REQUIRED INFORMATION FORM

INSTRUCTIONS: This form is to be filled out completely and must be the first page of any document, including all reports, submitted to the Los Angeles Fire Department (LAFD) Underground Storage Tank Unit (UST). To ensure accuracy this form must be completed on the computer or typed out. **Hand printing or writing will not be accepted.** The correct LAFD **Facility I.D. No.** and **Division 5 Permit No.** must be included for the submittal to be processed.
**** (SOME INFORMATION IS ALREADY PRE-ENTERED FOR YOUR CONVENIENCE)**

PLEASE NOTE THAT AN ACCOMPANYING INTRODUCTORY LETTER ON YOUR COMPANY LETTERHEAD CANNOT BE SUBSTITUTED FOR THIS FORM.

Today's Date: 4/22/2004

Mail to: City of Los Angeles Fire Department
Environmental Unit – Underground Storage Tanks
Attn: Terrence Palmer
200 North Main Street, Rm. 1700
Los Angeles, CA., 90012

Report Title
(Please select the applicable title from the drop down menu)

Addt'l Requirements - Site Assessment Report

LAFD Facility I.D. No. 10846

LAFD Division 5 Permit No. 9894

Site/Facility Name: ARCO Station No. 0191

Site Address: 3401 Whittier Boulevard **City/State/Zip:** Los Angeles, CA, 90023

Site Facility Description: Gasoline Service Station

Tank Owner/Tank Operator/Responsible Party Contact Information

Contact Name and Title: Roy Thun
Environmental Business Manager

Contact Phone No. 661-287-3855

Company Name: Atlantic Richfield Company

Company Address: 4 Centerpointe Drive

City/State/Zip: La Palma, California 90623

Consultant Information

Contact Name and Title: Cathy Sanford
Associate Geologist

Contact Phone No. 714-379-3366

Company Name: SECOR International Incorporated

Company Address: 11085 Knott Avenue Suite B

City/State/Zip: Cypress, California 90630

SECOR

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August 8, 2005
14BP.00191.03.0146

Inspector Terrence Palmer
City of Los Angeles Fire Department
Environmental Unit – Underground Storage Tanks
200 N. Main Street Room 1700
Los Angeles, California 90012

SUBJECT: Notification of Work plan Implementation under Title 23, Chapter 16, Article 11, §2722(e) "60-day Rule"
ARCO Facility 00191
3401 Whittier Boulevard
Los Angeles, California
LAFD Facility ID No. 10846, Division 5 Permit No. 9894

Dear Inspector Palmer:

SECOR International Incorporated (SECOR), on behalf of the Atlantic Richfield Company (Atlantic Richfield), submits this written notification to the City of Los Angeles, Fire Department, Environmental Unit (LAFD) regarding implementations of SECOR's *June 6, 2005 Additional Requirements-Site Assessment Report and Remedial Action Plan (RAP)* at the above referenced site.

SECOR submitted the above-referenced report to the LAFD greater than 60 days ago. As stated in SECOR's *June 6, 2005 Additional Requirements-Site Assessment Report and Remedial Action Plan (RAP)*, "SECOR proposes to conduct limited active soil remediation utilizing a mobile SVE unit, operating under an approved SCAQMD various locations permit. It is proposed to extract vapors from existing SVE Wells SVE-1 and SVE-2." To date, the LAFD has not responded to this letter.

In the interest of promoting prompt soil and groundwater assessment and to prevent further delays, SECOR and Atlantic Richfield intend to implement the June 6, 2005 submittal per the California Code of Regulations Title 23, Chapter 16, Article 11, §2722(e) "60-day Rule". SECOR anticipates the implementation of limited active soil remediation to begin August 22, 2005.

If you have any questions regarding the contents of this letter, please contact Ms. Cathy Sanford at (714) 379-3366, extension 276.

Respectfully Submitted,
SECOR International Incorporated

Prepared By:

Jason Alcaraz
Staff Geologist

Reviewed and Approved by:

Cathy L. Sanford, PG 7956
Associate Geologist

PROFESSIONAL GEOLOGIST
CATHY L. SANFORD
No. 7956
STATE OF CALIFORNIA

Appendix A - SECOR's June 6, 2005 *Additional Requirements-Site Assessment Report and Remedial Action Plan (RAP)*

cc: Mr. Roy Thun, Atlantic Richfield Company

Appendix A

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June 6, 2005
PN 14BP.00191.03.0136

Inspector Terrence Palmer
City of Los Angeles Fire Department
Environmental Unit – Underground Storage Tanks
200 N. Main Street Room 1700
Los Angeles, California 90012

RE: Additional Requirements – Site Assessment Report and Remedial Action Plan
ARCO Facility 00191
3401 Whittier Boulevard
Los Angeles, California
LAFD Facility ID No.10846, Division 5 Permit No. 9894

Dear Inspector Palmer:

SECOR International Incorporated (SECOR), on behalf of the Atlantic Richfield Company (Atlantic Richfield), is pleased to present this *Additional Requirements–Site Assessment Report and Remedial Action Plan (RAP)* for ARCO Facility 00191 (site), located at 3401 Whittier Boulevard, in Los Angeles, California (Figures 1 and 2). This additional work was performed in response to the directive by the City of Los Angeles Fire Department (LAFD) dated April 22, 2004 (Appendix A). All work was conducted according to SECOR's *Workplan for Site Assessment*, submitted to the LAFD on January 4, 2002. Soil boring B-9 was drilled in November 2004 to provide additional lateral definition of petroleum hydrocarbon impacted soil at the site. Site assessment work was completed on December 29, 2004 after receipt of the final analytical results and the generated waste was characterized and properly disposed of or recycled. This report summarizes site description, regional geology and hydrogeology, site background, potential receptors, current site assessment activities, scope of additional field work, findings, conclusions and recommendations, RAP and limitations.

SITE DESCRIPTION

The site is an active ARCO gasoline service station and am/pm™ mini mart, located on the northeast corner of Whittier Boulevard and Lorena Street in the City of Los Angeles (Figure 1). The site is positioned at an elevation of approximately 290 feet above mean sea level (amsl). Local topography slopes to the south at approximately 0.045 feet per foot (USGS, 1966). The facility consists of a station building located near the center of the site, three 12,000 gallon, double-walled fiberglass underground storage tanks (USTs) located in the southern portion of the site with two dispenser islands to the north and one dispenser island to the southwest of the USTs.

REGIONAL GEOLOGY/HYDROGEOLOGY

Physiographically, the site is situated in the northwestern portion of the Montebello Plain. The Montebello Plain, gently sloping and relatively flat, is composed of alluvial materials that overly a marine-cut terrace. The Montebello Plain is approximately seven miles wide and extends from the Repetto and Merced Hills in the north to the Rio Hondo River and Whittier Narrows to the south and southeast. The Montebello Plain is bounded on the west by the Los Angeles Narrows and the on the west and southwest by the Los Angeles River.

Site and vicinity soils are mapped as Upper Pleistocene age Lakewood Formation (Qlw). The Qwl is approximately 160 feet thick in the vicinity of the site and generally consists of terrace deposited gravel, sand, sandy silt, silt, and clay, and may also contain a semi-perched aquifer, the Bellflower Aquiclude, and the Exposition and Gage Aquifers.

The site is situated within the Montebello Forebay Area of the Los Angeles Central Groundwater Basin. The Central Groundwater Basin is bounded on the west and south by the Newport/Inglewood Uplift and on the north by the Hollywood Basin. The low lying Elysian Hills border the northwest of the basin and to the southeast are the Puente Hills. The Los Angeles Central Groundwater Basin is divided into three areas: the Los Angeles Forebay and Montebello Forebay Areas and the Pressure Area. The Forebay refers to the areas of intake or recharge, where the major basin aquifers are replenished; the Pressure Area is generally defined as the area in the basin where surface water and shallow groundwater are prevented from percolating in large quantities into the major producible aquifers by clays and silt layers at shallow depths. The primary water-producing aquifers for the Los Angeles Central Groundwater Basin are those within the lower Lakewood Formation and the underlying San Pedro Formation.

In the vicinity of the site, the Bellflower Aquiclude, consisting of sandy-gravelly clay-rich sediments, is approximately 60 feet thick. The Exposition Aquifer extends from approximately 60 to 110 feet below ground surface (bgs) and is comprised of lenticular sandy and gravelly beds separated by fine lenses of silt and clay. The Gage Aquifer extends from approximately 110 to 160 feet bgs, is merged with the overlying Exposition Aquifer, and is comprised of sand and sandy clay with some gravel. The Aquifers of the San Pedro Formation (Hollydale, Lynwood, Silverado, and Sunnyside) are composed of coarse-grained sands and gravels. The Hollydale Aquifer occurs approximately 175 to 190 feet bgs, the Lynwood Aquifer occurs approximately 325 to 400 feet bgs, the Silverado Aquifer occurs 525 to 650 feet bgs and the Sunnyside Aquifer occurs 875 to 1,025 feet bgs in the vicinity of the site.

The closest naturally occurring surface water is the Los Angeles River channel, located approximately 1.5 miles west of the site. The Los Angeles River carries surface water from the San Fernando Valley into the Coastal Plain through the Los Angeles Narrows. The Los Angeles Narrows, a natural topographic separation between the Elysian and Repetto Hills, is located approximately three miles from the site. The area in the vicinity of the Los Angeles Narrows is a regional ground water recharge area. The regional groundwater flow is anticipated to be south to southeast (CDWR, 1961).

SITE BACKGROUND

On June 13, 1989, Hunter/Gregg Incorporated (Hunter) performed a pre-drill assessment prior to the removal of three USTs. Three soil borings (B1 through B3) were installed to a depth of 40 feet bgs peripheral to the USTs. Soil boring locations are shown on Figure 2. Two samples from each boring were analyzed for total petroleum hydrocarbons as gasoline (TPHg). No detectable concentrations of TPHg were identified in any of the submitted soil samples (Hunter, 1989). Soil analytical data is provided in Table 1.

In July 1989, Hunter observed the removal of two 8,000-gallon and one 6,000-gallon steel USTs at the site. Soil samples WL-1 through WL-5 were collected approximately two feet beneath the former USTs and samples WL-3A and WL-5A were collected approximately six feet beneath the former USTs (Figure 2). Stockpile soil samples WL-7 through WL-10 and SP-1 were also collected for laboratory analysis. Elevated TPHg concentrations were primarily detected near the northeastern portion of the UST excavation at a maximum concentration of 7,320 milligrams per kilogram (mg/kg) TPHg (WL-5, Table 1). Three new 12,000-gallon, double-walled plasteel USTs were installed within the same excavation (Hunter, 1989B). Approximately 400 tons of soil excavated during facility upgrade activities was transported off site.

On December 17 and 18, 1990, and February 6, 1991, Environmental Science & Engineering Incorporated (ESE) advanced six soil borings (B4 through B9), converting boring B6 to a soil vapor extraction (SVE) well VW-1 (Figure 2). Soil samples collected from the boring contained detectable TPHg concentrations ranging from 1.7 mg/kg (B9-25) to 13,000 mg/kg (B8-25). Detectable benzene concentrations ranged from 0.11 mg/kg (B-9-30) to 81 mg/kg (B8-25) (Table 1). Groundwater was not encountered during the drilling investigation (ESE, 1991).

On May 14, 1991, ESE installed two SVE Wells, VW-2 and VW-3 (Figure 2). Soil samples were collected from the borings and analyzed for TPHg and for benzene, toluene, ethylbenzene and total xylenes (collectively BTEX). Maximum concentrations of 87 mg/kg TPHg and 0.69 mg/kg benzene were detected in soil sample VW-2, collected at approximately 24 feet bgs (Table 1) (ESE, 1991).

On June 4, 1991, ESE performed a SVE test using Wells VW-1 through VW-3. Air flow rates ranged from 50 to 74 standard cubic feet per minute (scfm) at vacuums ranging from 0.26 to 11 inches of water. The calculated radius of influence (ROI) ranged from 25 to 40 feet. Air samples collected during the SVE test contained maximum concentrations of 890 parts per million by volume (ppmv) TPHg and 21 ppmv benzene from Well VW-3 (ESE, 1991).

On March 24, 1992, ESE installed additional SVE Well VW-4 (Figure 2) to a depth of approximately 35 feet bgs. Soil samples collected from the boring for laboratory analysis contained maximum concentrations of 3,100 mg/kg TPHg (VW4-10) and 0.77 mg/kg benzene (VW4-10). Soil analytical data is provided on Table 1 (ESE, 1992).

On May 19, 1994, a SVE system consisting of a 200 scfm positive displacement blower coupled to two 1,200-pound vapor-phase carbon canisters began continuous operation. Initial concentrations of 2,650 ppmv TPHg and 620 ppmv benzene were detected in vapor samples. Due to high source concentrations, in February of 1995 an internal combustion engine (ICE) was installed, replacing the carbon system. The ICE system operated until October of 1996, removing approximately 20,504 pounds of the total volatile hydrocarbons

(TVH) and 29.9 pounds of benzene from the subsurface soils. The site received a letter of no further action from the LAFD on October 15, 1997. The SVE system operational data is reported in EMCON's Fourth Quarter 1996 VES Performance Report; tables and graphs are provided in Appendix B (EMCON, 1997).

On July 2 and 5, 2001, Delta Environmental Consultants, Incorporated (Delta) collected eight soil samples from beneath the former dispensers (D1 through D6 and D1-05 and D2-05) and seven samples beneath the former product lines (P1 through P4 and P1-05 through P3-05) during facility upgrade activities (Figure 2). Soil samples were analyzed for TPHg and for BTEX, methyl tertiary butyl ether (MTBE), tertiary butanol (TBA), di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), and tertiary amyl methyl ethyl ether (TAME). Detectable concentrations of adsorbed-phase hydrocarbons were identified in 13 of the 15 soil samples at maximum concentrations of 1,700 mg/kg TPHg (P2), 7.8 mg/kg benzene (D5), 15 mg/kg MTBE (D5) and 0.36 mg/kg TBA (P1); DIPE, ETBE, and TAME were not detected (Table 1) (Delta, 2001).

In March 2003, SECOR advanced Soil Borings SB-1 through SB-7 to define the lateral and vertical extent of petroleum hydrocarbon impact detected during facility upgrade activities conducted in July 2001 (Figure 2). During the installation of SB-4 and SB-5, elevated hydrocarbons were encountered at shallow depths (to approximately 30 feet bgs) and the borings were converted to dual nested SVE Wells SVE-1 and SVE-2, respectively. Soil samples were collected from all the borings and analyzed for TPHg, BTEX, MTBE, DIPE, ETBE, TAME, TBA and ethanol. Maximum concentrations of 6,800 mg/kg TPHg (SVE-2-25), 3.4 mg/kg benzene (SVE-2-25), and 0.072 mg/kg MTBE (SVE-2-20) were detected in soil samples analyzed. DIPE, ETBE, TAME and ethanol were not detected. Soil analytical data is provided in Table 1 and SVE well construction details are provided in Table 3. SECOR submitted a Site Assessment Report and Request for Closure on August 13, 2003 (SECOR, 2003).

On April 22, 2004, Atlantic Richfield received a directive from the LAFD requiring additional site assessment and remediation. The LAFD requested additional lateral definition of hydrocarbon impacted soil in the southwestern portion of the site (vicinity of SB-4/SVE-1 and SB-5/SVE-2) and the submittal of a RAP to address the elevated hydrocarbon concentrations detected in shallow soil in the vicinity of SB-4/SVE-1 and SB-5/SVE-2 (Appendix A).

POTENTIAL RECEPTORS

According to the Los Angeles County Department of Public Works (LACDPW) Division of Hydrologic Records, there are two wells (2808C and 2818C) located within a one-mile radius of the site. Both wells are reportedly inactive. Well 2808C is located approximately 3,200 feet south of the site, and was last gauged on April 14, 1978 with a depth to groundwater of 241.7 feet bgs. Well 2818C is located approximately 5,280 feet southeast of the site, and was last gauged on October 31, 1988 with a depth to groundwater of 191.0 feet bgs. Inactive Public Supply well 2818D is located approximately 5,600 feet southeast of the site and was last gauged on May 31, 1978 with a depth to ground water of 227.0 feet bgs. The well receptor information is summarized in Table 2. Groundwater beneath the site is anticipated to be encountered at depths greater than 240 feet bgs.

SECOR performed additional research using the Geographic Environmental Information Management System (GEIMS) database via the Geotracker website

(http://geotracker.swrcb.ca.gov/). According to the GEIMS database, there are no municipal wells identified within a half-mile radius of the site.

SCOPE OF ADDITIONAL FIELD WORK

Pre-field Activities

All field activities were completed with safety as a foremost concern. A site-specific health and safety plan (HASP) was prepared for the drilling and potential well installation activities conducted at the site. All SECOR personnel, as well as any other on-site subcontractors or regulatory personnel, were required to familiarize themselves with and sign the HASP in an attempt to minimize safety hazards. Prior to drilling at the site, SECOR marked the proposed boring location and notified Underground Service Alert-South (USA), a California State-specific underground utility notification service. USA contacted the owners of the various utilities in the vicinity of the site to mark the locations of their underground utilities. Additionally, Spectrum Geophysics, a private utility locator, was contracted to further evaluate and mark the locations of any potential subsurface underground utilities not identified by USA. All prefield activities, including utility clearance, were conducted according to *Precautionary Procedures and Guidelines Document for Drilling, Subsurface Investigations and Remedial Construction Activities for GEM Retail Operations*. Notifications were made to the LAFD, the facility manager, the drilling contractor, and Atlantic Richfield at least 5 days prior to the initiation of work.

Soil Boring Installation

On November 10, 2004, SECOR supervised CAL PAC Drilling (CAL PAC) of Calimesa, California (C57 #766402) during the advancement of Soil Boring B-9. Prior to any invasive work, CAL PAC hand augered to a minimum depth of 5 feet bgs in an effort to prevent compromising the integrity of unidentified subsurface obstructions. Drilling was completed using a CME-85 drill rig equipped with hollow-stem augers. Soil Boring B-9 was installed in the southwestern portion of the site in the vicinity of SVE Well SVE-1.

For logging, field screening and laboratory analysis, sixteen soil samples were collected at five-foot intervals from approximately 5 to 80 feet bgs (maximum depth explored). Qualified SECOR personnel, working under direct supervision of a State of California Registered Professional Engineer logged the borings in accordance with the Unified Soil Classification System, using visual and manual methods for parameters including odor, staining, color, grain size, and moisture content. Collected soil samples were field screened for volatile organic compounds (VOC) using a MiniRae 2000 photo-ionization detector (PID). All soil samples collected for laboratory analysis were prepared in accordance with EPA Method 5035 using 5 gram EnCore™ samplers and placed in an ice filled cooler for preservation. The samples were transported under chain-of-custody (COC) protocol to Del Mar Analytical (Del Mar), in Irvine, California, a state of California certified laboratory for analysis. The soil boring was backfilled to approximately 3 feet bgs with high solids bentonite grout, capped with two feet of hydrated bentonite chips, and sealed at the surface with concrete dyed to match the existing surface grade. Drilling and soil sampling procedures are provided in Appendix C.

Waste Disposal

Soil cuttings generated during drilling activities were placed in labeled, Department of Transportation approved, 55-gallon steel drums and stored on-site pending receipt of the analytical results. Following analytical characterization, soil drums were removed from the site by Belshire Environmental, Incorporated and transported to TPS Technologies, Incorporated in Adelanto, California, for recycling. Waste disposal documentation for soil is presented in Appendix D.

