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27141 Aliso Creek Road • Suite 270
Aliso Viejo, California 92656 USA

949.362.3077 800.477.7411
Fax 949.362.0290

April 18, 2005

Ms. Sharon Boltinghouse
County of Riverside
Department of Environmental Health
4065 County Circle Dr., Rm. 123
Riverside, CA 92503

Sent by UPS

Subject: Well Destruction Report
ARCO Facility No. 1807
12428 Heacock Street
Moreno Valley, California
RCDEH Case #88075

Dear Ms. Boltinghouse:

On behalf of Atlantic Richfield Company, Delta Environmental Consultants, Inc. (Delta) has prepared this *Well Destruction Report* detailing the destruction of nine monitoring wells (BH-6A, BH-7, BH-8, BH-9, BH-10, BH-11, MW-1, VW-1, and SB-3/VW-5) for ARCO Facility No. 1807 (the site), located at 12428 Heacock Street in the City of Moreno Valley, California (Figure 1). The wells were destroyed as requested by the County of Riverside Department of Environmental Health (RCDEH) in a letter to Atlantic Richfield Company dated February 4, 2005. A copy of the request letter is included as Attachment A.

The groundwater wells at the site were gauged and sampled for the last time on January 26, 2005. A brief description of this event is also included in this report.

SITE DESCRIPTION

The site is an operating ARCO gasoline and retail facility, located at the northeast corner of the intersection of Heacock Street and Postal Avenue in the City of Moreno Valley, California (Figure 2). The site consists of a single-story building, containing service and retail facilities, four gasoline dispenser islands, and three underground storage tanks (USTs). Properties adjacent to the site and in the immediate vicinity are zoned commercial. Any potential future land use changes for the site or surrounding area are not known at this time.

BACKGROUND

In March 1988, four-steel walled gasoline USTs and one waste-oil UST were replaced with four 10,000-gallon double-walled fiberglass tanks. Schaefer Dixon and Associates (SDA) conducted a preliminary site assessment to evaluate site conditions during removal and replacement of the USTs. Five soil samples were collected, one sample for each respective UST, and one angled soil boring (BH-1A) was advanced 34 linear feet. Impacted soil extended to a minimum depth of 34 feet below ground surface (bgs) (SDA, 1988). Laboratory analytical results of soil samples collected from boring BH-1A indicated maximum concentrations of total petroleum hydrocarbons as gasoline (TPHg) and benzene of 9,050 and 22 milligrams per kilogram (mg/kg), respectively, at a depth of 29 feet bgs.

In June 1988, SDA installed four vapor extraction wells (BH-6A through BH-9) in the vicinity of the former UST locations. Laboratory analytical results of soil samples collected during the well installations indicated a maximum TPHg concentration of 1,260 ppm in well BH-6A at a depth of 29 feet bgs (SDA, 1988).

Wenck Associates, Inc. (Wenck) conducted a soil vapor extraction (SVE) pilot test at the site in August 1988. Results of the pilot test indicated that 961 pounds of total petroleum hydrocarbons as vapor were extracted and destroyed (Simon, 1993).

In October 1991, Simon Environmental Engineering (Simon) advanced six soil borings (SB-1 through SB-6) and conducted an SVE pilot test at the site. Results of the pilot test indicate a radius of influence (ROI) of approximately 40 feet. TPHg concentrations in soil ranged from non-detect to a maximum of 3,500 mg/kg at 56 feet bgs in boring SB-2 (Simon, 1992).

In January 1993, Simon submitted a remedial action plan (RAP) to the Riverside County Department of Environmental Health (RCDEH) proposing SVE as the method of remediation for the site. The RAP was approved by the RCDEH in July 1993 (Simon, 1993).

A Baker Furnace TX-300 thermal/catalytic oxidation SVE system was installed in July 1996. An extended pilot test was conducted between August and December 1996. Approximately 2,282 pounds of TPH were extracted and destroyed during this period. SVE operations were resumed in June 1998. The operation of the SVE system has continued intermittently extracting a cumulative mass estimated to exceed 4,200 pounds of TPHg (Delta, 2002a).

Delta conducted a rebound test of the SVE system at the site between June 27 and July 5, 2002. The results of the vapor sampling indicate that TPHg concentrations remained below the threshold criteria concentration of 100 ppm by volume throughout the duration of the test and that SVE activities at the site had been successful (Delta, 2002a).

Delta supervised the drilling of two confirmation boreholes (CB-1 and CB-2) on September 25, 2002 and the installation of one groundwater monitoring well (MW-1) on August 14, 2002. The results of the confirmation borings confirmed the effectiveness of the on-site remediation system in successfully removing petroleum hydrocarbons from the soil beneath the site (Delta, 2002b).

On May 13, 14, and 15, 2003, Delta was on site to oversee the installation of two additional groundwater monitoring wells (BH-10 and BH-11). Details of the well installations are included in Delta's *Groundwater Monitoring Well Installation Report* dated July 29, 2003 (Delta, 2003a).

In September 2003, Delta was on site to oversee the removal of a waste oil tank and the replacement of the dispensers and associated piping (Delta, 2003b).

Soil boring and well locations are shown on Figure 2. Quarterly groundwater gauging and sampling was conducted at the site from August 2002 to January 2005. Groundwater gauging and analytical results are included in Tables 1 and 2, respectively.

GEOLOGY AND PHYSIOGRAPHY

The site is located within the Perris Plain, which lies south of the Box Spring Mountains and San Timoteo Badlands. The United States Geological Survey (USGS) 7.5-Minute Topographic Maps for the Sunnymead and Riverside East Quadrangle indicate the property elevation to be approximately 1,640 feet above mean sea level (msl). The topography is generally flat, sloping southward towards the San Jacinto River, located approximately 11 miles south of the site. The Colorado River Aqueduct is located approximately 7 miles to the south.

The site is located in the Peninsular Ranges geomorphic province. This region is characterized by northwest trending faults, mountain ranges, and sediment filled basins. The area is seismically active. The closest active faults include the San Jacinto Fault, located approximately 3.2 miles to the northeast, and the Whittier-Elsinore Fault, located approximately 18.5 miles to the southwest. The San Andreas Fault is located approximately 13.8 miles to the northeast (CDMG, 1994). Pleistocene-age alluvial fan and stream deposits, derived primarily from the Box Spring Mountains and San Timoteo Badlands to the north, characterize soils beneath the site. These deposits have been mapped as older alluvium and consist of indurated tan to brown sandy to pebbly clay-bearing alluvium (CDMG, 1986). Soils encountered during site investigations consisted primarily of silty sands with occasional lenses of sand and clayey sand, extending from ground surface to terminal depth explored (125

feet bgs). Based on the most recent investigation it appears that the sections at depth (ranging from approximately 85 to 105 feet bgs and below) appear to be weathered bedrock consisting of quartz diorite.

HYDROGEOLOGY

The site is located within the northern portion of the Perris Basin, and is named the "Perris North" basin in the California Regional Water Quality Control Board's (CRWQCB) Basin Plan for Region-8 (CRWQCB, 1995). The Perris Basin is an alluvial filled basin that drains south towards the San Jacinto River. The shallow aquifers of the Perris Basin have been historically used for drinking water, stock water, and irrigation since the 1920's, according to well records on file at the Riverside County Flood Control and Water Conservation District (RCFCD) (SECOR, 1998). During site investigations, groundwater has been encountered at approximately 99 feet bgs. The depth to groundwater at the site was most recently measured on November 3, 2004 and ranges from 95.65 to 96.50 feet. The groundwater flow direction has been measured at the site since June 2003. In June and September 2003, the groundwater flow direction was calculated to be toward the southwest with a gradient of 0.02 foot per foot. Since December 2003, the groundwater flow direction has been to the southeast with a gradient of 0.003 to 0.004 foot per foot.

According to the *Regional Groundwater Assessment* report prepared by SECOR (SECOR, 1998), fifteen water production and supply wells are located within a one-mile radius of the site. Five are water supply wells of which three are located approximately 1,900 feet north of the site (upgradient), one is located approximately 500 feet southwest of the site (crossgradient), and one is located approximately 2,100 feet southeast of the site (downgradient). The locations of the production wells located within a one-half mile radius of the site are indicated on Figure 1.

According to the Geotracker web site (www.geotracker.swrcb.ca.gov), three wells are located in the nearby vicinity of the site. According to the data provided, petroleum hydrocarbon constituents or fuel oxygenates have not been detected in these wells.

GROUNDWATER MONITORING WELL GAUGING AND SAMPLING

Doulos Environmental, Inc. conducted the final groundwater monitoring and purge sampling on January 26, 2005. After purging each well of three casing volumes, the groundwater samples were collected using new disposable bailers and transferred into 40-milliliter volatile organic analysis vials containing hydrochloric acid as a preservative. The groundwater samples were stored on ice and delivered to Del Mar Analytical Laboratories under chain-of-custody procedures for analysis. Groundwater samples were analyzed for total petroleum as gasoline according to Environmental Protection Agency (EPA) Method 8015M and benzene, ethylbenzene, toluene, xylenes, oxygenates, and ethanol by EPA Method 8260B (full scan). Groundwater gauging and analytical results are included in Tables 1 and 2, respectively. Groundwater sampling field data sheets are included as Attachment B and the laboratory report and chain-of-custody documentation are presented in Attachment C. Purge water generated during groundwater sampling activities was transported to DeMenno/Kerdoon located in Compton, California and the waste disposal manifest is included as Attachment D.

WELL DESTRUCTIONS

On March 28 and 29, 2005, Delta was on site to supervise well destruction activities. Cascade Drilling, Inc. (License No. C57-717510) was contracted to provide the equipment and personnel required to complete the field activities. Well destruction permits were required for groundwater monitoring wells BH-10, BH-11, and MW-1. Copies of the permits and receipt of payment are included as Attachment E.

All wells (BH-6A, BH-7, BH-8, BH-9, BH-10, BH-11, MW-1, VW-1, and SB-3/VW-5) and the SVE lateral connections were pressure grouted with bentonite grout and the top five feet of each well was over drilled. The over drilled portion of each well was sealed with three feet of hydrated bentonite chips and backfilled to grade with concrete. The Cascade Drilling daily work sheets summarizing the well destruction materials used are included as Attachment F. All waste materials were contained in appropriately labeled 55-gallon, Department of Transportation approved, drums. At the time of this report, waste drums have not been transported for disposal. However, disposal of soil will occur at TPS, Technologies in Adelanto, California and disposal of decontamination water will occur at DeMenno/Kerdoon in Compton, California. A copy of the waste disposal manifests will be submitted to RCDEH as soon as disposal of all wastes is complete.

CURRENT SITE STATUS

Two vadose zone wells (BH-1 and BH-2) remain on site. These wells are located within the tank pit and have depths of approximately 10 feet bgs. The wells are utilized as tank pit observation wells and were not pressure grouted.

Vadose zone well BH-6 was not located. The well was located near the former waste oil tank location and is presumed to have been utilized as a waste oil tank pit observation well, similar to wells BH-1 and BH-2. Well BH-6 is assumed to have been removed during the waste oil tank removal in March 1988, since the well was not located during the September 2003 waste oil tank removal.

REMARKS/SIGNATURES

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

If you have any questions regarding this correspondence, please contact Ann Hillyard at (949) 860-0203.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Christopher A. Ota
Staff Scientist

Ann M. Hillyard, P.G.
Project Manager
California Professional Geologist No. 6233

PROFESSIONAL GEOLOGIST
ANN M. HILLYARD
No.6233
STATE OF CALIFORNIA

Attachments:

References	
Figure 1	Site Location Map
Figure 2	Site Map
Table 1	Historical Groundwater Gauging Data
Table 2	Historical Groundwater Analytical Results
Attachment A	RCDEH Letter dated February 4, 2005
Attachment B	Groundwater Sampling Field Data Sheets
Attachment C	Laboratory Report and Chain-of-Custody Documentation
Attachment D	Purge Water Disposal Manifest
Attachment E	Well Destruction Permits and Receipt of Payment
Attachment F	Cascade Drilling Daily Worksheets

cc: Mr. Darrell Fah, Atlantic Richfield Company, La Palma, California
Ms. Valerie Jahn-Bull, CRWQCB-Santa Ana Region, Riverside, California

(q:\bpwest\socal\1807\wdr.doc)

REFERENCES

California Division of Mines and Geology (CDMG), 1986, Geologic Map of the San Bernardino Quadrangle, Regional Geologic Map Series, Map No. 3A, Scale 1:250,000

California Regional Water Quality Control Board-Santa Ana Region (CRWQCB), 1995, Water Quality Control Plan for the Santa Ana River Basin (8).

CDMG, 1994, Fault Activity Map of California and Adjacent Areas, with Locations and Ages of Recent Volcanic Eruptions, Geologic Data Map No. 6, Scale 1:250,000

Delta Environmental Consultants, Inc., (Delta, 2002a), Rebound Test Report, September 2002.

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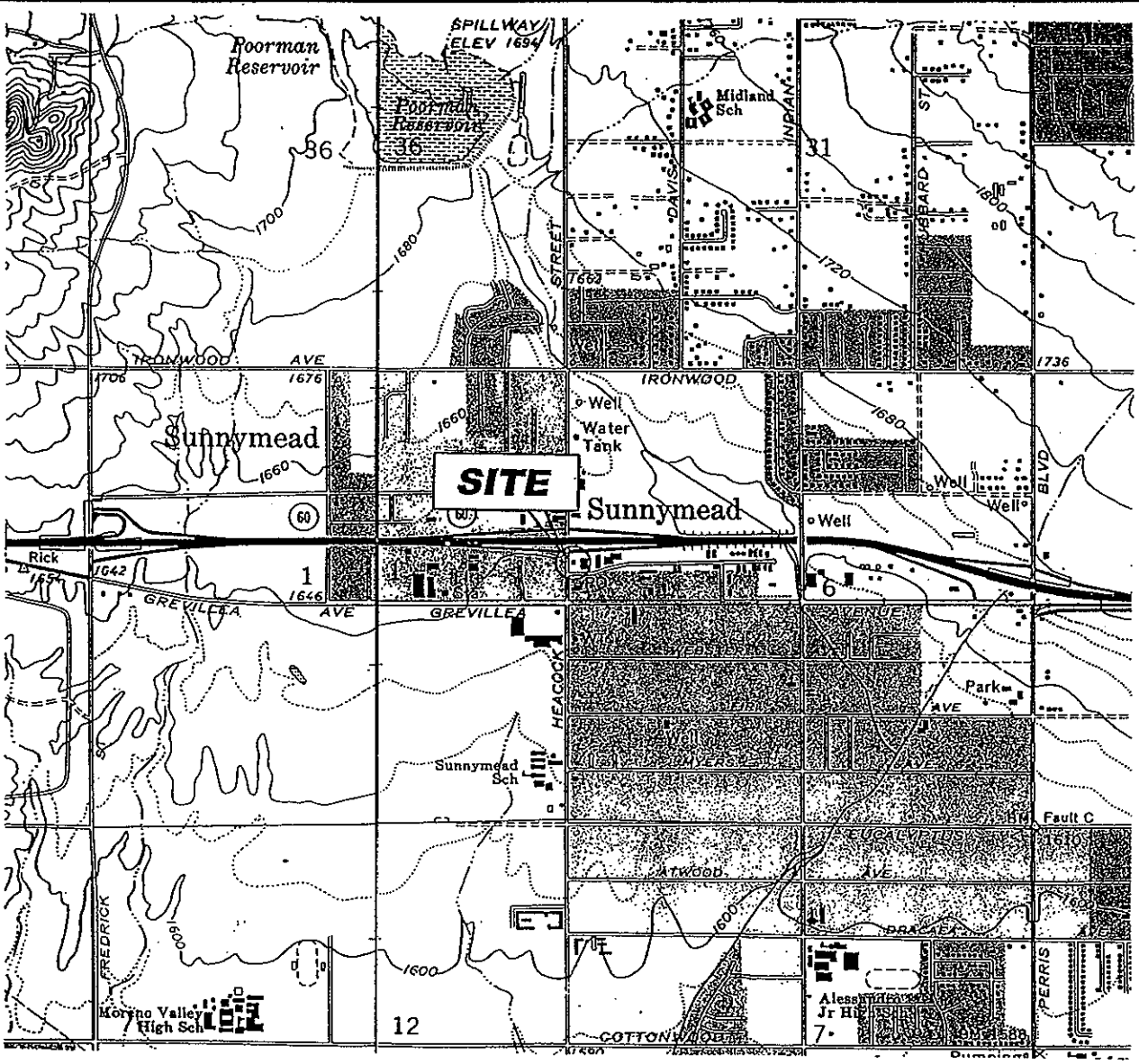
SECOR International, Inc., Regional Groundwater Assessment, 1998, ARCO Facility No. 1807, 12428 Heacock Street, Moreno Valley, CA, SECOR Job No. 40600-104-21, December 1998.

