10% fine to coarse sand; decrease clay.					
110	10		(5Y 4/2) Olive gray. 75% silt, 15% clay, 10% fine to coarse sand. Moist; Low to medium plasticity.					
108	12		(2.5Y 5/1) Gray. Wet, soft.			SB-11 -11.5		
106	14							
			SANDY CLAYEY SILT: (5Y 4/2) Olive gray. 70% silt, 25% sand, 5% clay. Stiff, moist to wet, low plasticity.					Groundwater samples were collected from boring HP-8.
104	16		(2.5Y 2.5/1) Black			SB-11 -16.5		
			NO RECOVERY					
102	18							
100	20		SANDY CLAYEY SILT: (5Y 4/2) Olive gray. 65% silt, 20% fine to coarse sand, 10% clay. Low plasticity.	ML				
98	22		(2.5Y 2.5/1) Black			SB-11 -21.5		
			SILTY SAND: (5Y 5/3) Olive. 70% sand, 30% silt, trace gravel. Low plasticity.	SM				
	24							

URS

LOG OF BORING

Borehole ID: SB-11

Depth (ft bgs)	Symbol	Lithologic Description	USCS	PID (ppm)	Recovery	Sample ID / Comments
96						
94	26	23.5 ft : Color change to (5G 4/1) dark greenish gray. GRAVELLY SILTY SAND: 65% sand, 20% gravel, 15% silt. Dense, wet, no plasticity.			SB-11-26	
92	28				SB-11 -28.5	
	30	NO RECOVERY				

Attachment D

Laboratory Procedures, Certified Analytical Results, and Chain-of-Custody Records

LABORATORY PROCEDURES

Laboratory Procedures

The groundwater samples were analyzed for the presence of the chemicals mentioned in the chain of custody using standard EPA methods. The methods of analysis for the groundwater samples are documented in the certified analytical report. The certified analytical reports and chain-of-custody record are presented in this attachment. The analytical data provided by the laboratory approved by Atlantic Richfield Company have been reviewed and verified by that laboratory.

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2 November, 2004

Scott Robinson
URS Corporation [Arco]
1333 Broadway, Suite 800
Oakland, CA 94612

RE: ARCO #2107,Oakland, CA
Work Order: MNJ0392

Enclosed are the results of analyses for samples received by the laboratory on 10/15/04 19:20. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lisa Race
Senior Project Manager

CA ELAP Certificate #1210

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0392
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/02/04 10:58

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-9-10.5	MNJ0392-01	Soil	10/14/04 08:35	10/15/04 19:20
SB-9-17.5	MNJ0392-02	Soil	10/14/04 08:54	10/15/04 19:20
SB-9-19.5	MNJ0392-03	Soil	10/14/04 09:05	10/15/04 19:20
SB-11-6.5	MNJ0392-04	Soil	10/14/04 09:48	10/15/04 19:20
SB-11-11.5	MNJ0392-05	Soil	10/14/04 09:55	10/15/04 19:20
SB-11-16.5	MNJ0392-06	Soil	10/14/04 10:18	10/15/04 19:20
SB-11-21.5	MNJ0392-07	Soil	10/14/04 10:25	10/15/04 19:20
SB-11-26.0	MNJ0392-08	Soil	10/14/04 10:38	10/15/04 19:20
SB-11-28.5	MNJ0392-09	Soil	10/14/04 10:42	10/15/04 19:20
SB-7-6.0	MNJ0392-10	Soil	10/14/04 11:07	10/15/04 19:20
SB-7-11.5	MNJ0392-11	Soil	10/14/04 11:20	10/15/04 19:20
SB-7-16.0	MNJ0392-12	Soil	10/14/04 11:25	10/15/04 19:20
SB-7-19.5	MNJ0392-13	Soil	10/14/04 11:35	10/15/04 19:20
HP-4-18	MNJ0392-14	Water	10/14/04 13:25	10/15/04 19:20
HP-4-30	MNJ0392-15	Water	10/14/04 13:38	10/15/04 19:20
HP-6-8	MNJ0392-16	Water	10/14/04 14:15	10/15/04 19:20
HP-6-20	MNJ0392-17	Water	10/14/04 15:00	10/15/04 19:20
HP-6-30	MNJ0392-18	Water	10/14/04 15:20	10/15/04 19:20
SB-9-13.5	MNJ0392-19	Soil	10/14/04 08:40	10/15/04 19:20

The carbon range for the TPH-GRO has been changed from C6-C10 to C4-C12. The carbon range for TPH-DRO has been changed from C10-C28 to C10-C36. EPA 8015B has been modified to better meet the requirements of California regulatory agencies.

These samples were received with no custody seals.

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0392
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/02/04 10:58

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-9-10.5 (MNJ0392-01) Soil Sampled: 10/14/04 08:35 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.0050	mg/kg	1	4J25008	10/25/04	10/25/04	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
tert-Butyl alcohol	ND	0.020	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0050	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	0.10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*97 %*		*78-136*	"	"	"	"	
SB-9-17.5 (MNJ0392-02) Soil Sampled: 10/14/04 08:54 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.025	mg/kg	5	4J25008	10/25/04	10/25/04	EPA 8260B	
Benzene	ND	0.025	"	"	"	"	"	"	
tert-Butyl alcohol	ND	0.10	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.025	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.025	"	"	"	"	"	"	
Ethylbenzene	ND	0.025	"	"	"	"	"	"	
Methyl tert-butyl ether	**0.22**	0.025	"	"	"	"	"	"	
Toluene	ND	0.025	"	"	"	"	"	"	
Xylenes (total)	ND	0.025	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	0.50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*94 %*		*78-136*	"	"	"	"	

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0392
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/02/04 10:58

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-9-19.5 (MNJ0392-03) Soil Sampled: 10/14/04 09:05 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.0050	mg/kg	1	4J25008	10/25/04	10/25/04	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
tert-Butyl alcohol	**0.026**	0.020	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0050	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	**0.0069**	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	0.10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*90 %*	*78-136*		"	"	"	"	
SB-11-6.5 (MNJ0392-04) Soil Sampled: 10/14/04 09:48 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.0050	mg/kg	1	4J25008	10/25/04	10/25/04	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
tert-Butyl alcohol	ND	0.020	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0050	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	**0.31**	0.10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*90 %*	*78-136*		"	"	"	"	

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1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/02/04 10:58

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-11-11.5 (MNJ0392-05) Soil Sampled: 10/14/04 09:55 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.12	mg/kg	5	4J22043	10/22/04	10/23/04	EPA 8260B	
Benzene	ND	0.25	"	"	"	"	"	"	
tert-Butyl alcohol	ND	25	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.12	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.12	"	"	"	"	"	"	
Ethylbenzene	ND	0.25	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.12	"	"	"	"	"	"	
Toluene	ND	0.25	"	"	"	"	"	"	
Xylenes (total)	ND	0.25	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	**220**	12	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*99 %*	*72-130*		"	"	"	"	
SB-11-16.5 (MNJ0392-06) Soil Sampled: 10/14/04 10:18 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.025	mg/kg	1	4J22043	10/22/04	10/23/04	EPA 8260B	
Benzene	ND	0.050	"	"	"	"	"	"	
tert-Butyl alcohol	ND	5.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.025	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.025	"	"	"	"	"	"	
Ethylbenzene	ND	0.050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.025	"	"	"	"	"	"	
Toluene	ND	0.050	"	"	"	"	"	"	
Xylenes (total)	ND	0.050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	**14**	2.5	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*100 %*	*72-130*		"	"	"	"	

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1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/02/04 10:58

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-11-21.5 (MNJ0392-07) Soil Sampled: 10/14/04 10:25 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.025	mg/kg	1	4J22043	10/22/04	10/23/04	EPA 8260B	
Benzene	ND	0.050	"	"	"	"	"	"	
tert-Butyl alcohol	ND	5.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.025	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.025	"	"	"	"	"	"	
Ethylbenzene	ND	0.050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.025	"	"	"	"	"	"	
Toluene	ND	0.050	"	"	"	"	"	"	
Xylenes (total)	ND	0.050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	**24**	2.5	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*72-130*		"	"	"	"	
SB-11-26.0 (MNJ0392-08) Soil Sampled: 10/14/04 10:38 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.0050	mg/kg	1	4J25008	10/25/04	10/25/04	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
tert-Butyl alcohol	ND	0.020	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0050	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	**0.012**	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	0.10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*89 %*	*78-136*		"	"	"	"	

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0392
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/02/04 10:58

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-11-28.5 (MNJ0392-09) Soil Sampled: 10/14/04 10:42 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.0050	mg/kg	1	4J25008	10/25/04	10/25/04	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
tert-Butyl alcohol	ND	0.020	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0050	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	**0.022**	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	**0.012**	0.0050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	0.10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*96 %*	*78-136*		"	"	"	"	
SB-7-6.0 (MNJ0392-10) Soil Sampled: 10/14/04 11:07 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.0050	mg/kg	1	4J25008	10/25/04	10/25/04	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
tert-Butyl alcohol	ND	0.020	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0050	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	0.10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*90 %*	*78-136*		"	"	"	"	

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0392
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/02/04 10:58

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-7-11.5 (MNJ0392-11) Soil Sampled: 10/14/04 11:20 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.0050	mg/kg	1	4J20002	10/20/04	10/20/04	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
tert-Butyl alcohol	ND	0.020	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0050	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	0.10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*93 %*	*78-136*		"	"	"	"	
SB-7-16.0 (MNJ0392-12) Soil Sampled: 10/14/04 11:25 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.0050	mg/kg	1	4J20002	10/20/04	10/20/04	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
tert-Butyl alcohol	ND	0.020	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0050	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	**0.0056**	0.0050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	0.10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*91 %*	*78-136*		"	"	"	"	

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0392
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/02/04 10:58

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-7-19.5 (MNJ0392-13) Soil Sampled: 10/14/04 11:35 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.0050	mg/kg	1	4J20002	10/20/04	10/20/04	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
tert-Butyl alcohol	ND	0.020	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0050	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	0.10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*97 %*	*78-136*		"	"	"	"	
HP-4-18 (MNJ0392-14) Water Sampled: 10/14/04 13:25 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.50	ug/l	1	4J27003	10/27/04	10/27/04	EPA 8260B	
Benzene	**1.6**	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	**5.4**	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	**38**	0.50	"	"	"	"	"	"	
Xylenes (total)	**27**	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	**140**	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*118 %*	*78-129*		"	"	"	"	

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0392
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/02/04 10:58

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
HP-4-30 (MNJ0392-15) Water Sampled: 10/14/04 13:38 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.50	ug/l	1	4J27003	10/27/04	10/27/04	EPA 8260B	
Benzene	**0.91**	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	**3.5**	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	**23**	0.50	"	"	"	"	"	"	
Xylenes (total)	**17**	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	**96**	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*118 %*	*78-129*		"	"	"	"	
HP-6-8 (MNJ0392-16) Water Sampled: 10/14/04 14:15 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	2.5	ug/l	5	4J27003	10/27/04	10/27/04	EPA 8260B	
Benzene	ND	2.5	"	"	"	"	"	"	
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.5	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Ethylbenzene	ND	2.5	"	"	"	"	"	"	
Methyl tert-butyl ether	**92**	2.5	"	"	"	"	"	"	
Toluene	ND	2.5	"	"	"	"	"	"	
Xylenes (total)	ND	2.5	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	250	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*117 %*	*78-129*		"	"	"	"	

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0392
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/02/04 10:58

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
HP-6-20 (MNJ0392-17) Water Sampled: 10/14/04 15:00 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	1.0	ug/l	2	4J27003	10/27/04	10/27/04	EPA 8260B	
Benzene	ND	1.0	"	"	"	"	"	"	
tert-Butyl alcohol	**76**	40	"	"	"	"	"	"	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	**2.9**	1.0	"	"	"	"	"	"	
Methyl tert-butyl ether	**82**	1.0	"	"	"	"	"	"	
Toluene	**15**	1.0	"	"	"	"	"	"	
Xylenes (total)	**16**	1.0	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	**170**	100	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*116 %*	*78-129*		"	"	"	"	
HP-6-30 (MNJ0392-18) Water Sampled: 10/14/04 15:20 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.50	ug/l	1	4J27003	10/27/04	10/27/04	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	**2.2**	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**6.6**	0.50	"	"	"	"	"	"	
Toluene	**13**	0.50	"	"	"	"	"	"	
Xylenes (total)	**13**	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	**72**	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*121 %*	*78-129*		"	"	"	"	