FINDINGS

Site Geology

Soils encountered during this investigation consisted of silt with sand, silty sand, and silt from surface grade to approximately 22 feet bgs. Well-graded sand with gravel and interbedded poorly graded sand and silt was encountered from approximately 22 to 42 feet bgs underlain by a silt layer from approximately 42 to 52 feet bgs. Well-graded sand with gravel was observed between 52 and 77 feet bgs, and silty sand was encountered from approximately 77 to 80 feet bgs (total depth explored). Groundwater was not encountered during drilling activities. Geologic cross-sections A-A' and B-B' depict the subsurface lithology and are provided as Figures 3 and 4. Drill logs for boring B-9 are provided in Appendix E.

Organic Vapor Analysis

Organic vapors were measured in the field using a MiniRae 2000 PID. Elevated hydrocarbon vapors were primarily detected at depths between approximately 20 and 35 feet bgs. Field concentrations of organic vapors are provided on the boring logs in Appendix E.

Soil Analytical Results

All soil samples were relinquished to Del Mar and analyzed for carbon chain C_4 through C_{12}, gasoline range organics (GRO) according to EPA Method 8015, and for BTEX, MTBE, DIPE, ETBE, TAME, TBA and ethanol by EPA Method 8260B. Petroleum-hydrocarbon constituents were detected in soil samples collected primarily between approximately 20 and 30 feet bgs. Maximum concentrations of 5,900 mg/kg GRO (B-9-30), 1.3 mg/kg benzene (B-9-20), 0.0048 J (J indicates estimated value) mg/kg MTBE (B-9-35) and 0.034 J mg/kg TBA (B-9-15) were detected in soil samples analyzed. Hydrocarbons were below laboratory reporting limits in soil samples collected below 30 feet bgs. DIPE, ETBE, TAME and ethanol were not detected in any of the soil samples. Soil sample analytical data is summarized in Table 1. Copies of the certified laboratory analytical reports and COC documentation are included in Appendix F.

CONCLUSIONS and RECOMMENDATIONS

Soil Borings SB-1, SB-2, and SB-3 adequately defined the lateral and vertical extent of the hydrocarbon impacted soil in the UST area. Borings SB-6 and SB-7, installed north of the northern most product dispenser islands, provided lateral and vertical definition of the hydrocarbon plume in this area. Soil Borings SB-4/SVE-1 and SB-5/SVE-2, installed in the southwestern portion of the site, defined the vertical extent of hydrocarbon impacted soil.

Soil Boring B-9, located in the southwestern portion of the site, contained hydrocarbon impacted soil to a depth of approximately 30 feet bgs. Hydrocarbon concentrations were not detected above the laboratory reporting limit between 35 and 80 feet bgs, providing adequate vertical definition with approximately 50 vertical feet of clean soil. The lateral extent of the hydrocarbon impacted soil is not assessed in the southwestern portion of the site. The lateral extent of hydrocarbon impacted soil is adequately defined by SB-1 and SB-3 to the southeast, by SB-2 to the south, and by SB-6 and SB-7 to the north-northeast. Based on soil analytical data the lateral extent of impacted soil is apparently limited as shown in Figure 5.

Due to the location of numerous on and off-site subsurface obstructions detected during SECOR's prefield investigation activities, there is a significant hazard of encountering subsurface interference in the southwestern corner of the site and at the intersection of Whittier Boulevard and Lorena Street. SECOR does not propose additional lateral assessment in the vicinity of B-9 at this time.

REMEDIAL ACTION PLAN

Remedial Objective

On behalf of Atlantic Richfield, SECOR submits this RAP, which proposes SVE technology to mitigate hydrocarbon impacted soil at the site. The remedial objective for this site is to remove hydrocarbon mass from the subsurface in the vicinity of SVE-1, SVE-2 and B-9, and ultimately obtain site closure.

Summary of Hydrocarbon Distribution in Soil

Based on the recent assessments, residual hydrocarbons are primarily at depths between 20 and 30 feet bgs near the dispenser islands in the vicinity of SVE Wells SVE-1 and SVE-2 and Soil Boring B-9. The maximum concentrations of 6,800 mg/kg GRO and 3.4 mg/kg benzene were detected in Soil Sample SVE-2 collected at 25 feet bgs and the maximum concentration of 0.072 mg/kg MTBE was detected in Soil Sample SVE-2 collected at 20 feet bgs. Hydrocarbon concentrations decrease significantly below depths of approximately 30 feet bgs.

Soil Vapor Extraction

SVE is well documented for the remediation of VOCs, particularly lighter GRO hydrocarbons. SVE is the process in which soil vapors are extracted from the impacted vadose zone by placing a vacuum on one or more SVE wells. Extracted hydrocarbons are destroyed by a selected abatement device prior to discharge to the atmosphere, while operating under the SCAQMD jurisdiction. During the SVE test conducted at the site by ESE in 1991, air flow rates ranged from 50 to 74 scfm at vacuums ranging from 0.26 to 11 inches of water. The calculated ROI ranged from 25 to 40 feet. Between May 1994 and October 1996, SVE conducted at the site removed approximately 20,504 pounds of the total volatile hydrocarbons (TVH) and 29.9 pounds of benzene from the subsurface soils.

Proposed Remedial Action

SECOR proposes to conduct limited active soil remediation utilizing a mobile SVE unit, operating under an approved SCAQMD various locations permit. It is proposed to extract vapors from existing SVE Wells SVE-1 and SVE-2 (Figures 2 and 5). SVE Wells SVE-1 and SVE-2 are located in the area of hydrocarbon impact. Based on prior SVE activities conducted at the site with expected ROI of between 25 and 40 feet, extracting from these wells should provide adequate coverage of the hydrocarbon impacted soil.

Vacuum, vapor extraction flow rates and hydrocarbon concentrations in extracted soil vapors will be measured in the field in accordance with all permit regulations. Vacuum influence will be verified in the field. Soil vapor samples will be collected and submitted to an Atlantic Richfield approved, California State DHS Certified laboratory and analyzed for GRO, BTEX, MTBE, DIPE, ETBE, TAME, TBA and ethanol according to appropriate EPA methods and permit conditions. The analytical data will be used to validate the decrease in hydrocarbon concentrations over time. System operating parameters and duration will be used to calculate the pounds of petroleum hydrocarbons removed from the subsurface during the remedial activities.

The goal of the proposed remedial action is to reduce hydrocarbon concentrations in subsurface soil. SECOR recommends operating the SVE system for approximately two weeks per month for approximately three months or until hydrocarbon concentrations decrease and become asymptotic. When hydrocarbon concentrations become asymptotic, rebound testing will be conducted to verify completion of soil remediation activities. Upon completion, SECOR will prepare a report describing the SVE activities, including figures, field data, laboratory analytical data, mass removal rates and mass removal volume. Once the remediation has been deemed sufficient, SECOR will submit a request for closure.

STANDARD LIMITATIONS

All work was performed under the supervision of a registered professional as defined in the Professional Geologist Act of the California Code of Regulations. The information contained in this report represents SECOR's professional opinions, and is based in part on information supplied by the client. These opinions are based on currently available information and are arrived at in accordance with currently accepted geologic, hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

If you have any questions regarding the contents of this report, please contact Ms. Cathy Sanford at (714) 379-3366 extension 276.

Sincerely,
SECOR International Incorporated

Prepared by:

Carrie Salvato for

Nicole Alkov
Staff Geologist

Reviewed by:

Cathy Sanford

Cathy Sanford
Associate Geologist

Approved by:

Holly Quasem, P.E. 56022
Senior Engineer

REGISTERED PROFESSIONAL ENGINEER
HOLLY E. QUASEM
No. C 56022
EXP. 12-31-06
CIVIL
STATE OF CALIFORNIA

Attachments:

Figure 1 – Site Location Map Showing Identified Wells Within a One-Mile Radius
Figure 2 – Site Map
Figure 3 – Cross Section A-A'
Figure 4 – Cross Section B-B'
Figure 5 – Site Map Showing Hydrocarbon Concentrations in Soil

Table 1 – Soil Analytical Data
Table 2 – Wells Identified Within a One Mile Radius
Table 3 – SVE Well Construction Details

Appendix A – LAFD Correspondence dated April 22, 2004
Appendix B – Vapor Extraction System Historical Operational Data
Appendix C – Standard Operating Procedures for Soil Sampling
Appendix D – Waste Disposal Documentation
Appendix E – Boring Logs
Appendix F – Laboratory Analytical Reports and COC Documents

cc: Mr. Roy Thun – Atlantic Richfield Company

REFERENCES

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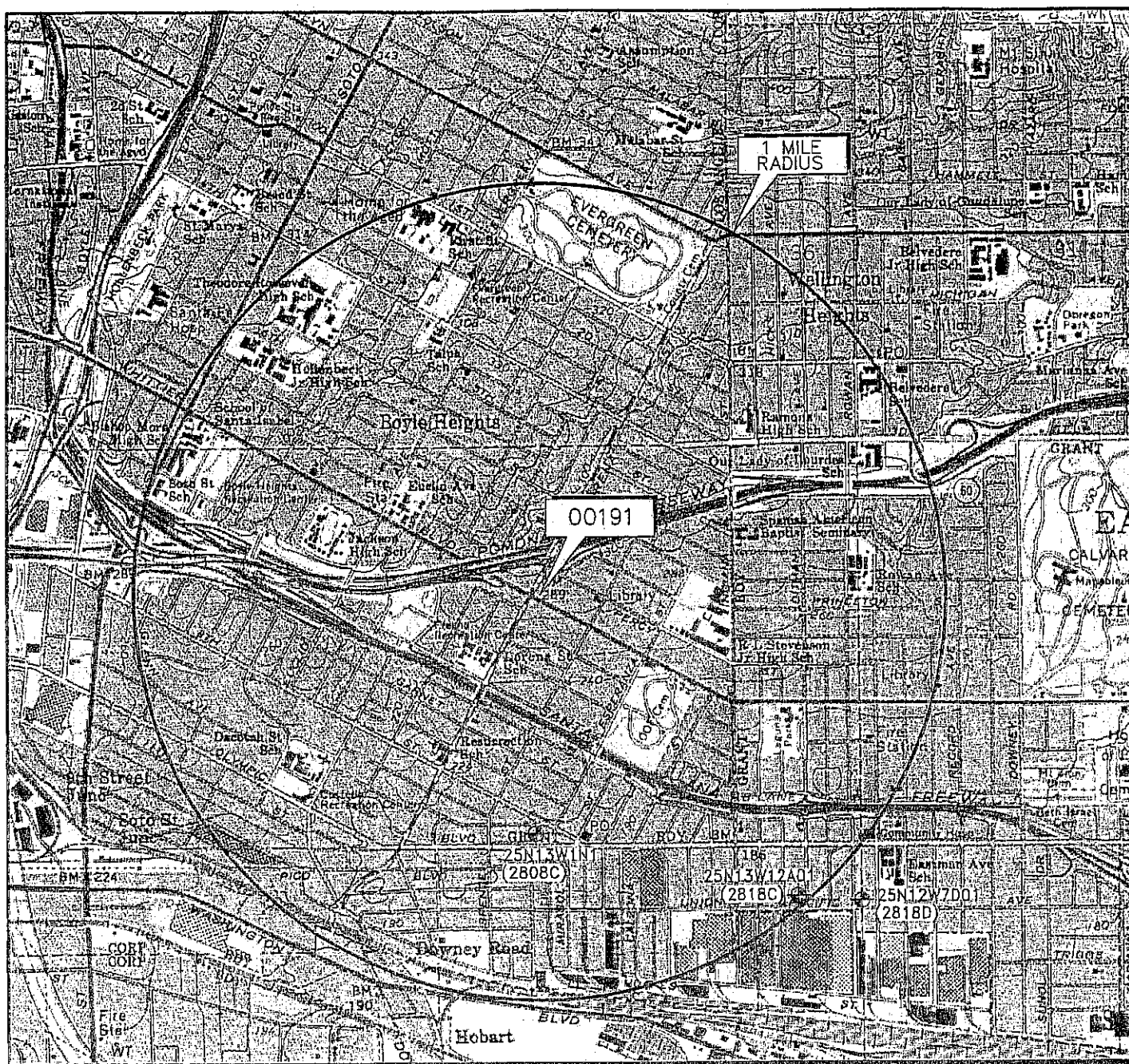
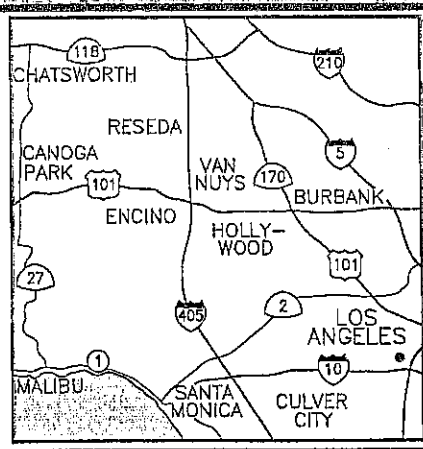
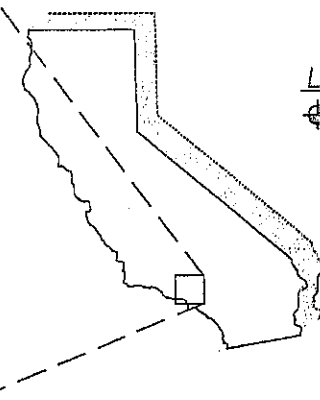
FIGURES



SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, LOS ANGELES QUADRANGLE, 1966
PHOTOREVISED 1981
MINOR REVISION 1994





LEGEND

⊕ MUNICIPAL WELL (INACTIVE)

0 2000 4000

APPROXIMATE SCALE IN FEET

SECOR

11085 KNOTT AVENUE, SUITE B
CYPRESS, CALIFORNIA
PHONE: (714)379-3366/FAX: (714)379-3375

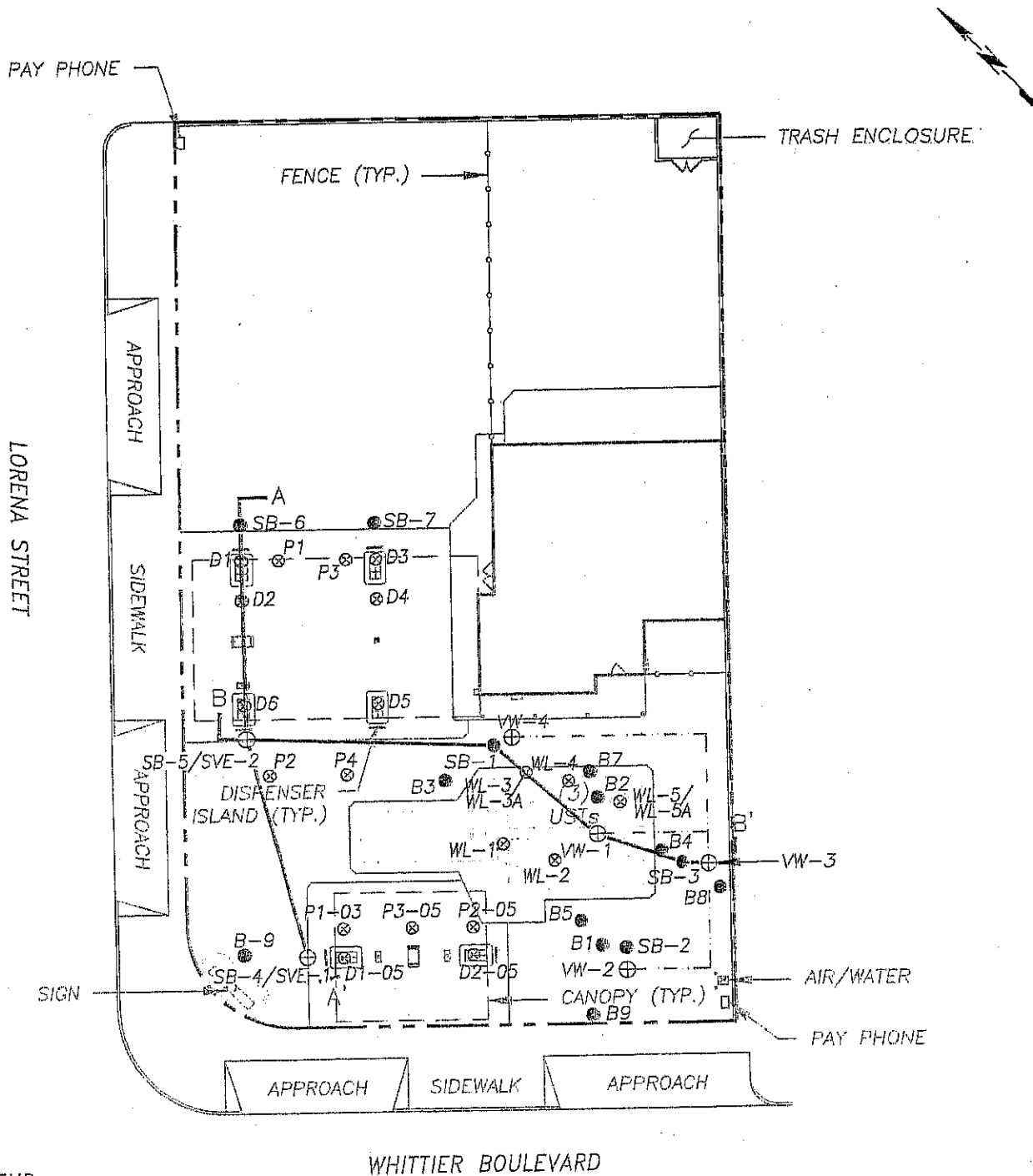
PREPARED FOR:
ATLANTIC RICHFIELD COMPANY
ARCO FACILITY 00191
3401 WHITTIER BOULEVARD
LOS ANGELES, CALIFORNIA

SITE LOCATION MAP SHOWING IDENTIFIED WELLS WITHIN A ONE-MILE RADIUS

FIGURE: 1

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
14BP.U0191.02.4L56	L. RAMIREZ	C. YETMAN	C. SANFORD	JANUARY 2005

A191_4Q04.DWG



LEGEND

———	SITE PROPERTY LINE
A ——— A'	CROSS-SECTION INDEX LINE
— · — · —	2" PVC UNDERGROUND VAPOR EXTRACTION PIPING
VW-1 ⊕	VAPOR EXTRACTION WELL
SB-1 ●	SOIL BORING
D6 ⊗	SOIL SAMPLE LOCATIONS

NOTES:

1. SOURCE OF BASE MAP: F.F & ASSOCIATES, DATED JUNE 1, 2001.
2. NOT A SURVEYED MAP, SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