Simon Environmental Services, Phase II Site Investigation, March 1992.

Simon Hydro-Search, Third Quarter 1993 Site Status Report, October 1993.



GENERAL NOTES:

BASE MAP FROM U.S.G.S. 1967

SUNNYMEAD AND RIVERSIDE EAST QUADRANGLES

RIVERSIDE COUNTY, CA

7.5 MINUTE TOPOGRAPHIC MAP

PHOTOREVISED 1980

QUADRANGLE LOCATION

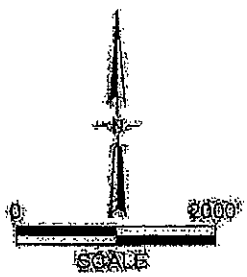
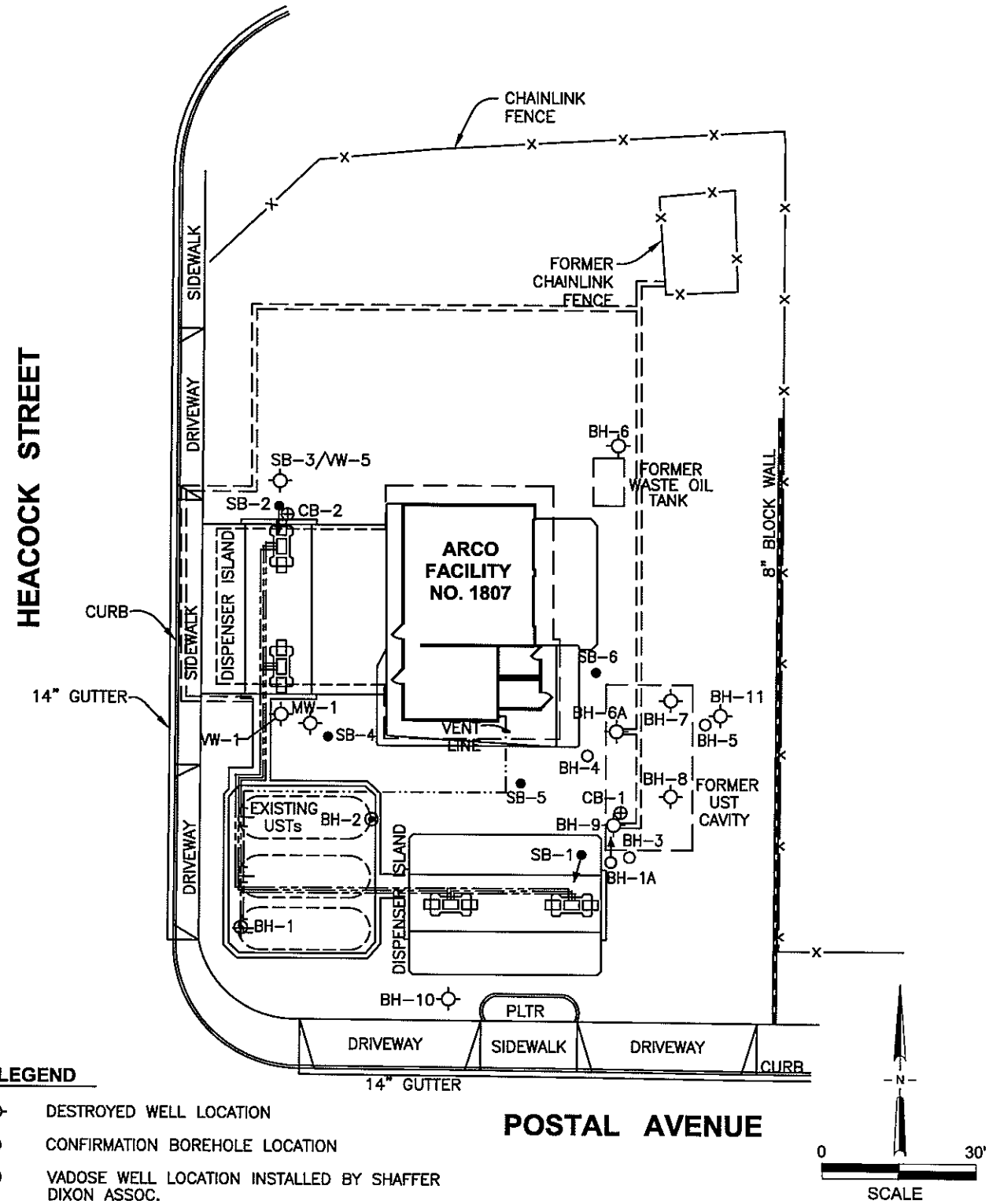


FIGURE 1
SITE LOCATION MAP
ARCO FACILITY NO. 1807
12428 HEACOCK STREET
MORENO VALLEY, CA

PROJECT NO. AM00-759	DRAWN BY	Delta Environmental Consultants, Inc.
FILE NO. SLM 1	PREPARED BY C. OTA	
DATE 6/24/02	REV.	REVIEWED BY



LEGEND

MW-1	⊙	DESTROYED WELL LOCATION
CB-2	⊕	CONFIRMATION BOREHOLE LOCATION
BH-8	◉	VADOSE WELL LOCATION INSTALLED BY SHAFFER DIXON ASSOC.
SB-1	●	ANGLE SOIL BORIONG LOCATION INSTALLED BY SIMON-EEI
SB-6	●	SOIL BORING LOCATION INSTALLED BY SIMON-EEI
BH-1A	○	ANGLE SOIL BORING LOCATION INSTALLED BY SHAFFER DIXON ASOOC.
BH-3	○	SOIL BORING LOCATION INSTALLED BY SHAFFER DIXON ASSOC.
		PIPING TRENCH LOCATION

FIGURE 2
SITE MAP
ARCO FACILITY NO. 1807
12428 HEACOCK STREET
MORENO VALLEY, CA.

PROJECT NO.	DRAWN BY	A	B	C	D	PI	TR		SM
GOBG7	K. MARTIN								
FILE NO.	PREPARED BY								
A0-759-12	C. OTA								
DATE 13 APR 05 / REV. D&B	REVIEWED BY								

Delta Environmental Consultants, Inc.

TABLE 1
HISTORICAL GROUNDWATER GAUGING DATA
ARCO Facility No. 1807
12428 Heacock Street
Moreno Valley, CA

Well	Date Measured	TOC Elevation (feet msl)	Depth to LPH (feet)	Depth to Water (feet)	LPH Thickness (feet)	Water Elevation (feet msl)	Comments
BH-10	6/13/2003	1639.39	NA	98.04	NA	1541.35	
BH-10	9/26/2003	1639.39	NA	97.81	NA	1541.58	
BH-10	12/19/2003	1639.39	NA	96.90	NA	1542.49	
BH-10	2/11/2004	1639.39	NA	96.60	NA	1542.79	
BH-10	5/12/2004	1639.39	NA	96.37	NA	1543.02	
BH-10	8/11/2004	1639.39	NA	95.60	NA	1543.79	
BH-10	11/3/2004	1639.39	NA	95.65	NA	1543.74	
BH-10	1/26/2005	1639.39	NA	95.32	NA	1544.07	
BH-11	6/13/2003	1640.31	NA	97.17	NA	1543.14	
BH-11	9/25/2003	1640.31	NA	96.95	NA	1543.36	
BH-11	12/19/2003	1640.31	NA	97.82	NA	1542.49	
BH-11	2/11/2004	1640.31	NA	97.50	NA	1542.81	
BH-11	5/12/2004	1640.31	NA	97.28	NA	1543.03	
BH-11	8/11/2004	1640.31	NA	96.48	NA	1543.83	
BH-11	11/3/2004	1640.31	NA	96.50	NA	1543.81	
BH-11	1/26/2005	1640.31	NA	96.23	NA	1544.08	
MW-1	8/21/2002	NA	NA	99.41	NA	NA	Well not surveyed
MW-1	12/18/2002	NA	NA	99.78	NA	NA	Well not surveyed
MW-1	2/14/2003	NA	NA	98.40	NA	NA	Well not surveyed
MW-1	6/13/2003	1640.07	NA	97.69	NA	1542.38	
MW-1	9/26/2003	1640.07	NA	97.42	NA	1542.65	
MW-1	12/19/2003	1640.07	NA	97.38	NA	1542.69	
MW-1	2/11/2004	1640.07	NA	97.07	NA	1543.00	
MW-1	5/12/2004	1640.07	NA	96.83	NA	1543.24	
MW-1	8/11/2004	1640.07	NA	96.02	NA	1544.05	
MW-1	11/3/2004	1640.07	NA	96.04	NA	1544.03	
MW-1	1/26/2005	1640.07	NA	95.80	NA	1544.27	

Notes: TOC = Top of casing elevation in feet above mean sea level (msl)
LPH = Liquid-phase hydrocarbons
NA = Not available/applicable
MSL = Mean Sea Level
All values are given in feet

TABLE 2
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
ARCO Facility No. 1807
12428 Heacock Street
Moreno Valley, CA

Well	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)	MTBE 8260B (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
BH-10	6/13/2003	ND<22	ND<0.28	ND<0.49	ND<0.25	ND<0.52	0.43J	ND<0.78	ND<0.61	ND<0.33	ND<5.0	ND<50	
BH-10	9/26/2003	ND<50	ND<0.28	ND<0.36	ND<0.25	ND<0.52	0.50J	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<50	
BH-10	12/19/2003	ND<50	0.83	ND<0.36	ND<0.25	ND<0.52	4.9	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<50	
BH-10	2/11/2004	ND<50	0.98	ND<0.36	ND<0.25	ND<0.52	4.7	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<50	
BH-10	5/12/2004	ND<50	0.55	ND<0.36	ND<0.25	ND<0.52	7.8	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<50	
BH-10	8/11/2004	ND<50	ND<0.28	ND<0.36	ND<0.25	ND<0.52	5.1	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<50	
BH-10	11/3/2004	ND<50	0.94	ND<0.36	ND<0.25	ND<0.52	3.7	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<100	
BH-10	1/24/2005	ND<50	0.42J	ND<0.36	ND<0.25	ND<0.52	2.6	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<100	
BH-11	6/13/2003	ND<22	1.2	ND<0.49	ND<0.25	ND<0.52	0.95J	ND<0.78	ND<0.61	ND<0.33	5.6J	ND<50	
BH-11	9/26/2003	ND<50	1.2	ND<0.36	ND<0.25	ND<0.52	2.7	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<50	
BH-11	12/19/2003	ND<50	ND<0.28	ND<0.36	ND<0.25	ND<0.52	1.1	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<50	
BH-11	2/11/2004	ND<50	ND<0.28	ND<0.36	ND<0.25	ND<0.52	1.1	ND<0.25	ND<0.28	ND<0.33	4.0J	ND<50	
BH-11	5/12/2004	ND<50	ND<0.28	0.38J	ND<0.25	ND<0.52	1.3	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<50	
BH-11	8/11/2004	ND<50	ND<0.28	ND<0.36	ND<0.25	ND<0.52	0.93J	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<50	
BH-11	11/3/2004	ND<50	ND<0.28	ND<0.36	ND<0.25	ND<0.52	1.2	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<100	
BH-11	1/24/2005	ND<50	ND<0.28	ND<0.36	ND<0.25	ND<0.52	0.81J	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<100	
MW-1	8/21/2002	ND<50	ND<0.1	ND<0.13	ND<0.099	ND<0.19	4.4J	ND<0.78	ND<0.61	ND<0.23	ND<5.0	NA	
MW-1	12/18/2002	ND<50	ND<0.28	ND<0.49	ND<0.25	ND<0.52	1.5	ND<0.78	ND<0.61	ND<0.33	ND<1.9	NA	
MW-1	2/14/2003	ND<50	ND<0.28	ND<0.49	ND<0.25	ND<0.52	0.67J	ND<0.78	ND<0.61	ND<0.33	ND<1.9	ND<50	
MW-1	6/13/2003	ND<22	ND<0.28	ND<0.49	ND<0.25	ND<0.52	0.78J	ND<0.78	ND<0.61	ND<0.33	ND<5.0	ND<50	
MW-1	9/26/2003	ND<50	ND<0.28	ND<0.36	ND<0.25	ND<0.52	0.73J	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<50	
MW-1	12/19/2003	ND<50	ND<0.28	ND<0.36	ND<0.25	ND<0.52	1.7	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<50	
MW-1	2/11/2004	ND<50	ND<0.28	ND<0.36	ND<0.25	ND<0.52	0.81J	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<50	
MW-1	5/12/2004	ND<50	ND<0.28	ND<0.36	ND<0.25	ND<0.52	1.0	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<50	
MW-1	8/11/2004	ND<50	ND<0.28	ND<0.36	ND<0.25	ND<0.52	0.61J	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<50	
MW-1	11/3/2004	ND<50	ND<0.28	ND<0.36	ND<0.25	ND<0.52	0.91J	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<100	
MW-1	1/24/2005	ND<50	ND<0.28	ND<0.36	ND<0.25	ND<0.52	0.82J	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<100	
Trip Blank	12/18/2002	ND<50	ND<0.28	ND<0.49	ND<0.25	ND<0.52	ND<0.33	ND<0.78	ND<0.61	ND<0.33	ND<1.9	NA	
Trip Blank	2/14/2003	ND<50	ND<0.28	ND<0.49	ND<0.25	ND<0.52	ND<0.33	ND<0.78	ND<0.61	ND<0.33	ND<1.9	ND<50	
Trip Blank	6/13/2003	ND<22	ND<0.28	ND<0.49	ND<0.25	ND<0.52	ND<0.33	ND<0.78	ND<0.61	ND<0.33	ND<5.0	ND<50	
Trip Blank	9/26/2003	ND<50	ND<0.28	ND<0.36	ND<0.25	ND<0.52	ND<0.32	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<50	
Trip Blank	12/19/2003	ND<50	ND<0.28	ND<0.36	ND<0.25	ND<0.52	ND<0.32	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<50	
Trip Blank	2/11/2004	ND<50	ND<0.28	ND<0.36	ND<0.25	ND<0.52	ND<0.32	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<50	
Trip Blank	5/12/2004	ND<50	ND<0.28	ND<0.36	ND<0.25	ND<0.52	ND<0.32	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<50	
Trip Blank	8/11/2004	ND<50	ND<0.28	ND<0.36	ND<0.25	ND<0.52	ND<0.32	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<50	
Trip Blank	11/3/2004	ND<50	ND<0.28	ND<0.36	ND<0.25	ND<0.52	ND<0.32	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<100	

TABLE 2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS

ARCO Facility No. 1807
12428 Heacock Street
Moreno Valley, CA

Well	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)	MTBE 8260B (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
Trip Blank	1/24/2005	ND<50	ND<0.28	ND<0.36	ND<0.25	ND<0.52	ND<0.32	ND<0.25	ND<0.28	ND<0.33	ND<3.1	ND<100	

Notes: TPHg = Total petroleum hydrocarbons as gasoline
MTBE = Methyl tertiary butyl ether
DIPE = Di-isopropyl ether
ETBE = Ethyl tertiary butyl ether
TAME = Tertiary amyl methyl ether
TBA = Tertiary butanol
ND<0.0020 = Not detected at or above method detection limit shown
All results given in Micrograms per Liter
J= Concentrations at or above the method detection limit but below the reporting limit.