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0392
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/02/04 10:58

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-9-13.5 (MNJ0392-19) Soil Sampled: 10/14/04 08:40 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.025	mg/kg	1	4J22043	10/22/04	10/23/04	EPA 8260B	
Benzene	ND	0.050	"	"	"	"	"	"	
tert-Butyl alcohol	ND	5.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.025	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.025	"	"	"	"	"	"	
Ethylbenzene	ND	0.050	"	"	"	"	"	"	
Methyl tert-butyl ether	**0.56**	0.025	"	"	"	"	"	"	
Toluene	ND	0.050	"	"	"	"	"	"	
Xylenes (total)	ND	0.050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	2.5	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*97 %*		*72-130*	"	"	"	"	

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1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/02/04 10:58

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J20002 - EPA 5030B Modified / EPA 8260B										
Blank (4J20002-BLK1)				Prepared & Analyzed: 10/20/04						
tert-Amyl methyl ether	ND	0.0050	mg/kg							
Benzene	ND	0.0050	"							
tert-Butyl alcohol	ND	0.020	"							
Di-isopropyl ether	ND	0.0050	"							
Ethyl tert-butyl ether	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Methyl tert-butyl ether	ND	0.0050	"							
Toluene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Organics (C4-C12)	ND	0.10	"							
Surrogate: 1,2-Dichloroethane-d4	*0.00481*		"	*0.00500*		*96*	*78-136*			
Laboratory Control Sample (4J20002-BS1)				Prepared & Analyzed: 10/20/04						
tert-Amyl methyl ether	0.0110	0.0050	mg/kg	0.0100		110	78-135			
Benzene	0.0102	0.0050	"	0.0100		102	59-126			
tert-Butyl alcohol	0.0555	0.020	"	0.0500		111	20-164			
Di-isopropyl ether	0.0110	0.0050	"	0.0100		110	72-127			
Ethyl tert-butyl ether	0.0111	0.0050	"	0.0100		111	77-129			
Ethylbenzene	0.0106	0.0050	"	0.0100		106	60-145			
Methyl tert-butyl ether	0.0106	0.0050	"	0.0100		106	47-149			
Toluene	0.0108	0.0050	"	0.0100		108	66-142			
Xylenes (total)	0.0306	0.0050	"	0.0300		102	83-135			
Surrogate: 1,2-Dichloroethane-d4	*0.00474*		"	*0.00500*		*95*	*78-136*			
Laboratory Control Sample (4J20002-BS2)				Prepared & Analyzed: 10/20/04						
Gasoline Range Organics (C4-C12)	0.507	0.10	mg/kg	0.440		115	53-126			
Surrogate: 1,2-Dichloroethane-d4	*0.00470*		"	*0.00500*		*94*	*78-136*			

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URS Corporation [Arco]	Project: ARCO #2107,Oakland, CA	MNJ0392
1333 Broadway, Suite 800	Project Number: N/P	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	11/02/04 10:58

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J20002 - EPA 5030B Modified / EPA 8260B										
Laboratory Control Sample Dup (4J20002-BSD1)				Prepared: 10/20/04 Analyzed: 10/21/04						
tert-Amyl methyl ether	0.00896	0.0050	mg/kg	0.0100		90	78-135	20	25	
Benzene	0.00879	0.0050	"	0.0100		88	59-126	15	25	
tert-Butyl alcohol	0.0450	0.020	"	0.0500		90	20-164	21	25	
Di-isopropyl ether	0.00908	0.0050	"	0.0100		91	72-127	19	25	
Ethyl tert-butyl ether	0.00903	0.0050	"	0.0100		90	77-129	21	25	
Ethylbenzene	0.00954	0.0050	"	0.0100		95	60-145	11	25	
Methyl tert-butyl ether	0.00843	0.0050	"	0.0100		84	47-149	23	25	
Toluene	0.00902	0.0050	"	0.0100		90	66-142	18	25	
Xylenes (total)	0.0265	0.0050	"	0.0300		88	83-135	14	25	
Surrogate: 1,2-Dichloroethane-d4	*0.00472*		"	*0.00500*		*94*	*78-136*			
Laboratory Control Sample Dup (4J20002-BSD2)				Prepared & Analyzed: 10/20/04						
Gasoline Range Organics (C4-C12)	0.463	0.10	mg/kg	0.440		105	53-126	9	25	
Surrogate: 1,2-Dichloroethane-d4	*0.00476*		"	*0.00500*		*95*	*78-136*			
Batch 4J22043 - EPA 5030B/5035A MeOH / EPA 8260B										
Blank (4J22043-BLK1)				Prepared: 10/22/04 Analyzed: 10/23/04						
tert-Amyl methyl ether	ND	0.025	mg/kg							
Benzene	ND	0.050	"							
tert-Butyl alcohol	ND	5.0	"							
Di-isopropyl ether	ND	0.025	"							
Ethyl tert-butyl ether	ND	0.025	"							
Ethylbenzene	ND	0.050	"							
Methyl tert-butyl ether	ND	0.025	"							
Toluene	ND	0.050	"							
Xylenes (total)	ND	0.050	"							
Gasoline Range Organics (C4-C12)	ND	2.5	"							
Surrogate: 1,2-Dichloroethane-d4	*0.00565*		"	*0.00500*		*113*	*72-130*			

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0392
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/02/04 10:58

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J22043 - EPA 5030B/5035A MeOH / EPA 8260B										
Laboratory Control Sample (4J22043-BS1)				Prepared & Analyzed: 10/22/04						
tert-Amyl methyl ether	1.16	0.025	mg/kg	1.00		116	52-140			
Benzene	0.966	0.050	"	1.00		97	53-132			
tert-Butyl alcohol	5.18	5.0	"	5.00		104	32-165			
Di-isopropyl ether	1.06	0.025	"	1.00		106	53-129			
Ethyl tert-butyl ether	1.06	0.025	"	1.00		106	51-140			
Ethylbenzene	1.31	0.050	"	1.00		131	73-138			
Methyl tert-butyl ether	1.03	0.025	"	1.00		103	51-120			
Surrogate: 1,2-Dichloroethane-d4	*0.00554*		"	*0.00500*		*111*	*72-130*			
Laboratory Control Sample (4J22043-BS2)				Prepared & Analyzed: 10/22/04						
Benzene	0.216	0.050	mg/kg	0.240		90	53-132			
Ethylbenzene	0.333	0.050	"	0.282		118	73-138			
Methyl tert-butyl ether	0.313	0.025	"	0.372		84	51-120			
Toluene	1.78	0.050	"	1.20		148	61-145			HL
Xylenes (total)	1.88	0.050	"	1.37		137	75-144			
Gasoline Range Organics (C4-C12)	23.6	2.5	"	16.5		143	60-140			HL
Surrogate: 1,2-Dichloroethane-d4	*0.00509*		"	*0.00500*		*102*	*72-130*			
Laboratory Control Sample Dup (4J22043-BSD1)				Prepared & Analyzed: 10/22/04						
tert-Amyl methyl ether	0.967	0.025	mg/kg	1.00		97	52-140	18	25	
Benzene	0.997	0.050	"	1.00		100	53-132	3	25	
tert-Butyl alcohol	4.94	5.0	"	5.00		99	32-165	5	25	
Di-isopropyl ether	0.935	0.025	"	1.00		94	53-129	13	25	
Ethyl tert-butyl ether	0.976	0.025	"	1.00		98	51-140	8	25	
Ethylbenzene	1.06	0.050	"	1.00		106	73-138	21	25	
Methyl tert-butyl ether	0.938	0.025	"	1.00		94	51-120	9	25	
Surrogate: 1,2-Dichloroethane-d4	*0.00494*		"	*0.00500*		*99*	*72-130*			

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0392
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/02/04 10:58

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J22043 - EPA 5030B/5035A MeOH / EPA 8260B										
Laboratory Control Sample Dup (4J22043-BSD2)				Prepared: 10/22/04 Analyzed: 10/23/04						
Benzene	0.205	0.050	mg/kg	0.240		85	53-132	5	25	
Ethylbenzene	0.335	0.050	"	0.282		119	73-138	0.6	25	
Methyl tert-butyl ether	0.324	0.025	"	0.372		87	51-120	3	25	
Toluene	1.66	0.050	"	1.20		138	61-145	7	25	
Xylenes (total)	1.72	0.050	"	1.37		126	75-144	9	25	
Gasoline Range Organics (C4-C12)	21.1	2.5	"	16.5		128	60-140	11	25	
Surrogate: 1,2-Dichloroethane-d4	*0.00506*		"	*0.00500*		*101*	*72-130*			
Batch 4J25008 - EPA 5030B Modified / EPA 8260B										
Blank (4J25008-BLK1)				Prepared & Analyzed: 10/25/04						
tert-Amyl methyl ether	ND	0.0050	mg/kg							
Benzene	ND	0.0050	"							
tert-Butyl alcohol	ND	0.020	"							
Di-isopropyl ether	ND	0.0050	"							
Ethyl tert-butyl ether	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Methyl tert-butyl ether	ND	0.0050	"							
Toluene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Organics (C4-C12)	ND	0.10	"							
Surrogate: 1,2-Dichloroethane-d4	*0.00458*		"	*0.00500*		*92*	*78-136*			
Laboratory Control Sample (4J25008-BS1)				Prepared & Analyzed: 10/25/04						
tert-Amyl methyl ether	0.0102	0.0050	mg/kg	0.0100		102	78-135			
Benzene	0.00966	0.0050	"	0.0100		97	59-126			
tert-Butyl alcohol	0.0547	0.020	"	0.0500		109	20-164			
Di-isopropyl ether	0.0101	0.0050	"	0.0100		101	72-127			
Ethyl tert-butyl ether	0.0103	0.0050	"	0.0100		103	77-129			
Ethylbenzene	0.0105	0.0050	"	0.0100		105	60-145			
Methyl tert-butyl ether	0.00961	0.0050	"	0.0100		96	47-149			
Toluene	0.00971	0.0050	"	0.0100		97	66-142			
Xylenes (total)	0.0293	0.0050	"	0.0300		98	83-135			
Surrogate: 1,2-Dichloroethane-d4	*0.00454*		"	*0.00500*		*91*	*78-136*			

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0392
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/02/04 10:58

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J25008 - EPA 5030B Modified / EPA 8260B										
Laboratory Control Sample (4J25008-BS2)				Prepared & Analyzed: 10/25/04						
Benzene	0.00527	0.0050	mg/kg	0.00640		82	59-126			
Ethylbenzene	0.00776	0.0050	"	0.00752		103	60-145			
Methyl tert-butyl ether	0.00924	0.0050	"	0.00992		93	47-149			
Toluene	0.0313	0.0050	"	0.0319		98	66-142			
Xylenes (total)	0.0362	0.0050	"	0.0366		99	83-135			
Gasoline Range Organics (C4-C12)	0.429	0.10	"	0.440		98	53-126			
Surrogate: 1,2-Dichloroethane-d4	*0.00481*		"	*0.00500*		*96*	*78-136*			
Laboratory Control Sample Dup (4J25008-BSD1)				Prepared & Analyzed: 10/25/04						
tert-Amyl methyl ether	0.00991	0.0050	mg/kg	0.0100		99	78-135	3	25	
Benzene	0.00965	0.0050	"	0.0100		97	59-126	0.1	25	
tert-Butyl alcohol	0.0519	0.020	"	0.0500		104	20-164	5	25	
Di-isopropyl ether	0.0101	0.0050	"	0.0100		101	72-127	0	25	
Ethyl tert-butyl ether	0.0102	0.0050	"	0.0100		102	77-129	1	25	
Ethylbenzene	0.0101	0.0050	"	0.0100		101	60-145	4	25	
Methyl tert-butyl ether	0.00974	0.0050	"	0.0100		97	47-149	1	25	
Toluene	0.00960	0.0050	"	0.0100		96	66-142	1	25	
Xylenes (total)	0.0286	0.0050	"	0.0300		95	83-135	2	25	
Surrogate: 1,2-Dichloroethane-d4	*0.00479*		"	*0.00500*		*96*	*78-136*			
Matrix Spike (4J25008-MS1)	**Source: MNJ0392-08**			Prepared & Analyzed: 10/25/04						
Gasoline Range Organics (C4-C12)	0.334	0.10	mg/kg	0.440	ND	76	53-126			
Surrogate: 1,2-Dichloroethane-d4	*0.00490*		"	*0.00500*		*98*	*78-136*			
Matrix Spike Dup (4J25008-MSD1)	**Source: MNJ0392-08**			Prepared & Analyzed: 10/25/04						
Gasoline Range Organics (C4-C12)	0.356	0.10	mg/kg	0.440	ND	81	53-126	6	25	
Surrogate: 1,2-Dichloroethane-d4	*0.00480*		"	*0.00500*		*96*	*78-136*			