0 30 60

APPROXIMATE SCALE IN FEET

SECOR
11085 KNOTT AVENUE, SUITE B
CYPRESS, CALIFORNIA
PHONE: (714)379-3366/FAX: (714)379-3375

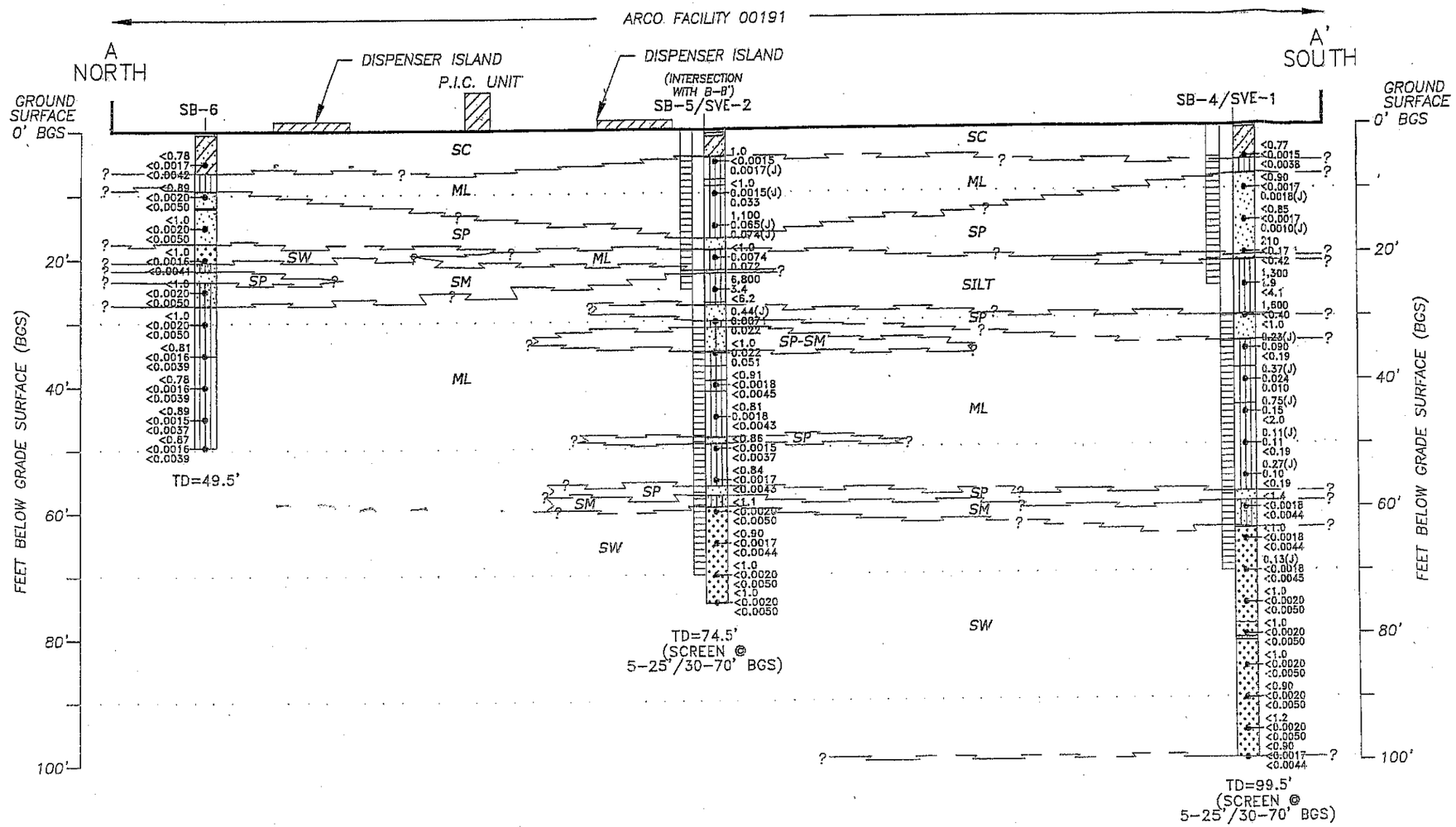
PREPARED FOR:
ATLANTIC RICHFIELD COMPANY
ARCO FACILITY 00191
3401 WHITTIER BOULEVARD
LOS ANGELES, CALIFORNIA

SITE MAP

FIGURE: **2**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
14BP.U0191.02.4L58	L. RAMIREZ	N. ALKOV	C. SANFORD	MAY 2005

A191SP5-05.DWG



LEGEND

(SW)	WELL GRADED SAND WELL GRADED SAND WITH GRAVEL	
(SW-SM)	WELL GRADED SAND WITH SILT	
(SP)	POORLY GRADED SAND	
(SP-SM)	POORLY GRADED SAND WITH SILT	
(SM)	SILTY SAND, SILTY SAND WITH GRAVEL	
(ML)	SILT, SANDY SILT, SILT WITH SAND	
(CL)	LEAN CLAY, FAT CLAY, SILTY CLAY CLAY WITH SAND, SANDY CLAY	
(SC)	CLAYEY SAND	
(AF)	ARTIFICIAL FILL/BACK FILL	
	ASPHALT	

COLOR OR OTHER CHANGE TO SAME LITHOLOGIC UNIT

TPHG BENZ MTBE — SOIL SAMPLE LOCATIONS WITH TOTAL PETROLEUM HYDROCARBONS, BENZENE AND MTBE CONCENTRATIONS REPORTED IN MILLIGRAMS PER KILOGRAM (mg/Kg)

(J) — ESTIMATED VALUE; BELOW LABORATORY REPORTING LIMIT AND ABOVE METHOD DETECTION LIMIT (MDL)

SCREENED INTERVAL OF WELL RELATIVE TO TOP OF CASING

— —?— — APPROXIMATE LITHOLOGIC CONTACT, QUERIED (?) WHERE INFERRED

HORIZONTAL SCALE IN FEET: 0 10 20

VERTICAL SCALE IN FEET: 0 20 40

NOTES:

1. GROUND SURFACE NOT ADJUSTED TO DEPICT ELEVATIONS AND RELATIVE TOPOGRAPHY.
2. HORIZONTAL EXAGGERATION OF WELLS DONE FOR CLARITY. FIGURE DOES NOT REFLECT ACTUAL BOREHOLE DIAMETERS.

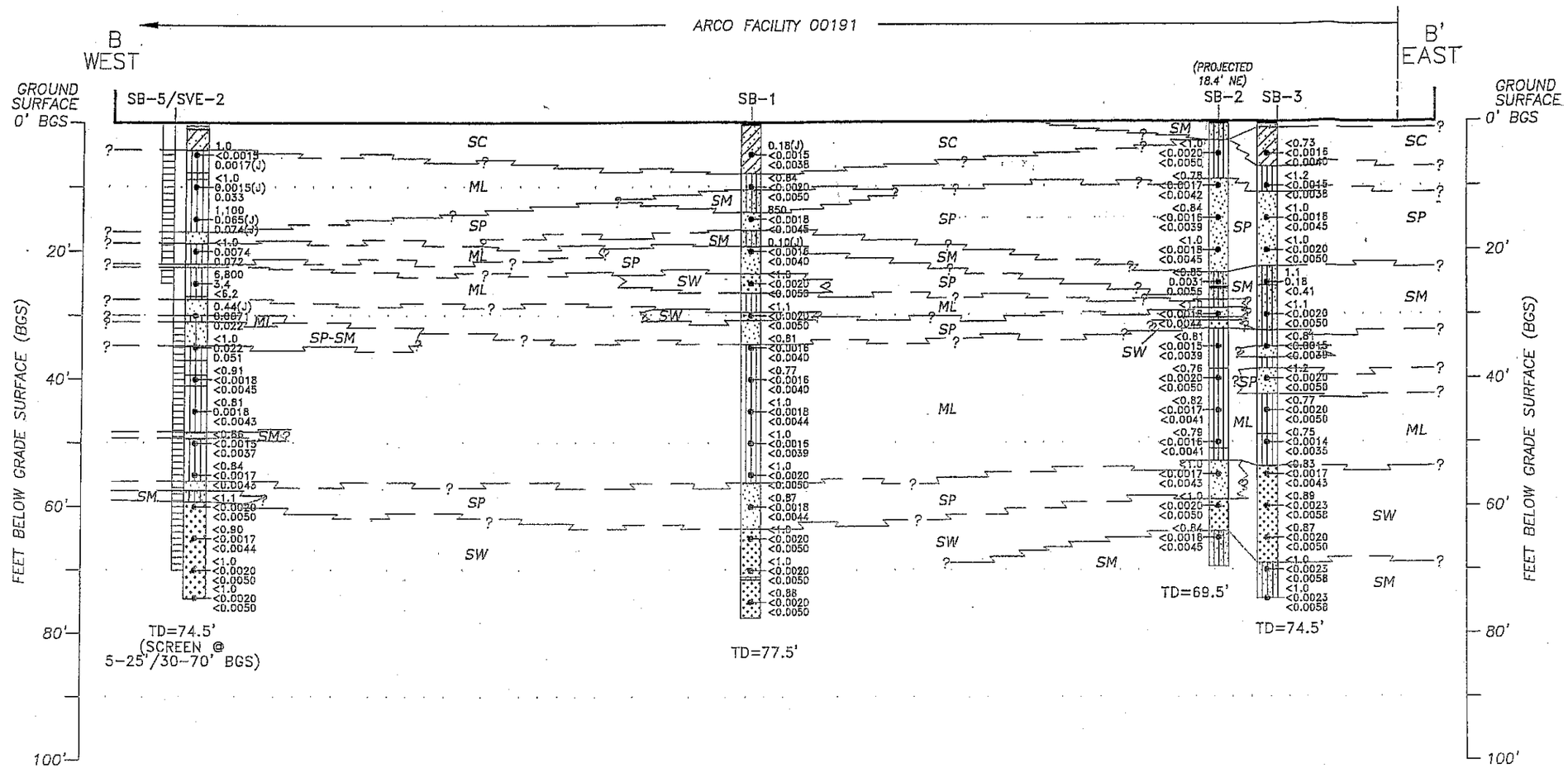
SECOR
11085 KNOTT AVENUE, SUITE B
CYPRESS, CALIFORNIA

PREPARED FOR:
ATLANTIC RICHFIELD COMPANY
ARCO FACILITY 00191
3401 WHITTIER BOULEVARD
LOS ANGELES, CALIFORNIA

CROSS - SECTION A-A'

FIGURE: **3**

JOB NUMBER: | DRAWN BY: | CHECKED BY: | APPROVED BY: | DATE:



LEGEND

(SW)	WELL GRADED SAND WELL GRADED SAND WITH GRAVEL	
(SW-SM)	WELL GRADED SAND WITH SILT	
(SP)	POORLY GRADED SAND	
(SP-SM)	POORLY GRADED SAND WITH SILT	
(SM)	SILTY SAND, SILTY SAND WITH GRAVEL	
(ML)	SILT, SANDY SILT, SILT WITH SAND	
(CL)	LEAN CLAY, FAT CLAY, SILTY CLAY CLAY WITH SAND, SANDY CLAY	
(SC)	CLAYEY SAND	
(AF)	ARTIFICIAL FILL/BACK FILL	
	ASPHALT	

COLOR OR OTHER CHANGE TO SAME LITHOLOGIC UNIT

TPHG BENZ MTBE — SOIL SAMPLE LOCATIONS WITH TOTAL PETROLEUM HYDROCARBONS, BENZENE AND MTBE CONCENTRATIONS REPORTED IN MILLIGRAMS PER KILOGRAM (mg/Kg)

(J) — ESTIMATED VALUE; BELOW LABORATORY REPORTING LIMIT AND ABOVE METHOD DETECTION LIMIT (MDL)

SCREENED INTERVAL OF WELL RELATIVE TO TOP OF CASING

— —?— — APPROXIMATE LITHOLOGIC CONTACT, QUERIED (?) WHERE INFERRED

HORIZONTAL SCALE IN FEET: 0 10 20

VERTICAL SCALE IN FEET: 0 20 40

NOTES:

1. GROUND SURFACE NOT ADJUSTED TO DEPICT ELEVATIONS AND RELATIVE TOPOGRAPHY.
2. HORIZONTAL EXAGGERATION OF WELLS DONE FOR CLARITY. FIGURE DOES NOT REFLECT ACTUAL BOREHOLE DIAMETERS.

SECOR
11055 KNOTT AVENUE, SUITE B
CYPRESS, CALIFORNIA

PREPARED FOR:
ATLANTIC RICHFIELD COMPANY
ARCO FACILITY 00191
3401 WHITTIER BOULEVARD
LOS ANGELES, CALIFORNIA

CROSS - SECTION B-B'

FIGURE: 4

JOB NUMBER: | DRAWN BY: | CHECKED BY: | APPROVED BY: | DATE:

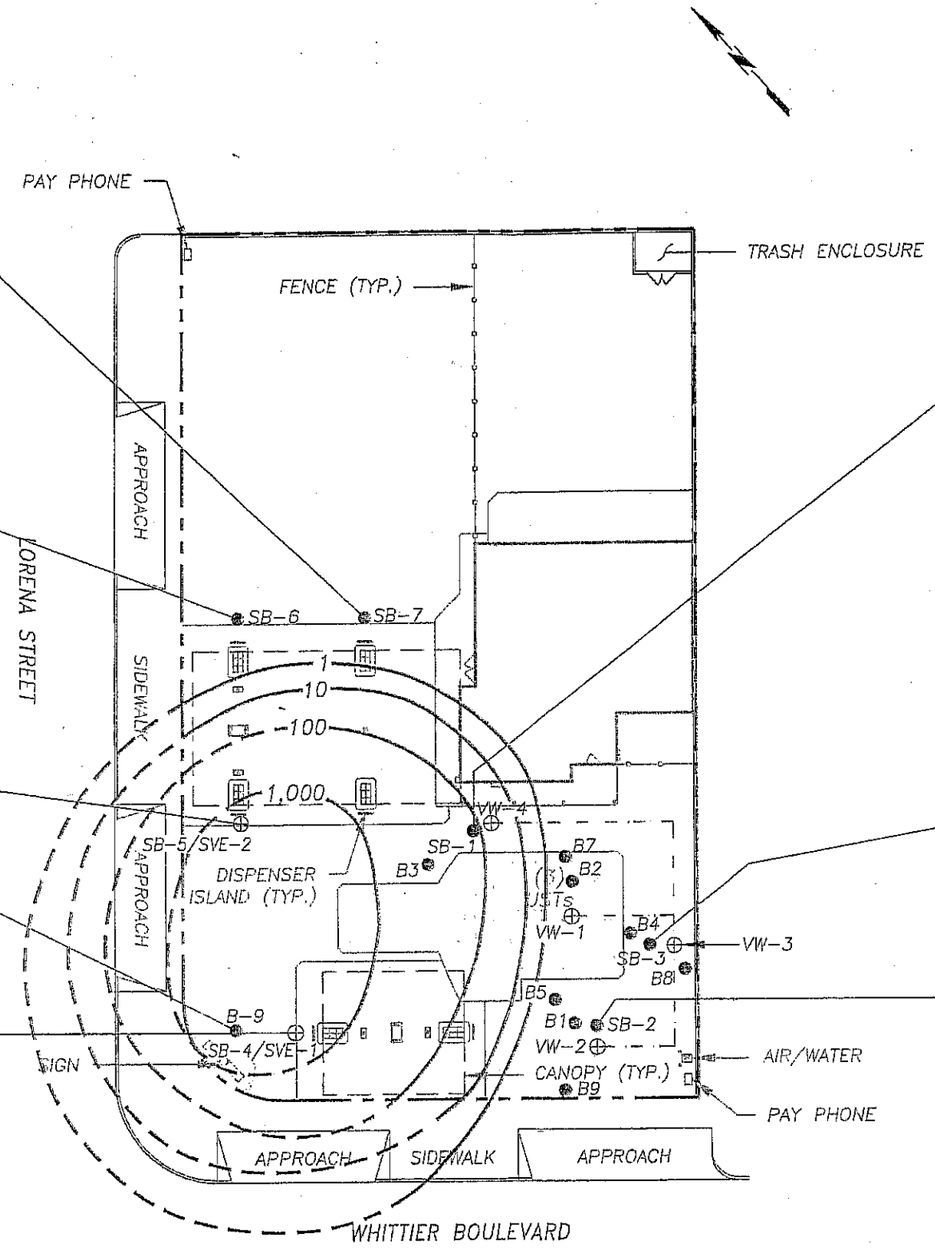
5'	<0.91	<0.0018	0.051
10'	<0.87	<0.0020	<0.0050
15'	<1.0	<0.0020	<0.0050
20'	<1.0	<0.0020	<0.0050
25'	<1.0	<0.0020	<0.0050
30'	<1.2	<0.0020	<0.0050
35'	<0.82	<0.0020	<0.0050
40'	<1.0	<0.0020	<0.0050
45'	<0.87	<0.0020	<0.0050
50'	<1.0	<0.0015	<0.0038

5'	<0.78	<0.0017	<0.0042
10'	<0.89	<0.0020	<0.0050
15'	<1.0	<0.0020	<0.0050
20'	<1.0	<0.0016	<0.0041
25'	<1.0	<0.0020	<0.0050
30'	<1.0	<0.0020	<0.0050
35'	<0.81	<0.0016	<0.0039
40'	<0.78	<0.0016	<0.0039
45'	<0.89	<0.0015	<0.0037
50'	<0.87	<0.0016	<0.0039

5'	0.17J	<0.0020	<0.0050
10'	<1.0	<0.0020	<0.0050
15'	<1.0	<0.0020	<0.0050
20'	970	1.3	<0.91
25'	0.32J	<0.0020	<0.0050
30'	5,900	1.1	<2.8
35'	0.64J	0.0017J	0.0048J
40'	0.22J	0.00046J	0.0018J
45'	0.21J	<0.0016	<0.004
50'	0.19J	0.00084J	0.0017J
55'	<1.2	<0.0020	<0.0050
60'	<1.0	<0.0020	<0.0050
65'	<1.2	<0.0024	<0.0059
70'	<1.0	<0.0020	<0.0050
75'	<1.3	<0.0020	<0.0050
80'	<1.0	<0.0020	<0.0050

5'	1.0	<0.0015	0.0017J
10'	<1.0	0.0015J	0.033
15'	1,100	0.065J	0.074J
20'	<1.0	0.0074	0.072
25'	6,800	3.4	<6.2
30'	0.44J	0.0071	0.022
35'	<1.0	0.022	0.051
40'	<0.91	<0.0018	<0.0045
45'	<0.81	0.0018	<0.0043
50'	<0.86	<0.0015	<0.0037
55'	<0.84	<0.0017	<0.0043
60'	<1.1	<0.0020	<0.0050
65'	<0.90	<0.0017	<0.0044
70'	<1.0	<0.0020	<0.0050
75'	<1.0	<0.0020	<0.0050

5'	<0.77	<0.0015	<0.0038
10'	<0.90	<0.0017	0.0018J
15'	<0.85	<0.0017	0.0010J
20'	210	<0.17	<0.42
25'	1,300	1.9	<4.1
30'	1,600	<0.40	<1.0
35'	0.23J	0.090	<0.19
40'	0.37J	0.024	0.010
45'	0.75J	0.15	<0.20
50'	0.11J	0.11	<0.19
55'	0.27J	0.10	<0.19
60'	<1.4	<0.0018	<0.0044
65'	<1.0	<0.0018	<0.0044
70'	0.13J	<0.0018	<0.0045
75'	<1.0	<0.0020	<0.0050
80'	<1.0	<0.0020	<0.0050
85'	<1.0	<0.0020	<0.0050
90'	<0.90	<0.0020	<0.0050
95'	<1.2	<0.0020	<0.0050
100'	<0.90	<0.0017	<0.0044



5'	0.18J	<0.0015	<0.0038
10'	<0.84	<0.0020	<0.0050
15'	850	<0.0018	<0.0045
20'	0.10J	<0.0016	<0.0040
25'	<1.0	<0.0020	<0.0050
30'	<1.1	<0.0020	<0.0050
35'	<0.81	<0.0016	<0.0040
40'	<0.77	<0.0016	<0.0040
45'	<1.0	<0.0018	<0.0044
50'	<1.0	<0.0016	<0.0039
55'	<1.0	<0.0020	<0.0050
60'	<0.87	<0.0018	<0.0044
65'	<1.0	<0.0020	<0.0050
70'	<1.0	<0.0020	<0.0050
75'	<0.88	<0.0020	<0.0050

5'	<0.73	<0.0016	<0.0040
10'	<1.2	<0.0015	<0.0038
15'	<1.0	<0.0018	<0.0045
20'	<1.0	<0.0020	<0.0050
25'	1.1	0.18	<0.41
30'	<1.1	<0.0020	<0.0050
35'	<0.81	<0.0015	<0.0039
40'	<1.2	<0.0020	<0.0050
45'	<0.77	<0.0020	<0.0050
50'	<0.75	<0.0014	<0.0035
55'	<0.83	<0.0017	<0.0043
60'	<0.89	<0.0023	<0.0058
65'	<0.87	<0.0020	<0.0050
70'	<1.0	<0.0023	<0.0058
75'	<1.0	<0.0023	<0.0058