Note: DIPE, ETBE, TAME, TBA, and Ethanol analyses by EPA 8260
EPA = Environmental Protection Agency

ATTACHMENT A

RCDEH Letter dated February 4, 2005

COUNTY OF RIVERSIDE • COMMUNITY HEALTH AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH

February 4, 2005

Site # 88075

Gordon Terhune
Atlantic Richfield Company
6 Centerpointe Drive, Rm. 174
La Palma, Ca 90623-1066

COPY

RE: Underground Storage Tank Cleanup
ARCO # 1807
12428 Heacock Avenue
Moreno Valley, California

Dear Mr. Terhune:

The County of Riverside Department of Environmental Health Hazardous Materials Management Division (HMMD) has reviewed and accepted the *Revised Closure Request Report* (Delta Environmental Consultants, Inc., December 17, 2004) for the above referenced site. The UST cleanup data was provided to the California Regional Water Quality Control Board, Santa Ana Region (RWQCB) for closure consideration. The RWQCB have responded in a concurrence with site closure.

The closure process will be considered final and a formal no further action/site closure letter will be issued upon completion of the following:

- Destruction of all wells, removal of all other site improvements relating to the UST cleanup, and disposal of all waste materials in accordance with State and County guidelines.
- Submittal of a brief well destruction and waste disposal report (including waste manifests, monitoring well destruction permits, etc.) to the HMMD office.
- Payment of the final invoice for HMMD cleanup oversight activities. (A final invoice will be issued upon receipt of the well destruction report.)

If the abandonment process is not completed and the invoice paid within 90 days from the date of this letter, the case may be re-activated and closure re-evaluated under new guidelines and requirements. Thank you for your cooperation in this matter.

If you have any questions regarding this correspondence, please contact me at (951) 358-5055.

Sincerely,

Sharon Boltinghouse
Hazardous Materials Management Specialist

cc: Valerie Jahn-Bull (RWQCB)
Ann Hillyard (Delta Environmental Consultants, Inc. – Aliso Viejo Office)

ATTACHMENT B

Groundwater Sampling Field Data Sheets

DELTA ENVIRONMENTAL CONSULTANTS, INC.

GROUNDWATER GAUGING DATA

Facility No.: 1807	Date: 1/24/05
Facility Location: Sunnymead	Technician: J. Velasquez
Project Manager: A Hillyard	Project No.: G0BG7-RP51-A

Gauging Order	Well I.D.	Time	Total Depth (feet)	Depth to Water (feet)	Depth to LPH (feet)	LPH Apparent Thickness (feet)	Gauge or Sample (G or S)	Physical Observations / Comments
	MW-1	0559	123.82	95.80				
	BH-11	0601	118.00	96.23				
	BH-10	0609	120.00	95.32				

Decon Method: Triple rinse

Measuring Device: Solinst

Notes:

DELTA ENVIRONMENTAL CONSULTANTS, INC.

GROUNDWATER SAMPLING INFORMATION SHEET

WEATHER CONDITIONS:
Cloud Cover: Partial
Wind Speed: slight
Temperature: 53°F

PROJECT:
Date: 1/24/05
Site: ARCO1807
Address: Sunnymead
Delta PM: A. Hillyard

WELL DESCRIPTION:
Well I.D.: MW-1
Casing Diameter: 2"
Depth to Water: 95.80 Time: 0559
Total Depth of Well: 123.82

PURGING METHOD: [X] VACUUM TRUCK [ ] OTHER _____

[(Well Depth - (DTW)] X (Casing Variable) = Case Volume (gal) X (# Volumes) = Total Gallons Purg

[(123.82) - (95.80)] X (.17) = _____ X (3) = 14 Gallons

Casing variables: 1" = 0.04, 2" = 0.16, 3" = 0.37, 4" = 0.65, 5" = 1.02, 6" = 1.47, 8" = 2.61, 10" = 4.08, 12" = 5.87

PURGING / STABILIZATION TEST DATA

Time (24hr)	pH (pH units)	Temp. Corrected Conductance (ms/cm)	Temperature (°F)	Turbidity (NTUs)	Cummulative Water Purged (gallons)	Pumping Rate (gpm)
0657						
0705	7.70	1860	63.4	--	5	
0713	7.56	1820	62.8	-	10	
0723	7.45	1800	62.2	-	14	

SAMPLING:
Sample I.D.: MW-1 Time: 0803
Bottle set: 5 80% Water Level: 101.40
Sample Appearance: clear Sampling Water Level: 95.80

D.O.: _____ mg/L D.O. Measuring Device: _____

COMMENTS:

TRANSPORTATION (Thermal preservation): ice

SAMPLED BY: J Velasquez DATE: 1/24/05

DELTA ENVIRONMENTAL CONSULTANTS, INC.

GROUNDWATER SAMPLING INFORMATION SHEET

WEATHER CONDITIONS:
Cloud Cover: Partial
Wind Speed: slight
Temperature: 57°F

PROJECT:
Date: 1/24/05
Site: ARCO1807
Address: Sunnymead
Delta PM: A. Hillyard

WELL DESCRIPTION:
Well I.D.: BH-10
Casing Diameter: 4"
Depth to Water: 95.32 Time: 0609
Total Depth of Well: 120.00

PURGING METHOD: [X] VACUUM TRUCK [ ] OTHER _____

[(Well Depth - (DTW)] X (Casing Variable) = Case Volume (gal) X (# Volumes) = Total Gallons Purg

[(120.00) - (95.32)] X (.65) = _____ X (3) = 48 Gallons

Casing variables: 1" = 0.04, 2" = 0.16, 3" = 0.37, 4" = 0.65, 5" = 1.02, 6" = 1.47, 8" = 2.61, 10" = 4.08, 12" = 5.87

PURGING / STABILIZATION TEST DATA

Time 0730 (24hr)	pH (pH units)	Temp. Corrected Conductance (ms/cm)	Temperature (°F)	Turbidity (NTUs)	Cummulative Water Purged (gallons)	Pumping Rate (gpm)
0738	7.49	2070	64.3	-	16	
0749	7.46	2090	65.4	-	32	
0805	7.45	2100	65.9	-	48	

SAMPLING:
Sample I.D.: BH-10 Time: 0835
Bottle set: 5 80% Water Level: 100.26
Sample Appearance: clear Sampling Water Level: 96.26

D.O.: _____ mg/L D.O. Measuring Device: _____

COMMENTS:

TRANSPORTATION (Thermal preservation): ice

SAMPLED BY: J Velasquez DATE: 1/24/05

DELTA ENVIRONMENTAL CONSULTANTS, INC.

GROUNDWATER SAMPLING INFORMATION SHEET

WEATHER CONDITIONS:
Cloud Cover: Partial
Wind Speed: slight
Temperature: 61°F

PROJECT:
Date: 1/24/05
Site: ARCO 1807
Address: Sunnymead
Delta PM: A. Hillyard

WELL DESCRIPTION:
Well I.D.: BH-11
Casing Diameter: 4"
Depth to Water: 96.23 Time: 0604
Total Depth of Well: 118.00

PURGING METHOD: [X] VACUUM TRUCK [ ] OTHER _____

[(Well Depth - (DTW)] X (Casing Variable) = Case Volume (gal) X (# Volumes) = Total Gallons Purg

[(118.00) - (96.23)] X (.65) = _____ X (3) = 42 Gallons

Casing variables: 1" = 0.04, 2" = 0.16, 3" = 0.37, 4" = 0.65, 5" = 1.02, 6" = 1.47, 8" = 2.61, 10" = 4.08, 12" = 5.87

PURGING / STABILIZATION TEST DATA

Time (24hr)	pH (pH units)	Temp. Corrected Conductance (ms/cm)	Temperature (°F)	Turbidity (NTUs)	Cummulative Water Purged (gallons)	Pumping Rate (gpm)
0817						
0825	7.48	3180	67.4	--	14	
0833	7.50	3060	67.1	-	28	
0842	7.51	3040	66.9	-	42	

SAMPLING:
Sample I.D.: BH-11 Time: 0855
Bottle set: 5 80% Water Level: 100.58
Sample Appearance: clear Sampling Water Level: 97.20

D.O.: _____ mg/L D.O. Measuring Device: _____

COMMENTS:

TRANSPORTATION (Thermal preservation): ice

SAMPLED BY: J. Velasquez DATE: 1/24/05

ATTACHMENT C

Laboratory Report and Chain-of-Custody Documentation

Del Mar Analytical

17461Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

LABORATORY REPORT

Prepared For: Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Ann Hillyard

Project: ARCO 1807, Moreno Valley

Sampled: 01/24/05
Received: 01/25/05
Issued: 02/08/05 15:03

NELAP #01108CA CA ELAP #1197 CSDLAC #10117

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of Del Mar Analytical and its client. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical. The Chain of Custody, 1 page, is included and is an integral part of this report.
This entire report was reviewed and approved for release.

CASE NARRATIVE

SAMPLE RECEIPT:	Samples were received intact, at 1°C, on ice and with chain of custody documentation.
HOLDING TIMES:	All samples were analyzed within prescribed holding times and/or in accordance with the Del Mar Analytical Sample Acceptance Policy unless otherwise noted in the report.
PRESERVATION:	Samples requiring preservation were verified prior to sample analysis.
QA/QC CRITERIA:	All analyses met method criteria, except as noted in the report with data qualifiers.
COMMENTS:	Results that fall between the MDL and RL are 'J' flagged.
SUBCONTRACTED:	No analyses were subcontracted to an outside laboratory.

LABORATORY ID	CLIENT ID	MATRIX
IOA1479-01	MW-1	Water
IOA1479-02	BH-10	Water
IOA1479-03	BH-11	Water
IOA1479-04	TB	Water

Reviewed By:

Del Mar Analytical, Irvine
Pat Abe
Project Manager

Del Mar Analytical

17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
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Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Ann Hillyard

Project ID: ARCO 1807, Moreno Valley

Report Number: IOA1479

Sampled: 01/24/05
Received: 01/25/05

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOA1479-01 (MW-1 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	5B01007	N/A	50	ND	1	02/01/05	02/01/05	
Surrogate: 4-BFB (FID) (65-140%)					*98 %*				
Sample ID: IOA1479-02 (BH-10 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	5B03013	N/A	50	ND	1	02/03/05	02/03/05	
Surrogate: 4-BFB (FID) (65-140%)					*92 %*				
Sample ID: IOA1479-03 (BH-11 - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	5B03013	N/A	50	ND	1	02/03/05	02/03/05	
Surrogate: 4-BFB (FID) (65-140%)					*87 %*				
Sample ID: IOA1479-04 (TB - Water)									
Reporting Units: ug/l									
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	5B03013	N/A	50	ND	1	02/03/05	02/03/05	
Surrogate: 4-BFB (FID) (65-140%)					*94 %*				

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Ann Hillyard

Project ID: ARCO 1807, Moreno Valley

Report Number: IOA1479

Sampled: 01/24/05
Received: 01/25/05

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOA1479-01 (MW-1 - Water)									
Reporting Units: ug/l									
Bromobenzene	EPA 8260B	5A30008	0.27	5.0	ND	1	01/30/05	01/30/05	
Bromochloromethane	EPA 8260B	5A30008	0.32	5.0	ND	1	01/30/05	01/30/05	
Bromodichloromethane	EPA 8260B	5A30008	0.30	2.0	ND	1	01/30/05	01/30/05	
Bromoform	EPA 8260B	5A30008	0.32	5.0	ND	1	01/30/05	01/30/05	
Bromomethane	EPA 8260B	5A30008	0.34	5.0	ND	1	01/30/05	01/30/05	
n-Butylbenzene	EPA 8260B	5A30008	0.37	5.0	ND	1	01/30/05	01/30/05	
sec-Butylbenzene	EPA 8260B	5A30008	0.25	5.0	ND	1	01/30/05	01/30/05	
tert-Butylbenzene	EPA 8260B	5A30008	0.22	5.0	ND	1	01/30/05	01/30/05	
Carbon tetrachloride	EPA 8260B	5A30008	0.28	5.0	ND	1	01/30/05	01/30/05	
Chlorobenzene	EPA 8260B	5A30008	0.36	2.0	ND	1	01/30/05	01/30/05	
Chloroethane	EPA 8260B	5A30008	0.33	5.0	ND	1	01/30/05	01/30/05	
Chloroform	EPA 8260B	5A30008	0.33	2.0	ND	1	01/30/05	01/30/05	
Chloromethane	EPA 8260B	5A30008	0.30	5.0	ND	1	01/30/05	01/30/05	
2-Chlorotoluene	EPA 8260B	5A30008	0.28	5.0	ND	1	01/30/05	01/30/05	
4-Chlorotoluene	EPA 8260B	5A30008	0.29	5.0	ND	1	01/30/05	01/30/05	
Dibromochloromethane	EPA 8260B	5A30008	0.28	2.0	ND	1	01/30/05	01/30/05	
1,2-Dibromo-3-chloropropane	EPA 8260B	5A30008	0.92	5.0	ND	1	01/30/05	01/30/05	
1,2-Dibromoethane (EDB)	EPA 8260B	5A30008	0.32	2.0	ND	1	01/30/05	01/30/05	
Dibromomethane	EPA 8260B	5A30008	0.36	2.0	ND	1	01/30/05	01/30/05	
1,2-Dichlorobenzene	EPA 8260B	5A30008	0.32	2.0	ND	1	01/30/05	01/30/05	
1,3-Dichlorobenzene	EPA 8260B	5A30008	0.35	2.0	ND	1	01/30/05	01/30/05	
1,4-Dichlorobenzene	EPA 8260B	5A30008	0.37	2.0	ND	1	01/30/05	01/30/05	
Dichlorodifluoromethane	EPA 8260B	5A30008	0.79	5.0	ND	1	01/30/05	01/30/05	
1,1-Dichloroethane	EPA 8260B	5A30008	0.27	2.0	ND	1	01/30/05	01/30/05	
1,2-Dichloroethane	EPA 8260B	5A30008	0.28	2.0	ND	1	01/30/05	01/30/05	
1,1-Dichloroethene	EPA 8260B	5A30008	0.32	5.0	ND	1	01/30/05	01/30/05	
cis-1,2-Dichloroethene	EPA 8260B	5A30008	0.32	2.0	ND	1	01/30/05	01/30/05	
trans-1,2-Dichloroethene	EPA 8260B	5A30008	0.27	2.0	ND	1	01/30/05	01/30/05	
1,2-Dichloropropane	EPA 8260B	5A30008	0.35	2.0	ND	1	01/30/05	01/30/05	
1,3-Dichloropropane	EPA 8260B	5A30008	0.30	2.0	ND	1	01/30/05	01/30/05	
2,2-Dichloropropane	EPA 8260B	5A30008	0.29	2.0	ND	1	01/30/05	01/30/05	
1,1-Dichloropropene	EPA 8260B	5A30008	0.28	2.0	ND	1	01/30/05	01/30/05	
cis-1,3-Dichloropropene	EPA 8260B	5A30008	0.22	2.0	ND	1	01/30/05	01/30/05	
trans-1,3-Dichloropropene	EPA 8260B	5A30008	0.24	2.0	ND	1	01/30/05	01/30/05	
Hexachlorobutadiene	EPA 8260B	5A30008	0.38	5.0	ND	1	01/30/05	01/30/05	
Isopropylbenzene	EPA 8260B	5A30008	0.25	2.0	ND	1	01/30/05	01/30/05	
p-Isopropyltoluene	EPA 8260B	5A30008	0.28	2.0	ND	1	01/30/05	01/30/05	
Methylene chloride	EPA 8260B	5A30008	0.48	5.0	ND	1	01/30/05	01/30/05	
Naphthalene	EPA 8260B	5A30008	0.41	5.0	ND	1	01/30/05	01/30/05	
n-Propylbenzene	EPA 8260B	5A30008	0.27	2.0	ND	1	01/30/05	01/30/05	
Styrene	EPA 8260B	5A30008	0.16	2.0	ND	1	01/30/05	01/30/05	