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1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/02/04 10:58

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J27003 - EPA 5030B P/T / EPA 8260B										
Blank (4J27003-BLK1)				Prepared & Analyzed: 10/27/04						
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C4-C12)	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	*5.79*		"	*5.00*		*116*	*78-129*			
Laboratory Control Sample (4J27003-BS1)				Prepared & Analyzed: 10/27/04						
tert-Amyl methyl ether	9.54	0.50	ug/l	10.0		95	82-140			
Benzene	9.91	0.50	"	10.0		99	69-124			
tert-Butyl alcohol	52.8	20	"	50.0		106	56-131			
Di-isopropyl ether	9.12	0.50	"	10.0		91	76-130			
Ethyl tert-butyl ether	9.74	0.50	"	10.0		97	81-121			
Ethylbenzene	10.6	0.50	"	10.0		106	84-132			
Methyl tert-butyl ether	9.26	0.50	"	10.0		93	63-137			
Toluene	9.76	0.50	"	10.0		98	78-129			
Xylenes (total)	31.2	0.50	"	30.0		104	83-137			
Surrogate: 1,2-Dichloroethane-d4	*5.71*		"	*5.00*		*114*	*78-129*			
Laboratory Control Sample (4J27003-BS2)				Prepared & Analyzed: 10/27/04						
Benzene	5.24	0.50	ug/l	6.40		82	69-124			
Ethylbenzene	8.58	0.50	"	7.52		114	84-132			
Methyl tert-butyl ether	7.96	0.50	"	9.92		80	63-137			
Toluene	38.9	0.50	"	31.9		122	78-129			
Xylenes (total)	44.6	0.50	"	36.6		122	83-137			
Gasoline Range Organics (C4-C12)	492	50	"	440		112	70-124			
Surrogate: 1,2-Dichloroethane-d4	*5.88*		"	*5.00*		*118*	*78-129*			

Sequoia Analytical

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0392
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/02/04 10:58

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J27003 - EPA 5030B P/T / EPA 8260B										
Laboratory Control Sample Dup (4J27003-BSD1)				Prepared & Analyzed: 10/27/04						
tert-Amyl methyl ether	9.58	0.50	ug/l	10.0		96	82-140	0.4	20	
Benzene	9.33	0.50	"	10.0		93	69-124	6	20	
tert-Butyl alcohol	51.7	20	"	50.0		103	56-131	2	20	
Di-isopropyl ether	9.01	0.50	"	10.0		90	76-130	1	20	
Ethyl tert-butyl ether	9.61	0.50	"	10.0		96	81-121	1	20	
Ethylbenzene	9.76	0.50	"	10.0		98	84-132	8	20	
Methyl tert-butyl ether	9.30	0.50	"	10.0		93	63-137	0.4	20	
Toluene	9.41	0.50	"	10.0		94	78-129	4	20	
Xylenes (total)	28.9	0.50	"	30.0		96	83-137	8	20	
Surrogate: 1,2-Dichloroethane-d4	*5.75*		"	*5.00*		*115*	*78-129*			
Matrix Spike (4J27003-MS1)	**Source: MNJ0392-16**			Prepared & Analyzed: 10/27/04						
Benzene	25.8	2.5	ug/l	32.0	ND	81	69-124			
Ethylbenzene	38.8	2.5	"	37.6	ND	103	84-132			
Methyl tert-butyl ether	132	2.5	"	49.6	92	81	63-137			
Toluene	160	2.5	"	160	0.50	100	78-129			
Xylenes (total)	188	2.5	"	183	ND	103	83-137			
Gasoline Range Organics (C4-C12)	1990	250	"	2200	160	83	70-124			
Surrogate: 1,2-Dichloroethane-d4	*5.74*		"	*5.00*		*115*	*78-129*			
Matrix Spike Dup (4J27003-MSD1)	**Source: MNJ0392-16**			Prepared & Analyzed: 10/27/04						
Benzene	26.2	2.5	ug/l	32.0	ND	82	69-124	2	20	
Ethylbenzene	40.5	2.5	"	37.6	ND	108	84-132	4	20	
Methyl tert-butyl ether	131	2.5	"	49.6	92	79	63-137	0.8	20	
Toluene	160	2.5	"	160	0.50	100	78-129	0	20	
Xylenes (total)	199	2.5	"	183	ND	109	83-137	6	20	
Gasoline Range Organics (C4-C12)	2040	250	"	2200	160	85	70-124	2	20	
Surrogate: 1,2-Dichloroethane-d4	*5.64*		"	*5.00*		*113*	*78-129*			

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0392
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/02/04 10:58

Notes and Definitions

HL	Analyte recovery above established limit
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Chain of Custody Record

Project Name 2107 Soil and Groundwater Investigation
Business Unit Atlantic Richfield Company/Central CA Portfolio
BP Laboratory Contract Number: 4 6 1 0 0 0
Requested Due Date: 2 weeks from sampling date

Date: 10/14/04

On-site Time: 0730	Temp: 59°F
Off-site Time: 0430	Temp: 74°F
Sky Conditions: CLEAR	
Meteorological Events: —	
Wind Speed: NONE	Direction: —

Send To:	**BP/GEM Facility No.:** 2107	**Consultant:** URS Oakland
Lab Name: Sequoia Analytical	**BP/GEM Facility Address:** 3310 Park Blvd., Oakland, CA	**Address:** 1333 Broadway, Ste. 800
Lab Address:	**Site ID No. Station :** 2107	Oakland, CA 94612
885 Jarvis Drive	**Site Lat/Long:**	**e-mail EDD:** ~~deborah_shultz@~~ kevin_uno@urscorp.com
Morgan Hill, CA, 95037	**California Global ID #:**	**Consultant Project No.:** 38486908
Lab PM: Lisa Race	**BP/GEM PM Contact:** Paul Supple	**Consultant Tele/Fax:** 510-893-3600/510-874-3268
Tele/Fax: 408.776.9600/ 408.782.6308	**Address:** PO Box 6549	**Consultant PM:** Scott Robinson
Report Type & QC Level: Normal	Moraga, CA, 94570	**Invoice to:** Consultant
BP/GEM Account No.:	**Tele/Fax:** 925.299.8891	**BP/GEM Work Release No:**

Lab Bottle Order No: MDJ0392

Item No.	Sample Description	Time	Matrix: Soil/Solid	Water/Liquid	Sediments	Air	Laboratory No.	No. of containers	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	Requested Analysis: 8260B for:	GRO, BTEX, MTBE,	TBA, TAME, ETBE, DIPE	Total Lead	Sample Point Lat/Long and Comments
1	SB-9-10.5	0835	X				01	1	X				X				
2	SB-9-17.5	0854	X				02	1	X				X				
3	SB-9-19.5	0905	X				03	1	X				X				
4	SB-11-6.5	0948	X				04	1	X				X				
5	SB-11-11.5	0955	X				05	1	X				X				
6	SB-11-16.5	1018	X				06	1	X				X				
7	SB-11-21.5	1025	X				07	1	X				X				
8	SB-11-26.0	1038	X				08	1	X				X				
9	SB-11-28.5	1042	X				09	1	X				X				
10	~~SB-7~~ SB-7-6.0	1107	X				10	1	X				X				

	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name: Kevin Uno						
Sampler's Company: URS Oakland	/URS	10/15	1120	Fed Express 3754	10/18	9:20
Shipment Date:				to lab dept	10/18 PM	1021
Shipment Method: Hand Deliver						
Shipment Tracking No:						

Special Instructions:

Custody Seals In Place Yes ____ No ___ **Temperature Blank** Yes ___ No X **Cooler Temperature on Receipt** ____ °F/C **Trip Blank** Yes X No ___

Chain of Custody Record

Project Name 2107 Soil and Groundwater Investigation
Business Unit Atlantic Richfield Company/Central CA Portfolio
BP Laboratory Contract Number: 4 6 1 0 0 0
Requested Due Date: 2 weeks from sampling date

Date: 10/14/04

On-site Time:	0720	Temp:	59°F
Off-site Time:	0430	Temp:	79°F
Sky Conditions:	CLEAR		
Meteorological Events:	—		
Wind Speed:	MPH 5	Direction:	—

Send To:	BP/GEM Facility No.: 2107	Consultant: URS Oakland
Lab Name: Sequoia Analytical	BP/GEM Facility Address: 3310 Park Blvd., Oakland, CA	Address: 1333 Broadway, Ste. 800
Lab Address:	Site ID No. Station : 2107	Oakalnd, CA 94612
885 Jarvis Drive	Site Lat/Long:	e-mail EDD: kenneth_shurtz@; kevin_uno@urscorp.com
Morgan Hill, CA, 95037	California Global ID #:	Consultant Project No.: 38486908
Lab PM: Lisa Race	BP/GBM PM Contact: Paul Supple	Consultant Tele/Fax: 510-893-3600/510-874-3268
Tele/Fax: 408.776.9600/ 408.782.6308	Address: PO Box 6549	Consultant PM: Scott Robinson
Report Type & QC Level: Normal	Moraga, CA, 94570	Invoice to: Consultant
BP/GBM Account No.:	Tele/Fax: 925.299.8891	BP/GBM Work Release No:

MDJ0392

Item No.	Sample Description	Time	Matrix: Soil/Solid	Water/Liquid	Sediments	Air	Laboratory No.	No. of containers	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	Requested Analysis: 8260B for:	GRO, BTEX, MTBE,	TBA, TAME, ETBE, DIPE	Total Lead	Sample Point Lat/Long and Comments
1	SB-7 - 11.5	1120	X				11	1	X				X				
2	SB-7 - 16.0	1125	X				12	1	X								
3	SB-7 - 19.5	1135	X				13	1	X								
4	HP-4 - 18	1325		X			14	3				X					
5	HP-4 - 30	1338		X			15	3				X					
6	HP-6-8	1415		X			16	3				X					
7	HP-6-20	1500		X			17	3				X					
8	HP-6-30	1520		X			18	3				X	↓				
9	~~HP-3-35~~																
10	SB-9-13.5	0840	X				19	1	X				X				

Sampler's Name: Kevin Uno	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company: URS Oakland	URS	10/15	1620	Fed Ex 5754	10/15/04	1920
Shipment Date:					10/16/04	1021
Shipment Method: Hand Deliver						
Shipment Tracking No:						

Special Instructions:

Custody Seals In Place Yes____ No____ Temperature Blank Yes____ No X Cooler Temperature on Receipt ____°F/C Trip Blank Yes X No____

BP COC Rev. 1 2/5/03

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: BP2107
REC. BY (PRINT): TD
WORKORDER: MN10397

DATE REC'D AT LAB: 10/15/04
TIME REC'D AT LAB: 1120
DATE LOGGED IN: 10-14-04

For Regulatory Purposes?
DRINKING WATER YES / NO
WASTE WATER YES / NO
(For clients requiring preservation checks at receipt, document here ↓)

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / Absent Intact / Broken*	01		SB-9-10.5	Soil Core	—	—	S	10/14/04	
2. Chain-of-Custody Present / Absent*	02		11.5						
3. Traffic Reports or Packing List: Present / Absent	03		19.5						
4. Airbill: Airbill / Sticker Present / Absent	04		6.5						
5. Airbill #:	05		11.5						
6. Sample Labels: Present / Absent	06		16.5						
7. Sample IDs: Listed / Not Listed on Chain-of-Custody	07		21.5						
8. Sample Condition: Intact / Broken* / Leaking*	08		26.0						
	09		25.5						
	10		7-6.0						
	11		11.5						
	12		16.0						
	13		19.5						
9. Does information on chain-of-custody, traffic reports and sample labels agree? Yes / No*	14		HP-7-18	VOA (3)	HCl		W		
	15		30						
	16		8 8						
10. Sample received within hold time? Yes / No*	17		20						
	18		30						
11. Adequate sample volume received? Yes / No*	19		SB-9-13.5	Soil Core	—		S		
12. Proper Preservatives used? Yes / No*									
13. Trip Blank / Temp Blank Received? (circle which, if yes) Yes / No*					10/13/04				
14. Temp Rec. at Lab: 4.8 Is temp ≤ +/-2°C? Yes / No**				111					
(Acceptance range for samples requiring thermal pres.)									
**Exception (if any): METALS / DFF ON ICE or Problem COC									

*IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

Sequoia
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23 November, 2004

Scott Robinson
URS Corporation [Arco]
1333 Broadway, Suite 800
Oakland, CA 94612

RE: ARCO #2107,Oakland, CA
Work Order: MNJ0393

Enclosed are the results of analyses for samples received by the laboratory on 10/15/04 19:20. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lisa Race
Senior Project Manager

CA ELAP Certificate #1210

Sequoia Analytical

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URS Corporation [Arco]	Project: ARCO #2107,Oakland, CA	MNJ0393
1333 Broadway, Suite 800	Project Number: N/P	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	11/23/04 09:19

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HP-3-35	MNJ0393-01	Water	10/15/04 09:30	10/15/04 19:20
HP-3-39.5	MNJ0393-02	Soil	10/15/04 10:12	10/15/04 19:20
HP-8-27	MNJ0393-03	Water	10/15/04 12:24	10/15/04 19:20
HP-8-34	MNJ0393-04	Water	10/15/04 12:40	10/15/04 19:20
SB-8-6.0	MNJ0393-05	Soil	10/15/04 14:13	10/15/04 19:20
SB-8-14.0	MNJ0393-06	Soil	10/15/04 14:23	10/15/04 19:20
SB-8-16.0	MNJ0393-07	Soil	10/15/04 14:32	10/15/04 19:20
SB-8-25.0	MNJ0393-08	Soil	10/15/04 14:51	10/15/04 19:20
SB-8-29.5	MNJ0393-09	Soil	10/15/04 14:55	10/15/04 19:20
HP-3-46	MNJ0393-10	Soil	10/15/04 10:23	10/15/04 19:20

The carbon range for the TPH-GRO has been changed from C6-C10 to C4-C12. The carbon range for TPH-DRO has been changed from C10-C28 to C10-C36. EPA 8015B has been modified to better meet the requirements of California regulatory agencies.