5'	<1.0	<0.0020	<0.0050
10'	<0.78	<0.0017	<0.0042
15'	<0.84	<0.0016	<0.0039
20'	<1.0	<0.0018	<0.0045
25'	<0.85	0.0031	0.0056
30'	<1.0	<0.0018	<0.0044
35'	<0.81	<0.0015	<0.0039
40'	<0.76	<0.0020	<0.0050
45'	<0.82	<0.0017	<0.0041
50'	<0.79	<0.0016	<0.0041
55'	<1.0	<0.0017	<0.0043
60'	<1.0	<0.0020	<0.0050
65'	<0.84	<0.0018	<0.0045

LEGEND

- SITE PROPERTY LINE
- 2" PVC UNDERGROUND VAPOR EXTRACTION PIPING
- 100 — GRO CONCENTRATION CONTOUR (DASHED WHERE INFERRED)
- VW-1 — VAPOR EXTRACTION WELL
- SB-1 — SOIL BORING

DEPTH	GRO	BENZ	MTBE

SOIL SAMPLE DEPTH WITH CORRESPONDING AS GASOLINE RANGE ORGANICS BENZENE AND MTBE CONCENTRATIONS IN MILLIGRAMS PER KILOGRAM (mg/kg)

(J) ESTIMATED VALUE; BELOW THE REPORTING LIMIT AND ABOVE THE METHOD DETECTION LIMIT (MDL)

NOTES:

1. SOURCE OF BASE MAP: F.F & ASSOCIATES, DATED JUNE 1, 2001.
2. NOT A SURVEYED MAP, SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

0 30 60

APPROXIMATE SCALE IN FEET

SECOR
11085 KNOTT AVENUE, SUITE B
CYPRESS, CALIFORNIA
PHONE: (714)379-3366/FAX: (714)379-3375

PREPARED FOR:
ATLANTIC RICHFIELD COMPANY
ARCO FACILITY 00191
3401 WHITTIER BOULEVARD
LOS ANGELES, CALIFORNIA

SITE MAP SHOWING HYDROCARBON CONCENTRATIONS IN SOIL BETWEEN 20 & 30 FEET BGS

FIGURE: 5

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
14BP.U0191.03.0148	L. RAMIREZ	N. ALKOV	C. SANFORD	MAY 2005

TABLES

TABLE 1
SOIL ANALYTICAL DATA
ARCO FACILITY 00191
3401 EAST WHITTIER BLVD
LOS ANGELES, CALIFORNIA

SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH feet bgs	GRO mg/kg	BENZENE mg/kg	TOLUENE mg/kg	ETHYL-BENZENE mg/kg	TOTAL XYLENES mg/kg	MTBE mg/kg	TBA mg/kg	DIPE mg/kg	ETBE mg/kg	TAME mg/kg	Ethanol mg/kg
B1-15	6/13/89	15	<5.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B1-40	6/13/89	40	<5.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B2-15	6/13/89	15	<5.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B2-40	6/13/89	40	<5.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B3-10	6/13/89	10	<5.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B3-40	6/13/89	40	<5.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WL-1	7/6/89	14	<10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WL-2	7/6/89	14	<10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WL-3	7/6/89	14	3,970	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WL-3A	7/6/89	18	2,328	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WL-4	7/6/89	14	4,050	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WL-5	7/6/89	14	7,320	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WL-5A	7/6/89	18	196	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WL-7	7/6/89	N/A	218	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WL-8	7/6/89	N/A	2,540	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WL-9	7/6/89	N/A	20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WL-10	7/6/89	N/A	262	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SP-1	7/6/89	N/A	3,050	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B4-5	12/17/90	5	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B4-10	12/17/90	10	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B4-15	12/17/90	15	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B4-20	12/17/90	20	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B4-25	12/17/90	25	3,800	44	310	110	580	N/A	N/A	N/A	N/A	N/A	N/A
B4-30	12/17/90	30	<1.0	<0.05	<0.05	<0.05	0.1	N/A	N/A	N/A	N/A	N/A	N/A
B4-35	12/17/90	35	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B4-40	12/17/90	40	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B4-45	12/17/90	45	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B4-50	12/17/90	50	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B5-5	12/17/90	5	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B5-10	12/17/90	10	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B5-15	12/17/90	15	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B5-20	12/17/90	20	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B5-25	12/17/90	25	1,900	24	140	52	270	N/A	N/A	N/A	N/A	N/A	N/A
B5-30	12/17/90	30	4.2	<0.05	0.25	0.14	0.75	N/A	N/A	N/A	N/A	N/A	N/A
B5-35	12/17/90	35	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B5-40	12/17/90	40	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B5-45	12/17/90	45	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B5-50	12/17/90	50	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A

TABLE 1
SOIL ANALYTICAL DATA
ARCO FACILITY 00191
3401 EAST WHITTIER BLVD
LOS ANGELES, CALIFORNIA

SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH feet bgs	GRO mg/kg	BENZENE mg/kg	TOLUENE mg/kg	ETHYL-BENZENE mg/kg	TOTAL XYLENES mg/kg	MTBE mg/kg	TBA mg/kg	DIPE mg/kg	ETBE mg/kg	TAME mg/kg	Ethanol mg/kg
VW1-20	12/18/90	20	3,000	<0.05	15	20	430	N/A	N/A	N/A	N/A	N/A	N/A
VW1-25	12/18/90	25	23	1.5	1.5	0.35	2.1	N/A	N/A	N/A	N/A	N/A	N/A
VW1-30	12/18/90	30	<1.0	<0.05	0.12	<0.05	0.12	N/A	N/A	N/A	N/A	N/A	N/A
VW1-35	12/18/90	35	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
VW1-40	12/18/90	40	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
VW1-45	12/18/90	45	<1.0	<0.05	0.16	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
VW1-50	12/18/90	50	<1.0	<0.05	0.15	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B7-5	12/18/90	5	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B7-10	12/18/90	10	1,100	<0.05	<0.05	3.1	37	N/A	N/A	N/A	N/A	N/A	N/A
B7-15	12/18/90	15	2,200	6.7	<0.05	7.8	68	N/A	N/A	N/A	N/A	N/A	N/A
B7-20	12/18/90	20	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B7-25	12/18/90	25	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B7-30	12/18/90	30	<1.0	0.12	0.15	<0.05	0.09	N/A	N/A	N/A	N/A	N/A	N/A
B7-35	12/18/90	35	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B7-40	12/18/90	40	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B7-45	12/18/90	45	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B7-50	12/18/90	50	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B8-5	2/6/91	5	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B8-10	2/6/91	10	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B8-15	2/6/91	15	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B8-20	2/6/91	20	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B8-25	2/6/91	25	13,000	81	740	260	1,400	N/A	N/A	N/A	N/A	N/A	N/A
B8-30	2/6/91	30	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B8-35	2/6/91	35	<1.0	<0.05	<0.05	<0.05	0.08	N/A	N/A	N/A	N/A	N/A	N/A
B8-40	2/6/91	40	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B8-45	2/6/91	45	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B8-50	2/6/91	50	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B9-5	2/6/91	5	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B9-10	2/6/91	10	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B9-15	2/6/91	15	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B9-20	2/6/91	20	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
B9-25	2/6/91	25	1.7	0.29	0.09	0.09	0.2	N/A	N/A	N/A	N/A	N/A	N/A
B9-30	2/6/91	30	<1.0	0.11	0.10	<0.05	0.14	N/A	N/A	N/A	N/A	N/A	N/A
B9-35	2/6/91	35	<1.0	<0.05	<0.05	<0.05	0.08	N/A	N/A	N/A	N/A	N/A	N/A
B9-40	2/6/91	40	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
VW-2-4	5/14/91	4	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
VW-2-9	5/14/91	9	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
VW-2-14	5/14/91	14	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
VW-2-19	5/14/91	19	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
VW-2-24	5/14/91	24	87	0.69	0.22	2.9	6.2	N/A	N/A	N/A	N/A	N/A	N/A
VW-2-29	5/14/91	29	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
VW-2-34	5/14/91	34	1.5	0.18	0.09	0.09	0.13	N/A	N/A	N/A	N/A	N/A	N/A
VW-2-39	5/14/91	39	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A

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ARCO FACILITY 00191
3401 EAST WHITTIER BLVD
LOS ANGELES, CALIFORNIA

SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH feet bgs	GRO mg/kg	BENZENE mg/kg	TOLUENE mg/kg	ETHYL-BENZENE mg/kg	TOTAL XYLENES mg/kg	MTBE mg/kg	TBA mg/kg	DIPE mg/kg	ETBE mg/kg	TAME mg/kg	Ethanol mg/kg
VW3-5	5/14/91	5	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
VW3-10	5/14/91	10	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
VW3-15	5/14/91	15	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
VW3-20	5/14/91	20	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
VW3-25	5/14/91	25	<1.0	<0.05	<0.05	<0.05	<0.05	N/A	N/A	N/A	N/A	N/A	N/A
VW3-30	5/14/91	30	<1.0	<0.05	0.11	<0.05	0.09	N/A	N/A	N/A	N/A	N/A	N/A
VW3-35	5/14/91	35	2.1	<0.05	0.23	0.10	0.44	N/A	N/A	N/A	N/A	N/A	N/A
VW4-5	3/24/92	5	85	<0.005	<0.005	<0.005	0.047	N/A	N/A	N/A	N/A	N/A	N/A
VW4-10	3/24/92	10	3,100	0.77	<0.005	2.1	20	N/A	N/A	N/A	N/A	N/A	N/A
VW4-15	3/24/92	15	<1.0	<0.005	<0.005	<0.005	<0.015	N/A	N/A	N/A	N/A	N/A	N/A
VW4-20	3/24/92	20	<1.0	<0.005	0.087	0.6	2.5	N/A	N/A	N/A	N/A	N/A	N/A
VW4-25	3/24/92	25	1.0	0.005	0.021	0.011	0.056	N/A	N/A	N/A	N/A	N/A	N/A
VW4-30	3/24/92	30	2.2	0.017	0.047	0.013	0.074	N/A	N/A	N/A	N/A	N/A	N/A
VW4-35	3/24/92	35	<1.0	<0.005	<0.005	<0.005	<0.015	N/A	N/A	N/A	N/A	N/A	N/A
D1	7/2/01	3	<0.620	<0.280	<0.280	<0.280	0.11	<0.560	<2.8	<0.560	<0.560	<0.560	N/A
D2	7/2/01	3	0.77	<0.0050	<0.0050	<0.0050	<0.0050	0.027	<0.050	<0.010	<0.010	<0.010	N/A
D3	7/2/01	3	860	<2.5	3.8	18	80	<5.0	<25.0	<5.0	<5.0	<5.0	N/A
D4	7/2/01	3	530	<0.24	<0.24	1	0.74	<0.480	<2.4	<0.480	<0.480	<0.480	N/A
D5	7/2/01	3	1,000	7.8	23	24	110	15	<8.5	<1.7	<1.7	<1.7	N/A
D6	7/2/01	3	130	<0.290	<0.290	0.55	1.5	3.1	<2.90	<0.580	<0.580	<0.580	N/A
P1	7/2/01	3	0.33	<0.0061	<0.0061	<0.0061	<0.0061	0.3	0.036	<0.012	<0.012	<0.012	N/A
P2	7/2/01	3	1,700	<2.8	<2.8	27	<2.8	<5.7	<28.0	<5.70	<5.70	<5.70	N/A
P3	7/2/01	3	260	0.27	<0.230	3.1	0.34	1.9	<2.30	<0.450	<0.450	<0.450	N/A
P4	7/2/01	3	590	<0.240	<0.240	1.7	9.9	0.28	<2.40	<0.480	<0.480	<0.480	N/A
D1-05	7/5/01	3	4.0	<0.270	<0.270	<0.270	0.23	0.85	<2.70	<0.550	<0.550	<0.550	N/A
D2-05	7/5/01	3	<0.560	<0.0062	<0.0062	<0.0062	<0.0062	<0.012	<0.062	<0.012	<0.012	<0.012	N/A
P1-05	7/5/01	3	1.3	<0.270	0.23	<0.270	0.31	1.9	<2.70	<0.540	<0.540	<0.540	N/A
P2-05	7/5/01	3	20	<0.270	0.14	0.13	0.69	0.74	<2.70	<0.530	<0.530	<0.530	N/A
P3-05	7/5/01	3	<0.500	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.050	<0.010	<0.010	<0.010	N/A
SB-1-5	3/3/03	5	0.18 J	<0.0015	<0.0015	<0.0015	<0.0030	<0.0038	<0.038	<0.0038	<0.0038	<0.0038	<0.11
SB-1-10	3/3/03	10	<0.84	<0.0020	0.0010 J	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-1-15	3/3/03	15	850	<0.0018	0.00092 J	0.0041	0.0019 J	<0.0045	<0.045	<0.0045	<0.0045	<0.0045	<0.13
SB-1-20	3/3/03	20	0.10 J	<0.0016	<0.0016	<0.0016	<0.0032	<0.0040	<0.040	<0.0040	<0.0040	<0.0040	<0.12
SB-1-25	3/3/03	25	<1.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-1-30	3/3/03	30	<1.1	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-1-35	3/3/03	35	<0.81	<0.0016	<0.0016	<0.0016	<0.0032	<0.0040	<0.040	<0.0040	<0.0040	<0.0040	<0.12
SB-1-40	3/3/03	40	<0.77	<0.0016	<0.0016	<0.0016	<0.0032	<0.0040	<0.040	<0.0040	<0.0040	<0.0040	<0.12
SB-1-45	3/3/03	45	<1.0	<0.0018	<0.0018	<0.0018	<0.0035	<0.0044	<0.044	<0.0044	<0.0044	<0.0044	<0.13
SB-1-50	3/3/03	50	<1.0	<0.0016	<0.0016	<0.0016	<0.0031	<0.0039	<0.039	<0.0039	<0.0039	<0.0039	<0.12
SB-1-55	3/3/03	55	<1.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-1-60	3/3/03	60	<0.87	<0.0018	<0.0018	<0.0018	<0.0035	<0.0044	<0.044	<0.0044	<0.0044	<0.0044	<0.13
SB-1-65	3/3/03	65	<1.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-1-70	3/3/03	70	<1.0	<0.0020	0.00061 J	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-1-75	3/3/03	75	<0.88	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15

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LOS ANGELES, CALIFORNIA

SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH feet bgs	GRO mg/kg	BENZENE mg/kg	TOLUENE mg/kg	ETHYL-BENZENE mg/kg	TOTAL XYLENES mg/kg	MTBE mg/kg	TBA mg/kg	DIPE mg/kg	ETBE mg/kg	TAME mg/kg	Ethanol mg/kg
SB-2-5	3/3/03	5	<1.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-2-10	3/3/03	10	<0.78	<0.0017	<0.0017	<0.0017	<0.0034	<0.0042	<0.042	<0.0042	<0.0042	<0.0042	<0.13
SB-2-15	3/3/03	15	<0.84	<0.0016	<0.0016	<0.0016	<0.0031	<0.0039	<0.039	<0.0039	<0.0039	<0.0039	<0.12
SB-2-20	3/3/03	20	<1.0	<0.0018	<0.0018	<0.0018	<0.0036	<0.0045	<0.045	<0.0045	<0.0045	<0.0045	<0.13
SB-2-25	3/3/03	25	<0.85	0.0031	<0.0020	0.00084 J	<0.0040	0.0056	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-2-30	3/3/03	30	<1.0	<0.0018	<0.0018	<0.0018	<0.0035	<0.0044	<0.044	<0.0044	<0.0044	<0.0044	<0.13
SB-2-35	3/3/03	35	<0.81	<0.0015	<0.0015	<0.0015	<0.0031	<0.0039	<0.039	<0.0039	<0.0039	<0.0039	<0.12
SB-2-40	3/3/03	40	<0.76	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-2-45	3/3/03	45	<0.82	<0.0017	<0.0017	<0.0017	<0.0033	<0.0041	<0.041	<0.0041	<0.0041	<0.0041	<0.12
SB-2-50	3/3/03	50	<0.79	<0.0016	<0.0016	<0.0016	<0.0033	<0.0041	<0.041	<0.0041	<0.0041	<0.0041	<0.12
SB-2-55	3/3/03	55	<1.0	<0.0017	<0.0017	<0.0017	<0.0034	<0.0043	<0.043	<0.0043	<0.0043	<0.0043	<0.13
SB-2-60	3/3/03	60	<1.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-2-65	3/3/03	65	<0.84	<0.0018	<0.0018	<0.0018	<0.0036	<0.0045	<0.045	<0.0045	<0.0045	<0.0045	<0.14
SB-3-5	3/4/03	5	<0.73	<0.0016	<0.0016	<0.0016	<0.0032	<0.0040	<0.040	<0.0040	<0.0040	<0.0040	<0.12
SB-3-10	3/4/03	10	<1.2	<0.0015	<0.0015	<0.0015	<0.0031	<0.0038	<0.038	<0.0038	<0.0038	<0.0038	<0.12
SB-3-15	3/4/03	15	<1.0	<0.0018	<0.0018	<0.0018	<0.0036	<0.0045	<0.045	<0.0045	<0.0045	<0.0045	<0.13
SB-3-20	3/4/03	20	<1.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-3-25	3/4/03	25	1.1	0.18	<0.17	8.1	2.0	<0.41	<8.3	<0.41	<0.41	<0.41	<25
SB-3-30	3/4/03	30	<1.1	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-3-35	3/4/03	35	<0.81	<0.0015	<0.0015	<0.0015	<0.0031	<0.0039	<0.039	<0.0039	<0.0039	<0.0039	<0.12
SB-3-40	3/4/03	40	<1.2	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-3-45	3/4/03	45	<0.77	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-3-50	3/4/03	50	<0.75	<0.0014	<0.0014	<0.0014	<0.0028	<0.0035	<0.035	<0.0035	<0.0035	<0.0035	<0.11
SB-3-55	3/4/03	55	<0.83	<0.0017	<0.0017	<0.0017	<0.0035	<0.0043	<0.043	<0.0043	<0.0043	<0.0043	<0.13
SB-3-60	3/4/03	60	<0.89	<0.0023	<0.0023	<0.0023	<0.0046	<0.0058	<0.058	<0.0058	<0.0058	<0.0058	<0.17
SB-3-65	3/4/03	65	<0.87	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-3-70	3/4/03	70	<1.0	<0.0023	<0.0023	<0.0023	<0.0046	<0.0058	<0.058	<0.0058	<0.0058	<0.0058	<0.17
SB-3-75	3/4/03	75	<1.0	<0.0023	<0.0023	<0.0023	<0.0046	<0.0058	<0.058	<0.0058	<0.0058	<0.0058	<0.17
SVE-1-5	3/4/03	5	<0.77	<0.0015	<0.0015	<0.0015	<0.0030	<0.0038	<0.038	<0.0038	<0.0038	<0.0038	<0.11
SVE-1-10	3/4/03	10	<0.90	<0.0017	<0.0017	<0.0017	<0.0033	0.0018 J	<0.042	<0.0042	<0.0042	<0.0042	<0.13
SVE-1-15	3/4/03	15	<0.85	<0.0017	<0.0017	<0.0017	<0.0034	0.0010 J	<0.042	<0.0042	<0.0042	<0.0042	<0.13
SVE-1-20	3/4/03	20	210	<0.17	0.094 J	5.3	28	<0.42	<8.4	<0.42	<0.42	<0.42	<25
SVE-1-25	3/4/03	25	1,300	1.9	64	64	330	<4.1	<81	<4.1	<4.1	<4.1	<240
SVE-1-30	3/4/03	30	1,600	<0.40	9.1	22	110	<1.0	<20	<1.0	<1.0	<1.0	<60
SVE-1-35	3/4/03	35	0.23 J	0.090	0.72	0.19	0.95	<0.19	<3.8	<0.19	<0.19	<0.19	<11
SVE-1-40	3/4/03	40	0.37 J	0.024	0.15	0.050	0.25	0.010	<0.037	<0.0037	<0.0037	<0.0037	<0.11
SVE-1-45	3/4/03	45	0.75 J	0.15	0.67	0.32	1.6	<0.20	<4.0	<0.20	<0.20	<0.20	<12
SVE-1-50	3/4/03	50	0.11 J	0.11	0.030 J	0.23	0.83	<0.19	<3.8	<0.19	<0.19	<0.19	<11
SVE-1-55	3/4/03	55	0.27 J	0.10	0.043J	0.21	0.79	<0.19	<3.8	<0.19	<0.19	<0.19	<11
SVE-1-60	3/4/03	60	<1.4	<0.0018	0.00056	0.00062 J	0.0031 J	<0.0044	<0.044	<0.0044	<0.0044	<0.0044	<0.13
SVE-1-65	3/4/03	65	<1.0	<0.0018	0.0025	0.0016 J	0.010	<0.0044	<0.044	<0.0044	<0.0044	<0.0044	<0.13
SVE-1-70	3/4/03	70	0.13 J	<0.0018	0.00061 J	<0.0018	0.0026 J	<0.0045	<0.045	<0.0045	<0.0045	<0.0045	<0.13
SVE-1-75	3/4/03	75	<1.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SVE-1-80	3/4/03	80	<1.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SVE-1-85	3/4/03	85	<1.0	<0.0020	<0.0020	<0.0020	0.0012 J	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SVE-1-90	3/4/03	90	<0.90	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SVE-1-95	3/4/03	95	<1.2	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SVE-1-100	3/4/03	100	<0.90	<0.0017	<0.0017	<0.0017	<0.0034	<0.0044	<0.044	<0.0044	<0.0044	<0.0044	<0.13