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Ann Hillyard

Project ID: ARCO 1807, Moreno Valley

Report Number: IOA1479

Sampled: 01/24/05
Received: 01/25/05

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOA1479-01 (MW-1 - Water) - cont.									
Reporting Units: ug/l									
1,1,1,2-Tetrachloroethane	EPA 8260B	5A30008	0.27	5.0	ND	1	01/30/05	01/30/05	
1,1,2,2-Tetrachloroethane	EPA 8260B	5A30008	0.24	2.0	ND	1	01/30/05	01/30/05	LP
Tetrachloroethene	EPA 8260B	5A30008	0.32	2.0	ND	1	01/30/05	01/30/05	
1,2,3-Trichlorobenzene	EPA 8260B	5A30008	0.45	5.0	ND	1	01/30/05	01/30/05	
1,2,4-Trichlorobenzene	EPA 8260B	5A30008	0.48	5.0	ND	1	01/30/05	01/30/05	
1,1,1-Trichloroethane	EPA 8260B	5A30008	0.30	2.0	ND	1	01/30/05	01/30/05	
1,1,2-Trichloroethane	EPA 8260B	5A30008	0.30	2.0	ND	1	01/30/05	01/30/05	
Trichloroethene	EPA 8260B	5A30008	0.26	2.0	ND	1	01/30/05	01/30/05	
Trichlorofluoromethane	EPA 8260B	5A30008	0.34	5.0	ND	1	01/30/05	01/30/05	
1,2,3-Trichloropropane	EPA 8260B	5A30008	0.85	10	ND	1	01/30/05	01/30/05	
1,2,4-Trimethylbenzene	EPA 8260B	5A30008	0.23	2.0	ND	1	01/30/05	01/30/05	
1,3,5-Trimethylbenzene	EPA 8260B	5A30008	0.26	2.0	ND	1	01/30/05	01/30/05	
Vinyl chloride	EPA 8260B	5A30008	0.26	5.0	ND	1	01/30/05	01/30/05	
Surrogate: Dibromofluoromethane (80-120%)					*104 %*				
Surrogate: Toluene-d8 (80-120%)					*98 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*93 %*				

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Ann Hillyard

Project ID: ARCO 1807, Moreno Valley

Report Number: IOA1479

Sampled: 01/24/05
Received: 01/25/05

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOA1479-02 (BH-10 - Water)									
Reporting Units: ug/l									
Bromobenzene	EPA 8260B	5A30008	0.27	5.0	ND	1	01/30/05	01/30/05	
Bromochloromethane	EPA 8260B	5A30008	0.32	5.0	ND	1	01/30/05	01/30/05	
Bromodichloromethane	EPA 8260B	5A30008	0.30	2.0	ND	1	01/30/05	01/30/05	
Bromoform	EPA 8260B	5A30008	0.32	5.0	ND	1	01/30/05	01/30/05	
Bromomethane	EPA 8260B	5A30008	0.34	5.0	ND	1	01/30/05	01/30/05	
n-Butylbenzene	EPA 8260B	5A30008	0.37	5.0	ND	1	01/30/05	01/30/05	
sec-Butylbenzene	EPA 8260B	5A30008	0.25	5.0	ND	1	01/30/05	01/30/05	
tert-Butylbenzene	EPA 8260B	5A30008	0.22	5.0	ND	1	01/30/05	01/30/05	
Carbon tetrachloride	EPA 8260B	5A30008	0.28	5.0	ND	1	01/30/05	01/30/05	
Chlorobenzene	EPA 8260B	5A30008	0.36	2.0	ND	1	01/30/05	01/30/05	
Chloroethane	EPA 8260B	5A30008	0.33	5.0	ND	1	01/30/05	01/30/05	
Chloroform	EPA 8260B	5A30008	0.33	2.0	ND	1	01/30/05	01/30/05	
Chloromethane	EPA 8260B	5A30008	0.30	5.0	ND	1	01/30/05	01/30/05	
2-Chlorotoluene	EPA 8260B	5A30008	0.28	5.0	ND	1	01/30/05	01/30/05	
4-Chlorotoluene	EPA 8260B	5A30008	0.29	5.0	ND	1	01/30/05	01/30/05	
Dibromochloromethane	EPA 8260B	5A30008	0.28	2.0	ND	1	01/30/05	01/30/05	
1,2-Dibromo-3-chloropropane	EPA 8260B	5A30008	0.92	5.0	ND	1	01/30/05	01/30/05	
1,2-Dibromoethane (EDB)	EPA 8260B	5A30008	0.32	2.0	ND	1	01/30/05	01/30/05	
Dibromomethane	EPA 8260B	5A30008	0.36	2.0	ND	1	01/30/05	01/30/05	
1,2-Dichlorobenzene	EPA 8260B	5A30008	0.32	2.0	ND	1	01/30/05	01/30/05	
1,3-Dichlorobenzene	EPA 8260B	5A30008	0.35	2.0	ND	1	01/30/05	01/30/05	
1,4-Dichlorobenzene	EPA 8260B	5A30008	0.37	2.0	ND	1	01/30/05	01/30/05	
Dichlorodifluoromethane	EPA 8260B	5A30008	0.79	5.0	ND	1	01/30/05	01/30/05	
1,1-Dichloroethane	EPA 8260B	5A30008	0.27	2.0	ND	1	01/30/05	01/30/05	
1,2-Dichloroethane	EPA 8260B	5A30008	0.28	2.0	**0.29**	1	01/30/05	01/30/05	J,DX
1,1-Dichloroethene	EPA 8260B	5A30008	0.32	5.0	ND	1	01/30/05	01/30/05	
cis-1,2-Dichloroethene	EPA 8260B	5A30008	0.32	2.0	ND	1	01/30/05	01/30/05	
trans-1,2-Dichloroethene	EPA 8260B	5A30008	0.27	2.0	ND	1	01/30/05	01/30/05	
1,2-Dichloropropane	EPA 8260B	5A30008	0.35	2.0	ND	1	01/30/05	01/30/05	
1,3-Dichloropropane	EPA 8260B	5A30008	0.30	2.0	ND	1	01/30/05	01/30/05	
2,2-Dichloropropane	EPA 8260B	5A30008	0.29	2.0	ND	1	01/30/05	01/30/05	
1,1-Dichloropropene	EPA 8260B	5A30008	0.28	2.0	ND	1	01/30/05	01/30/05	
cis-1,3-Dichloropropene	EPA 8260B	5A30008	0.22	2.0	ND	1	01/30/05	01/30/05	
trans-1,3-Dichloropropene	EPA 8260B	5A30008	0.24	2.0	ND	1	01/30/05	01/30/05	
Hexachlorobutadiene	EPA 8260B	5A30008	0.38	5.0	ND	1	01/30/05	01/30/05	
Isopropylbenzene	EPA 8260B	5A30008	0.25	2.0	ND	1	01/30/05	01/30/05	
p-Isopropyltoluene	EPA 8260B	5A30008	0.28	2.0	ND	1	01/30/05	01/30/05	
Methylene chloride	EPA 8260B	5A30008	0.48	5.0	ND	1	01/30/05	01/30/05	
Naphthalene	EPA 8260B	5A30008	0.41	5.0	ND	1	01/30/05	01/30/05	
n-Propylbenzene	EPA 8260B	5A30008	0.27	2.0	ND	1	01/30/05	01/30/05	
Styrene	EPA 8260B	5A30008	0.16	2.0	ND	1	01/30/05	01/30/05	

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Ann Hillyard

Project ID: ARCO 1807, Moreno Valley

Report Number: IOA1479

Sampled: 01/24/05
Received: 01/25/05

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOA1479-02 (BH-10 - Water) - cont.									
Reporting Units: ug/l									
1,1,1,2-Tetrachloroethane	EPA 8260B	5A30008	0.27	5.0	ND	1	01/30/05	01/30/05	
1,1,2,2-Tetrachloroethane	EPA 8260B	5A30008	0.24	2.0	ND	1	01/30/05	01/30/05	LP
Tetrachloroethene	EPA 8260B	5A30008	0.32	2.0	ND	1	01/30/05	01/30/05	
1,2,3-Trichlorobenzene	EPA 8260B	5A30008	0.45	5.0	ND	1	01/30/05	01/30/05	
1,2,4-Trichlorobenzene	EPA 8260B	5A30008	0.48	5.0	ND	1	01/30/05	01/30/05	
1,1,1-Trichloroethane	EPA 8260B	5A30008	0.30	2.0	ND	1	01/30/05	01/30/05	
1,1,2-Trichloroethane	EPA 8260B	5A30008	0.30	2.0	ND	1	01/30/05	01/30/05	
Trichloroethene	EPA 8260B	5A30008	0.26	2.0	ND	1	01/30/05	01/30/05	
Trichlorofluoromethane	EPA 8260B	5A30008	0.34	5.0	ND	1	01/30/05	01/30/05	
1,2,3-Trichloropropane	EPA 8260B	5A30008	0.85	10	ND	1	01/30/05	01/30/05	
1,2,4-Trimethylbenzene	EPA 8260B	5A30008	0.23	2.0	ND	1	01/30/05	01/30/05	
1,3,5-Trimethylbenzene	EPA 8260B	5A30008	0.26	2.0	ND	1	01/30/05	01/30/05	
Vinyl chloride	EPA 8260B	5A30008	0.26	5.0	ND	1	01/30/05	01/30/05	
Surrogate: Dibromofluoromethane (80-120%)					*105 %*				
Surrogate: Toluene-d8 (80-120%)					*98 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*94 %*				

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Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Ann Hillyard

Project ID: ARCO 1807, Moreno Valley

Report Number: IOA1479

Sampled: 01/24/05
Received: 01/25/05

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOA1479-03 (BH-11 - Water)									
Reporting Units: ug/l									
Bromobenzene	EPA 8260B	5A30008	0.27	5.0	ND	1	01/30/05	01/30/05	
Bromochloromethane	EPA 8260B	5A30008	0.32	5.0	ND	1	01/30/05	01/30/05	
Bromodichloromethane	EPA 8260B	5A30008	0.30	2.0	ND	1	01/30/05	01/30/05	
Bromoform	EPA 8260B	5A30008	0.32	5.0	ND	1	01/30/05	01/30/05	
Bromomethane	EPA 8260B	5A30008	0.34	5.0	ND	1	01/30/05	01/30/05	
n-Butylbenzene	EPA 8260B	5A30008	0.37	5.0	ND	1	01/30/05	01/30/05	
sec-Butylbenzene	EPA 8260B	5A30008	0.25	5.0	ND	1	01/30/05	01/30/05	
tert-Butylbenzene	EPA 8260B	5A30008	0.22	5.0	ND	1	01/30/05	01/30/05	
Carbon tetrachloride	EPA 8260B	5A30008	0.28	5.0	ND	1	01/30/05	01/30/05	
Chlorobenzene	EPA 8260B	5A30008	0.36	2.0	ND	1	01/30/05	01/30/05	
Chloroethane	EPA 8260B	5A30008	0.33	5.0	ND	1	01/30/05	01/30/05	
Chloroform	EPA 8260B	5A30008	0.33	2.0	ND	1	01/30/05	01/30/05	
Chloromethane	EPA 8260B	5A30008	0.30	5.0	ND	1	01/30/05	01/30/05	
2-Chlorotoluene	EPA 8260B	5A30008	0.28	5.0	ND	1	01/30/05	01/30/05	
4-Chlorotoluene	EPA 8260B	5A30008	0.29	5.0	ND	1	01/30/05	01/30/05	
Dibromochloromethane	EPA 8260B	5A30008	0.28	2.0	ND	1	01/30/05	01/30/05	
1,2-Dibromo-3-chloropropane	EPA 8260B	5A30008	0.92	5.0	ND	1	01/30/05	01/30/05	
1,2-Dibromoethane (EDB)	EPA 8260B	5A30008	0.32	2.0	ND	1	01/30/05	01/30/05	
Dibromomethane	EPA 8260B	5A30008	0.36	2.0	ND	1	01/30/05	01/30/05	
1,2-Dichlorobenzene	EPA 8260B	5A30008	0.32	2.0	ND	1	01/30/05	01/30/05	
1,3-Dichlorobenzene	EPA 8260B	5A30008	0.35	2.0	ND	1	01/30/05	01/30/05	
1,4-Dichlorobenzene	EPA 8260B	5A30008	0.37	2.0	ND	1	01/30/05	01/30/05	
Dichlorodifluoromethane	EPA 8260B	5A30008	0.79	5.0	ND	1	01/30/05	01/30/05	
1,1-Dichloroethane	EPA 8260B	5A30008	0.27	2.0	ND	1	01/30/05	01/30/05	
1,2-Dichloroethane	EPA 8260B	5A30008	0.28	2.0	ND	1	01/30/05	01/30/05	
1,1-Dichloroethene	EPA 8260B	5A30008	0.32	5.0	ND	1	01/30/05	01/30/05	
cis-1,2-Dichloroethene	EPA 8260B	5A30008	0.32	2.0	ND	1	01/30/05	01/30/05	
trans-1,2-Dichloroethene	EPA 8260B	5A30008	0.27	2.0	ND	1	01/30/05	01/30/05	
1,2-Dichloropropane	EPA 8260B	5A30008	0.35	2.0	ND	1	01/30/05	01/30/05	
1,3-Dichloropropane	EPA 8260B	5A30008	0.30	2.0	ND	1	01/30/05	01/30/05	
2,2-Dichloropropane	EPA 8260B	5A30008	0.29	2.0	ND	1	01/30/05	01/30/05	
1,1-Dichloropropene	EPA 8260B	5A30008	0.28	2.0	ND	1	01/30/05	01/30/05	
cis-1,3-Dichloropropene	EPA 8260B	5A30008	0.22	2.0	ND	1	01/30/05	01/30/05	
trans-1,3-Dichloropropene	EPA 8260B	5A30008	0.24	2.0	ND	1	01/30/05	01/30/05	
Hexachlorobutadiene	EPA 8260B	5A30008	0.38	5.0	ND	1	01/30/05	01/30/05	
Isopropylbenzene	EPA 8260B	5A30008	0.25	2.0	ND	1	01/30/05	01/30/05	
p-Isopropyltoluene	EPA 8260B	5A30008	0.28	2.0	ND	1	01/30/05	01/30/05	
Methylene chloride	EPA 8260B	5A30008	0.48	5.0	ND	1	01/30/05	01/30/05	
Naphthalene	EPA 8260B	5A30008	0.41	5.0	ND	1	01/30/05	01/30/05	
n-Propylbenzene	EPA 8260B	5A30008	0.27	2.0	ND	1	01/30/05	01/30/05	
Styrene	EPA 8260B	5A30008	0.16	2.0	ND	1	01/30/05	01/30/05	

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9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
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Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Ann Hillyard