These samples were received with no custody seals.

Revised report created 11/23/04. Samples IDs revised per client request.

Sequoia Analytical

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0393
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/23/04 09:19

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
HP-3-35 (MNJ0393-01) Water Sampled: 10/15/04 09:30 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.50	ug/l	1	4J22009	10/22/04	10/23/04	EPA 8260B	
Benzene	**0.64**	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	**1.5**	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**3.8**	0.50	"	"	"	"	"	"	
Toluene	**10**	0.50	"	"	"	"	"	"	
Xylenes (total)	**8.9**	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*87 %*	*78-129*		"	"	"	"	
HP-3-39.5 (MNJ0393-02) Soil Sampled: 10/15/04 10:12 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.0050	mg/kg	1	4J20002	10/20/04	10/20/04	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
tert-Butyl alcohol	ND	0.020	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0050	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	0.10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*95 %*	*78-136*		"	"	"	"	

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0393
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/23/04 09:19

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
HP-8-27 (MNJ0393-03) Water Sampled: 10/15/04 12:24 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	25	ug/l	50	4J22009	10/22/04	10/23/04	EPA 8260B	
Benzene	ND	25	"	"	"	"	"	"	
tert-Butyl alcohol	ND	1000	"	"	"	"	"	"	
Di-isopropyl ether	ND	25	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	25	"	"	"	"	"	"	
Ethylbenzene	ND	25	"	"	"	"	"	"	
Methyl tert-butyl ether	**2100**	25	"	"	"	"	"	"	
Toluene	**28**	25	"	"	"	"	"	"	
Xylenes (total)	**28**	25	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	2500	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*84 %*	*78-129*		"	"	"	"	
HP-8-34 (MNJ0393-04) Water Sampled: 10/15/04 12:40 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	25	ug/l	50	4J22009	10/22/04	10/23/04	EPA 8260B	
Benzene	ND	25	"	"	"	"	"	"	
tert-Butyl alcohol	ND	1000	"	"	"	"	"	"	
Di-isopropyl ether	ND	25	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	25	"	"	"	"	"	"	
Ethylbenzene	ND	25	"	"	"	"	"	"	
Methyl tert-butyl ether	**880**	25	"	"	"	"	"	"	
Toluene	ND	25	"	"	"	"	"	"	
Xylenes (total)	ND	25	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	2500	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*85 %*	*78-129*		"	"	"	"	

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0393
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/23/04 09:19

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-8-6.0 (MNJ0393-05) Soil Sampled: 10/15/04 14:13 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.0050	mg/kg	1	4J20002	10/20/04	10/20/04	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
tert-Butyl alcohol	**0.048**	0.020	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0050	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	0.10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*90 %*	*78-136*		"	"	"	"	
SB-8-14.0 (MNJ0393-06) Soil Sampled: 10/15/04 14:23 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.0050	mg/kg	1	4J20002	10/20/04	10/20/04	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
tert-Butyl alcohol	ND	0.020	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0050	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	0.10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*91 %*	*78-136*		"	"	"	"	

Sequoia Analytical

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0393
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/23/04 09:19

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-8-16.0 (MNJ0393-07) Soil Sampled: 10/15/04 14:32 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.0050	mg/kg	1	4J20002	10/20/04	10/20/04	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
tert-Butyl alcohol	ND	0.020	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0050	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	0.10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*91 %*	*78-136*		"	"	"	"	
SB-8-25.0 (MNJ0393-08) Soil Sampled: 10/15/04 14:51 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.0050	mg/kg	1	4J25008	10/25/04	10/25/04	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
tert-Butyl alcohol	ND	0.020	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0050	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	0.10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*93 %*	*78-136*		"	"	"	"	

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0393
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/23/04 09:19

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-8-29.5 (MNJ0393-09) Soil Sampled: 10/15/04 14:55 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.0050	mg/kg	1	4J25008	10/25/04	10/25/04	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
tert-Butyl alcohol	ND	0.020	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0050	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	**0.011**	0.0050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	0.10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*94 %*	*78-136*		"	"	"	"	
HP-3-46 (MNJ0393-10) Soil Sampled: 10/15/04 10:23 Received: 10/15/04 19:20									
tert-Amyl methyl ether	ND	0.0050	mg/kg	1	4J28003	10/28/04	10/28/04	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
tert-Butyl alcohol	ND	0.020	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0050	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	0.10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*91 %*	*78-136*		"	"	"	"	

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0393
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/23/04 09:19

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J20002 - EPA 5030B Modified / EPA 8260B										
Blank (4J20002-BLK1)				Prepared & Analyzed: 10/20/04						
tert-Amyl methyl ether	ND	0.0050	mg/kg							
Benzene	ND	0.0050	"							
tert-Butyl alcohol	ND	0.020	"							
Di-isopropyl ether	ND	0.0050	"							
Ethyl tert-butyl ether	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Methyl tert-butyl ether	ND	0.0050	"							
Toluene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Organics (C4-C12)	ND	0.10	"							
Surrogate: 1,2-Dichloroethane-d4	*0.00481*		"	*0.00500*		*96*	*78-136*			
Laboratory Control Sample (4J20002-BS1)				Prepared & Analyzed: 10/20/04						
tert-Amyl methyl ether	0.0110	0.0050	mg/kg	0.0100		110	78-135			
Benzene	0.0102	0.0050	"	0.0100		102	59-126			
tert-Butyl alcohol	0.0555	0.020	"	0.0500		111	20-164			
Di-isopropyl ether	0.0110	0.0050	"	0.0100		110	72-127			
Ethyl tert-butyl ether	0.0111	0.0050	"	0.0100		111	77-129			
Ethylbenzene	0.0106	0.0050	"	0.0100		106	60-145			
Methyl tert-butyl ether	0.0106	0.0050	"	0.0100		106	47-149			
Toluene	0.0108	0.0050	"	0.0100		108	66-142			
Xylenes (total)	0.0306	0.0050	"	0.0300		102	83-135			
Surrogate: 1,2-Dichloroethane-d4	*0.00474*		"	*0.00500*		*95*	*78-136*			
Laboratory Control Sample (4J20002-BS2)				Prepared & Analyzed: 10/20/04						
Gasoline Range Organics (C4-C12)	0.507	0.10	mg/kg	0.440		115	53-126			
Surrogate: 1,2-Dichloroethane-d4	*0.00470*		"	*0.00500*		*94*	*78-136*			

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1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/23/04 09:19

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J20002 - EPA 5030B Modified / EPA 8260B										
Laboratory Control Sample Dup (4J20002-BSD1)				Prepared: 10/20/04 Analyzed: 10/21/04						
tert-Amyl methyl ether	0.00896	0.0050	mg/kg	0.0100		90	78-135	20	25	
Benzene	0.00879	0.0050	"	0.0100		88	59-126	15	25	
tert-Butyl alcohol	0.0450	0.020	"	0.0500		90	20-164	21	25	
Di-isopropyl ether	0.00908	0.0050	"	0.0100		91	72-127	19	25	
Ethyl tert-butyl ether	0.00903	0.0050	"	0.0100		90	77-129	21	25	
Ethylbenzene	0.00954	0.0050	"	0.0100		95	60-145	11	25	
Methyl tert-butyl ether	0.00843	0.0050	"	0.0100		84	47-149	23	25	
Toluene	0.00902	0.0050	"	0.0100		90	66-142	18	25	
Xylenes (total)	0.0265	0.0050	"	0.0300		88	83-135	14	25	
Surrogate: 1,2-Dichloroethane-d4	*0.00472*		"	*0.00500*		*94*	*78-136*			
Laboratory Control Sample Dup (4J20002-BSD2)				Prepared & Analyzed: 10/20/04						
Gasoline Range Organics (C4-C12)	0.463	0.10	mg/kg	0.440		105	53-126	9	25	
Surrogate: 1,2-Dichloroethane-d4	*0.00476*		"	*0.00500*		*95*	*78-136*			
Batch 4J22009 - EPA 5030B P/T / EPA 8260B										
Blank (4J22009-BLK1)				Prepared: 10/22/04 Analyzed: 10/23/04						
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	5.0	"							
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C4-C12)	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	*2.05*		"	*2.50*		*82*	*78-129*			

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0393
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/23/04 09:19

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J22009 - EPA 5030B P/T / EPA 8260B										
Laboratory Control Sample (4J22009-BS1)				Prepared: 10/22/04 Analyzed: 10/23/04						
tert-Amyl methyl ether	11.4	0.50	ug/l	10.0		114	82-140			
Benzene	10.7	0.50	"	10.0		107	69-124			
tert-Butyl alcohol	53.5	5.0	"	50.0		107	56-131			
Di-isopropyl ether	11.5	0.50	"	10.0		115	76-130			
Ethyl tert-butyl ether	12.2	0.50	"	10.0		122	81-121			HL
Ethylbenzene	10.6	0.50	"	10.0		106	84-132			
Methyl tert-butyl ether	11.5	0.50	"	10.0		115	63-137			
Toluene	10.4	0.50	"	10.0		104	78-129			
Xylenes (total)	31.7	0.50	"	30.0		106	83-137			
Surrogate: 1,2-Dichloroethane-d4	*2.21*		"	*2.50*		*88*	*78-129*			
Laboratory Control Sample (4J22009-BS2)				Prepared: 10/22/04 Analyzed: 10/23/04						
Benzene	5.28	0.50	ug/l	6.40		82	69-124			
Ethylbenzene	8.85	0.50	"	7.52		118	84-132			
Methyl tert-butyl ether	9.72	0.50	"	9.92		98	63-137			
Toluene	32.9	0.50	"	31.9		103	78-129			
Xylenes (total)	42.4	0.50	"	36.6		116	83-137			
Gasoline Range Organics (C4-C12)	381	50	"	440		87	70-124			
Surrogate: 1,2-Dichloroethane-d4	*2.29*		"	*2.50*		*92*	*78-129*			
Laboratory Control Sample Dup (4J22009-BSD1)				Prepared: 10/22/04 Analyzed: 10/23/04						
tert-Amyl methyl ether	11.1	0.50	ug/l	10.0		111	82-140	3	20	
Benzene	10.2	0.50	"	10.0		102	69-124	5	20	
tert-Butyl alcohol	52.5	5.0	"	50.0		105	56-131	2	20	
Di-isopropyl ether	11.1	0.50	"	10.0		111	76-130	4	20	
Ethyl tert-butyl ether	11.9	0.50	"	10.0		119	81-121	2	20	
Ethylbenzene	10.6	0.50	"	10.0		106	84-132	0	20	
Methyl tert-butyl ether	11.1	0.50	"	10.0		111	63-137	4	20	
Toluene	10.1	0.50	"	10.0		101	78-129	3	20	
Xylenes (total)	31.1	0.50	"	30.0		104	83-137	2	20	
Surrogate: 1,2-Dichloroethane-d4	*2.02*		"	*2.50*		*81*	*78-129*			