TABLE 1
SOIL ANALYTICAL DATA
ARCO FACILITY 00191
3401 EAST WHITTIER BLVD
LOS ANGELES, CALIFORNIA

SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH feet bgs	GRO mg/kg	BENZENE mg/kg	TOLUENE mg/kg	ETHYL-BENZENE mg/kg	TOTAL XYLENES mg/kg	MTBE mg/kg	TBA mg/kg	DIPE mg/kg	ETBE mg/kg	TAME mg/kg	Ethanol mg/kg
SVE-2-5	3/5/03	5	1.0	<0.0015	<0.0015	0.059	0.082	0.0017 J	0.027 J	<0.0037	<0.0037	<0.0037	<0.11
SVE-2-10	3/5/03	10	<1.0	0.0015 J	0.00071 J	0.0065	0.0051	0.033	0.94	<0.0045	<0.0045	<0.0045	<0.14
SVE-2-15	3/5/03	15	1,100	0.065 J	1.5	2.4	13	0.074 J	<5.0	<0.25	<0.25	<0.25	<15
SVE-2-20	3/5/03	20	<1.0	0.0074	0.056	0.020	0.14	0.072	0.13	<0.0043	<0.0043	<0.0043	<0.13
SVE-2-25	3/5/03	25	6,800	3.4	160	100	530	<6.2	<120	<6.2	<6.2	<6.2	<380
SVE-2-30	3/5/03	30	16	0.0071	0.014	0.034	0.19	0.022	0.035 J	<0.0050	<0.0050	<0.0050	<0.15
SVE-2-35	3/5/03	35	<1.0	0.022	0.034	0.097	0.43	0.051	0.050	<0.0042	<0.0042	<0.0042	<0.13
SVE-2-40	3/5/03	40	<0.91	<0.0018	<0.0018	<0.0018	<0.0036	<0.0045	<0.045	<0.0045	<0.0045	<0.0045	<0.14
SVE-2-45	3/5/03	45	<0.81	0.0018	0.019	0.0077	0.039	<0.0043	<0.043	<0.0043	<0.0043	<0.0043	<0.13
SVE-2-50	3/5/03	50	<0.86	<0.0015	<0.0015	<0.0015	<0.0029	<0.0037	<0.037	<0.0037	<0.0037	<0.0037	<0.11
SVE-2-55	3/5/03	55	<0.84	<0.0017	<0.0017	<0.0017	<0.0034	<0.0043	<0.043	<0.0043	<0.0043	<0.043	<0.13
SVE-2-60	3/5/03	60	<1.1	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SVE-2-65	3/5/03	65	<0.90	<0.0017	0.00082 J	<0.0017	0.0022 J	<0.0044	<0.044	<0.0044	<0.0044	<0.0044	<0.13
SVE-2-70	3/5/03	70	<1.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SVE-2-75	3/5/03	75	<1.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-6-5	3/5/03	5	<0.78	<0.0017	<0.0017	<0.0017	0.0011 J	<0.0042	<0.042	<0.0042	<0.0042	<0.0042	<0.13
SB-6-10	3/5/03	10	<0.89	<0.0020	<0.0020	<0.0020	0.0010 J	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-6-15	3/5/03	15	<1.0	<0.0020	<0.0020	<0.0020	0.0013 J	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-6-20	3/5/03	20	<1.0	<0.0016	<0.0016	<0.0016	<0.0033	<0.0041	<0.041	<0.0041	<0.0041	<0.0041	<0.12
SB-6-25	3/5/03	25	<1.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-6-30	3/5/03	30	<1.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-6-35	3/5/03	35	<0.81	<0.0016	<0.0016	<0.0016	<0.0031	<0.0039	<0.039	<0.0039	<0.0039	<0.0039	<0.12
SB-6-40	3/5/03	40	<0.78	<0.0016	<0.0016	<0.0016	<0.0032	<0.0039	<0.039	<0.0039	<0.0039	<0.0039	<0.12
SB-6-45	3/5/03	45	<0.89	<0.0015	<0.0015	<0.0015	<0.0029	<0.0037	<0.037	<0.0037	<0.0037	<0.0037	<0.11
SB-6-50	3/5/03	50	<0.87	<0.0016	<0.0016	<0.0016	<0.0031	<0.0039	<0.039	<0.0039	<0.0039	<0.0039	<0.12
SB-7-5	3/5/03	5	<0.91	<0.0018	<0.0018	<0.0018	<0.0035	0.051	<0.044	<0.0044	<0.0044	<0.0044	<0.13
SB-7-10	3/5/03	10	<0.87	<0.0020	<0.0020	<0.0020	0.0010 J	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-7-15	3/5/03	15	<1.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-7-20	3/5/03	20	<1.0	<0.0020	<0.0020	<0.0020	0.0022 J	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-7-25	3/5/03	25	<1.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-7-30	3/5/03	30	<1.2	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-7-35	3/5/03	35	<0.82	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-7-40	3/5/03	40	<1.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-7-45	3/5/03	45	<0.87	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.15
SB-7-50	3/5/03	50	<1.0	<0.0015	<0.0015	<0.0015	<0.0031	<0.0038	<0.038	<0.0038	<0.0038	<0.0038	<0.12

TABLE 2
WELLS IDENTIFIED WITHIN A ONE MILE RADIUS
ARCO FACILITY 00191
3401 EAST WHITTIER BLVD

TABLE 1
SOIL ANALYTICAL DATA
ARCO FACILITY 00191
3401 EAST WHITTIER BLVD
LOS ANGELES, CALIFORNIA

SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH feet bgs	GRO mg/kg	BENZENE mg/kg	TOLUENE mg/kg	ETHYL-BENZENE mg/kg	TOTAL XYLENES mg/kg	MTBE mg/kg	TBA mg/kg	DIPE mg/kg	ETBE mg/kg	TAME mg/kg	Ethanol mg/kg
B-9-5	11/10/04	5	0.17 J	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.30
B-9-10	11/10/04	10	<1.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.30
B-9-15	11/10/04	15	<1.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	0.034 J	<0.0050	<0.0050	<0.0050	<0.30
B-9-20	11/10/04	20	970	1.3	32	18	86	<0.91	<18	<0.91	<0.91	<0.91	<55
B-9-25	11/10/04	25	0.32 J	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	0.018 J	<0.0050	<0.0050	<0.0050	<0.30
B-9-30	11/10/04	30	5.900	1.1	37	71	370	<2.8	<57	<2.8	<2.8	<2.8	<170
B-9-35	11/10/04	35	0.64 J	0.0017 J	0.0012 J	0.010	0.029	0.0048 J	<0.0050	<0.0050	<0.0050	<0.0050	<0.30
B-9-40	11/10/04	40	0.22 J	0.00046 J	<0.0018	0.0015 J	0.0024 J	0.0018 J	<.044	<0.0044	<0.0044	<0.0044	<0.26
B-9-45	11/10/04	45	0.21 J	<0.0016	<0.0016	<0.0016	0.0013 J	<0.0040	<0.040	<0.0040	<0.0040	<0.0040	<0.24
B-9-50	11/10/04	50	0.19 J	0.00084 J	<0.0016	0.0039	0.012	0.0017 J	0.012 J	<0.0040	<0.0040	<0.0040	<0.24
B-9-55	11/10/04	55	<1.2	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.30
B-9-60	11/10/04	60	<1.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.30
B-9-65	11/10/04	65	<1.2	<0.0024	<0.0024	<0.0024	<0.0047	<0.0059	<0.059	<0.0059	<0.0059	<0.0059	<0.35
B-9-70	11/10/04	70	<1.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.30
B-9-75	11/10/04	75	<1.3	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.30
B-9-80	11/10/04	80	<1.0	<0.0020	<0.0020	<0.0020	<0.0040	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.30

Notes:
mg/kg- Milligrams per kilogram
bgs - Below ground surface
<0.0020 - Below reporting limit and method detection limit
N/A - Not analyzed
J - Estimated value (below laboratory reporting limit and above method detection limit)

GRO - Gasoline range organics (C_4 to C_{12})
TBA - Tertiary butanol
DIPE - Di-isopropyl ether
ETBE - Ethyl-tertiary-butyl ether
TAME - Tertiary-amyl-methyl ether
MTBE - Methyl-tertiary-butyl ether

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CITY OF LOS ANGELES

CALIFORNIA

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April 22, 2004

Mr. Ray Vose
Atlantic Richfield Company
4 Centerpointe Drive, LPR4-460
La Palma, CA 90623-1066

Facility ID# 10846
RE: Permit # 9894

Arco Station No. 0191
3401 Whittier Boulevard
Los Angeles, California

Dear Mr. Vose:

The Fire Department has reviewed the Site Assessment Work Plan Report and Request for Closure dated August 13, 2003, as submitted by SECOR International Incorporated.

We are unable to approve your report regarding this site until we receive the following information:

- The report did not follow the work plan submitted on January 04, 2002. All boring numbers were changed from the Work Plan.
- There are high concentrations of hydrocarbon in the soil as indicated by SB-4 and SB-5. Further remediation is required.
- The lateral extent of the contamination was not defined. Step out boring B-9 was not drilled as indicated in the Work Plan.

Using the Site Address and Permit Number shown at the top of this letter, please label the title of your pending report to be submitted as " ADDITIONAL REQUIREMENTS - SITE ASSESSMENT REPORT".

AN EQUAL EMPLOYMENT OPPORTUNITY - AFFIRMATIVE ACTION EMPLOYER

Table 1
Vapor Extraction System Operational Data
Arco Service Station No. 0191, Los Angeles, California

Date	Operational Time (Hours)	Cumulative Operational Time (Hours)	Date, Cumulative Hours	Total Vacuum (ins wc)	Flow Rate (cfm)	TVH Concentration (Before Dilution) (ppmv)*	Laboratory Benzene Concentration (Before Dilution) (ppmv)	TVH Concentration (After Dilution) (ppmv)	Intermediate TVH Concentration (ppmv)	Effluent TVH Concentration (ppmv)	TVH Mass Recovered (lbs)	Cumulative TVH Mass Recovered (lbs)	Benzene Mass Recovered (lbs)	Cumulative Benzene Mass Recovered (lbs)
5/19/94	0	0	05-19-94 , 0	4.3	142	2650	NA	620	0	0	0	0	0	0
5/26/94	5	5	05-26-94 , 5	5.5	142	2200	NA	800	3	2	13	13	NA	NA
6/2/94	2	7	06-02-94 , 7	3.5	148	2250	NA	800	8	6	62	75	NA	NA
6/9/94	27	34	06-09-94 , 34	2.8	153	1500	NA	550	14	12	46	108	NA	NA
6/14/94	76	110	06-14-94 , 110	2.5	153	1575	NA	660	21	17	133	179	NA	NA
6/16/94	48	158	06-16-94 , 158	2.5	155	1601	NA	680	31	25	90	223	NA	NA
6/23/94	168	326	06-23-94 , 326	2.5	155	1647	NA	802	48	37	289	379	NA	NA
6/28/94	128	454	06-28-94 , 454	2.5	158	1635	NA	832	115	78	204	493	NA	NA
8/1/94	44	498	08-01-94 , 498	2.2	137	1144	NA	665	57	43	345	549	NA	NA
8/6/94	124	622	08-06-94 , 622	2.2	45	2260	NA	1170	599	150	333	678	NA	NA
8/19/94	73	695	08-19-94 , 695	2.1	95	2710	NA	1460	1092	554	516	849	NA	NA
9/2/94	3	698	09-02-94 , 698	2.5	96	2820	NA	1575	0	0	340	856	NA	NA
9/9/94	168	866	09-09-94 , 866	2.0	95	2600	NA	1452	29	11	837	1177	NA	NA
9/14/94	119	985	09-14-94 , 985	2.3	93	4200	NA	1550	85	41	632	1469	NA	NA
9/21/94	170	1155	09-21-94 , 1155	2.5	95	4060	NA	1326	255	155	1333	1965	NA	NA
**2/16/95	0	0	02-16-95 , 0	7	99	5000 (4900)	(53)	5000	NA	0	0	1965	0.0	0.0
2/28/95	120	120	02-28-95 , 120	4	71	2200	NA	2200	NA	30	552.3	2517.3	0.4	0.4
3/7/95	168	288	03-07-95 , 288	12	61	1140	NA	1140	NA	2	278.5	2795.7	NA	0.4
3/21/95	261	549	03-21-95 , 549	23	67	1936	NA	1936	NA	1	386.4	3182.1	NA	0.4
3/28/95	134	683	03-28-95 , 683	23	76	2075	NA	2075	NA	1	289.0	3471.1	NA	0.4
4/5/95	164	847	04-05-95 , 847	23	79	2268	NA	2268	NA	1.4	415.1	3886.2	NA	0.4
4/12/95	140	987	04-12-95 , 987	12	54	1416 (3100)	(46)	1416	NA	20	257.9	4144.1	1.4	1.8
4/18/95	144	1131	04-18-95 , 1131	28	51	1552	NA	1552	NA	1.8	168.7	4312.8	1.6	3.5
4/26/95	189	1320	04-26-95 , 1320	27	51	NA (2800)	(45)	NA	NA	NA	225.0	4537.8	2.9	6.3
5/4/95	192	1512	05-04-95 , 1512	22	90	495 (2900)	(50)	495	NA	11	100.8	4638.6	2.8	9.1
5/11/95	165	1677	05-11-95 , 1677	14	70	989	NA	989	NA	21	147.3	4785.9	1.8	10.9
1/8/96	2	1679	01-08-96 , 1679	19	62	1890 (2400)	(36)	1890	NA	10.5	2.9	4788.8	0.015	11.0
1/17/96	108	1787	01-17-96 , 1787	29	66	2000	NA	2000	NA	10.2	202.2	4990.9	1.2	12.1
1/22/96	125	1912	01-22-96 , 1912	24	97	2850	NA	2850	NA	18	371.5	5362.5	NA	12.1
1/29/96	168	2080	01-29-96 , 2080	20	104	3000	NA	3000	NA	48	742.7	6105.2	NA	12.1
2/6/96	188	2269	02-06-96 , 2269	21	112	2300 (3200)	(67)	2300	NA	19	809.2	6914.4	3.2	15.3
2/12/96	145	2413	02-12-96 , 2413	23	116	2450	NA	2450	NA	20	590.4	7504.9	2.6	17.9
2/20/96	191	2604	02-20-96 , 2604	33	115	2680	NA	2680	NA	35	651.0	8355.9	NA	17.9
2/26/96	143	2747	02-26-96 , 2747	47	121	3450	NA	3450	NA	30	777.8	9133.7	NA	17.9

Table 1 (Continued)
Vapor Extraction System Operational Data
Arco Service Station No. 0191, Los Angeles, California

Date	Operational Time (Hours)	Cumulative Operational Time (Hours)	Date, Cumulative Hours	Total Vacuum (Ins wc)	Flow Rate (cfm)	TVH Concentration (Before Dilution) (ppmv)*	Laboratory Benzene Concentration (Before Dilution) (ppmv)	TVH Concentration (After Dilution) (ppmv)	Intermediate TVH Concentration (ppmv)	Effluent TVH Concentration (ppmv)	TVH Mass Recovered (lbs)	Cumulative TVH Mass Recovered (lbs)	Benzene Mass Recovered (lbs)	Cumulative Benzene Mass Recovered (lbs)
3/6/96	214	2961	03-06-96 , 2961	47	121	7300	NA	7300	NA	49	2093.2	11226.9	NA	17.9
3/20/96	263	3224	03-20-96 , 3224	42	118	1700 (2000)	(28)	1700	NA	18	2127.0	13354.0	4.0	22.0
3/25/96	118	3342	03-25-96 , 3342	44	118	1500	NA	1500	NA	20	335.1	13689.0	1.8	23.7
4/1/96	167	3509	04-01-96 , 3509	43	122	1752	NA	1752	NA	10	490.1	14179.1	NA	23.7
4/8/96	164	3673	04-08-96 , 3673	51	124	2850	NA	2850	NA	39	698.1	14877.2	NA	23.7
4/15/96	170	3843	04-15-96 , 3843	40	122	1450	NA	1450	NA	10	676.1	15553.3	NA	23.7
5/1/96	156	3999	05-01-96 , 3999	17	93	1250	NA	1250	NA	14	340.5	15893.8	NA	23.7
5/8/96	167	4166	05-08-96 , 4166	48	121	1400	NA	1400	NA	13	356.1	16249.9	NA	23.7
5/14/96	142	4308	05-14-96 , 4308	50	122	2300	NA	2300	NA	10	480.0	16729.9	NA	23.7
5/21/96	165	4473	05-21-96 , 4473	55	123	1650 (1310)	(17)	1650	NA	13	600.4	17330.3	1.8	25.6
5/29/96	190	4663	05-29-96 , 4663	58	122	1350	NA	1350	NA	18	525.1	17855.3	2.3	27.8
6/5/96	160	4823	06-05-96 , 4823	36	124	1950	NA	1950	NA	22	488.4	18343.7	NA	27.8
6/10/96	124	4947	06-10-96 , 4947	53	127	1950	NA	1950	NA	12	456.4	18800.1	NA	27.8
6/17/96	166	5113	06-17-96 , 5113	52	129	1400	NA	1400	NA	13	535.3	19335.4	NA	27.8
6/24/96	26	5139	06-24-96 , 5139	26	106	230 (590)	(2.1)	230	NA	10	37.4	19372.8	0.03	27.8
7/1/96	121	5260	07-01-96 , 5260	31	113	530	NA	530	NA	10	75.7	19448.5	0.09	27.9
9/20/96	174	5434	09-20-96 , 5434	13	63	209 (990)	(1.6)	209	NA	4.3	85.1	19533.6	0.08	28.0
9/27/96	82	5516	09-27-96 , 5516	23	95	241	NA	241	NA	13	21.9	19555.5	0.03	28.0
10/2/96	124	5640	10-02-96 , 5640	31	117	834	NA	834	NA	10	106.3	19661.8	NA	28.0
10/10/96	166	5806	10-10-96 , 5806	34	120	329 (1196)	(11.0)	329	NA	18	172.0	19833.8	0.7	28.8
10/17/96	194	6000	10-17-96 , 6000	35	120	843	NA	843	NA	16	205.2	20039.0	0.9	29.7
10/22/96	119	6119	10-22-96 , 6119	43	123	750	NA	750	NA	13	173.2	20212.2	NA	29.7
10/31/96	216	6335	10-31-96 , 6335	45	127	689 (212)	(2.0)	689	NA	10	292.2	20504.4	0.2	29.9