Project ID: ARCO 1807, Moreno Valley

Report Number: IOA1479

Sampled: 01/24/05
Received: 01/25/05

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOA1479-03 (BH-11 - Water) - cont.									
Reporting Units: ug/l									
1,1,1,2-Tetrachloroethane	EPA 8260B	5A30008	0.27	5.0	ND	1	01/30/05	01/30/05	
1,1,2,2-Tetrachloroethane	EPA 8260B	5A30008	0.24	2.0	ND	1	01/30/05	01/30/05	LP
Tetrachloroethene	EPA 8260B	5A30008	0.32	2.0	ND	1	01/30/05	01/30/05	
1,2,3-Trichlorobenzene	EPA 8260B	5A30008	0.45	5.0	ND	1	01/30/05	01/30/05	
1,2,4-Trichlorobenzene	EPA 8260B	5A30008	0.48	5.0	ND	1	01/30/05	01/30/05	
1,1,1-Trichloroethane	EPA 8260B	5A30008	0.30	2.0	ND	1	01/30/05	01/30/05	
1,1,2-Trichloroethane	EPA 8260B	5A30008	0.30	2.0	ND	1	01/30/05	01/30/05	
Trichloroethene	EPA 8260B	5A30008	0.26	2.0	ND	1	01/30/05	01/30/05	
Trichlorofluoromethane	EPA 8260B	5A30008	0.34	5.0	ND	1	01/30/05	01/30/05	
1,2,3-Trichloropropane	EPA 8260B	5A30008	0.85	10	ND	1	01/30/05	01/30/05	
1,2,4-Trimethylbenzene	EPA 8260B	5A30008	0.23	2.0	ND	1	01/30/05	01/30/05	
1,3,5-Trimethylbenzene	EPA 8260B	5A30008	0.26	2.0	ND	1	01/30/05	01/30/05	
Vinyl chloride	EPA 8260B	5A30008	0.26	5.0	ND	1	01/30/05	01/30/05	
Surrogate: Dibromofluoromethane (80-120%)					*104 %*				
Surrogate: Toluene-d8 (80-120%)					*95 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*97 %*				

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Project Manager

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Aliso Viejo, CA 92656
Attention: Ann Hillyard

Project ID: ARCO 1807, Moreno Valley

Report Number: IOA1479

Sampled: 01/24/05
Received: 01/25/05

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOA1479-04 (TB - Water)									
Reporting Units: ug/l									
Bromobenzene	EPA 8260B	5A30008	0.27	5.0	ND	1	01/30/05	01/30/05	
Bromochloromethane	EPA 8260B	5A30008	0.32	5.0	ND	1	01/30/05	01/30/05	
Bromodichloromethane	EPA 8260B	5A30008	0.30	2.0	ND	1	01/30/05	01/30/05	
Bromoform	EPA 8260B	5A30008	0.32	5.0	ND	1	01/30/05	01/30/05	
Bromomethane	EPA 8260B	5A30008	0.34	5.0	ND	1	01/30/05	01/30/05	
n-Butylbenzene	EPA 8260B	5A30008	0.37	5.0	ND	1	01/30/05	01/30/05	
sec-Butylbenzene	EPA 8260B	5A30008	0.25	5.0	ND	1	01/30/05	01/30/05	
tert-Butylbenzene	EPA 8260B	5A30008	0.22	5.0	ND	1	01/30/05	01/30/05	
Carbon tetrachloride	EPA 8260B	5A30008	0.28	5.0	ND	1	01/30/05	01/30/05	
Chlorobenzene	EPA 8260B	5A30008	0.36	2.0	ND	1	01/30/05	01/30/05	
Chloroethane	EPA 8260B	5A30008	0.33	5.0	ND	1	01/30/05	01/30/05	
Chloroform	EPA 8260B	5A30008	0.33	2.0	ND	1	01/30/05	01/30/05	
Chloromethane	EPA 8260B	5A30008	0.30	5.0	ND	1	01/30/05	01/30/05	
2-Chlorotoluene	EPA 8260B	5A30008	0.28	5.0	ND	1	01/30/05	01/30/05	
4-Chlorotoluene	EPA 8260B	5A30008	0.29	5.0	ND	1	01/30/05	01/30/05	
Dibromochloromethane	EPA 8260B	5A30008	0.28	2.0	ND	1	01/30/05	01/30/05	
1,2-Dibromo-3-chloropropane	EPA 8260B	5A30008	0.92	5.0	ND	1	01/30/05	01/30/05	
1,2-Dibromoethane (EDB)	EPA 8260B	5A30008	0.32	2.0	ND	1	01/30/05	01/30/05	
Dibromomethane	EPA 8260B	5A30008	0.36	2.0	ND	1	01/30/05	01/30/05	
1,2-Dichlorobenzene	EPA 8260B	5A30008	0.32	2.0	ND	1	01/30/05	01/30/05	
1,3-Dichlorobenzene	EPA 8260B	5A30008	0.35	2.0	ND	1	01/30/05	01/30/05	
1,4-Dichlorobenzene	EPA 8260B	5A30008	0.37	2.0	ND	1	01/30/05	01/30/05	
Dichlorodifluoromethane	EPA 8260B	5A30008	0.79	5.0	ND	1	01/30/05	01/30/05	
1,1-Dichloroethane	EPA 8260B	5A30008	0.27	2.0	ND	1	01/30/05	01/30/05	
1,2-Dichloroethane	EPA 8260B	5A30008	0.28	2.0	ND	1	01/30/05	01/30/05	
1,1-Dichloroethene	EPA 8260B	5A30008	0.32	5.0	ND	1	01/30/05	01/30/05	
cis-1,2-Dichloroethene	EPA 8260B	5A30008	0.32	2.0	ND	1	01/30/05	01/30/05	
trans-1,2-Dichloroethene	EPA 8260B	5A30008	0.27	2.0	ND	1	01/30/05	01/30/05	
1,2-Dichloropropane	EPA 8260B	5A30008	0.35	2.0	ND	1	01/30/05	01/30/05	
1,3-Dichloropropane	EPA 8260B	5A30008	0.30	2.0	ND	1	01/30/05	01/30/05	
2,2-Dichloropropane	EPA 8260B	5A30008	0.29	2.0	ND	1	01/30/05	01/30/05	
1,1-Dichloropropene	EPA 8260B	5A30008	0.28	2.0	ND	1	01/30/05	01/30/05	
cis-1,3-Dichloropropene	EPA 8260B	5A30008	0.22	2.0	ND	1	01/30/05	01/30/05	
trans-1,3-Dichloropropene	EPA 8260B	5A30008	0.24	2.0	ND	1	01/30/05	01/30/05	
Hexachlorobutadiene	EPA 8260B	5A30008	0.38	5.0	ND	1	01/30/05	01/30/05	
Isopropylbenzene	EPA 8260B	5A30008	0.25	2.0	ND	1	01/30/05	01/30/05	
p-Isopropyltoluene	EPA 8260B	5A30008	0.28	2.0	ND	1	01/30/05	01/30/05	
Methylene chloride	EPA 8260B	5A30008	0.48	5.0	ND	1	01/30/05	01/30/05	
Naphthalene	EPA 8260B	5A30008	0.41	5.0	ND	1	01/30/05	01/30/05	
n-Propylbenzene	EPA 8260B	5A30008	0.27	2.0	ND	1	01/30/05	01/30/05	
Styrene	EPA 8260B	5A30008	0.16	2.0	ND	1	01/30/05	01/30/05	

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Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Ann Hillyard

Project ID: ARCO 1807, Moreno Valley

Report Number: IOA1479

Sampled: 01/24/05
Received: 01/25/05

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOA1479-04 (TB - Water) - cont.									
Reporting Units: ug/l									
1,1,1,2-Tetrachloroethane	EPA 8260B	5A30008	0.27	5.0	ND	1	01/30/05	01/30/05	
1,1,2,2-Tetrachloroethane	EPA 8260B	5A30008	0.24	2.0	ND	1	01/30/05	01/30/05	LP
Tetrachloroethene	EPA 8260B	5A30008	0.32	2.0	ND	1	01/30/05	01/30/05	
1,2,3-Trichlorobenzene	EPA 8260B	5A30008	0.45	5.0	ND	1	01/30/05	01/30/05	
1,2,4-Trichlorobenzene	EPA 8260B	5A30008	0.48	5.0	ND	1	01/30/05	01/30/05	
1,1,1-Trichloroethane	EPA 8260B	5A30008	0.30	2.0	ND	1	01/30/05	01/30/05	
1,1,2-Trichloroethane	EPA 8260B	5A30008	0.30	2.0	ND	1	01/30/05	01/30/05	
Trichloroethene	EPA 8260B	5A30008	0.26	2.0	ND	1	01/30/05	01/30/05	
Trichlorofluoromethane	EPA 8260B	5A30008	0.34	5.0	ND	1	01/30/05	01/30/05	
1,2,3-Trichloropropane	EPA 8260B	5A30008	0.85	10	ND	1	01/30/05	01/30/05	
1,2,4-Trimethylbenzene	EPA 8260B	5A30008	0.23	2.0	ND	1	01/30/05	01/30/05	
1,3,5-Trimethylbenzene	EPA 8260B	5A30008	0.26	2.0	ND	1	01/30/05	01/30/05	
Vinyl chloride	EPA 8260B	5A30008	0.26	5.0	ND	1	01/30/05	01/30/05	
Surrogate: Dibromofluoromethane (80-120%)					*103 %*				
Surrogate: Toluene-d8 (80-120%)					*97 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*96 %*				

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Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Ann Hillyard

Project ID: ARCO 1807, Moreno Valley

Report Number: IOA1479

Sampled: 01/24/05
Received: 01/25/05

BTEX/OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOA1479-01 (MW-1 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	5A30008	0.28	0.50	ND	1	01/30/05	01/30/05	
Ethylbenzene	EPA 8260B	5A30008	0.25	0.50	ND	1	01/30/05	01/30/05	
Toluene	EPA 8260B	5A30008	0.36	0.50	ND	1	01/30/05	01/30/05	
o-Xylene	EPA 8260B	5A30008	0.24	0.50	ND	1	01/30/05	01/30/05	
m,p-Xylenes	EPA 8260B	5A30008	0.52	1.0	ND	1	01/30/05	01/30/05	
Xylenes, Total	EPA 8260B	5A30008	0.52	1.5	ND	1	01/30/05	01/30/05	
Di-isopropyl Ether (DIPE)	EPA 8260B	5A30008	0.25	5.0	ND	1	01/30/05	01/30/05	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5A30008	0.28	5.0	ND	1	01/30/05	01/30/05	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5A30008	0.33	5.0	ND	1	01/30/05	01/30/05	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5A30008	0.32	1.0	**0.82**	1	01/30/05	01/30/05	J,DX
tert-Butanol (TBA)	EPA 8260B	5A30008	3.1	25	ND	1	01/30/05	01/30/05	
Ethanol	EPA 8260B	5A30008	100	150	ND	1	01/30/05	01/30/05	IO
Surrogate: Dibromofluoromethane (80-120%)					*104 %*				
Surrogate: Toluene-d8 (80-120%)					*98 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*93 %*				
Sample ID: IOA1479-02 (BH-10 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	5A30008	0.28	0.50	**0.42**	1	01/30/05	01/30/05	J,DX
Ethylbenzene	EPA 8260B	5A30008	0.25	0.50	ND	1	01/30/05	01/30/05	
Toluene	EPA 8260B	5A30008	0.36	0.50	ND	1	01/30/05	01/30/05	
o-Xylene	EPA 8260B	5A30008	0.24	0.50	ND	1	01/30/05	01/30/05	
m,p-Xylenes	EPA 8260B	5A30008	0.52	1.0	ND	1	01/30/05	01/30/05	
Xylenes, Total	EPA 8260B	5A30008	0.52	1.5	ND	1	01/30/05	01/30/05	
Di-isopropyl Ether (DIPE)	EPA 8260B	5A30008	0.25	5.0	ND	1	01/30/05	01/30/05	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5A30008	0.28	5.0	ND	1	01/30/05	01/30/05	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5A30008	0.33	5.0	ND	1	01/30/05	01/30/05	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5A30008	0.32	1.0	**2.6**	1	01/30/05	01/30/05	
tert-Butanol (TBA)	EPA 8260B	5A30008	3.1	25	ND	1	01/30/05	01/30/05	
Ethanol	EPA 8260B	5A30008	100	150	ND	1	01/30/05	01/30/05	IO
Surrogate: Dibromofluoromethane (80-120%)					*105 %*				
Surrogate: Toluene-d8 (80-120%)					*98 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*94 %*				

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Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Ann Hillyard

Project ID: ARCO 1807, Moreno Valley

Report Number: IOA1479

Sampled: 01/24/05
Received: 01/25/05

BTEX/OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOA1479-03 (BH-11 - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	5A30008	0.28	0.50	ND	1	01/30/05	01/30/05	
Ethylbenzene	EPA 8260B	5A30008	0.25	0.50	ND	1	01/30/05	01/30/05	
Toluene	EPA 8260B	5A30008	0.36	0.50	ND	1	01/30/05	01/30/05	
o-Xylene	EPA 8260B	5A30008	0.24	0.50	ND	1	01/30/05	01/30/05	
m,p-Xylenes	EPA 8260B	5A30008	0.52	1.0	ND	1	01/30/05	01/30/05	
Xylenes, Total	EPA 8260B	5A30008	0.52	1.5	ND	1	01/30/05	01/30/05	
Di-isopropyl Ether (DIPE)	EPA 8260B	5A30008	0.25	5.0	ND	1	01/30/05	01/30/05	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5A30008	0.28	5.0	ND	1	01/30/05	01/30/05	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5A30008	0.33	5.0	ND	1	01/30/05	01/30/05	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5A30008	0.32	1.0	**0.81**	1	01/30/05	01/30/05	J,DX
tert-Butanol (TBA)	EPA 8260B	5A30008	3.1	25	ND	1	01/30/05	01/30/05	
Ethanol	EPA 8260B	5A30008	100	150	ND	1	01/30/05	01/30/05	IO
Surrogate: Dibromofluoromethane (80-120%)					*104 %*				
Surrogate: Toluene-d8 (80-120%)					*95 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*97 %*				
Sample ID: IOA1479-04 (TB - Water)									
Reporting Units: ug/l									
Benzene	EPA 8260B	5A30008	0.28	0.50	ND	1	01/30/05	01/30/05	
Ethylbenzene	EPA 8260B	5A30008	0.25	0.50	ND	1	01/30/05	01/30/05	
Toluene	EPA 8260B	5A30008	0.36	0.50	ND	1	01/30/05	01/30/05	
o-Xylene	EPA 8260B	5A30008	0.24	0.50	ND	1	01/30/05	01/30/05	
m,p-Xylenes	EPA 8260B	5A30008	0.52	1.0	ND	1	01/30/05	01/30/05	
Xylenes, Total	EPA 8260B	5A30008	0.52	1.5	ND	1	01/30/05	01/30/05	
Di-isopropyl Ether (DIPE)	EPA 8260B	5A30008	0.25	5.0	ND	1	01/30/05	01/30/05	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5A30008	0.28	5.0	ND	1	01/30/05	01/30/05	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5A30008	0.33	5.0	ND	1	01/30/05	01/30/05	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5A30008	0.32	1.0	ND	1	01/30/05	01/30/05	
tert-Butanol (TBA)	EPA 8260B	5A30008	3.1	25	ND	1	01/30/05	01/30/05	
Ethanol	EPA 8260B	5A30008	100	150	ND	1	01/30/05	01/30/05	IO
Surrogate: Dibromofluoromethane (80-120%)					*103 %*				
Surrogate: Toluene-d8 (80-120%)					*97 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*96 %*				

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Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Ann Hillyard