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1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/23/04 09:19

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J22009 - EPA 5030B P/T / EPA 8260B										
Matrix Spike (4J22009-MS1)	**Source: MNJ0393-03**			Prepared: 10/22/04 Analyzed: 10/23/04						
Benzene	284	25	ug/l	320	ND	89	69-124			
Ethylbenzene	444	25	"	376	5.0	117	84-132			
Methyl tert-butyl ether	2580	25	"	496	2100	97	63-137			
Toluene	1720	25	"	1600	28	106	78-129			
Xylenes (total)	2140	25	"	1830	28	115	83-137			
Gasoline Range Organics (C4-C12)	20900	2500	"	22000	1100	90	70-124			
Surrogate: 1,2-Dichloroethane-d4	*2.31*		"	*2.50*		*92*	*78-129*			
Matrix Spike Dup (4J22009-MSD1)	**Source: MNJ0393-03**			Prepared: 10/22/04 Analyzed: 10/23/04						
Benzene	271	25	ug/l	320	ND	85	69-124	5	20	
Ethylbenzene	426	25	"	376	5.0	112	84-132	4	20	
Methyl tert-butyl ether	2550	25	"	496	2100	91	63-137	1	20	
Toluene	1640	25	"	1600	28	101	78-129	5	20	
Xylenes (total)	2060	25	"	1830	28	111	83-137	4	20	
Gasoline Range Organics (C4-C12)	20300	2500	"	22000	1100	87	70-124	3	20	
Surrogate: 1,2-Dichloroethane-d4	*2.11*		"	*2.50*		*84*	*78-129*			
Batch 4J25008 - EPA 5030B Modified / EPA 8260B										
Blank (4J25008-BLK1)				Prepared & Analyzed: 10/25/04						
tert-Amyl methyl ether	ND	0.0050	mg/kg							
Benzene	ND	0.0050	"							
tert-Butyl alcohol	ND	0.020	"							
Di-isopropyl ether	ND	0.0050	"							
Ethyl tert-butyl ether	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Methyl tert-butyl ether	ND	0.0050	"							
Toluene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Organics (C4-C12)	ND	0.10	"							
Surrogate: 1,2-Dichloroethane-d4	*0.00458*		"	*0.00500*		*92*	*78-136*			

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1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/23/04 09:19

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J25008 - EPA 5030B Modified / EPA 8260B										
Laboratory Control Sample (4J25008-BS1)				Prepared & Analyzed: 10/25/04						
tert-Amyl methyl ether	0.0102	0.0050	mg/kg	0.0100		102	78-135			
Benzene	0.00966	0.0050	"	0.0100		97	59-126			
tert-Butyl alcohol	0.0547	0.020	"	0.0500		109	20-164			
Di-isopropyl ether	0.0101	0.0050	"	0.0100		101	72-127			
Ethyl tert-butyl ether	0.0103	0.0050	"	0.0100		103	77-129			
Ethylbenzene	0.0105	0.0050	"	0.0100		105	60-145			
Methyl tert-butyl ether	0.00961	0.0050	"	0.0100		96	47-149			
Toluene	0.00971	0.0050	"	0.0100		97	66-142			
Xylenes (total)	0.0293	0.0050	"	0.0300		98	83-135			
Surrogate: 1,2-Dichloroethane-d4	*0.00454*		"	*0.00500*		*91*	*78-136*			
Laboratory Control Sample (4J25008-BS2)				Prepared & Analyzed: 10/25/04						
Benzene	0.00527	0.0050	mg/kg	0.00640		82	59-126			
Ethylbenzene	0.00776	0.0050	"	0.00752		103	60-145			
Methyl tert-butyl ether	0.00924	0.0050	"	0.00992		93	47-149			
Toluene	0.0313	0.0050	"	0.0319		98	66-142			
Xylenes (total)	0.0362	0.0050	"	0.0366		99	83-135			
Gasoline Range Organics (C4-C12)	0.429	0.10	"	0.440		98	53-126			
Surrogate: 1,2-Dichloroethane-d4	*0.00481*		"	*0.00500*		*96*	*78-136*			
Laboratory Control Sample Dup (4J25008-BSD1)				Prepared & Analyzed: 10/25/04						
tert-Amyl methyl ether	0.00991	0.0050	mg/kg	0.0100		99	78-135	3	25	
Benzene	0.00965	0.0050	"	0.0100		97	59-126	0.1	25	
tert-Butyl alcohol	0.0519	0.020	"	0.0500		104	20-164	5	25	
Di-isopropyl ether	0.0101	0.0050	"	0.0100		101	72-127	0	25	
Ethyl tert-butyl ether	0.0102	0.0050	"	0.0100		102	77-129	1	25	
Ethylbenzene	0.0101	0.0050	"	0.0100		101	60-145	4	25	
Methyl tert-butyl ether	0.00974	0.0050	"	0.0100		97	47-149	1	25	
Toluene	0.00960	0.0050	"	0.0100		96	66-142	1	25	
Xylenes (total)	0.0286	0.0050	"	0.0300		95	83-135	2	25	
Surrogate: 1,2-Dichloroethane-d4	*0.00479*		"	*0.00500*		*96*	*78-136*			

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1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/23/04 09:19

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J25008 - EPA 5030B Modified / EPA 8260B										
Matrix Spike (4J25008-MS1)	**Source: MNJ0392-08**			Prepared & Analyzed: 10/25/04						
Gasoline Range Organics (C4-C12)	0.334	0.10	mg/kg	0.440	ND	76	53-126			
Surrogate: 1,2-Dichloroethane-d4	*0.00490*		"	*0.00500*		*98*	*78-136*			
Matrix Spike Dup (4J25008-MSD1)	**Source: MNJ0392-08**			Prepared & Analyzed: 10/25/04						
Gasoline Range Organics (C4-C12)	0.356	0.10	mg/kg	0.440	ND	81	53-126	6	25	
Surrogate: 1,2-Dichloroethane-d4	*0.00480*		"	*0.00500*		*96*	*78-136*			
Batch 4J28003 - EPA 5030B Modified / EPA 8260B										
Blank (4J28003-BLK1)				Prepared & Analyzed: 10/28/04						
tert-Amyl methyl ether	ND	0.0050	mg/kg							
Benzene	ND	0.0050	"							
tert-Butyl alcohol	ND	0.020	"							
Di-isopropyl ether	ND	0.0050	"							
Ethyl tert-butyl ether	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Methyl tert-butyl ether	ND	0.0050	"							
Toluene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Organics (C4-C12)	ND	0.10	"							
Surrogate: 1,2-Dichloroethane-d4	*0.00460*		"	*0.00500*		*92*	*78-136*			
Laboratory Control Sample (4J28003-BS1)				Prepared & Analyzed: 10/28/04						
tert-Amyl methyl ether	0.0101	0.0050	mg/kg	0.0100		101	78-135			
Benzene	0.00939	0.0050	"	0.0100		94	59-126			
tert-Butyl alcohol	0.0488	0.020	"	0.0500		98	20-164			
Di-isopropyl ether	0.0106	0.0050	"	0.0100		106	72-127			
Ethyl tert-butyl ether	0.0103	0.0050	"	0.0100		103	77-129			
Ethylbenzene	0.0106	0.0050	"	0.0100		106	60-145			
Methyl tert-butyl ether	0.00973	0.0050	"	0.0100		97	47-149			
Toluene	0.00978	0.0050	"	0.0100		98	66-142			
Xylenes (total)	0.0297	0.0050	"	0.0300		99	83-135			
Surrogate: 1,2-Dichloroethane-d4	*0.00491*		"	*0.00500*		*98*	*78-136*			

Sequoia Analytical

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0393
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/23/04 09:19

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J28003 - EPA 5030B Modified / EPA 8260B										
Laboratory Control Sample (4J28003-BS2)				Prepared & Analyzed: 10/28/04						
Benzene	0.00498	0.0050	mg/kg	0.00640		78	59-126			
Ethylbenzene	0.00782	0.0050	"	0.00752		104	60-145			
Methyl tert-butyl ether	0.00888	0.0050	"	0.00992		90	47-149			
Toluene	0.0303	0.0050	"	0.0319		95	66-142			
Xylenes (total)	0.0354	0.0050	"	0.0366		97	83-135			
Gasoline Range Organics (C4-C12)	0.405	0.10	"	0.440		92	53-126			
Surrogate: 1,2-Dichloroethane-d4	*0.00449*		"	*0.00500*		*90*	*78-136*			
Laboratory Control Sample Dup (4J28003-BSD1)				Prepared & Analyzed: 10/28/04						
tert-Amyl methyl ether	0.0102	0.0050	mg/kg	0.0100		102	78-135	1	25	
Benzene	0.00916	0.0050	"	0.0100		92	59-126	2	25	
tert-Butyl alcohol	0.0550	0.020	"	0.0500		110	20-164	12	25	
Di-isopropyl ether	0.0103	0.0050	"	0.0100		103	72-127	3	25	
Ethyl tert-butyl ether	0.0104	0.0050	"	0.0100		104	77-129	1	25	
Ethylbenzene	0.0105	0.0050	"	0.0100		105	60-145	0.9	25	
Methyl tert-butyl ether	0.00979	0.0050	"	0.0100		98	47-149	0.6	25	
Toluene	0.00964	0.0050	"	0.0100		96	66-142	1	25	
Xylenes (total)	0.0299	0.0050	"	0.0300		100	83-135	0.7	25	
Surrogate: 1,2-Dichloroethane-d4	*0.00483*		"	*0.00500*		*97*	*78-136*			
Matrix Spike (4J28003-MS1)	**Source: MNJ0648-03**			Prepared & Analyzed: 10/28/04						
Benzene	0.00429	0.0050	mg/kg	0.00640	0.00048	60	59-126			
Ethylbenzene	0.00610	0.0050	"	0.00752	0.0011	66	60-145			
Methyl tert-butyl ether	0.00834	0.0050	"	0.00992	ND	84	47-149			
Toluene	0.0258	0.0050	"	0.0319	0.0040	68	66-142			
Xylenes (total)	0.0284	0.0050	"	0.0366	0.0092	52	83-135			LN
Gasoline Range Organics (C4-C12)	0.311	0.10	"	0.440	ND	71	53-126			
Surrogate: 1,2-Dichloroethane-d4	*0.00476*		"	*0.00500*		*95*	*78-136*			

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0393
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/23/04 09:19

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J28003 - EPA 5030B Modified / EPA 8260B										
Matrix Spike Dup (4J28003-MSD1)	**Source: MNJ0648-03**			Prepared & Analyzed: 10/28/04						
Benzene	0.00505	0.0050	mg/kg	0.00640	0.00048	71	59-126	16	25	
Ethylbenzene	0.00750	0.0050	"	0.00752	0.0011	85	60-145	21	25	
Methyl tert-butyl ether	0.00868	0.0050	"	0.00992	ND	88	47-149	4	25	
Toluene	0.0309	0.0050	"	0.0319	0.0040	84	66-142	18	25	
Xylenes (total)	0.0351	0.0050	"	0.0366	0.0092	71	83-135	21	25	LN
Gasoline Range Organics (C4-C12)	0.390	0.10	"	0.440	ND	89	53-126	23	25	
Surrogate: 1,2-Dichloroethane-d4	*0.00485*		"	*0.00500*		*97*	*78-136*			

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0393
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/23/04 09:19

Notes and Definitions

LN	MS and/or MSD below acceptance limits. See Blank Spike(LCS).
HL	Analyte recovery above established limit
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

REVISED
10/22

Page 1 of 1

Chain of Custody Record

bp

Project Name: 2107 Soil and Groundwater Investigation
Business Unit: Atlantic Richfield Company/Capitol CA Portfolio
BP Laboratory Contract Number: 4 6 1 0 0 0
Requested Due Date: 2 weeks from sampling date

Date: 10/15/04

On-site Time: 0710	Temp: 60°F
Off-site Time: 1600	Temp: 71°F
Sky Condition: CLEAR	
Meteorological Events: —	
Wind Speed: MPH	Direction: —