Concentration values shown in parenthesis represent laboratory results

* Represents startup of Internal Combustion Engine

1) PID calibrated to 100 ppmv Isobutylene
2) TVH Mass Recovery Calculation:

$$\text{lbs. TVH} = \frac{(\text{ppmV})(60\text{min/hr})(\text{hrs})(\text{SCFM})(95\ \text{lb/lb-mole})}{(1 \times 10^6)(379\ \text{ft}^3\text{/lb-mole})}$$

ppmV = concentration in "Parts per Million by Volume" TVH as gasoline
SCFM = flow rate in Standard Cubic Feet per Minute
95 lb/lb-mole = average molar weight of gasoline
78 lb/lb-mole = average molar weight of benzene (use when calculating lbs. benzene)
379 ft^3/lb-mole = molar gasoline volume at 60°F and 1 atmosphere

Table 2
Vapor Extraction System Operational Data
Arco Service Station No. 0191
Los Angeles, California

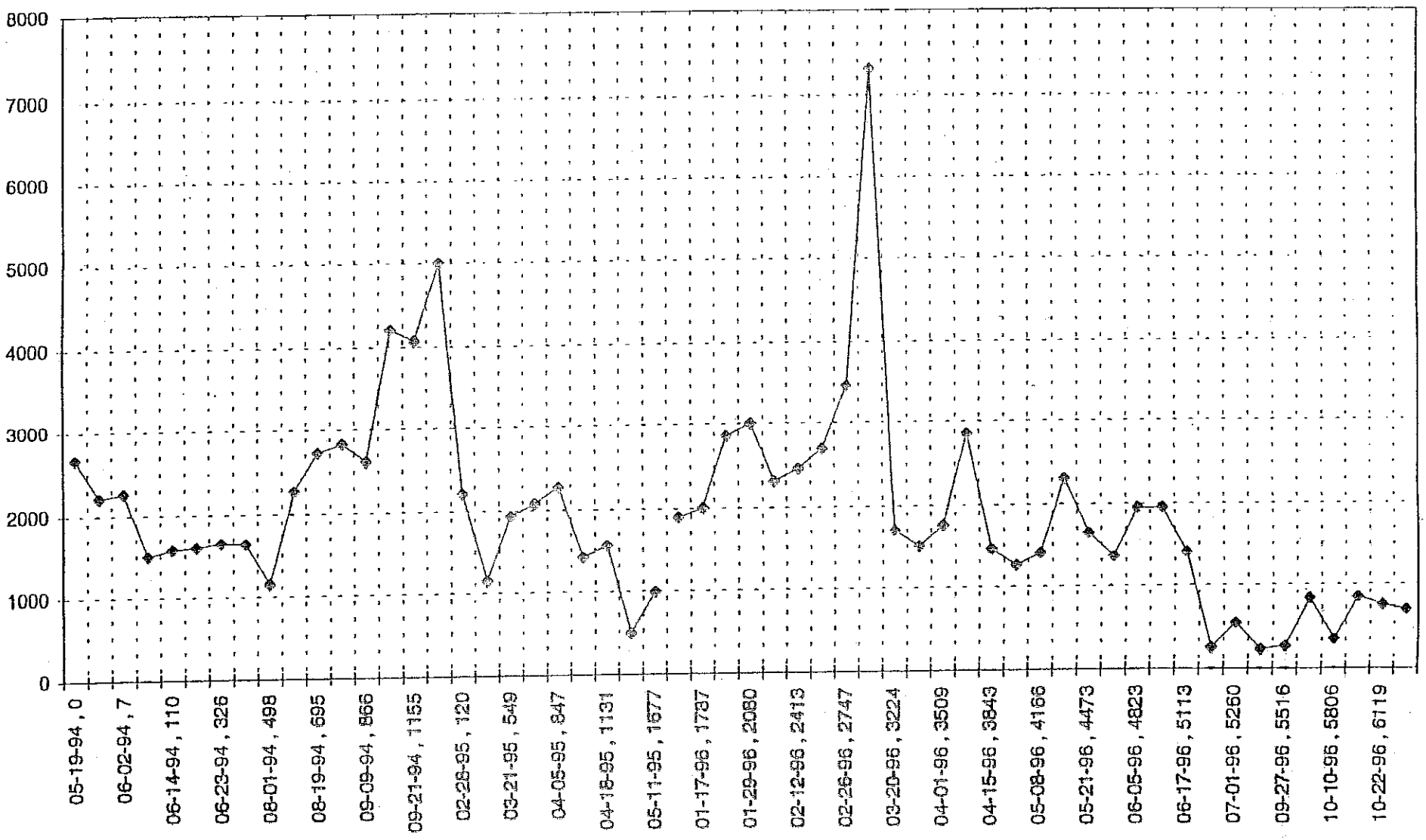
Date	Well VW-1			Well VW-2			Well VW-3			Well VW-4		
	% Open	Vacuum	TVH Concentration*	% Open	Vacuum	TVH Concentration*	% Open	Vacuum	TVH Concentration*	% Open	Vacuum	TVH Concentration*
2/16/95	50	NA	180	100	NA	1200	50	NA	300	100	NA	2500
2/28/95	50	NA	120	100	NA	1200	50	NA	180	100	NA	7600
3/7/95	10	9	55	100	11	553	10	2	283	100	11	>2500
3/21/95	10	1	113	100	15	1150	10	1	189	100	16	>2500
3/28/95	10	1	116	100	15	1230	10	1	196	100	16	>2500
4/5/95	0	NA	NA	50	20	488	0	NA	NA	100	22	2236
4/12/95	0	NA	NA	100	NA	969	0	NA	NA	100	NA	2416
4/18/95	0	NA	NA	100	21	149	0	NA	NA	100	19	1834
4/26/95	0	NA	NA	100	NA	NA	0	NA	NA	100	NA	NA
5/4/95	0	NA	NA	100	NA	137	0	NA	NA	100	NA	510
5/11/95	0	NA	NA	100	NA	90	0	NA	NA	100	NA	700
1/8/96	0	NA	NA	100	18	1300	0	NA	NA	100	18	1500
1/17/96	0	NA	NA	100	22	1250	0	NA	NA	100	20	2150
1/22/96	0	NA	NA	100	22	872	0	NA	NA	100	22	3000
1/29/96	0	NA	NA	100	18	304	0	NA	NA	100	18	2800
2/6/96	0	NA	NA	100	NA	410	0	NA	NA	100	NA	2450
2/12/96	0	NA	NA	100	18	264	0	NA	NA	100	18	2968
2/20/96	0	NA	NA	100	21	280	0	NA	NA	100	21	3000
2/26/96	0	NA	NA	100	34	605	0	NA	NA	100	34	3000
3/6/96	0	NA	NA	100	34	1400	0	NA	NA	100	32	10000
3/20/96	0	NA	NA	100	32	300	0	NA	NA	100	32	1900
3/25/96	0	NA	NA	100	22	400	0	NA	NA	100	22	1300
4/1/96	0	NA	NA	100	34	450	0	NA	NA	100	34	1800
4/8/96	0	NA	NA	100	32	110	0	NA	NA	100	36	3000
4/15/96	0	NA	NA	100	32	750	0	NA	NA	100	32	1300
5/1/96	0	NA	NA	100	15	140	0	NA	NA	100	15	1150
5/8/96	0	NA	NA	100	35	200	0	NA	NA	100	35	1150
5/14/96	0	NA	NA	100	35	320	0	NA	NA	100	35	2800
5/21/96	0	NA	NA	100	30	500	0	NA	NA	100	30	2000
5/29/96	0	NA	NA	100	38	205	0	NA	NA	100	38	920
6/5/96	0	NA	NA	100	25	208	0	NA	NA	100	25	1400
6/10/96	0	NA	NA	100	36	420	0	NA	NA	100	36	2000
6/17/96	0	NA	NA	100	36	200	0	NA	NA	100	36	930
6/24/96	0	NA	NA	100	20	39	0	NA	NA	100	20	210
7/1/96	0	NA	NA	100	20	204	0	NA	NA	100	20	430
9/20/96	0	NA	NA	100	6	48	0	NA	NA	100	6	295
9/27/96	0	NA	NA	100	16	61	0	NA	NA	100	16	310

Table 2 (Continued)
Vapor Extraction System Operational Data
Arco Service Station No. 0191
Los Angeles, California

Date	Well VW-1			Well VW-2			Well VW-3			Well VW-4		
	% Open	Vacuum	TVH Concentration*	% Open	Vacuum	TVH Concentration*	% Open	Vacuum	TVH Concentration*	% Open	Vacuum	TVH Concentration*
10/10/96	0	NA	NA	100	22	105	0	NA	NA	100	22	310
10/17/96	0	NA	NA	100	22	290	0	NA	NA	100	21	620
10/22/96	0	NA	NA	100	25	250	0	NA	NA	100	25	820
10/31/96	0	NA	NA	100	25	306	0	NA	NA	100	25	580

* PID calibrated to 100 ppmv Isobutylene

Figure 1
TVH Concentrations* versus Operational Time
Arco SS#0191, Los Angeles, CA



* PID calibrated to 100 ppm Isobutylene

Figure 2
Benzene Concentrations versus Operational Time
Arco SS #0191, Los Angeles, CA

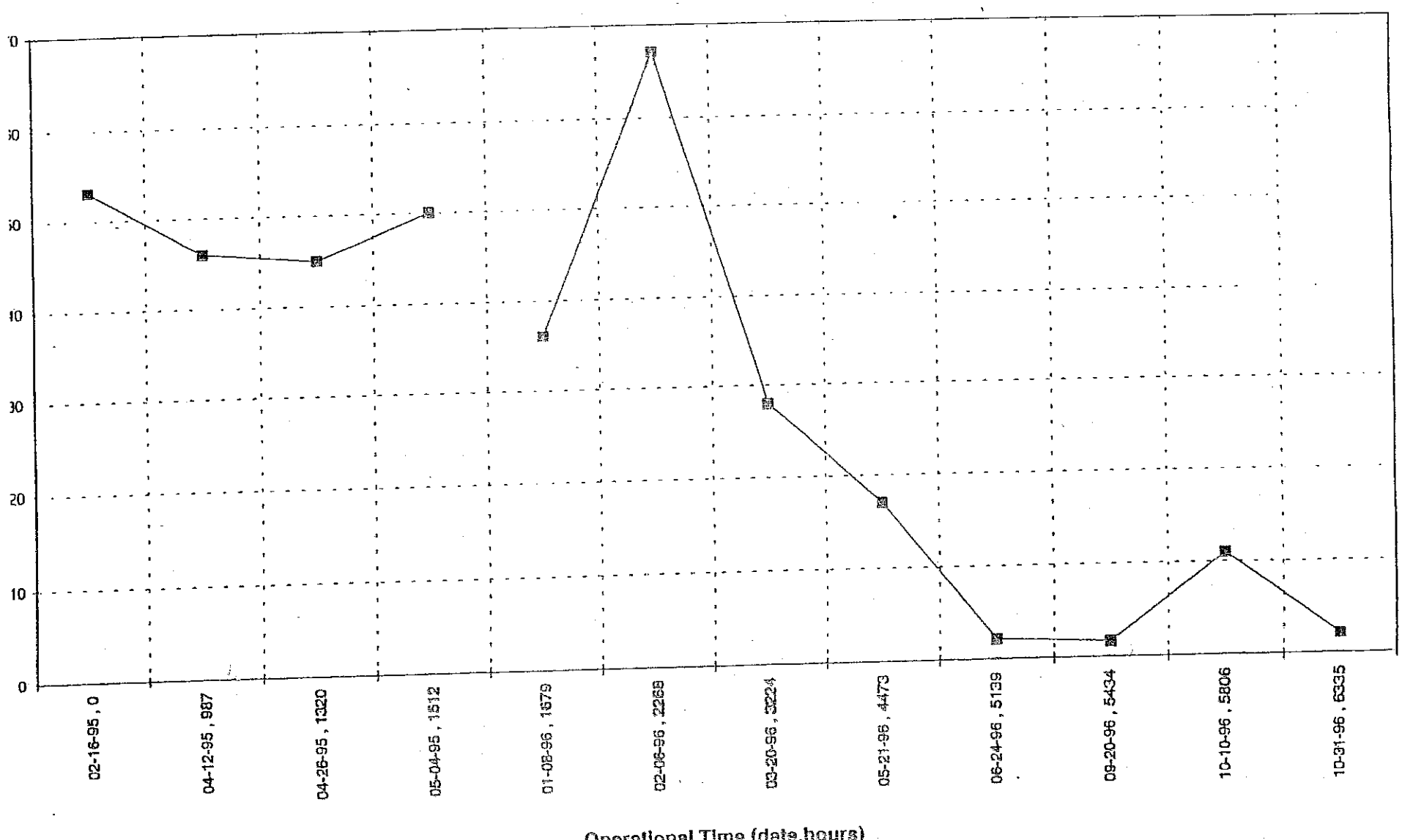
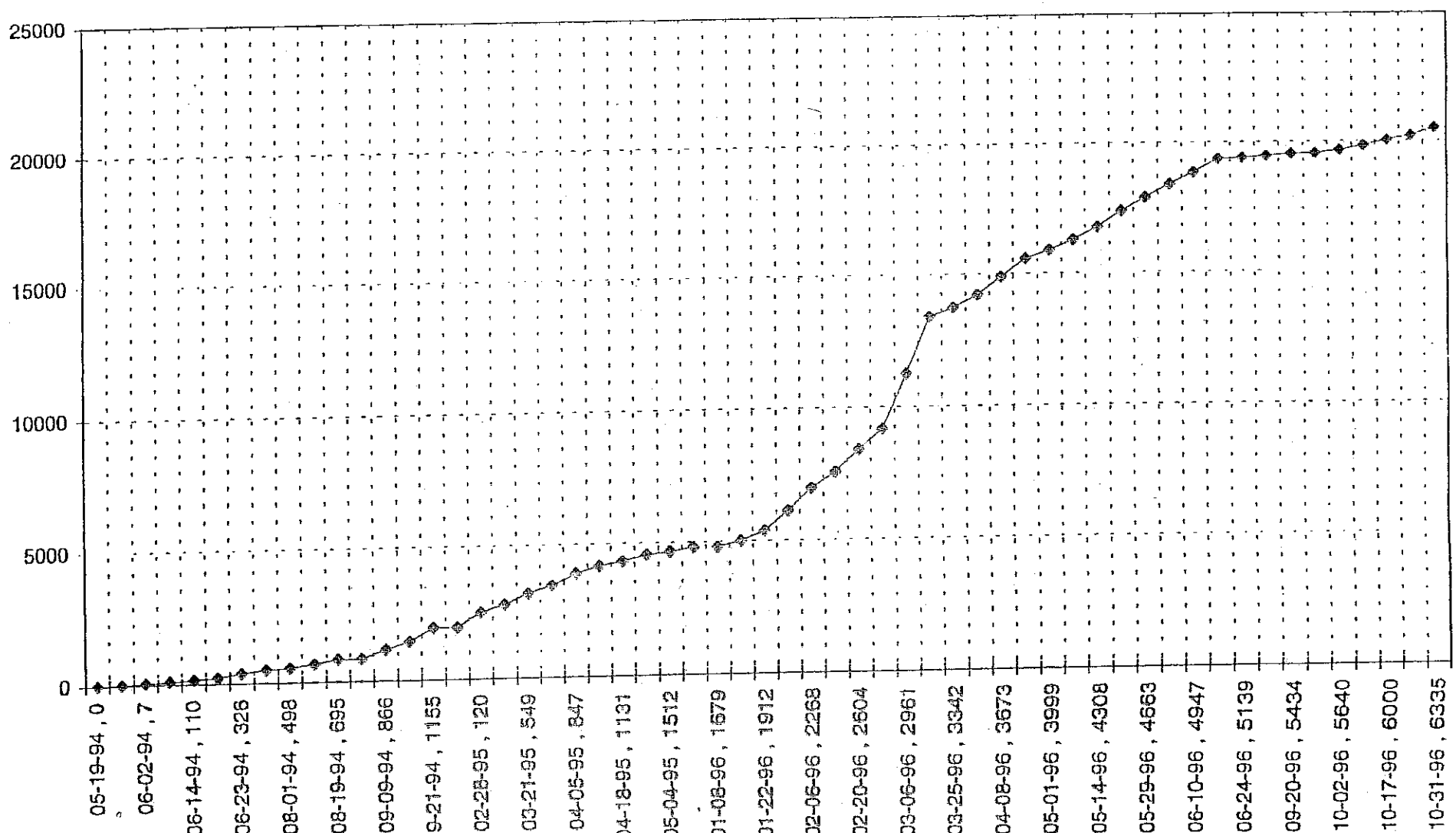


Figure 3
TVH Mass Destroyed* versus Operational Time
Arco SS#0191, Los Angeles, CA



* PID calibrated to 100 ppm Isobutylene

APPENDIX C

Standard Operating Procedure for Soil Sampling

The following procedures describe field techniques that are performed by SECOR International Incorporated (SECOR) personnel in the performance of the tasks involved with this project.

1.0 Locating Underground Utilities

Prior to the commencement of work on site, SECOR researches the location of all underground utilities with the assistance of Underground Service Alert (USA - Southern California toll free phone number 1-800-422-4133). USA contacts the owners of the various utilities in the vicinity of the site to have the utility owners mark the locations of their underground utilities. Prior to drilling, each boring is advanced manually using a hand auger and post-hole digger to a minimum depth of 5 feet to avoid contact with underground fuel distribution and/or vent lines and other unmarked utilities.

2.0 Soil Boring and Soil Sampling Protocol

Drilling and soil sampling are performed under the direction of a SECOR registered geologist. The soil borings are drilled using a truck-mounted drill rig equipped with hollow stem augers.

All down-hole drilling equipment is steam-cleaned prior to use and between each boring to reduce the chances of cross contamination. The split-barrel sampler is washed in soap solution, double rinsed with tap water, and sprayed with de-ionized water dispensed from a Hudson™ type sprayer between each sampling event to reduce the potential for cross contamination between samples. Hand augers are washed in soap solution, double rinsed with tap water between each sampling event, and sprayed with de-ionized water dispensed from a Hudson™ type sprayer to reduce the potential for cross contamination between samples during hand auger sampling.

Soil sampling is performed in accordance with the American Society for Testing and Materials Method 1586-84. Using this procedure a California-type sampler is driven into the soil every 5 vertical feet by a 140-pound weight falling approximately 30 inches. Three 6-inch brass or stainless steel liners are placed in the sampler for sample collection. Soil samples were collected using an EPA Method 5035 approved sampling device (EnCore™) from the deeper end of the lower-most intact brass/stainless steel ring containing in-situ soils. If continuously cored, a five foot core barrel is driven downhole just ahead of the lead auger. The core barrel is equipped with clear acetylene liners for sample retention. The acetylene liners are cut open and samples are collected using an EPA Method 5035 approved sampling device. The sample is then labeled, identified on the chain of custody, and stored in an ice-filled cooler for transport to the laboratory. Soil remaining in the sampler will be used for later screening with a photo-ionization detector (PID) or equivalent equipment. The soil is field screened by placing the soil in re-sealable plastic bags and allowed to reach ambient temperature. Headspace vapors in the bags are field screened with a calibrated PID. The highest observed stable reading is recorded onto the boring log. Another portion of the soil sample is used for lithologic classification and description by the United Soil Classification System using ASTM Method 2488.