Project ID: ARCO 1807, Moreno Valley

Report Number: IOA1479

Sampled: 01/24/05
Received: 01/25/05

METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5B01007 Extracted: 02/01/05											
Blank Analyzed: 02/01/2005 (5B01007-BLK1)											
Volatile Fuel Hydrocarbons (C6-C12)	ND	50	N/A	ug/l							
Surrogate: 4-BFB (FID)	*9.08*			*ug/l*	*10.0*		*91*	*65-140*			
LCS Analyzed: 02/01/2005 (5B01007-BS2)											
Volatile Fuel Hydrocarbons (C6-C12)	658	50	N/A	ug/l	800		82	70-140			
Surrogate: 4-BFB (FID)	*32.2*			*ug/l*	*30.0*		*107*	*65-140*			
Matrix Spike Analyzed: 02/01/2005 (5B01007-MS1)						**Source: IOA1330-29**					
Volatile Fuel Hydrocarbons (C6-C12)	211	50	N/A	ug/l	220	ND	96	60-140			
Surrogate: 4-BFB (FID)	*10.9*			*ug/l*	*10.0*		*109*	*65-140*			
Matrix Spike Dup Analyzed: 02/01/2005 (5B01007-MSD1)						**Source: IOA1330-29**					
Volatile Fuel Hydrocarbons (C6-C12)	229	50	N/A	ug/l	220	ND	104	60-140	8	20	
Surrogate: 4-BFB (FID)	*11.2*			*ug/l*	*10.0*		*112*	*65-140*			
Batch: 5B03013 Extracted: 02/03/05											
Blank Analyzed: 02/03/2005 (5B03013-BLK1)											
Volatile Fuel Hydrocarbons (C6-C12)	ND	50	N/A	ug/l							
Surrogate: 4-BFB (FID)	*8.83*			*ug/l*	*10.0*		*88*	*65-140*			
LCS Analyzed: 02/03/2005 (5B03013-BS1)											
Volatile Fuel Hydrocarbons (C6-C12)	698	50	N/A	ug/l	800		87	70-140			
Surrogate: 4-BFB (FID)	*32.0*			*ug/l*	*30.0*		*107*	*65-140*			
Matrix Spike Analyzed: 02/03/2005 (5B03013-MS1)						**Source: IOA1508-09**					
Volatile Fuel Hydrocarbons (C6-C12)	221	50	N/A	ug/l	220	ND	100	60-140			
Surrogate: 4-BFB (FID)	*11.5*			*ug/l*	*10.0*		*115*	*65-140*			

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Report Number: IOA1479

Sampled: 01/24/05
Received: 01/25/05

METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5B03013 Extracted: 02/03/05											
Matrix Spike Dup Analyzed: 02/03/2005 (5B03013-MSD1)					**Source: IOA1508-09**						
Volatile Fuel Hydrocarbons (C6-C12)	210	50	N/A	ug/l	220	ND	95	60-140	5	20	
Surrogate: 4-BFB (FID)	*10.6*			*ug/l*	*10.0*		*106*	*65-140*			

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Project ID: ARCO 1807, Moreno Valley

Report Number: IOA1479

Sampled: 01/24/05
Received: 01/25/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5A30008 Extracted: 01/30/05											
Blank Analyzed: 01/30/2005 (5A30008-BLK1)											
Bromobenzene	ND	5.0	0.27	ug/l							
Bromochloromethane	ND	5.0	0.32	ug/l							
Bromodichloromethane	ND	2.0	0.30	ug/l							
Bromoform	ND	5.0	0.32	ug/l							
Bromomethane	ND	5.0	0.34	ug/l							
n-Butylbenzene	ND	5.0	0.37	ug/l							
sec-Butylbenzene	ND	5.0	0.25	ug/l							
tert-Butylbenzene	ND	5.0	0.22	ug/l							
Carbon tetrachloride	ND	5.0	0.28	ug/l							
Chlorobenzene	ND	2.0	0.36	ug/l							
Chloroethane	ND	5.0	0.33	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
Chloromethane	ND	5.0	0.30	ug/l							
2-Chlorotoluene	ND	5.0	0.28	ug/l							
4-Chlorotoluene	ND	5.0	0.29	ug/l							
Dibromochloromethane	ND	2.0	0.28	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	0.92	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	0.32	ug/l							
Dibromomethane	ND	2.0	0.36	ug/l							
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l							
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l							
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l							
Dichlorodifluoromethane	ND	5.0	0.79	ug/l							
1,1-Dichloroethane	ND	2.0	0.27	ug/l							
1,2-Dichloroethane	ND	2.0	0.28	ug/l							
1,1-Dichloroethene	ND	5.0	0.32	ug/l							
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l							
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l							
1,2-Dichloropropane	ND	2.0	0.35	ug/l							
1,3-Dichloropropane	ND	2.0	0.30	ug/l							
2,2-Dichloropropane	ND	2.0	0.29	ug/l							
1,1-Dichloropropene	ND	2.0	0.28	ug/l							
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.24	ug/l							
Hexachlorobutadiene	ND	5.0	0.38	ug/l							

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Pat Abe
Project Manager

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Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Ann Hillyard

Project ID: ARCO 1807, Moreno Valley

Report Number: IOA1479

Sampled: 01/24/05
Received: 01/25/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5A30008 Extracted: 01/30/05											
Blank Analyzed: 01/30/2005 (5A30008-BLK1)											
Isopropylbenzene	ND	2.0	0.25	ug/l							
p-Isopropyltoluene	ND	2.0	0.28	ug/l							
Methylene chloride	ND	5.0	0.48	ug/l							
Naphthalene	ND	5.0	0.41	ug/l							
n-Propylbenzene	ND	2.0	0.27	ug/l							
Styrene	ND	2.0	0.16	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	0.45	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	0.48	ug/l							
1,1,1-Trichloroethane	ND	2.0	0.30	ug/l							
1,1,2-Trichloroethane	ND	2.0	0.30	ug/l							
Trichloroethene	ND	2.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
1,2,3-Trichloropropane	ND	10	0.85	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l							
Vinyl chloride	ND	5.0	0.26	ug/l							
Surrogate: Dibromofluoromethane	*26.3*			*ug/l*	*25.0*		*105*	*80-120*			
Surrogate: Toluene-d8	*23.8*			*ug/l*	*25.0*		*95*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.7*			*ug/l*	*25.0*		*99*	*80-120*			
LCS Analyzed: 01/30/2005 (5A30008-BS1)											
Bromobenzene	25.1	5.0	0.27	ug/l	25.0		100	80-120			
Bromochloromethane	26.5	5.0	0.32	ug/l	25.0		106	65-135			
Bromodichloromethane	26.6	2.0	0.30	ug/l	25.0		106	70-140			
Bromoform	25.6	5.0	0.32	ug/l	25.0		102	55-135			
Bromomethane	28.7	5.0	0.34	ug/l	25.0		115	60-140			
n-Butylbenzene	26.8	5.0	0.37	ug/l	25.0		107	75-130			
sec-Butylbenzene	25.6	5.0	0.25	ug/l	25.0		102	75-125			
tert-Butylbenzene	25.4	5.0	0.22	ug/l	25.0		102	75-125			
Carbon tetrachloride	27.6	5.0	0.28	ug/l	25.0		110	70-140			
Chlorobenzene	26.1	2.0	0.36	ug/l	25.0		104	80-125			
Chloroethane	27.8	5.0	0.33	ug/l	25.0		111	60-145			
Chloroform	26.5	2.0	0.33	ug/l	25.0		106	75-130			

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Attention: Ann Hillyard

Project ID: ARCO 1807, Moreno Valley

Report Number: IOA1479

Sampled: 01/24/05
Received: 01/25/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5A30008 Extracted: 01/30/05											
LCS Analyzed: 01/30/2005 (5A30008-BS1)											
Chloromethane	24.6	5.0	0.30	ug/l	25.0		98	40-145			
2-Chlorotoluene	24.9	5.0	0.28	ug/l	25.0		100	75-125			
4-Chlorotoluene	25.1	5.0	0.29	ug/l	25.0		100	75-125			
Dibromochloromethane	27.8	2.0	0.28	ug/l	25.0		111	65-145			
1,2-Dibromo-3-chloropropane	28.2	5.0	0.92	ug/l	25.0		113	50-135			
1,2-Dibromoethane (EDB)	27.5	2.0	0.32	ug/l	25.0		110	75-125			
Dibromomethane	25.0	2.0	0.36	ug/l	25.0		100	75-130			
1,2-Dichlorobenzene	24.8	2.0	0.32	ug/l	25.0		99	80-120			
1,3-Dichlorobenzene	24.8	2.0	0.35	ug/l	25.0		99	80-120			
1,4-Dichlorobenzene	25.1	2.0	0.37	ug/l	25.0		100	80-120			
Dichlorodifluoromethane	23.4	5.0	0.79	ug/l	25.0		94	10-160			
1,1-Dichloroethane	26.4	2.0	0.27	ug/l	25.0		106	70-135			
1,2-Dichloroethane	27.0	2.0	0.28	ug/l	25.0		108	60-150			
1,1-Dichloroethene	27.2	5.0	0.32	ug/l	25.0		109	75-135			
cis-1,2-Dichloroethene	26.6	2.0	0.32	ug/l	25.0		106	70-125			
trans-1,2-Dichloroethene	27.5	2.0	0.27	ug/l	25.0		110	70-130			
1,2-Dichloropropane	27.2	2.0	0.35	ug/l	25.0		109	70-120			
1,3-Dichloropropane	26.2	2.0	0.30	ug/l	25.0		105	70-130			
2,2-Dichloropropane	27.4	2.0	0.29	ug/l	25.0		110	65-150			
1,1-Dichloropropene	28.0	2.0	0.28	ug/l	25.0		112	75-130			
cis-1,3-Dichloropropene	27.2	2.0	0.22	ug/l	25.0		109	75-130			
trans-1,3-Dichloropropene	25.5	2.0	0.24	ug/l	25.0		102	75-135			
Hexachlorobutadiene	25.9	5.0	0.38	ug/l	25.0		104	65-140			
Isopropylbenzene	26.3	2.0	0.25	ug/l	25.0		105	75-125			
p-Isopropyltoluene	25.6	2.0	0.28	ug/l	25.0		102	75-125			
Methylene chloride	27.0	5.0	0.48	ug/l	25.0		108	60-135			
Naphthalene	26.0	5.0	0.41	ug/l	25.0		104	50-145			
n-Propylbenzene	26.7	2.0	0.27	ug/l	25.0		107	75-130			
Styrene	27.9	2.0	0.16	ug/l	25.0		112	80-135			
1,1,1,2-Tetrachloroethane	27.8	5.0	0.27	ug/l	25.0		111	70-145			
1,1,2,2-Tetrachloroethane	34.2	2.0	0.24	ug/l	25.0		137	60-135			*LP*
Tetrachloroethene	26.6	2.0	0.32	ug/l	25.0		106	75-125			
1,2,3-Trichlorobenzene	25.7	5.0	0.45	ug/l	25.0		103	65-135			
1,2,4-Trichlorobenzene	26.3	5.0	0.48	ug/l	25.0		105	70-140			
1,1,1-Trichloroethane	26.4	2.0	0.30	ug/l	25.0		106	75-140			

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Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Ann Hillyard

Project ID: ARCO 1807, Moreno Valley

Report Number: IOA1479

Sampled: 01/24/05
Received: 01/25/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5A30008 Extracted: 01/30/05											
LCS Analyzed: 01/30/2005 (5A30008-BS1)											
1,1,2-Trichloroethane	26.0	2.0	0.30	ug/l	25.0		104	70-125			
Trichloroethene	24.7	2.0	0.26	ug/l	25.0		99	80-120			
Trichlorofluoromethane	28.2	5.0	0.34	ug/l	25.0		113	65-145			
1,2,3-Trichloropropane	24.9	10	0.85	ug/l	25.0		100	60-130			
1,2,4-Trimethylbenzene	26.5	2.0	0.23	ug/l	25.0		106	75-125			
1,3,5-Trimethylbenzene	27.0	2.0	0.26	ug/l	25.0		108	75-125			
Vinyl chloride	25.0	5.0	0.26	ug/l	25.0		100	50-130			
Surrogate: Dibromofluoromethane	*25.5*			*ug/l*	*25.0*		*102*	*80-120*			
Surrogate: Toluene-d8	*24.5*			*ug/l*	*25.0*		*98*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.3*			*ug/l*	*25.0*		*101*	*80-120*			
Matrix Spike Analyzed: 01/30/2005 (5A30008-MS1)						**Source: IOA1508-01**					
Bromobenzene	19.1	5.0	0.27	ug/l	25.0	ND	76	65-130			
Bromochloromethane	19.8	5.0	0.32	ug/l	25.0	ND	79	65-140			
Bromodichloromethane	19.8	2.0	0.30	ug/l	25.0	ND	79	70-140			
Bromoform	17.2	5.0	0.32	ug/l	25.0	ND	69	55-140			
Bromomethane	22.2	5.0	0.34	ug/l	25.0	ND	89	50-145			
n-Butylbenzene	19.8	5.0	0.37	ug/l	25.0	ND	79	70-140			
sec-Butylbenzene	19.8	5.0	0.25	ug/l	25.0	ND	79	70-130			
tert-Butylbenzene	19.6	5.0	0.22	ug/l	25.0	ND	78	70-130			
Carbon tetrachloride	21.2	5.0	0.28	ug/l	25.0	ND	85	70-145			
Chlorobenzene	19.9	2.0	0.36	ug/l	25.0	ND	80	80-125			
Chloroethane	22.6	5.0	0.33	ug/l	25.0	ND	90	50-145			
Chloroform	20.4	2.0	0.33	ug/l	25.0	ND	82	70-135			
Chloromethane	19.1	5.0	0.30	ug/l	25.0	ND	76	35-145			
2-Chlorotoluene	18.8	5.0	0.28	ug/l	25.0	ND	75	70-140			
4-Chlorotoluene	19.1	5.0	0.29	ug/l	25.0	ND	76	70-140			
Dibromochloromethane	19.6	2.0	0.28	ug/l	25.0	ND	78	65-145			
1,2-Dibromo-3-chloropropane	18.7	5.0	0.92	ug/l	25.0	ND	75	45-155			
1,2-Dibromoethane (EDB)	19.0	2.0	0.32	ug/l	25.0	ND	76	70-130			
Dibromomethane	17.6	2.0	0.36	ug/l	25.0	ND	70	65-140			
1,2-Dichlorobenzene	19.7	2.0	0.32	ug/l	25.0	ND	79	75-130			
1,3-Dichlorobenzene	19.4	2.0	0.35	ug/l	25.0	ND	78	75-130			
1,4-Dichlorobenzene	20.1	2.0	0.37	ug/l	25.0	ND	80	80-120			
Dichlorodifluoromethane	17.5	5.0	0.79	ug/l	25.0	ND	70	10-160			
1,1-Dichloroethane	20.1	2.0	0.27	ug/l	25.0	ND	80	65-135			