Send To:	BP/ORM Facility No: 2107	Consultant: URS Oakland
Lab Name: Sequoia Analytical	BP/ORM Facility Address: 3310 Park Blvd, Oakland, CA	Address: 1333 Broadway, Ste. 800
Lab Address:	Site ID No. Station: 2107	Oakland, CA 94612
885 Jarvis Drive	Site Lat/Long:	e-mail ID(s): kenneth_stanley@urscorp.com; kevin_uno@urscorp.com
Morgan Hill, CA, 95037	California Global ID #:	Consultant Project No.: 38486908
Lab PM: Lisa Race	BP/ORM PM Contact: Paul Supple	Consultant Tel/Fax: 510-893-3600/510-874-3268
Tel/Fax: 408.776.9600/408.782.6308	Address: PO Box 6549	Consultant PM: Scott Robinson
Report Type & QC Level: Normal	Moraga, CA, 94570	Invoice to: Consultant
BP/ORM Account No.: 49	Tel/Fax: 925.299.8891	BP/ORM Work Release No:

Lab Battle Order No:

MD30393

Item No.	Sample Description	Time	Matrix: Soil/Solid	Water/Liquid	Sediment	Air	Laboratory No.	No. of containers	Preservatives: Unpreserved	H2SO4	HNO3	HCl	Requested Analysis: 8260B, Arc.	8260, BTEX, MTBE	TBA, TAME, ETBE, DIPE	Total Lead	Sample Point Location and Comments
1	MP-3-35	0930		X			01	3				X	X				
2	MP-3-39.5	1012	X				02	1	X								
3	MP-11-27	1224		X			03	3				X					
4	MP-11-34	1240		X			04	3				X					
5	SB-8-6.0	1413	X				05	1	X								
6	SB-8-14.0	1423	X				06	1	X								
7	SB-8-26.0	1432	X				07	1	X								
8	SB-8-25.0	1451	X				08	1	X								
9	SB-8-29.5	1455	X				09	1	X				↓				
10	MP-3-46	1023		X			10	3				X	X				

Sampler's Name: Kevin Uno	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date / Time
Sampler's Company: URS Oakland	URS	10/15	1620	Jose Duran STAT U/S	10/15/04 1950
Shipment Date:				TO WAIT	
Shipment Method: Hand Deliver					
Shipment Tracking No:					

Special Instructions:

Ice in Place Yes ___ No ___ Temperature Blank Yes ___ No X Cooler Temperature on Receipt ___ °F/C Trip Blank Yes X No ___

BP COC rev. 1 2/02

Chain of Custody Record

Project Name: 2107 Soil and Groundwater Investigation
Business Unit: Atlantic Richfield Company/Central CA Portfolio
BP Laboratory Contract Number: 4 6 1 0 0 0
Requested Due Date: 2 weeks from sampling date

Date: 10/15/04

On-site Time: 0710	Temp: 60°F
Off-site Time: 1600	Temp: 71°F
Sky Conditions: CLEAR	
Meteorological Events: —	
Wind Speed: NONE	Direction: —

Send To:	BP/GRM Facility No.: 2107	Consultant: URS Oakland
Lab Name: Sequoia Analytical	BP/GEM Facility Address: 3310 Park Blvd., Oakland, CA	Address: 1333 Broadway, Ste. 800
Lab Address:	Site ID No. Station : 2107	Oakland, CA 94612
885 Jarvis Drive	Site Lat/Long:	e-mail EDD: kenneth_shurtz@; kevin_uno@urscorp.com
Morgan Hill, CA, 95037	California Global ID #:	Consultant Project No.: 38486908
Lab PM: Lisa Race	BP/GEM PM Contact: Paul Supple	Consultant Tele/Fax: 510-893-3600/510-874-3268
Tele/Fax: 408.776.9600/ 408.782.6308	Address: PO Box 6549	Consultant PM: Scott Robinson
Report Type & QC Level: Normal	Moraga, CA, 94570	Invoice to: Consultant
BP/GEM Account No.:	Tele/Fax: 925.299.8891	BP/GEM Work Release No:

MDJ0393

Item No.	Sample Description	Time	Matrix: Soil/Solid	Matrix: Water/Liquid	Matrix: Sediments	Matrix: Air	Laboratory No.	No. of containers	Preservatives: Unpreserved	Preservatives: H_2SO_4	Preservatives: HNO_3	Preservatives: HCl	Requested Analysis: 8260B for:	Requested Analysis: GRO, BTEX, MTBE,	Requested Analysis: TBA, TAME, ETBE, DIPE	Requested Analysis: Total Lead	Sample Point Lat/Long and Comments
1	HP-3-27	0930		X			01	3				X	X				
2	HP-3-39.5	1012	X				02	1	X								
3	HP-11-27	1224		X			03	3				X					
4	HP-11-34	1240		X			04	3				X					
5	SB-8-6.0	1413	X				05	1	X								
6	SB-8-14.0	1423	X				06	1	X								
7	SB-8-26.0	1432	X				07	1	X								
8	SB-8-25.0	1451	X				08	1	X								
9	SB-8-29.5	1455	X				09	1	X								
10																	

Sampler's Name: Kevin Uno	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company: URS Oakland	/URS	10/15	1620	Jose Duran STSY U/A	10/15/04	1720
Shipment Date:				TO URS	10/15/04	1920
Shipment Method: Hand Deliver						
Shipment Tracking No:						

Special Instructions:

Custody Seals In Place Yes____ No____ Temperature Blank Yes____ No X Cooler Temperature on Receipt ____°F/C Trip Blank Yes X No____

BP COC Rev. 1 2/5/02

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: RP 2107
REC. BY (PRINT): TD
WORKORDER: M250393

DATE REC'D AT LAB: 10/15/04
TIME REC'D AT LAB: 1120
DATE LOGGED IN: 10-14-04

For Regulatory Purposes?
DRINKING WATER YES / NO
WASTE WATER YES / NO

(For clients requiring preservation checks at receipt, document here ↓)

CIRCLE THE APPROPRIATE RESPONSE		LAB SAMPLE #	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s)	Present / Absent	01	A-C	MP-3-27	~~Soil Core~~ WG	HCl	—	W	10/15/04	
	Intact / Broken*	02	A	" 34.5	Soil core	—		S		
2. Chain-of-Custody	Present / Absent*	03	A-C	" 27	~~Soil Core~~ WG	HCl		W		
3. Traffic Reports or		04	A	" 34	~~Soil~~ "	"		W		
Packing List:	Present / Absent	05	A	58 & 6.0	Soil Core	—		S		
4. Airbill:	Airbill / Sticker	06		" 14.0	"	"		"		
	Present / Absent	07		" 16.0						
5. Airbill #:		08		" 25.0						
6. Sample Labels:	Present / Absent	09	✓	" 21.5	↓	↓	↓	↓	↓	
7. Sample IDs:	Listed / Not Listed on Chain-of-Custody									
8. Sample Condition:	Intact / Broken* / Leaking*									
9. Does information on chain-of-custody, traffic reports and sample labels agree?	Yes / No*									
10. Sample received within hold time?	Yes / No*									
11. Adequate sample volume received?	Yes / No*									
12. Proper Preservatives used?	Yes / No*									
13. Trip Blank / Temp Blank Received? (circle which, if yes)	Yes / No*									
14. Temp Rec. at Lab: 4										
Is temp 4 +/-2°C?	Yes / No**									

(Acceptance range for samples requiring thermal pres.)

**Exception (if any): METALS / DFF ON ICE or Problem COC

TD 10/15/04

*IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

Chain of Custody Record

Project Name: 2107 Soil and Groundwater Investigation
Business Unit: Atlantic Richfield Company/Central CA Portfolio
BP Laboratory Contract Number: 4 6 1 0 0 0
Requested Due Date: 2 weeks from sampling date

Date: 10/15/04

On-site Time:	0710 Temp: 60°F
Off-site Time:	0 1L00 Temp: 71°F
Sky Condition:	CLEAR
Meteorological Events:	—
Wind Speed:	LOW Direction: —

Send To:	BP/GRM Facility No.: 2107	Consultant: URS Oakland
Lab Name: Sequoia Analytical	BP/GRM Facility Address: 3310 Park Blvd., Oakland, CA	Address: 1333 Broadway, Ste. 800
Lab Address:	Site ID No. Station #: 2107	Oakland, CA 94612
885 Jarvis Drive	Geo Lat/Long:	e-mail EDD: Jennifer.Sedlachek@kevin.uno@urscorp.com
Morgan Hill, CA, 95037	California Global ID #:	Consultant Project No.: 38486903
Lab PM: Lisa Race	BP/GRM PM Contact: Paul Supple	Consultant Tel/Fax: 510-893-3600/510 874-3268
Tel/Fax: 408.776.9600/408.782.8308	Address: PO Box 6549	Consultant PM: Scott Robinson
Report Type & QC Level: Normal	Moraga, CA, 94570	Invoice to: Consultant
BP/GRM Account No.:	Tel/Fax: 925.299.8801	BP/GRM Work Release No:

MPJ0393

Item No.	Sample Description	Time	Matrix: Soil/Solid	Water/Liquid	Sediment	Air	Laboratory No.	No. of containers	Preservative: Unpreserved	H_2SO_4	HNO_3	HCl	Requested Analysis: 8260B, Full	8260, BTEX, MTBE	TBA, TAME, ETBE, DIPE	Total Lead	Sample Point Lat/Long and Comments
1	HP-3-27	0830		X				3				X	X				
2	HP-3-39.5	1012	X					1	X								
3	HP-3-27	1224		X				3				X					HP-8-27
4	HP-8-39	1240		X				3				X					HP-8-39
5	SB-8-6.0	1413	X					1	X								
6	SB-8-11.0	1425	X					1	X								
7	SB-8-16.0	1432	X					1	X								
8	SB-8-25.0	1451	X					1	X								
9	SB-8-29.5	1453	X					1	X								
10																	

Sampler's Name: Kevin Uno	Relinquished By / Affiliation	Date	Time	Received By / Affiliation	Date	Time
Sampler's Company: URS Oakland	URS	10/15	1620	Jose Duran SOS/GSE	10/15/04	1620
Shipment Date:				DD Hall	10/15/04	1920
Shipment Method: Hand Deliver						
Shipment Tracking No:						

Special Instructions:

Custody Seals in Place Yes ___ No ___ Temperature Blank Yes ___ No X Cooler Temperature on Receipt ___ °F/C Trip Blank Yes X No ___

BP COC Rev. 1 3/6/01

Sequoia
Analytical

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24 November, 2004

Scott Robinson
URS Corporation [Arco]
1333 Broadway, Suite 800
Oakland, CA 94612

RE: ARCO #2107,Oakland, CA
Work Order: MNJ0632

Enclosed are the results of analyses for samples received by the laboratory on 10/25/04 15:35. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lisa Race
Senior Project Manager

CA ELAP Certificate #1210

Sequoia Analytical

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0632
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/24/04 09:29

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HP-5-18	MNJ0632-01	Water	10/20/04 09:30	10/25/04 15:35
HP-5-29	MNJ0632-02	Water	10/20/04 10:27	10/25/04 15:35
SB-10-6.5	MNJ0632-03	Soil	10/20/04 13:48	10/25/04 15:35
HP-7-20	MNJ0632-04	Water	10/20/04 14:05	10/25/04 15:35
SB-10-20.5	MNJ0632-05	Soil	10/20/04 14:33	10/25/04 15:35
SB-10-22.5	MNJ0632-06	Soil	10/20/04 14:37	10/25/04 15:35
HP-7-30	MNJ0632-07	Water	10/20/04 14:27	10/25/04 15:35
SB-10-31.5	MNJ0632-08	Soil	10/20/04 14:50	10/25/04 15:35
SB-10-14.0	MNJ0632-09	Soil	10/20/04 14:15	10/25/04 15:35
TB	MNJ0632-10	Water	10/20/04 14:15	10/25/04 15:35

The carbon range for the TPH-GRO has been changed from C6-C10 to C4-C12. The carbon range for TPH-DRO has been changed from C10-C28 to C10-C36. EPA 8015B has been modified to better meet the requirements of California regulatory agencies.

These samples were received with no custody seals.

8260B - The samples were received past the 48 hour hold time for soil sample preparation as specified in the BP GCLN.

Revised report created 11/24/04. Sample ID corrected.