3.0 Soil Sample Analyses

Soil samples are analyzed by the following analytes and in accordance with the appropriate Environmental Protection Agency (EPA) test method:

- 8015B: Total petroleum hydrocarbons as gasoline (TPHg); and
- 8260B: Benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl-tertiary-butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl-tertiary-butyl ether (ETBE), tertiary-amyl-methyl ether (TAME), ethanol, and tertiary butanol (TBA).

APPENDIX D

Manifest

TPS Technologies Soil Recycling
Non-Hazardous Soils

Manifest #

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #:
12 13 04	BEST	44/72	07	24022	1001

Generator's Name and Billing Address:
BP WEST COAST PRODUCTS LLC
P.O. BOX 80249
RANCHO SANTA MARGARITA, CA 92688

Generator's Phone #:
Person to Contact:
FAX#:
Generator's US EPA ID No.:
Customer Account Number with TPS:

Consultant's Name and Billing Address:

Consultant's Phone #:
Person to Contact:
FAX#:
Customer Account Number with TPS:

Generation Site (Transport from): *(name & address)*
ARCO #0191
3401 EAST WHITTIER BLVD.
LOS ANGELES, CA 90023

Site Phone #:
Person to Contact:
FAX#:
BTEX Levels
TPH Levels
AVG. Levels

Designated Facility (Transport to): *(name & address)*
TPS TECHNOLOGIES, INC.
12328 HIBISCUS AVENUE
ADELANTO, CA 92301

Facility Phone #: 800-862-8001
Person to Contact: DELLENA JEFFREY
FAX#: 760-246-8004
Facility Permit Numbers:

Transporter Name and Mailing Address:
BELSHIRE ENVIRONMENTAL
25971 TOWNE CENTRE DRIVE
LAKE FOREST, CA 92610
BESI# 107121.02

Transporter's Phone #: 949-460-5200
Person to Contact: Larry Montivart
FAX#: 949-460-5210
Transporter's US EPA ID No.: CAD983584681
Transporter's DOT No.: 450647
Customer Account Number with TPS: 1000193

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐	7 cyd		8040	4140	3900
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					1.95

List any exception to items listed above: 117846

Generator and/or Consultant

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator ☐ Consultant ☐
Larry Montivart BEST on behalf of ARCO
Signature and date:
Month 12 Day 3 Year 04

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: Ed Kimes (916 205 [illegible])
Signature and date:
Month 12 Day 3 Year 04

Recycling Facility

Discrepancies:
FAC# 0191
ID# 22718

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: D. JEFFREY / J. PROVANSOL
Signature and date: 12-29-4

Please print or type

TRANSPORTER COPY

APPENDIX E

SECOR
International Incorporated

Logged By:	Date Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Well/Boring Number:
J. Mason/N. Alkov	11/10/04	CAL PAC	Atlantic Richfield Company Arco Facility 00191	California Split Spoon HSA Drilling	B-9

See "Legend to Logs" for sampling method, classifications and laboratory testing methods	Boring Diam.(in.):	Surface Elevation (feet):	Groundwater Depth (feet):	Total Depth (feet):	Drive Weight (lbs.):	Drop Distance (in.):
	8			80.0	140	40

Soil Boring	Depth (feet)	Sample Interval	Blow Counts 6"	Description	PID Reading (ppm)	Laboratory Analyses	Sample ID
Concrete.				8" asphalt.			
				Aggregate.			
	5	X		(ML) Silt with Sand: (10R 4/4) weak red, 10-15% fine grained sand, low plasticity, stiff, moist.	172	8015 8260B	B-9-5
	10	X	20 25 36	(ML) Silt with Sand: (5YR 4/2) reddish gray, 15% medium to fine grained sand, hard, moist.	98.6	8015 8260B	B-9-10
	15	X	17 23 30	(SM) Silty Sand: (5YR 3/2) dark reddish brown, fine grained, 20% silt, very dense, moist.	1348	8015 8260B	B-9-15
Hydrated Bentonite chips	20	X	25 27 36	(ML) Silt: (5YR 3/3) reddish brown, medium plasticity, hard, moist.	9999	8015 8260B	B-9-20
	25	X		(SW-SM) Well Graded Sand with Silt and Gravel: (5YR 4/2) dark reddish gray, gravel is coarse grained, medium to fine grained sand, very dense, moist.	9999	8015 8260B	B-9-25
	30	X	10 12 20	(SP) Poorly Graded Sand with Silt: (10YR 3/4) dusky red, fine grained sand, 10% silt, dense, moist.	9999	8015 8260B	B-9-30
	35	X	10 14 19	(ML) Silt with Sand: (10YR 3/6) dark red, 15% fine grained sand, low plasticity, hard, moist.	879	8015 8260B	B-9-35
	40	X					

The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific locatior at the time of drilling and may not be representative of subsurface conditions at other locations or times.

Project No. **14BP.00191.01.1130** Date **December 2004**

Borehole Log

A00191_B-9.GPJ
LOG OF BOREHOLE

Figure

B-9 (sheet 1 of 2)

SECOR
International Incorporated

Logged By:	Date Drilled:	Drilling Contractor	Project Name:	Method/Equipment:	Well/Boring Number:
J. Mason/N. Alkov	11/10/04	CAL PAC	Atlantic Richfield Company Arco Facility 00191	California Split Spoon HSA Drilling	B-9

See "Legend to Logs" for sampling method, classifications and laboratory testing methods	Boring Diam.(in.):	Surface Elevation (feet):	Groundwater Depth (feet):	Total Depth (feet):	Drive Weight (lbs.):	Drop Distance (in.):
	8			80.0	140	40

Soil Boring	Depth (feet)	Sample Interval	Blow Counts 6"	Description	PID Reading (ppm)	Laboratory Analyses	Sample ID
			7 26 32	(SW) Well Graded Sand with Gravel: (10R 4/6) red, medium grained gravels, coarse to medium grained sand, very dense, moist.	181	8015 8260B	B-9-40
	45		13 15 20	(ML) Silt with Sand: (10R 3/2) dusky red, 20% fine grained sand, hard, moist.	170	8015 8260B	B-9-45
	50		8 32 40	Same as above.	566	8015 8260B	B-9-50
	55		100/6	(SW) Well Graded Sand with Gravel: (5YR 5/4) reddish brown, 20% coarse to medium grained gravel, fine to medium grained sand, very dense, moist.	170	8015 8260B	B-9-55
Hydrated Bentonite chips	60		50 50/3	Same as above.	65.9	8015 8260B	B-9-60
	65		27 50	(SW) Well Graded Sand with Gravel: (5YR 5/4) reddish brown, 45% coarse to medium grained gravel, medium to coarse grained sand, very dense, moist.	131	8015 8260B	B-9-65
	70		75/6	Same as above.	224	8015 8260B	B-9-70
	75		62/6		224	8015 8260B	B-9-75
	80		11 14 31	(SM) Silty Sand: (5YR 4/6) reddish brown, 10% coarse grained gravel, 15% silt, medium to fine grained sand, dense, moist.	257	8015 8260B	B-9-80

The substrata descriptions above are generalized representations and based upon visual/manual classification of cuttings and/or samples obtained during drilling. Predominant material types shown on the log may contain different materials and the change from one predominant material type to another could be different than indicated. Descriptions on this log apply only at the specific location at the time of drilling and may not be representative of subsurface conditions at other locations or times.

Project No. **14BP.00191.01.1130** Date **December 2004**

Borehole Log

Figure

B-9 (sheet 2 of 2)

A00191_B-9.GPJ
LOG OF BOREHOLE

APPENDIX F

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
9630 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: SECOR International, Inc.-Orange County
11085 Knott Ave, Suite B
Cypress, CA 90630
Attention: Cathy Sanford

Project: ARCO 0191, Los Angeles

Sampled: 11/10/04
Received: 11/11/04
Issued: 11/22/04 15:30

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(s) of Custody, 2 pages, are included and are an integral part of this report.

This entire report was reviewed and approved for release.

CASE NARRATIVE

SAMPLE RECEIPT: Samples were received intact, at 4°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
INK0967-01	B-9-5	Soil
INK0967-02	B-9-10	Soil
INK0967-03	B-9-15	Soil
INK0967-04	B-9-20	Soil
INK0967-05	B-9-25	Soil
INK0967-06	B-9-30	Soil
INK0967-07	B-9-35	Soil
INK0967-08	B-9-40	Soil
INK0967-09	B-9-45	Soil
INK0967-10	B-9-50	Soil
INK0967-11	B-9-55	Soil

Del Mar Analytical, Irvine
Wendy Kirkeeng
Project Manager

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Del Mar Analytical

SECOR International, Inc.-Orange County
11085 Knott Ave, Suite B
Cypress, CA 90630
Attention: Cathy Sanford

Project ID: ARCO 0191, Los Angeles

Report Number: INK0967

Sampled: 11/10/04
Received: 11/11/04

LABORATORY ID	CLIENT ID	MATRIX
INK0967-12	B-9-60	Soil
INK0967-13	B-9-65	Soil
INK0967-14	B-9-70	Soil
INK0967-15	B-9-75	Soil
INK0967-17	B-9-80	Soil

Reviewed By:

Wendy Kirkeeng

Del Mar Analytical, Irvine
Wendy Kirkeeng
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

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Del Mar Analytical

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11085 Knott Ave, Suite B
Cypress, CA 90630
Attention: Cathy Sanford

Project ID: ARCO 0191, Los Angeles

Report Number: INK0967

Sampled: 11/10/04
Received: 11/11/04

VOLATILE FUEL HYDROCARBONS (EPA 5035B/CADHS Mod. 8015)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INK0967-01 (B-9-5 - Soil)									
Reporting Units: mg/kg									
GRO (C4 - C12)	EPA 8015B	4K15030	0.13	1.0	0.17	0.935	11/15/04	11/15/04	J,DX
Surrogate: 4-BFB (FID) (65-135%)					*106 %*				
Sample ID: INK0967-02 (B-9-10 - Soil)									
Reporting Units: mg/kg									
GRO (C4 - C12)	EPA 8015B	4K15030	0.13	1.0	ND	0.924	11/15/04	11/15/04	
Surrogate: 4-BFB (FID) (65-135%)					*86 %*				
Sample ID: INK0967-03 (B-9-15 - Soil)									
Reporting Units: mg/kg									
GRO (C4 - C12)	EPA 8015B	4K15030	0.13	1.0	ND	0.956	11/15/04	11/15/04	
Surrogate: 4-BFB (FID) (65-135%)					*93 %*				
Sample ID: INK0967-04 (B-9-20 - Soil)									
Reporting Units: mg/kg									
GRO (C4 - C12)	EPA 8015B	4K15111	59	450	970	451	11/15/04	11/16/04	*AZ*
Surrogate: 4-BFB (FID) (65-135%)					*205 %*				
Sample ID: INK0967-05 (B-9-25 - Soil)									
Reporting Units: mg/kg									
GRO (C4 - C12)	EPA 8015B	4K15030	0.13	1.0	0.32	1.01	11/15/04	11/15/04	J,DX
Surrogate: 4-BFB (FID) (65-135%)					*111 %*				
Sample ID: INK0967-06 (B-9-30 - Soil)									
Reporting Units: mg/kg									
GRO (C4 - C12)	EPA 8015B	4K15111	290	2200	5900	2230	11/15/04	11/19/04	*AX*
Surrogate: 4-BFB (FID) (65-135%)					*1030 %*				
Sample ID: INK0967-07 (B-9-35 - Soil)									
Reporting Units: mg/kg									
GRO (C4 - C12)	EPA 8015B	4K15030	0.13	1.0	0.64	1.11	11/15/04	11/15/04	J,DX
Surrogate: 4-BFB (FID) (65-135%)					*99 %*				
Sample ID: INK0967-08 (B-9-40 - Soil)									
Reporting Units: mg/kg									
GRO (C4 - C12)	EPA 8015B	4K15030	0.12	0.90	0.22	0.901	11/15/04	11/15/04	J,DX
Surrogate: 4-BFB (FID) (65-135%)					*83 %*				

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Wendy Kirkeeng
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Del Mar Analytical

SECOR International, Inc.-Orange County
11085 Knott Ave, Suite B
Cypress, CA 90630
Attention: Cathy Sanford

Project ID: ARCO 0191, Los Angeles

Report Number: INK0967

Sampled: 11/10/04
Received: 11/11/04

VOLATILE FUEL HYDROCARBONS (EPA 5035B/CADHS Mod. 8015)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INK0967-09 (B-9-45 - Soil)									
Reporting Units: mg/kg									
GRO (C4 - C12)	EPA 8015B	4K15030	0.11	0.84	0.21	0.836	11/15/04	11/15/04	J,DX
Surrogate: 4-BFB (FID) (65-135%)					*74 %*				
Sample ID: INK0967-10 (B-9-50 - Soil)									
Reporting Units: mg/kg									
GRO (C4 - C12)	EPA 8015B	4K15030	0.11	0.84	0.19	0.838	11/15/04	11/15/04	J,DX
Surrogate: 4-BFB (FID) (65-135%)					*94 %*				
Sample ID: INK0967-11 (B-9-55 - Soil)									
Reporting Units: mg/kg									
GRO (C4 - C12)	EPA 8015B	4K15030	0.15	1.2	ND	1.17	11/15/04	11/15/04	
Surrogate: 4-BFB (FID) (65-135%)					*99 %*				
Sample ID: INK0967-12 (B-9-60 - Soil)									
Reporting Units: mg/kg									
GRO (C4 - C12)	EPA 8015B	4K15030	0.13	1.0	ND	1.03	11/15/04	11/15/04	
Surrogate: 4-BFB (FID) (65-135%)					*93 %*				
Sample ID: INK0967-13 (B-9-65 - Soil)									
Reporting Units: mg/kg									
GRO (C4 - C12)	EPA 8015B	4K15030	0.16	1.2	ND	1.19	11/15/04	11/15/04	
Surrogate: 4-BFB (FID) (65-135%)					*93 %*				
Sample ID: INK0967-14 (B-9-70 - Soil)									
Reporting Units: mg/kg									
GRO (C4 - C12)	EPA 8015B	4K15030	0.13	1.0	ND	1.07	11/15/04	11/15/04	
Surrogate: 4-BFB (FID) (65-135%)					*96 %*				
Sample ID: INK0967-15 (B-9-75 - Soil)									
Reporting Units: mg/kg									
GRO (C4 - C12)	EPA 8015B	4K15030	0.17	1.3	ND	1.32	11/15/04	11/16/04	
Surrogate: 4-BFB (FID) (65-135%)					*100 %*				
Sample ID: INK0967-17 (B-9-80 - Soil)									
Reporting Units: mg/kg									
GRO (C4 - C12)	EPA 8015B	4K15030	0.13	1.0	ND	0.998	11/15/04	11/16/04	
Surrogate: 4-BFB (FID) (65-135%)					*98 %*				

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Project ID: ARCO 0191, Los Angeles

Report Number: INK0967

Sampled: 11/10/04
Received: 11/11/04

BTEX/OXYGENATES by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INK0967-01 (B-9-5 - Soil)									
Reporting Units: mg/kg									
Benzene	EPA 8260B	4K15024	0.00050	0.0020	ND	0.945	11/15/04	11/16/04	
Ethylbenzene	EPA 8260B	4K15024	0.00051	0.0020	ND	0.945	11/15/04	11/16/04	
Toluene	EPA 8260B	4K15024	0.00091	0.0020	ND	0.945	11/15/04	11/16/04	
o-Xylene	EPA 8260B	4K15024	0.00047	0.0020	ND	0.945	11/15/04	11/16/04	
m,p-Xylenes	EPA 8260B	4K15024	0.00075	0.0020	ND	0.945	11/15/04	11/16/04	
Xylenes, Total	EPA 8260B	4K15024	0.00075	0.0040	ND	0.945	11/15/04	11/16/04	
Di-isopropyl Ether (DIPE)	EPA 8260B	4K15024	0.00035	0.0050	ND	0.945	11/15/04	11/16/04	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	4K15024	0.00058	0.0050	ND	0.945	11/15/04	11/16/04	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	4K15024	0.00064	0.0050	ND	0.945	11/15/04	11/16/04	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	4K15024	0.0010	0.0050	ND	0.945	11/15/04	11/16/04	
tert-Butanol (TBA)	EPA 8260B	4K15024	0.0047	0.050	ND	0.945	11/15/04	11/16/04	
Ethanol	EPA 8260B	4K15024	0.055	0.30	ND	0.945	11/15/04	11/16/04	
Surrogate: Dibromofluoromethane (80-125%)					*101 %*				
Surrogate: Toluene-d8 (80-120%)					*106 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*95 %*				
Sample ID: INK0967-02 (B-9-10 - Soil)									
Reporting Units: mg/kg									
Benzene	EPA 8260B	4K15024	0.00050	0.0020	ND	0.943	11/15/04	11/16/04	
Ethylbenzene	EPA 8260B	4K15024	0.00051	0.0020	ND	0.943	11/15/04	11/16/04	
Toluene	EPA 8260B	4K15024	0.00091	0.0020	ND	0.943	11/15/04	11/16/04	
o-Xylene	EPA 8260B	4K15024	0.00047	0.0020	ND	0.943	11/15/04	11/16/04	
m,p-Xylenes	EPA 8260B	4K15024	0.00075	0.0020	ND	0.943	11/15/04	11/16/04	
Xylenes, Total	EPA 8260B	4K15024	0.00075	0.0040	ND	0.943	11/15/04	11/16/04	
Di-isopropyl Ether (DIPE)	EPA 8260B	4K15024	0.00035	0.0050	ND	0.943	11/15/04	11/16/04	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	4K15024	0.00058	0.0050	ND	0.943	11/15/04	11/16/04	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	4K15024	0.00064	0.0050	ND	0.943	11/15/04	11/16/04	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	4K15024	0.0010	0.0050	ND	0.943	11/15/04	11/16/04	
tert-Butanol (TBA)	EPA 8260B	4K15024	0.0047	0.050	ND	0.943	11/15/04	11/16/04	
Ethanol	EPA 8260B	4K15024	0.055	0.30	ND	0.943	11/15/04	11/16/04	
Surrogate: Dibromofluoromethane (80-125%)					*99 %*				
Surrogate: Toluene-d8 (80-120%)					*107 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*95 %*				

Del Mar Analytical, Irvine
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Attention: Cathy Sanford