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Attention: Ann Hillyard

Project ID: ARCO 1807, Moreno Valley

Report Number: IOA1479

Sampled: 01/24/05
Received: 01/25/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5A30008 Extracted: 01/30/05											
Matrix Spike Analyzed: 01/30/2005 (5A30008-MS1)					**Source: IOA1508-01**						
1,2-Dichloroethane	19.2	2.0	0.28	ug/l	25.0	ND	77	60-150			
1,1-Dichloroethene	19.1	5.0	0.32	ug/l	25.0	ND	76	65-140			
cis-1,2-Dichloroethene	21.5	2.0	0.32	ug/l	25.0	ND	86	65-130			
trans-1,2-Dichloroethene	20.8	2.0	0.27	ug/l	25.0	ND	83	65-135			
1,2-Dichloropropane	19.8	2.0	0.35	ug/l	25.0	ND	79	65-130			
1,3-Dichloropropane	18.9	2.0	0.30	ug/l	25.0	ND	76	65-140			
2,2-Dichloropropane	21.2	2.0	0.29	ug/l	25.0	ND	85	60-150			
1,1-Dichloropropene	19.4	2.0	0.28	ug/l	25.0	ND	78	65-140			
cis-1,3-Dichloropropene	20.1	2.0	0.22	ug/l	25.0	ND	80	70-140			
trans-1,3-Dichloropropene	17.2	2.0	0.24	ug/l	25.0	ND	69	70-140			*LN,AY*
Hexachlorobutadiene	19.3	5.0	0.38	ug/l	25.0	ND	77	65-140			
Isopropylbenzene	19.5	2.0	0.25	ug/l	25.0	ND	78	70-130			
p-Isopropyltoluene	18.0	2.0	0.28	ug/l	25.0	ND	72	70-130			
Methylene chloride	20.7	5.0	0.48	ug/l	25.0	ND	83	60-135			
Naphthalene	14.8	5.0	0.41	ug/l	25.0	ND	59	50-150			
n-Propylbenzene	19.5	2.0	0.27	ug/l	25.0	ND	78	70-135			
Styrene	5.99	2.0	0.16	ug/l	25.0	ND	24	55-145			*LN,AY*
1,1,1,2-Tetrachloroethane	20.7	5.0	0.27	ug/l	25.0	ND	83	70-145			
1,1,2,2-Tetrachloroethane	24.5	2.0	0.24	ug/l	25.0	ND	98	60-145			
Tetrachloroethene	20.1	2.0	0.32	ug/l	25.0	ND	80	70-130			
1,2,3-Trichlorobenzene	18.3	5.0	0.45	ug/l	25.0	ND	73	60-140			
1,2,4-Trichlorobenzene	19.2	5.0	0.48	ug/l	25.0	ND	77	60-140			
1,1,1-Trichloroethane	20.0	2.0	0.30	ug/l	25.0	ND	80	75-140			
1,1,2-Trichloroethane	18.2	2.0	0.30	ug/l	25.0	ND	73	60-135			
Trichloroethene	18.3	2.0	0.26	ug/l	25.0	ND	73	70-125			
Trichlorofluoromethane	21.9	5.0	0.34	ug/l	25.0	ND	88	55-145			
1,2,3-Trichloropropane	17.4	10	0.85	ug/l	25.0	ND	70	55-140			
1,2,4-Trimethylbenzene	9.89	2.0	0.23	ug/l	25.0	ND	40	60-125			*LN,AY*
1,3,5-Trimethylbenzene	12.4	2.0	0.26	ug/l	25.0	ND	50	70-130			*LN,AY*
Vinyl chloride	19.9	5.0	0.26	ug/l	25.0	ND	80	40-135			
Surrogate: Dibromofluoromethane	*25.5*			*ug/l*	*25.0*		*102*	*80-120*			
Surrogate: Toluene-d8	*22.9*			*ug/l*	*25.0*		*92*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*23.8*			*ug/l*	*25.0*		*95*	*80-120*			

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Report Number: IOA1479

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METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5A30008 Extracted: 01/30/05											
Matrix Spike Dup Analyzed: 01/30/2005 (5A30008-MSD1)					**Source: IOA1508-01**						
Bromobenzene	20.8	5.0	0.27	ug/l	25.0	ND	83	65-130	9	20	
Bromochloromethane	21.3	5.0	0.32	ug/l	25.0	ND	85	65-140	7	25	
Bromodichloromethane	20.8	2.0	0.30	ug/l	25.0	ND	83	70-140	5	20	
Bromoform	18.5	5.0	0.32	ug/l	25.0	ND	74	55-140	7	25	
Bromomethane	24.4	5.0	0.34	ug/l	25.0	ND	98	50-145	9	25	
n-Butylbenzene	21.7	5.0	0.37	ug/l	25.0	ND	87	70-140	9	20	
sec-Butylbenzene	21.2	5.0	0.25	ug/l	25.0	ND	85	70-130	7	20	
tert-Butylbenzene	20.9	5.0	0.22	ug/l	25.0	ND	84	70-130	6	20	
Carbon tetrachloride	21.5	5.0	0.28	ug/l	25.0	ND	86	70-145	1	25	
Chlorobenzene	20.8	2.0	0.36	ug/l	25.0	ND	83	80-125	4	20	
Chloroethane	24.2	5.0	0.33	ug/l	25.0	ND	97	50-145	7	25	
Chloroform	22.1	2.0	0.33	ug/l	25.0	ND	88	70-135	8	20	
Chloromethane	20.2	5.0	0.30	ug/l	25.0	ND	81	35-145	6	25	
2-Chlorotoluene	20.7	5.0	0.28	ug/l	25.0	ND	83	70-140	10	20	
4-Chlorotoluene	21.2	5.0	0.29	ug/l	25.0	ND	85	70-140	10	20	
Dibromochloromethane	20.5	2.0	0.28	ug/l	25.0	ND	82	65-145	4	25	
1,2-Dibromo-3-chloropropane	20.4	5.0	0.92	ug/l	25.0	ND	82	45-155	9	30	
1,2-Dibromoethane (EDB)	19.9	2.0	0.32	ug/l	25.0	ND	80	70-130	5	25	
Dibromomethane	18.5	2.0	0.36	ug/l	25.0	ND	74	65-140	5	25	
1,2-Dichlorobenzene	20.2	2.0	0.32	ug/l	25.0	ND	81	75-130	3	20	
1,3-Dichlorobenzene	20.4	2.0	0.35	ug/l	25.0	ND	82	75-130	5	20	
1,4-Dichlorobenzene	20.5	2.0	0.37	ug/l	25.0	ND	82	80-120	2	20	
Dichlorodifluoromethane	18.6	5.0	0.79	ug/l	25.0	ND	74	10-160	6	30	
1,1-Dichloroethane	21.5	2.0	0.27	ug/l	25.0	ND	86	65-135	7	20	
1,2-Dichloroethane	19.8	2.0	0.28	ug/l	25.0	ND	79	60-150	3	20	
1,1-Dichloroethene	20.8	5.0	0.32	ug/l	25.0	ND	83	65-140	9	20	
cis-1,2-Dichloroethene	22.5	2.0	0.32	ug/l	25.0	ND	90	65-130	5	20	
trans-1,2-Dichloroethene	22.8	2.0	0.27	ug/l	25.0	ND	91	65-135	9	20	
1,2-Dichloropropane	20.6	2.0	0.35	ug/l	25.0	ND	82	65-130	4	20	
1,3-Dichloropropane	19.7	2.0	0.30	ug/l	25.0	ND	79	65-140	4	25	
2,2-Dichloropropane	23.1	2.0	0.29	ug/l	25.0	ND	92	60-150	9	25	
1,1-Dichloropropene	20.8	2.0	0.28	ug/l	25.0	ND	83	65-140	7	20	
cis-1,3-Dichloropropene	20.6	2.0	0.22	ug/l	25.0	ND	82	70-140	2	20	
trans-1,3-Dichloropropene	18.3	2.0	0.24	ug/l	25.0	ND	73	70-140	6	25	
Hexachlorobutadiene	20.0	5.0	0.38	ug/l	25.0	ND	80	65-140	4	20	

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Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Ann Hillyard

Project ID: ARCO 1807, Moreno Valley

Report Number: IOA1479

Sampled: 01/24/05
Received: 01/25/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5A30008 Extracted: 01/30/05											
Matrix Spike Dup Analyzed: 01/30/2005 (5A30008-MSD1)					**Source: IOA1508-01**						
Isopropylbenzene	21.8	2.0	0.25	ug/l	25.0	ND	87	70-130	11	20	
p-Isopropyltoluene	20.8	2.0	0.28	ug/l	25.0	ND	83	70-130	14	20	
Methylene chloride	21.8	5.0	0.48	ug/l	25.0	ND	87	60-135	5	20	
Naphthalene	18.1	5.0	0.41	ug/l	25.0	ND	72	50-150	20	30	
n-Propylbenzene	21.9	2.0	0.27	ug/l	25.0	ND	88	70-135	12	20	
Styrene	14.9	2.0	0.16	ug/l	25.0	ND	60	55-145	85	30	*BA,AY*
1,1,1,2-Tetrachloroethane	21.0	5.0	0.27	ug/l	25.0	ND	84	70-145	1	20	
1,1,2,2-Tetrachloroethane	25.7	2.0	0.24	ug/l	25.0	ND	103	60-145	5	30	
Tetrachloroethene	20.7	2.0	0.32	ug/l	25.0	ND	83	70-130	3	20	
1,2,3-Trichlorobenzene	18.9	5.0	0.45	ug/l	25.0	ND	76	60-140	3	20	
1,2,4-Trichlorobenzene	20.2	5.0	0.48	ug/l	25.0	ND	81	60-140	5	20	
1,1,1-Trichloroethane	21.4	2.0	0.30	ug/l	25.0	ND	86	75-140	7	20	
1,1,2-Trichloroethane	18.4	2.0	0.30	ug/l	25.0	ND	74	60-135	1	25	
Trichloroethene	19.1	2.0	0.26	ug/l	25.0	ND	76	70-125	4	20	
Trichlorofluoromethane	22.9	5.0	0.34	ug/l	25.0	ND	92	55-145	4	25	
1,2,3-Trichloropropane	18.4	10	0.85	ug/l	25.0	ND	74	55-140	6	30	
1,2,4-Trimethylbenzene	17.1	2.0	0.23	ug/l	25.0	ND	68	60-125	53	25	*BA,AY*
1,3,5-Trimethylbenzene	18.6	2.0	0.26	ug/l	25.0	ND	74	70-130	40	20	*BA,AY*
Vinyl chloride	20.9	5.0	0.26	ug/l	25.0	ND	84	40-135	5	30	
Surrogate: Dibromofluoromethane	*26.7*			*ug/l*	*25.0*		*107*	*80-120*			
Surrogate: Toluene-d8	*23.9*			*ug/l*	*25.0*		*96*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.1*			*ug/l*	*25.0*		*96*	*80-120*			

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Ann Hillyard

Project ID: ARCO 1807, Moreno Valley

Report Number: IOA1479

Sampled: 01/24/05
Received: 01/25/05

METHOD BLANK/QC DATA

BTEX/OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5A30008 Extracted: 01/30/05											
Blank Analyzed: 01/30/2005 (5A30008-BLK1)											
Benzene	ND	0.50	0.28	ug/l							
Ethylbenzene	ND	0.50	0.25	ug/l							
Toluene	ND	0.50	0.36	ug/l							
o-Xylene	ND	0.50	0.24	ug/l							
m,p-Xylenes	ND	1.0	0.52	ug/l							
Xylenes, Total	ND	1.5	0.52	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	0.28	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	0.33	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	1.0	0.32	ug/l							
tert-Butanol (TBA)	ND	25	3.1	ug/l							
Ethanol	ND	150	100	ug/l							
Surrogate: Dibromofluoromethane	*26.3*			*ug/l*	*25.0*		*105*	*80-120*			
Surrogate: Toluene-d8	*23.8*			*ug/l*	*25.0*		*95*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.7*			*ug/l*	*25.0*		*99*	*80-120*			
LCS Analyzed: 01/30/2005 (5A30008-BS1)											
Benzene	27.0	0.50	0.28	ug/l	25.0		108	70-120			
Ethylbenzene	26.8	0.50	0.25	ug/l	25.0		107	80-120			
Toluene	26.0	0.50	0.36	ug/l	25.0		104	75-120			
o-Xylene	26.7	0.50	0.24	ug/l	25.0		107	75-125			
m,p-Xylenes	53.6	1.0	0.52	ug/l	50.0		107	75-120			
Xylenes, Total	80.3	1.5	0.52	ug/l	75.0		107	75-125			
Di-isopropyl Ether (DIPE)	24.0	5.0	0.25	ug/l	25.0		96	65-135			
Ethyl tert-Butyl Ether (ETBE)	23.2	5.0	0.28	ug/l	25.0		93	60-140			
tert-Amyl Methyl Ether (TAME)	24.5	5.0	0.33	ug/l	25.0		98	60-140			
Methyl-tert-butyl Ether (MTBE)	23.4	1.0	0.32	ug/l	25.0		94	55-145			
tert-Butanol (TBA)	125	25	3.1	ug/l	125		100	70-140			
Ethanol	279	150	100	ug/l	250		112	35-165			
Surrogate: Dibromofluoromethane	*25.5*			*ug/l*	*25.0*		*102*	*80-120*			
Surrogate: Toluene-d8	*24.5*			*ug/l*	*25.0*		*98*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.3*			*ug/l*	*25.0*		*101*	*80-120*			

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Ann Hillyard

Project ID: ARCO 1807, Moreno Valley

Report Number: IOA1479

Sampled: 01/24/05
Received: 01/25/05

METHOD BLANK/QC DATA

BTEX/OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5A30008 Extracted: 01/30/05											
Matrix Spike Analyzed: 01/30/2005 (5A30008-MS1)					**Source: IOA1508-01**						
Benzene	20.8	0.50	0.28	ug/l	25.0	ND	83	70-120			
Ethylbenzene	19.4	0.50	0.25	ug/l	25.0	ND	78	70-130			
Toluene	18.9	0.50	0.36	ug/l	25.0	ND	76	70-120			
o-Xylene	18.2	0.50	0.24	ug/l	25.0	ND	73	65-125			
m,p-Xylenes	34.5	1.0	0.52	ug/l	50.0	ND	69	65-130			
Xylenes, Total	52.6	1.5	0.52	ug/l	75.0	ND	70	65-135			
Di-isopropyl Ether (DIPE)	18.3	5.0	0.25	ug/l	25.0	ND	73	65-140			
Ethyl tert-Butyl Ether (ETBE)	16.6	5.0	0.28	ug/l	25.0	ND	66	60-140			
tert-Amyl Methyl Ether (TAME)	17.9	5.0	0.33	ug/l	25.0	ND	72	55-145			
Methyl-tert-butyl Ether (MTBE)	16.4	1.0	0.32	ug/l	25.0	ND	66	50-155			
tert-Butanol (TBA)	110	25	3.1	ug/l	125	ND	88	65-145			
Ethanol	269	150	100	ug/l	250	ND	108	35-165			
Surrogate: Dibromofluoromethane	*25.5*			*ug/l*	*25.0*		*102*	*80-120*			
Surrogate: Toluene-d8	*22.9*			*ug/l*	*25.0*		*92*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*23.8*			*ug/l*	*25.0*		*95*	*80-120*			
Matrix Spike Dup Analyzed: 01/30/2005 (5A30008-MSD1)					**Source: IOA1508-01**						
Benzene	21.5	0.50	0.28	ug/l	25.0	ND	86	70-120	3	20	
Ethylbenzene	21.4	0.50	0.25	ug/l	25.0	ND	86	70-130	10	20	
Toluene	19.3	0.50	0.36	ug/l	25.0	ND	77	70-120	2	20	
o-Xylene	20.2	0.50	0.24	ug/l	25.0	ND	81	65-125	10	20	
m,p-Xylenes	40.7	1.0	0.52	ug/l	50.0	ND	81	65-130	16	25	
Xylenes, Total	60.8	1.5	0.52	ug/l	75.0	ND	81	65-135	14	20	
Di-isopropyl Ether (DIPE)	19.6	5.0	0.25	ug/l	25.0	ND	78	65-140	7	25	
Ethyl tert-Butyl Ether (ETBE)	18.5	5.0	0.28	ug/l	25.0	ND	74	60-140	11	25	
tert-Amyl Methyl Ether (TAME)	18.7	5.0	0.33	ug/l	25.0	ND	75	55-145	4	30	
Methyl-tert-butyl Ether (MTBE)	17.8	1.0	0.32	ug/l	25.0	ND	71	50-155	8	25	
tert-Butanol (TBA)	106	25	3.1	ug/l	125	ND	85	65-145	4	25	
Ethanol	243	150	100	ug/l	250	ND	97	35-165	10	30	
Surrogate: Dibromofluoromethane	*26.7*			*ug/l*	*25.0*		*107*	*80-120*			
Surrogate: Toluene-d8	*23.9*			*ug/l*	*25.0*		*96*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.1*			*ug/l*	*25.0*		*96*	*80-120*			

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Pat Abe
Project Manager

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Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Ann Hillyard

Project ID: ARCO 1807, Moreno Valley

Report Number: IOA1479

Sampled: 01/24/05
Received: 01/25/05

DATA QUALIFIERS AND DEFINITIONS

BA,AY	The RPD exceeded the method control limit due to sample matrix effects
IO	Contract limits originate from BP-GCLN Technical Requirements
J,DX	EPA Flag - Estimated value,Value < lowest standard (MQL), but > than MDL
LN,AY	The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
LP	Laboratory Control Sample recovery was above method control limits. Analyte not detected, data not impacted.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

ADDITIONAL COMMENTS

For 8260 analyses:

Due to the high water solubility of alcohols and ketones, the calibration criteria for these compounds is <30% RSD. The average % RSD of all compounds in the calibration is 15%, in accordance with EPA methods.