Sequoia Analytical

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0632
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/24/04 09:29

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
HP-5-18 (MNJ0632-01) Water Sampled: 10/20/04 09:30 Received: 10/25/04 15:35									
tert-Amyl methyl ether	ND	0.50	ug/l	1	4K03010	11/03/04	11/03/04	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	**0.94**	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	**7.0**	0.50	"	"	"	"	"	"	
Xylenes (total)	**6.2**	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*94 %*	*78-129*		"	"	"	"	
HP-5-29 (MNJ0632-02) Water Sampled: 10/20/04 10:27 Received: 10/25/04 15:35									
tert-Amyl methyl ether	ND	0.50	ug/l	1	4K03010	11/03/04	11/03/04	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	**1.2**	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	**9.2**	0.50	"	"	"	"	"	"	
Xylenes (total)	**7.0**	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*94 %*	*78-129*		"	"	"	"	

Sequoia Analytical

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Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
www.sequoialabs.com

URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0632
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/24/04 09:29

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-10-6.5 (MNJ0632-03) Soil Sampled: 10/20/04 13:48 Received: 10/25/04 15:35									
tert-Amyl methyl ether	ND	0.0050	mg/kg	1	4J28003	10/28/04	10/28/04	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
tert-Butyl alcohol	ND	0.020	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0050	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	**0.025**	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	**0.51**	0.10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*99 %*	*78-136*		"	"	"	"	
HP-7-20 (MNJ0632-04) Water Sampled: 10/20/04 14:05 Received: 10/25/04 15:35									
tert-Amyl methyl ether	**23**	10	ug/l	20	4K03010	11/03/04	11/03/04	EPA 8260B	
Benzene	ND	10	"	"	"	"	"	"	
tert-Butyl alcohol	ND	400	"	"	"	"	"	"	
Di-isopropyl ether	ND	10	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	10	"	"	"	"	"	"	
Ethylbenzene	ND	10	"	"	"	"	"	"	
Methyl tert-butyl ether	**1200**	10	"	"	"	"	"	"	
Toluene	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	**1300**	1000	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*93 %*	*78-129*		"	"	"	"	

Sequoia Analytical

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0632
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/24/04 09:29

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-10-20.5 (MNJ0632-05) Soil Sampled: 10/20/04 14:33 Received: 10/25/04 15:35									
tert-Amyl methyl ether	ND	0.025	mg/kg	1	4J29030	10/29/04	11/03/04	EPA 8260B	
Benzene	ND	0.050	"	"	"	"	"	"	
tert-Butyl alcohol	ND	5.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.025	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.025	"	"	"	"	"	"	
Ethylbenzene	ND	0.050	"	"	"	"	"	"	
Methyl tert-butyl ether	**0.21**	0.025	"	"	"	"	"	"	
Toluene	ND	0.050	"	"	"	"	"	"	
Xylenes (total)	ND	0.050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	2.5	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*98 %*	*72-130*		"	"	"	"	
SB-10-22.5 (MNJ0632-06) Soil Sampled: 10/20/04 14:37 Received: 10/25/04 15:35									
tert-Amyl methyl ether	ND	0.0050	mg/kg	1	4J28003	10/28/04	10/28/04	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
tert-Butyl alcohol	ND	0.020	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0050	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	**0.059**	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	0.10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*90 %*	*78-136*		"	"	"	"	

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URS Corporation [Arco]	Project: ARCO #2107, Oakland, CA	MNJ0632
1333 Broadway, Suite 800	Project Number: N/P	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	11/24/04 09:29

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
HP-7-30 (MNJ0632-07) Water Sampled: 10/20/04 14:27 Received: 10/25/04 15:35									
tert-Amyl methyl ether	ND	50	ug/l	100	4K03010	11/03/04	11/03/04	EPA 8260B	
Benzene	ND	50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	2000	"	"	"	"	"	"	
Di-isopropyl ether	ND	50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	50	"	"	"	"	"	"	
Ethylbenzene	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	**3700**	50	"	"	"	"	"	"	
Toluene	ND	50	"	"	"	"	"	"	
Xylenes (total)	ND	50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	5000	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*94 %*	*78-129*		"	"	"	"	
SB-10-31.5 (MNJ0632-08) Soil Sampled: 10/20/04 14:50 Received: 10/25/04 15:35									
tert-Amyl methyl ether	ND	0.0050	mg/kg	1	4J28003	10/28/04	10/29/04	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
tert-Butyl alcohol	ND	0.020	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0050	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	**0.011**	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	0.10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*97 %*	*78-136*		"	"	"	"	

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1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/24/04 09:29

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-10-14.0 (MNJ0632-09) Soil	**Sampled: 10/20/04 14:15**	**Received: 10/25/04 15:35**							
tert-Amyl methyl ether	ND	0.0050	mg/kg	1	4J28003	10/28/04	10/29/04	EPA 8260B	
Benzene	ND	0.0050	"	"	"	"	"	"	
tert-Butyl alcohol	**0.048**	0.020	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.0050	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	**0.034**	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	0.10	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*93 %*	*78-136*		"	"	"	"	

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1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/24/04 09:29

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J28003 - EPA 5030B Modified / EPA 8260B										
Blank (4J28003-BLK1)				Prepared & Analyzed: 10/28/04						
tert-Amyl methyl ether	ND	0.0050	mg/kg							
Benzene	ND	0.0050	"							
tert-Butyl alcohol	ND	0.020	"							
Di-isopropyl ether	ND	0.0050	"							
Ethyl tert-butyl ether	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Methyl tert-butyl ether	ND	0.0050	"							
Toluene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Organics (C4-C12)	ND	0.10	"							
Surrogate: 1,2-Dichloroethane-d4	*0.00460*		"	*0.00500*		*92*	*78-136*			
Laboratory Control Sample (4J28003-BS1)				Prepared & Analyzed: 10/28/04						
tert-Amyl methyl ether	0.0101	0.0050	mg/kg	0.0100		101	78-135			
Benzene	0.00939	0.0050	"	0.0100		94	59-126			
tert-Butyl alcohol	0.0488	0.020	"	0.0500		98	20-164			
Di-isopropyl ether	0.0106	0.0050	"	0.0100		106	72-127			
Ethyl tert-butyl ether	0.0103	0.0050	"	0.0100		103	77-129			
Ethylbenzene	0.0106	0.0050	"	0.0100		106	60-145			
Methyl tert-butyl ether	0.00973	0.0050	"	0.0100		97	47-149			
Toluene	0.00978	0.0050	"	0.0100		98	66-142			
Xylenes (total)	0.0297	0.0050	"	0.0300		99	83-135			
Surrogate: 1,2-Dichloroethane-d4	*0.00491*		"	*0.00500*		*98*	*78-136*			
Laboratory Control Sample (4J28003-BS2)				Prepared & Analyzed: 10/28/04						
Benzene	0.00498	0.0050	mg/kg	0.00640		78	59-126			
Ethylbenzene	0.00782	0.0050	"	0.00752		104	60-145			
Methyl tert-butyl ether	0.00888	0.0050	"	0.00992		90	47-149			
Toluene	0.0303	0.0050	"	0.0319		95	66-142			
Xylenes (total)	0.0354	0.0050	"	0.0366		97	83-135			
Gasoline Range Organics (C4-C12)	0.405	0.10	"	0.440		92	53-126			
Surrogate: 1,2-Dichloroethane-d4	*0.00449*		"	*0.00500*		*90*	*78-136*			

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0632
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/24/04 09:29

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J28003 - EPA 5030B Modified / EPA 8260B										
Laboratory Control Sample Dup (4J28003-BSD1)				Prepared & Analyzed: 10/28/04						
tert-Amyl methyl ether	0.0102	0.0050	mg/kg	0.0100		102	78-135	1	25	
Benzene	0.00916	0.0050	"	0.0100		92	59-126	2	25	
tert-Butyl alcohol	0.0550	0.020	"	0.0500		110	20-164	12	25	
Di-isopropyl ether	0.0103	0.0050	"	0.0100		103	72-127	3	25	
Ethyl tert-butyl ether	0.0104	0.0050	"	0.0100		104	77-129	1	25	
Ethylbenzene	0.0105	0.0050	"	0.0100		105	60-145	0.9	25	
Methyl tert-butyl ether	0.00979	0.0050	"	0.0100		98	47-149	0.6	25	
Toluene	0.00964	0.0050	"	0.0100		96	66-142	1	25	
Xylenes (total)	0.0299	0.0050	"	0.0300		100	83-135	0.7	25	
Surrogate: 1,2-Dichloroethane-d4	*0.00483*		"	*0.00500*		*97*	*78-136*			
Matrix Spike (4J28003-MS1)	**Source: MNJ0648-03**			Prepared & Analyzed: 10/28/04						
Benzene	0.00429	0.0050	mg/kg	0.00640	0.00048	60	59-126			
Ethylbenzene	0.00610	0.0050	"	0.00752	0.0011	66	60-145			
Methyl tert-butyl ether	0.00834	0.0050	"	0.00992	ND	84	47-149			
Toluene	0.0258	0.0050	"	0.0319	0.0040	68	66-142			
Xylenes (total)	0.0284	0.0050	"	0.0366	0.0092	52	83-135			LN
Gasoline Range Organics (C4-C12)	0.311	0.10	"	0.440	ND	71	53-126			
Surrogate: 1,2-Dichloroethane-d4	*0.00476*		"	*0.00500*		*95*	*78-136*			
Matrix Spike Dup (4J28003-MSD1)	**Source: MNJ0648-03**			Prepared & Analyzed: 10/28/04						
Benzene	0.00505	0.0050	mg/kg	0.00640	0.00048	71	59-126	16	25	
Ethylbenzene	0.00750	0.0050	"	0.00752	0.0011	85	60-145	21	25	
Methyl tert-butyl ether	0.00868	0.0050	"	0.00992	ND	88	47-149	4	25	
Toluene	0.0309	0.0050	"	0.0319	0.0040	84	66-142	18	25	
Xylenes (total)	0.0351	0.0050	"	0.0366	0.0092	71	83-135	21	25	LN
Gasoline Range Organics (C4-C12)	0.390	0.10	"	0.440	ND	89	53-126	23	25	
Surrogate: 1,2-Dichloroethane-d4	*0.00485*		"	*0.00500*		*97*	*78-136*			

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URS Corporation [Arco]	Project: ARCO #2107, Oakland, CA	MNJ0632
1333 Broadway, Suite 800	Project Number: N/P	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	11/24/04 09:29

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J29030 - EPA 5030B/5035A MeOH / EPA 8260B										
Blank (4J29030-BLK1)				Prepared: 10/29/04 Analyzed: 11/03/04						
tert-Amyl methyl ether	ND	0.025	mg/kg							
Benzene	ND	0.050	"							
tert-Butyl alcohol	ND	5.0	"							
Di-isopropyl ether	ND	0.025	"							
Ethyl tert-butyl ether	ND	0.025	"							
Ethylbenzene	ND	0.050	"							
Methyl tert-butyl ether	ND	0.025	"							
Toluene	ND	0.050	"							
Xylenes (total)	ND	0.050	"							
Gasoline Range Organics (C4-C12)	ND	2.5	"							
Surrogate: 1,2-Dichloroethane-d4	*0.00497*		"	*0.00500*		*99*	*72-130*			
Laboratory Control Sample (4J29030-BS1)				Prepared: 10/29/04 Analyzed: 11/03/04						
tert-Amyl methyl ether	0.865	0.025	mg/kg	1.00		86	52-140			
Benzene	0.922	0.050	"	1.00		92	53-132			
tert-Butyl alcohol	4.52	4.0	"	5.00		90	32-165			
Di-isopropyl ether	1.02	0.025	"	1.00		102	53-129			
Ethyl tert-butyl ether	0.995	0.025	"	1.00		100	51-140			
Ethylbenzene	0.863	0.050	"	1.00		86	73-138			
Methyl tert-butyl ether	0.946	0.025	"	1.00		95	51-120			
Toluene	0.870	0.050	"	1.00		87	61-145			
Xylenes (total)	2.88	0.050	"	3.00		96	75-144			
Surrogate: 1,2-Dichloroethane-d4	*0.00484*		"	*0.00500*		*97*	*72-130*			
Laboratory Control Sample (4J29030-BS2)				Prepared: 10/29/04 Analyzed: 11/04/04						
Benzene	0.195	0.050	mg/kg	0.240		81	53-132			
Ethylbenzene	0.265	0.050	"	0.282		94	73-138			
Methyl tert-butyl ether	0.330	0.025	"	0.372		89	51-120			
Toluene	1.28	0.050	"	1.20		107	61-145			
Xylenes (total)	1.53	0.050	"	1.37		112	75-144			
Gasoline Range Organics (C4-C12)	15.5	2.5	"	16.5		94	60-140			
Surrogate: 1,2-Dichloroethane-d4	*0.00506*		"	*0.00500*		*101*	*72-130*			

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1333 Broadway, Suite 800	Project Number: N/P	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	11/24/04 09:29

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J29030 - EPA 5030B/5035A MeOH / EPA 8260B										
Laboratory Control Sample Dup (4J29030-BSD1)				Prepared: 10/29/04 Analyzed: 11/03/04						
tert-Amyl methyl ether	0.900	0.025	mg/kg	1.00		90	52-140	4	25	
Benzene	0.992	0.050	"	1.00		99	53-132	7	25	
tert-Butyl alcohol	4.75	4.0	"	5.00		95	32-165	5	25	
Di-isopropyl ether	1.08	0.025	"	1.00		108	53-129	6	25	
Ethyl tert-butyl ether	1.03	0.025	"	1.00		103	51-140	3	25	
Ethylbenzene	0.941	0.050	"	1.00		94	73-138	9	25	
Methyl tert-butyl ether	0.999	0.025	"	1.00		100	51-120	5	25	
Toluene	0.924	0.050	"	1.00		92	61-145	6	25	
Xylenes (total)	3.07	0.050	"	3.00		102	75-144	6	25	
Surrogate: 1,2-Dichloroethane-d4	*0.00477*		"	*0.00500*		*95*	*72-130*			
Laboratory Control Sample Dup (4J29030-BSD2)				Prepared: 10/29/04 Analyzed: 11/04/04						
Benzene	0.197	0.050	mg/kg	0.240		82	53-132	1	25	
Ethylbenzene	0.274	0.050	"	0.282		97	73-138	3	25	
Methyl tert-butyl ether	0.335	0.025	"	0.372		90	51-120	2	25	
Toluene	1.28	0.050	"	1.20		107	61-145	0	25	
Xylenes (total)	1.56	0.050	"	1.37		114	75-144	2	25	
Gasoline Range Organics (C4-C12)	16.3	2.5	"	16.5		99	60-140	5	25	
Surrogate: 1,2-Dichloroethane-d4	*0.00490*		"	*0.00500*		*98*	*72-130*			
Batch 4K03010 - EPA 5030B P/T / EPA 8260B										
Blank (4K03010-BLK1)				Prepared & Analyzed: 11/03/04						
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C4-C12)	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	*4.77*		"	*5.00*		*95*	*78-129*			

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1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/24/04 09:29

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4K03010 - EPA 5030B P/T / EPA 8260B										
Laboratory Control Sample (4K03010-BS1)				Prepared & Analyzed: 11/03/04						
tert-Amyl methyl ether	8.99	0.50	ug/l	10.0		90	82-140			
Benzene	9.40	0.50	"	10.0		94	69-124			
tert-Butyl alcohol	51.0	20	"	50.0		102	56-131			
Di-isopropyl ether	9.85	0.50	"	10.0		98	76-130			
Ethyl tert-butyl ether	9.78	0.50	"	10.0		98	81-121			
Ethylbenzene	9.07	0.50	"	10.0		91	84-132			
Methyl tert-butyl ether	9.40	0.50	"	10.0		94	63-137			
Toluene	9.27	0.50	"	10.0		93	78-129			
Xylenes (total)	30.7	0.50	"	30.0		102	83-137			
Surrogate: 1,2-Dichloroethane-d4	*4.72*		"	*5.00*		*94*	*78-129*			
Laboratory Control Sample (4K03010-BS2)				Prepared & Analyzed: 11/03/04						
Benzene	5.38	0.50	ug/l	6.40		84	69-124			
Ethylbenzene	7.09	0.50	"	7.52		94	84-132			
Methyl tert-butyl ether	8.78	0.50	"	9.92		89	63-137			
Toluene	30.0	0.50	"	31.9		94	78-129			
Xylenes (total)	38.6	0.50	"	36.6		105	83-137			
Gasoline Range Organics (C4-C12)	378	50	"	440		86	70-124			
Surrogate: 1,2-Dichloroethane-d4	*4.80*		"	*5.00*		*96*	*78-129*			
Laboratory Control Sample Dup (4K03010-BSD1)				Prepared & Analyzed: 11/03/04						
tert-Amyl methyl ether	10.1	0.50	ug/l	10.0		101	82-140	12	20	
Benzene	8.84	0.50	"	10.0		88	69-124	6	20	
tert-Butyl alcohol	51.1	20	"	50.0		102	56-131	0.2	20	
Di-isopropyl ether	10.7	0.50	"	10.0		107	76-130	8	20	
Ethyl tert-butyl ether	10.2	0.50	"	10.0		102	81-121	4	20	
Ethylbenzene	11.3	0.50	"	10.0		113	84-132	22	20	RB
Methyl tert-butyl ether	8.80	0.50	"	10.0		88	63-137	7	20	
Toluene	14.0	0.50	"	10.0		140	78-129	41	20	HL
Xylenes (total)	38.6	0.50	"	30.0		129	83-137	23	20	RB
Surrogate: 1,2-Dichloroethane-d4	*4.30*		"	*5.00*		*86*	*78-129*			

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
www.sequoialabs.com

URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0632
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/24/04 09:29

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4K03010 - EPA 5030B P/T / EPA 8260B										
Matrix Spike (4K03010-MS1)	**Source: MNJ0632-07**			Prepared & Analyzed: 11/03/04						
Benzene	536	50	ug/l	640	ND	84	69-124			
Ethylbenzene	704	50	"	752	ND	94	84-132			
Methyl tert-butyl ether	4600	50	"	992	3700	91	63-137			
Toluene	2890	50	"	3190	ND	91	78-129			
Xylenes (total)	3880	50	"	3660	ND	106	83-137			
Gasoline Range Organics (C4-C12)	40200	5000	"	44000	4600	81	70-124			
Surrogate: 1,2-Dichloroethane-d4	*4.78*		"	*5.00*		*96*	*78-129*			
Matrix Spike Dup (4K03010-MSD1)	**Source: MNJ0632-07**			Prepared & Analyzed: 11/03/04						
Benzene	551	50	ug/l	640	ND	86	69-124	3	20	
Ethylbenzene	723	50	"	752	ND	96	84-132	3	20	
Methyl tert-butyl ether	4490	50	"	992	3700	80	63-137	2	20	
Toluene	3050	50	"	3190	ND	96	78-129	5	20	
Xylenes (total)	3970	50	"	3660	ND	108	83-137	2	20	
Gasoline Range Organics (C4-C12)	41200	5000	"	44000	4600	83	70-124	2	20	
Surrogate: 1,2-Dichloroethane-d4	*4.67*		"	*5.00*		*93*	*78-129*			

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URS Corporation [Arco]	Project:ARCO #2107,Oakland, CA	MNJ0632
1333 Broadway, Suite 800	Project Number:N/P	**Reported:**
Oakland CA, 94612	Project Manager:Scott Robinson	11/24/04 09:29

Notes and Definitions

RB	RPD exceeded method control limit; % recoveries within limits.
LN	MS and/or MSD below acceptance limits. See Blank Spike(LCS).
HL	Analyte recovery above established limit
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Chain of Custody Record

Project Name	2107 Soil and Groundwater Investigation
Business Unit	Atlantic Richfield Company/Central CA Portfolio
BP Laboratory Contract Number:	4 6 1 0 0 0

Date: 10/20/04 Requested Due Date: 2 weeks from sampling date

On-site Time:	0740	Temp:	57°F
Off-site Time:	1620	Temp:	64°F
Sky Conditions:	OVERCAST → PARTLY CLOUDY		
Meteorological Events:	—		
Wind Speed:	NONE	Direction:	—

Send To:	BP/GEM Facility No.: 2107	Consultant: URS Oakland
Lab Name: Sequoia Analytical	BP/GEM Facility Address: 3310 Park Blvd., Oakland, CA	Address: 1333 Broadway, Ste. 800
Lab Address:	Site ID No. Station: 2107	Oakland, CA 94612
885 Jarvis Drive	Site Lat/Long:	e-mail EDD: kenneth_shurtz@; kevin_uno@urscorp.com
Morgan Hill, CA, 95037	California Global ID #:	Consultant Project No.: 38486908
Lab PM: Lisa Race	BP/GEM PM Contact: Paul Supple	Consultant Tele/Fax: 510-893-3600/510-874-3268
Tele/Fax: 408.776.9600/ 408.782.6308 ✓	Address: PO Box 6549	Consultant PM: Scott Robinson
Report Type & QC Level: Normal	Moraga, CA, 94570	Invoice to: Consultant
BP/GEM Account No.:	Tele/Fax: 925.299.8891	BP/GEM Work Release No:

Lab Bottle Order No: MDS0632

Item No.	Sample Description	Time	Matrix: Soil/Solid	Water/Liquid	Sediments	Air	Laboratory No.	No. of containers	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	Requested Analysis: 8260B for:	GRO, BTEX, MTBE,	TBA, TAME, ETBE, DIPE	Total Lead	Sample Point Lat/Long and Comments
1	HP-5-18	0930		X			01	3				X		X			
2	HP-5-29	1027		X			02	3				X		X			
3	SB-10-6.5	1348	X				03	1	X					X			
4	HP-7-20	1405		X			04	3	MS/MSD			X		X			
5	SB-10-20.5	1433	X				05	1	X					X			
6	SB-10-22.5	1437	X				06	1	X					X			
7	HP-7-30	1427		X			07	3				X		X			
8	SB-10-31.5	1460	X				08	1	X					X			
9	SB-10-14.0	1415	X				09	1	X					X			
10																	

	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name: Kevin Uno						
Sampler's Company: URS Oakland	/URS	10/21			10/21/04	1515
Shipment Date: 10/21/04						
Shipment Method: Hand Deliver						
Shipment Tracking No:						

Special Instructions:

Custody Seals In Place Yes ___ No ___ Temperature Blank Yes ___ No ✓ Cooler Temperature on Receipt ___ °F/C Trip Blank Yes ✓ No ___

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: BP2107
REC. BY (PRINT): JP
WORKORDER: MDJ0432

DATE REC'D AT LAB: 10/25/04
TIME REC'D AT LAB: 1535
DATE LOGGED IN: 10-28-04

For Regulatory Purposes?
DRINKING WATER . YES / NO
WASTE WATER YES / NO

(For clients requiring preservation checks at receipt, document here ↓)

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / Absent Intact / Broken*	01		HP-5-15	VOA (3)	HCl	—	W	10/25/04	
	02		" " -29	"	HCl		W		
2. Chain-of-Custody Present / Absent*	03		SB-10-6.5	Poly Tube	—		S		
3. Traffic Reports or Packing List: Present / Absent	04		HP-7-20	VOA (3)	HCl		W		
	05		SB-10-20.5	Poly Tube	—		S		
4. Airbill: Airbill / Sticker Present / Absent	06		" " 22.5	Poly Tube	"		S		
	07		HP-7-30	VOA (3)	HCl		W		
5. Airbill #:	08		SB-10-31.5	Poly Tube	—		S		
6. Sample Labels: Present / Absent	09		SB-10-19.0	"	"		S		
7. Sample IDs: Listed / Not Listed on Chain-of-Custody	10		Trip Blank	VOA	HCl		W		
8. Sample Condition: Intact / Broken* / Leaking*									
9. Does information on chain-of-custody, traffic reports and sample labels agree? Yes / No*									
10. Sample received within hold time? Yes / No*									
11. Adequate sample volume received? Yes / No*									
12. Proper Preservatives used? Yes / No*									
13. Trip Blank / Temp Blank Received? (circle which, if yes) Yes / No*									
14. Temp Rec. at Lab: 6.2 Is temp 4 +/-2°C? Yes / No*									
(Acceptance range for samples requiring thermal pres.)									
**Exception (if any): METALS / DFF ON ICE or Problem COC									

*IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

Attachment E

Survey Data

Survey Data
Atlantic Richfield Company Site 2107
3310 Park Blvd., Oakland, CA

Boring ID	Date Surveyed	X-coord (NAD'83)	Y-coord (NAD'83)	Ground Surface (NAVD'88)
SB-1	11/16/04	-122.2344641	37.8031429	128.26
SB-2	11/16/04	-122.2345458	37.8030865	126.53
SB-3	11/16/04	-122.2347087	37.8032083	123.87
SB-5	11/16/04	-122.2346814	37.8032765	122.96
SB-7	11/16/04	-122.2345316	37.8032140	126.22
SB-8	11/16/04	-122.2346152	37.8032190	124.82
SB-9	11/16/04	-122.2348093	37.8031964	122.79
SB-10	11/16/04	-122.2348842	37.8031970	121.79
SB-11	11/16/04	-122.2349568	37.8032163	120.23