For Volatile Fuel Hydrocarbons (C6-C12):

Volatile Fuel Hydrocarbons (C6-C12) are quantitated against a gasoline standard.

8015 Analysis EDF Parlabel Cross Reference

Analyte	EDF Parlabel
Volatile Fuel Hydrocarbons (C6-C12)	GROC6C12

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Certification Summary

Del Mar Analytical, Irvine

Method	Matrix	NELAP	CA
EPA 8015 Mod.	Water	X	X
EPA 8260B	Water	X	X

NV and NELAP provide analyte specific accreditations. Analyte specific information for Del Mar Analytical may be obtained by contacting the laboratory or visiting our website at www.dmalabs.com.

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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127069 217

Page 1 of 1

Chain of Custody Record

Project Name ARCO 1807
BP BU/GEM CO Portfolio: Desert-ARCO
BP Laboratory Contract Number: 116100
Requested Due Date (mm/dd/yy) 10 days

On-site Time:	Temp:
Off- site Time:	Temp:
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Send To:	BP/GEM Facility No.: 1807	Consultant/Contractor: Delta
Lab Name: Del Mar	BP/GEM Facility Address: Sunnymead	Address: 27141 Aliso Creek Rd. #270 Aliso Viejo
Lab Address: Irvine	Site ID No. 12428 Hercock Ave.	
	Site Lat/Long:	e-mail EDD: ckulmann@deltaenw.com
	California Global ID #:	Consultant/Contractor Project No.: G08G7-R(P5)-d
Lab PM: Pat Abe	BP/GEM PM Contact: G. Terhune	Consultant/Contractor Tele/Fax: (949) 362-3077
Tele/Fax:	Address:	Consultant/Contractor PM: A. Millyard
Report Type & QC Level:		Invoice to: Consultant or BP or Atlantic Richfield Co (Circle one)
BP/GEM Account No.:	Tele/Fax:	BP/GEM Work Release No:

Lab Bottle Order No:

Item No.	Sample Description	Time	Date	Matrix: Soil/Solid	Water/Liquid	Air	Laboratory No.	No. of containers	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	Ice	Requested Analysis: BTEX 8021	~~BTEX/TPH~~	EPA 8260 Full Scan Days Rock	EPA 8270	Sample Point Lat/Long and Comments
							JOA1479											
1	MW-1	0803	1/24	X				5				X	X		X	X		
2	BH-10	0835	↓		↓			↓				↓	↓		↓	↓		
3	BH-11	0855																
4	TB																	
5																		
6																		
7																		
8																		
9																		
10																		

INITIAL GR

	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name: Juan Velasquez						
Sampler's Company: Doulas	[signature]	1/25/05	1545	[signature]	1-25-05	15:45
Shipment Date:						
Shipment Method:						
Shipment Tracking No:						

Special Instructions: ENFOS-G09K1--0109-9

Custody Seals In Place Yes ___ No X

Cooler Temperature on Receipt 1 °F/C

Trip Blank Yes X No ___

LABORATORY

BP COC Rev. 2 4/18/03

ATTACHMENT D

Purge Water Disposal Manifest

NO. 24752

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

	GENERATING SITE
NAME: BP West Coast Products LLC	ARCO STATION # 1807
ADDRESS: P.O. Box 80249	12428 HEACOCK STREET
CITY, STATE, ZIP: Rancho Santa Margarita, CA 92688	MORENO VALLEY

PHONE NO. (949) 753-5820 SITE CONTACT: PROFILE NO.:

CONTAINERS: No. 1 GALLONS X 106 Gallons WEIGHT:

TYPE: X TANK TRUCK ☐ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER:

WASTE DESCRIPTION: NON-HAZARDOUS WATER GENERATING PROCESS: GROUNDWATER SAMPLING

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. WATER		99-100%	4.		
2. TPH		< 1%	5.		
3.			6. BESI # 108509		

PROPERTIES pH 7 ☐ SOLID X LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER:

HANDLING INSTRUCTIONS: WEAR APPROPRIATE PROTECTIVE CLOTHING

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Larry Moothart as Agent of BP West Coast Products LLC — TYPED OR PRINTED FULL NAME & SIGNATURE — DATE 01 / 24 / 05

TRANSPORTER

NAME: NIETO AND SONS TRUCKING, INC. EPA I.D. NO.:

ADDRESS: 1281 BREA CANYON ROAD SERVICE ORDER NO.:

CITY, STATE, ZIP: BREA, CALIFORNIA 92821 PICK UP DATE: 01 / 24 / 05

PHONE NO. (714) 990-6855

TRUCK, UNIT, I.D. NO. X 219

X David Reyes — TYPED OR PRINTED FULL NAME & SIGNATURE — DATE 01 / 24 / 05

FACILITY

NAME: DeMenno Kerdoon EPA I.D. NO.:

ADDRESS: 2000 N. Alameda Street

CITY, STATE, ZIP: Compton, CA 90222

PHONE NO. 310-537-7100

DISPOSAL METHOD: ☐ LANDFILL X RECYCLER

Recycler

Joe Ramos — TYPED OR PRINTED FULL NAME & SIGNATURE — DATE 01/25/05

GEN	OLD/NEW	L	A	TONS
TRANS		S	B	
C/Q		RT/CD	HWDF NONE	DISCREPANCY

ATTACHMENT E

Well Destruction Permits and Receipt of Payment

COUNTY OF RIVERSIDE COMMUNITY HEALTH AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH

30397

WELL DRILLING PERMIT

Date March 17, 2005

ALL ELECTRICAL, PLUMBING, MECHANICAL, AND STRUCTURAL REPAIRS AND INSTALLATIONS SHALL BE DONE UNDER PERMIT FROM RIVERSIDE COUNTY DEPT. OF BUILDING AND SAFETY.

Expiration Date 9-16-05

Fee $154.02
(non-refundable)

This permit is granted on condition that the person named in the permit will comply with the laws, ordinances and regulations that are now or may hereafter be in force.

LOCATION OF PROPOSED WELL SW ¼ NW ¼; Sec. 6 ; T 3S ; R 3W

PHYSICAL ADDRESS OF WELL 12428 Heacock Street Community Moreno Valley
APN: 481-111-001-9 MW-1

NAME Atlantic Richfield Co.

MAILING ADDRESS 6 Centerpointe Drive

CITY & STATE La Palma, CA 90623

DRILLER Cascade Drilling Inc.-Calif.
11250 East Firestone Blvd.
Norwalk, Ca. 90650

By Charlene Robbins
Charlene Robbins

ABANDONMENT

DEH-SAN-025 (Rev 10/02)

Distribution: WHITE—Environmental Health Department; YELLOW—Owner; PINK—Well Driller; GOLDENROD—Flood Control

COUNTY OF RIVERSIDE COMMUNITY HEALTH AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH

30398

WELL DRILLING PERMIT

ALL ELECTRICAL, PLUMBING, MECHANICAL, AND STRUCTURAL REPAIRS AND INSTALLATIONS SHALL BE DONE UNDER PERMIT FROM RIVERSIDE COUNTY DEPT. OF BUILDING AND SAFETY.

Date March 17, 2005

Expiration Date 9-16-05

Fee $154.02 (non-refundable)

This permit is granted on condition that the person named in the permit will comply with the laws, ordinances and regulations that are now or may hereafter be in force.

LOCATION OF PROPOSED WELL SW ¼ NW ¼; Sec. 6; T 3S; R 3W

PHYSICAL ADDRESS OF WELL 12428 Heacock Street Community Moreno Valley

APN: 481-111-001-9 BH-10

NAME Atlantic Richfield Co.

MAILING ADDRESS 6 Centerpointe Drive

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MAR 21 2005 30399

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LOCATION OF PROPOSED WELL ~~SW~~ ¼ ~~NW~~ ¼; Sec. ~~6~~; T ~~3S~~; R ~~3W~~

PHYSICAL ADDRESS OF WELL ~~12428 Heacock Street~~ Community ~~Moreno Valley~~

APN: 481-111-001-9 BH-11

NAME Atlantic Richfield Co.

MAILING ADDRESS 6 Centerpointe Drive

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****
Riverside County LMS Receipt
****
Receipt Number: R0505498 Amount: 462.06 03/16/05 15:47
Payment Method: CK Notation: 446478 Init: JCH

Permit No: EHW050202 Type: ENVH-WEL WELL PERMIT
Parcel No: 481-111-001
Site Address: 24040 POSTAL AVE

		Total Fees:	462.06
This Payment	462.06	Total ALL Pmts:	462.06
		Balance:	.00

****

Account Code	Description	Amount
100004200420774830	ENVH: WELL PERMIT FEES	453.00
202033100200772210	ENVH: LMS SURCHARGE FEES	9.06

ATTACHMENT F

Cascade Drilling Daily Worksheets

SAFETY FIRST
CASCADE DRILLING, INC.
CALIFORNIA

L.A.: 11250 Firestone
Norwalk, CA 90650
(562) 929-8176 PH
(562) 863-9534 FAX

Seattle: PO Box 1184
Woodinville, WA 98072
(425) 485-8908 PH
(425) 485-4368 FAX

Portland: 15635 SE 114th
Clackamas, OR 97015
(503) 775-4118 PH
(503) 775-4099 FAX

Sacramento: 3632 Omec Cir.
Rancho Cordova, CA 95742
(916) 638-1169 PH
(916) 638-5611 FAX

CLIENT: DelTA
CLIENT P.O. #: 1807
JOB LOCATION: 12428 Hancock st
DIG ALERT#: A82126 1
DATE: 3/29/05
CASCADE PROJECT#: 05-202.01
DAY: Tue

WELL# BORING#	DEPTH DRILLED	DESCRIPTION OF WORK	HOURS START	HOURS STOP	HOURS TOTAL
		A.M. SHOP TIME	~~600~~		
		TRAVEL TO SITE	690	700	05
		H & Safety meeting	700	730	05
		Set up Site & Rig unload	730	830	1.0
		Pressure Grout & Drill Out Top 5'	830		
BH-8	5 52'	4"x 52'			
BH9	5 55'	4"x 55			
BH-6A	5 57'	4"x 57			
BH-7	5 43'	4"x 43	~~1130~~	1130	
		Cleanup & load up	1130	1230	
		Lunch	1230	100	
		Stop to fuel Rig & Support	~~230~~	300	
TOTAL FOOTAGE		TOTAL CHARGEABLE RIG HOURS 8.5	TRAVEL TO SHOP	100	330
			P.M. SHOP TIME	330	400

EQUIPMENT

RIG#	103	COMPRESSOR/JACK HAMMER	
FLATBED TRUCK #	331	FORKLIFT/HOPPER	
FLATBED TRUCK #	203	SERVICE RUNS	
DECON TRAILER #		CONT. SAMPLER FOOTAGE	
# OF SAW CUTS		# OF HYDRO PUNCHES	
# OF CORE CUTS		AIR ROTARY EQUIPMENT RENTAL	
# OF BULL DOG		SNOW FENCE RENTAL	yes
BOBCAT		DEPTH TO WATER	
A.E.T.			

CASING

DIAMETER	2"	4"	
20 FT. SCREEN			
10 FT. SCREEN			
5 FT. SCREEN			
20 FT. BLANK			
10 FT. BLANK			
5 FT. BLANK			
SLIP CAP			
THREADED CAP			
LOCKING CAPS			
SPARGE TIP			

MATERIALS

ITEM	QTY.	ITEM	QTY.
SAND		WELL COVER	
READY MIX	4	MONUMENT CASING	
QUICK SET	4	BARRELS	
PORTLAND		AUGER PLUGS	
BENTONITE GROUT	8	SAMPLE RINGS	
BENTONITE CHIPS	4	HOLE COVER PLATES	
BENTONITE POWDER		CONES/DELINEATORS	yes
BENTONITE PELLETS		TRAFFIC CONTROL	
COATED PELLETS		PLASTIC SHEETING	1
BENTONITE GRANULAR		CME TEETH	
ASPHALT PATCH		TIPS & SCREENS	
KENAMETAL TEETH		CORE BOXES	
SAMPLER SHOE		GUARD POST	
BIT REPAIR		ENCOR SAMPLING	
Pea Rock	5		

LABOR

CREW WITH PERDIEM: [ ] CHARGEABLE EXTRA LABOR HRS. [ ]

NAME	SIGNATURE	SHOP HRS.	DRILL HRS.	OTHER HRS.	TOTAL HRS.
D Waters					9.5
J Alvarez					~~80~~ 90
R. Day					~~80~~ 90

REMARKS

APPROVED BY: D. COBLISH

CLIENT SIGNATURE

OPERATOR SIGNATURE

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Rancho Cordova, CA 95742
(916) 638-1169 PH
(916) 638-5611 FAX

CLIENT: DELTA
CLIENT P.O. #: 1807
JOB LOCATION: 12428 HANCOCK ST
DIG ALERT#: A821261
DATE: 3/28/05
CASCADE PROJECT#: M05-20701
DAY: MON

WELL# BORING#	DEPTH DRILLED	DESCRIPTION OF WORK	HOURS START	HOURS STOP	HOURS TOTAL
		A.M. SHOP TIME	530	545	
		TRAVEL TO SITE	545	830	
		H&S Safety meeting	830	900	
		Set up Set + Rig unload mat + equip	900	1000	
		Pressure Grout + Drill out Top 5'			
MW-1	5	80' 2" x 80 - 2" x 50 wells			
MW4	5	125' 4" x 125' " "			
MW5	5	55' 4" x 55'			
B-H10	5	120' 4" x 120"			
B-H11	5	124' 2" x 124			
		Clean up + Load up	400	500	
			500		
TOTAL FOOTAGE	25	TOTAL CHARGEABLE RIG HOURS		TRAVEL TO SHOP	500	530	
				P.M. SHOP TIME			

EQUIPMENT

RIG #	103	COMPRESSOR/JACK HAMMER	
FLATBED TRUCK #	331	FORKLIFT/HOPPER	
FLATBED TRUCK #		SERVICE RUNS	
DECON TRAILER #	203	CONT. SAMPLER FOOTAGE	
# OF SAW CUTS		# OF HYDRO PUNCHES	
# OF CORE CUTS		AIR ROTARY EQUIPMENT RENTAL	
# OF BULL DOG		SNOW FENCE RENTAL	yes
BOBCAT		DEPTH TO WATER	
A.E.T.			

CASING

DIAMETER	2"	4"
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10 FT. SCREEN		
5 FT. SCREEN		
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SLIP CAP		
THREADED CAP		
LOCKING CAPS		
SPARGE TIP		

MATERIALS

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READY MIX	5	MONUMENT CASING	
QUICK SET	5	BARRELS	
PORTLAND		AUGER PLUGS	
BENTONITE GROUT	10	SAMPLE RINGS	
BENTONITE CHIPS		HOLE COVER PLATES	
BENTONITE POWDER		CONES/DELINEATORS	yes
BENTONITE PELLETS		TRAFFIC CONTROL	
COATED PELLETS		PLASTIC SHEETING	1
BENTONITE GRANULAR		CME TEETH	
ASPHALT PATCH		TIPS & SCREENS	
KENAMETAL TEETH		CORE BOXES	
SAMPLER SHOE		GUARD POST	
BIT REPAIR		ENCOR SAMPLING	

LABOR

CREW WITH PERDIEM: [ ] CHARGEABLE EXTRA LABOR HRS. [ ]

NAME	SIGNATURE	SHOP HRS.	DRILL HRS.	OTHER HRS.	TOTAL HRS.
Muddy DWater					11.5
JAlvarez					11.5
R Day					11.5

REMARKS

APPROVED BY: D. COBLISH

CLIENT SIGNATURE

Muddy Water
OPERATOR SIGNATURE