Project ID: ARCO 0191, Los Angeles

Report Number: INK0967

Sampled: 11/10/04
Received: 11/11/04

BTEX/OXYGENATES by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INK0967-03 (B-9-15 - Soil)									
Reporting Units: mg/kg									
Benzene	EPA 8260B	4K15024	0.00050	0.0020	ND	1.04	11/15/04	11/16/04	
Ethylbenzene	EPA 8260B	4K15024	0.00051	0.0020	ND	1.04	11/15/04	11/16/04	
Toluene	EPA 8260B	4K15024	0.00091	0.0020	ND	1.04	11/15/04	11/16/04	
o-Xylene	EPA 8260B	4K15024	0.00047	0.0020	ND	1.04	11/15/04	11/16/04	
m,p-Xylenes	EPA 8260B	4K15024	0.00075	0.0020	ND	1.04	11/15/04	11/16/04	
Xylenes, Total	EPA 8260B	4K15024	0.00075	0.0040	ND	1.04	11/15/04	11/16/04	
Di-isopropyl Ether (DIPE)	EPA 8260B	4K15024	0.00035	0.0050	ND	1.04	11/15/04	11/16/04	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	4K15024	0.00058	0.0050	ND	1.04	11/15/04	11/16/04	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	4K15024	0.00064	0.0050	ND	1.04	11/15/04	11/16/04	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	4K15024	0.0010	0.0050	ND	1.04	11/15/04	11/16/04	
tert-Butanol (TBA)	EPA 8260B	4K15024	0.0047	0.050	0.034	1.04	11/15/04	11/16/04	J,DX
Ethanol	EPA 8260B	4K15024	0.055	0.30	ND	1.04	11/15/04	11/16/04	
Surrogate: Dibromofluoromethane (80-125%)					*102 %*				
Surrogate: Toluene-d8 (80-120%)					*106 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*95 %*				
Sample ID: INK0967-04 (B-9-20 - Soil)									
Reporting Units: mg/kg									
Benzene	EPA 8260B	4K16091	0.12	0.36	1.3	364	11/16/04	11/17/04	
Ethylbenzene	EPA 8260B	4K16091	0.098	0.36	18	364	11/16/04	11/17/04	
Toluene	EPA 8260B	4K16091	0.12	0.36	32	364	11/16/04	11/17/04	
o-Xylene	EPA 8260B	4K16091	0.10	0.36	24	364	11/16/04	11/17/04	
m,p-Xylenes	EPA 8260B	4K16091	0.19	0.36	61	364	11/16/04	11/17/04	
Xylenes, Total	EPA 8260B	4K16091	0.19	0.73	86	364	11/16/04	11/17/04	
Di-isopropyl Ether (DIPE)	EPA 8260B	4K16091	0.19	0.91	ND	364	11/16/04	11/17/04	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	4K16091	0.24	0.91	ND	364	11/16/04	11/17/04	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	4K16091	0.25	0.91	ND	364	11/16/04	11/17/04	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	4K16091	0.23	0.91	ND	364	11/16/04	11/17/04	
tert-Butanol (TBA)	EPA 8260B	4K16091	0.91	18	ND	364	11/16/04	11/17/04	
Ethanol	EPA 8260B	4K16091	16	55	ND	364	11/16/04	11/17/04	
Surrogate: Dibromofluoromethane (55-155%)					*65 %*				
Surrogate: Toluene-d8 (60-160%)					*72 %*				
Surrogate: 4-Bromofluorobenzene (60-155%)					*79 %*				

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Wendy Kirkeeng
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Attention: Cathy Sanford

Project ID: ARCO 0191, Los Angeles

Report Number: INK0967

Sampled: 11/10/04
Received: 11/11/04

BTEX/OXYGENATES by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INK0967-05 (B-9-25 - Soil)									
Reporting Units: mg/kg									
Benzene	EPA 8260B	4K16025	0.00050	0.0020	ND	0.914	11/16/04	11/16/04	
Ethylbenzene	EPA 8260B	4K16025	0.00051	0.0020	ND	0.914	11/16/04	11/16/04	
Toluene	EPA 8260B	4K16025	0.00091	0.0020	ND	0.914	11/16/04	11/16/04	
o-Xylene	EPA 8260B	4K16025	0.00047	0.0020	ND	0.914	11/16/04	11/16/04	
m,p-Xylenes	EPA 8260B	4K16025	0.00075	0.0020	ND	0.914	11/16/04	11/16/04	
Xylenes, Total	EPA 8260B	4K16025	0.00075	0.0040	ND	0.914	11/16/04	11/16/04	
Di-isopropyl Ether (DIPE)	EPA 8260B	4K16025	0.00035	0.0050	ND	0.914	11/16/04	11/16/04	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	4K16025	0.00058	0.0050	ND	0.914	11/16/04	11/16/04	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	4K16025	0.00064	0.0050	ND	0.914	11/16/04	11/16/04	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	4K16025	0.0010	0.0050	ND	0.914	11/16/04	11/16/04	
tert-Butanol (TBA)	EPA 8260B	4K16025	0.0047	0.050	0.018	0.914	11/16/04	11/16/04	J,DX
Ethanol	EPA 8260B	4K16025	0.055	0.30	ND	0.914	11/16/04	11/16/04	
Surrogate: Dibromofluoromethane (80-125%)					*97 %*				
Surrogate: Toluene-d8 (80-120%)					*109 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*96 %*				
Sample ID: INK0967-06 (B-9-30 - Soil)									
Reporting Units: mg/kg									
Benzene	EPA 8260B	4K16091	0.38	1.1	1.1	1130	11/16/04	11/17/04	
Ethylbenzene	EPA 8260B	4K16091	0.31	1.1	71	1130	11/16/04	11/17/04	
Toluene	EPA 8260B	4K16091	0.37	1.1	37	1130	11/16/04	11/17/04	
o-Xylene	EPA 8260B	4K16091	0.32	1.1	120	1130	11/16/04	11/17/04	
m,p-Xylenes	EPA 8260B	4K16091	0.60	1.1	260	1130	11/16/04	11/17/04	
Xylenes, Total	EPA 8260B	4K16091	0.60	2.3	370	1130	11/16/04	11/17/04	
Di-isopropyl Ether (DIPE)	EPA 8260B	4K16091	0.58	2.8	ND	1130	11/16/04	11/17/04	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	4K16091	0.75	2.8	ND	1130	11/16/04	11/17/04	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	4K16091	0.77	2.8	ND	1130	11/16/04	11/17/04	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	4K16091	0.70	2.8	ND	1130	11/16/04	11/17/04	
tert-Butanol (TBA)	EPA 8260B	4K16091	2.8	57	ND	1130	11/16/04	11/17/04	
Ethanol	EPA 8260B	4K16091	49	170	ND	1130	11/16/04	11/17/04	
Surrogate: Dibromofluoromethane (55-155%)					*71 %*				
Surrogate: Toluene-d8 (60-160%)					*84 %*				
Surrogate: 4-Bromofluorobenzene (60-155%)					*117 %*				

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Project ID: ARCO 0191, Los Angeles

Report Number: INK0967

Sampled: 11/10/04
Received: 11/11/04

BTEX/OXYGENATES by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INK0967-07 (B-9-35 - Soil)									
Reporting Units: mg/kg									
Benzene	EPA 8260B	4K16025	0.00050	0.0020	**0.0017**	0.994	11/16/04	11/16/04	J,DX
Ethylbenzene	EPA 8260B	4K16025	0.00051	0.0020	**0.010**	0.994	11/16/04	11/16/04	
Toluene	EPA 8260B	4K16025	0.00091	0.0020	**0.0012**	0.994	11/16/04	11/16/04	J,DX
o-Xylene	EPA 8260B	4K16025	0.00047	0.0020	**0.0041**	0.994	11/16/04	11/16/04	
m,p-Xylenes	EPA 8260B	4K16025	0.00075	0.0020	**0.025**	0.994	11/16/04	11/16/04	
Xylenes, Total	EPA 8260B	4K16025	0.00075	0.0040	**0.029**	0.994	11/16/04	11/16/04	
Di-isopropyl Ether (DIPE)	EPA 8260B	4K16025	0.00035	0.0050	ND	0.994	11/16/04	11/16/04	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	4K16025	0.00058	0.0050	ND	0.994	11/16/04	11/16/04	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	4K16025	0.00064	0.0050	ND	0.994	11/16/04	11/16/04	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	4K16025	0.0010	0.0050	**0.0048**	0.994	11/16/04	11/16/04	J,DX
tert-Butanol (TBA)	EPA 8260B	4K16025	0.0047	0.050	ND	0.994	11/16/04	11/16/04	
Ethanol	EPA 8260B	4K16025	0.055	0.30	ND	0.994	11/16/04	11/16/04	
Surrogate: Dibromofluoromethane (80-125%)					*101 %*				
Surrogate: Toluene-d8 (80-120%)					*109 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*97 %*				
Sample ID: INK0967-08 (B-9-40 - Soil)									
Reporting Units: mg/kg									
Benzene	EPA 8260B	4K16025	0.00044	0.0018	**0.00046**	0.88	11/16/04	11/16/04	J,DX
Ethylbenzene	EPA 8260B	4K16025	0.00045	0.0018	**0.0015**	0.88	11/16/04	11/16/04	J,DX
Toluene	EPA 8260B	4K16025	0.00080	0.0018	ND	0.88	11/16/04	11/16/04	
o-Xylene	EPA 8260B	4K16025	0.00041	0.0018	ND	0.88	11/16/04	11/16/04	
m,p-Xylenes	EPA 8260B	4K16025	0.00066	0.0018	**0.0024**	0.88	11/16/04	11/16/04	
Xylenes, Total	EPA 8260B	4K16025	0.00066	0.0035	**0.0024**	0.88	11/16/04	11/16/04	J,DX
Di-isopropyl Ether (DIPE)	EPA 8260B	4K16025	0.00031	0.0044	ND	0.88	11/16/04	11/16/04	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	4K16025	0.00051	0.0044	ND	0.88	11/16/04	11/16/04	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	4K16025	0.00056	0.0044	ND	0.88	11/16/04	11/16/04	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	4K16025	0.00088	0.0044	**0.0018**	0.88	11/16/04	11/16/04	J,DX
tert-Butanol (TBA)	EPA 8260B	4K16025	0.0041	0.044	ND	0.88	11/16/04	11/16/04	
Ethanol	EPA 8260B	4K16025	0.048	0.26	ND	0.88	11/16/04	11/16/04	
Surrogate: Dibromofluoromethane (80-125%)					*107 %*				
Surrogate: Toluene-d8 (80-120%)					*108 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*102 %*				

Del Mar Analytical, Irvine
Wendy Kirkeeng
Project Manager

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Del Mar Analytical

SECOR International, Inc.-Orange County
11085 Knott Ave, Suite B
Cypress, CA 90630
Attention: Cathy Sanford

Project ID: ARCO 0191, Los Angeles

Report Number: INK0967

Sampled: 11/10/04
Received: 11/11/04

BTEX/OXYGENATES by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INK0967-09 (B-9-45 - Soil)									
Reporting Units: mg/kg									
Benzene	EPA 8260B	4K16025	0.00040	0.0016	ND	0.806	11/16/04	11/16/04	
Ethylbenzene	EPA 8260B	4K16025	0.00041	0.0016	ND	0.806	11/16/04	11/16/04	
Toluene	EPA 8260B	4K16025	0.00073	0.0016	ND	0.806	11/16/04	11/16/04	
o-Xylene	EPA 8260B	4K16025	0.00038	0.0016	ND	0.806	11/16/04	11/16/04	
m,p-Xylenes	EPA 8260B	4K16025	0.00060	0.0016	0.0013	0.806	11/16/04	11/16/04	J,DX
Xylenes, Total	EPA 8260B	4K16025	0.00060	0.0032	0.0013	0.806	11/16/04	11/16/04	J,DX
Di-isopropyl Ether (DIPE)	EPA 8260B	4K16025	0.00028	0.0040	ND	0.806	11/16/04	11/16/04	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	4K16025	0.00047	0.0040	ND	0.806	11/16/04	11/16/04	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	4K16025	0.00052	0.0040	ND	0.806	11/16/04	11/16/04	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	4K16025	0.00081	0.0040	ND	0.806	11/16/04	11/16/04	
tert-Butanol (TBA)	EPA 8260B	4K16025	0.0038	0.040	ND	0.806	11/16/04	11/16/04	
Ethanol	EPA 8260B	4K16025	0.044	0.24	ND	0.806	11/16/04	11/16/04	
Surrogate: Dibromofluoromethane (80-125%)					*106 %*				
Surrogate: Toluene-d8 (80-120%)					*108 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*100 %*				
Sample ID: INK0967-10 (B-9-50 - Soil)									
Reporting Units: mg/kg									
Benzene	EPA 8260B	4K16025	0.00040	0.0016	0.00084	0.805	11/16/04	11/16/04	J,DX
Ethylbenzene	EPA 8260B	4K16025	0.00041	0.0016	0.0039	0.805	11/16/04	11/16/04	
Toluene	EPA 8260B	4K16025	0.00073	0.0016	ND	0.805	11/16/04	11/16/04	
o-Xylene	EPA 8260B	4K16025	0.00038	0.0016	ND	0.805	11/16/04	11/16/04	
m,p-Xylenes	EPA 8260B	4K16025	0.00060	0.0016	0.012	0.805	11/16/04	11/16/04	
Xylenes, Total	EPA 8260B	4K16025	0.00060	0.0032	0.012	0.805	11/16/04	11/16/04	
Di-isopropyl Ether (DIPE)	EPA 8260B	4K16025	0.00028	0.0040	ND	0.805	11/16/04	11/16/04	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	4K16025	0.00047	0.0040	ND	0.805	11/16/04	11/16/04	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	4K16025	0.00052	0.0040	ND	0.805	11/16/04	11/16/04	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	4K16025	0.00081	0.0040	0.0017	0.805	11/16/04	11/16/04	J,DX
tert-Butanol (TBA)	EPA 8260B	4K16025	0.0038	0.040	0.012	0.805	11/16/04	11/16/04	J,DX
Ethanol	EPA 8260B	4K16025	0.044	0.24	ND	0.805	11/16/04	11/16/04	
Surrogate: Dibromofluoromethane (80-125%)					*106 %*				
Surrogate: Toluene-d8 (80-120%)					*109 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*97 %*				

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Del Mar Analytical

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Cypress, CA 90630
Attention: Cathy Sanford

Project ID: ARCO 0191, Los Angeles

Report Number: INK0967

Sampled: 11/10/04
Received: 11/11/04

BTEX/OXYGENATES by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INK0967-11 (B-9-55 - Soil)									
Reporting Units: mg/kg									
Benzene	EPA 8260B	4K16025	0.00050	0.0020	ND	0.949	11/16/04	11/16/04	
Ethylbenzene	EPA 8260B	4K16025	0.00051	0.0020	ND	0.949	11/16/04	11/16/04	
Toluene	EPA 8260B	4K16025	0.00091	0.0020	ND	0.949	11/16/04	11/16/04	
o-Xylene	EPA 8260B	4K16025	0.00047	0.0020	ND	0.949	11/16/04	11/16/04	
m,p-Xylenes	EPA 8260B	4K16025	0.00075	0.0020	ND	0.949	11/16/04	11/16/04	
Xylenes, Total	EPA 8260B	4K16025	0.00075	0.0040	ND	0.949	11/16/04	11/16/04	
Di-isopropyl Ether (DIPE)	EPA 8260B	4K16025	0.00035	0.0050	ND	0.949	11/16/04	11/16/04	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	4K16025	0.00058	0.0050	ND	0.949	11/16/04	11/16/04	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	4K16025	0.00064	0.0050	ND	0.949	11/16/04	11/16/04	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	4K16025	0.0010	0.0050	ND	0.949	11/16/04	11/16/04	
tert-Butanol (TBA)	EPA 8260B	4K16025	0.0047	0.050	ND	0.949	11/16/04	11/16/04	
Ethanol	EPA 8260B	4K16025	0.055	0.30	ND	0.949	11/16/04	11/16/04	
Surrogate: Dibromofluoromethane (80-125%)					*103 %*				
Surrogate: Toluene-d8 (80-120%)					*109 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*99 %*				
Sample ID: INK0967-12 (B-9-60 - Soil)									
Reporting Units: mg/kg									
Benzene	EPA 8260B	4K16025	0.00050	0.0020	ND	1.05	11/16/04	11/16/04	
Ethylbenzene	EPA 8260B	4K16025	0.00051	0.0020	ND	1.05	11/16/04	11/16/04	
Toluene	EPA 8260B	4K16025	0.00091	0.0020	ND	1.05	11/16/04	11/16/04	
o-Xylene	EPA 8260B	4K16025	0.00047	0.0020	ND	1.05	11/16/04	11/16/04	
m,p-Xylenes	EPA 8260B	4K16025	0.00075	0.0020	ND	1.05	11/16/04	11/16/04	
Xylenes, Total	EPA 8260B	4K16025	0.00075	0.0040	ND	1.05	11/16/04	11/16/04	
Di-isopropyl Ether (DIPE)	EPA 8260B	4K16025	0.00035	0.0050	ND	1.05	11/16/04	11/16/04	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	4K16025	0.00058	0.0050	ND	1.05	11/16/04	11/16/04	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	4K16025	0.00064	0.0050	ND	1.05	11/16/04	11/16/04	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	4K16025	0.0010	0.0050	ND	1.05	11/16/04	11/16/04	
tert-Butanol (TBA)	EPA 8260B	4K16025	0.0047	0.050	ND	1.05	11/16/04	11/16/04	
Ethanol	EPA 8260B	4K16025	0.055	0.30	ND	1.05	11/16/04	11/16/04	
Surrogate: Dibromofluoromethane (80-125%)					*101 %*				
Surrogate: Toluene-d8 (80-120%)					*107 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*94 %*				

Del Mar Analytical, Irvine
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Del Mar Analytical

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Attention: Cathy Sanford

Project ID: ARCO 0191, Los Angeles

Report Number: INK0967

Sampled: 11/10/04
Received: 11/11/04

BTEX/OXYGENATES by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INK0967-13 (B-9-65 - Soil)									
Reporting Units: mg/kg									
Benzene	EPA 8260B	4K16025	0.00059	0.0024	ND	1.18	11/16/04	11/16/04	
Ethylbenzene	EPA 8260B	4K16025	0.00060	0.0024	ND	1.18	11/16/04	11/16/04	
Toluene	EPA 8260B	4K16025	0.0011	0.0024	ND	1.18	11/16/04	11/16/04	
o-Xylene	EPA 8260B	4K16025	0.00056	0.0024	ND	1.18	11/16/04	11/16/04	
m,p-Xylenes	EPA 8260B	4K16025	0.00089	0.0024	ND	1.18	11/16/04	11/16/04	
Xylenes, Total	EPA 8260B	4K16025	0.00089	0.0047	ND	1.18	11/16/04	11/16/04	
Di-isopropyl Ether (DIPE)	EPA 8260B	4K16025	0.00041	0.0059	ND	1.18	11/16/04	11/16/04	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	4K16025	0.00069	0.0059	ND	1.18	11/16/04	11/16/04	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	4K16025	0.00076	0.0059	ND	1.18	11/16/04	11/16/04	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	4K16025	0.0012	0.0059	ND	1.18	11/16/04	11/16/04	
tert-Butanol (TBA)	EPA 8260B	4K16025	0.0056	0.059	ND	1.18	11/16/04	11/16/04	
Ethanol	EPA 8260B	4K16025	0.065	0.35	ND	1.18	11/16/04	11/16/04	
Surrogate: Dibromofluoromethane (80-125%)					*108 %*				
Surrogate: Toluene-d8 (80-120%)					*108 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*100 %*				
Sample ID: INK0967-14 (B-9-70 - Soil)									
Reporting Units: mg/kg									
Benzene	EPA 8260B	4K16031	0.00050	0.0020	ND	1	11/16/04	11/16/04	
Ethylbenzene	EPA 8260B	4K16031	0.00051	0.0020	ND	1	11/16/04	11/16/04	
Toluene	EPA 8260B	4K16031	0.00091	0.0020	ND	1	11/16/04	11/16/04	
o-Xylene	EPA 8260B	4K16031	0.00047	0.0020	ND	1	11/16/04	11/16/04	
m,p-Xylenes	EPA 8260B	4K16031	0.00075	0.0020	ND	1	11/16/04	11/16/04	
Xylenes, Total	EPA 8260B	4K16031	0.00075	0.0040	ND	1	11/16/04	11/16/04	
Di-isopropyl Ether (DIPE)	EPA 8260B	4K16031	0.00035	0.0050	ND	1	11/16/04	11/16/04	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	4K16031	0.00058	0.0050	ND	1	11/16/04	11/16/04	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	4K16031	0.00064	0.0050	ND	1	11/16/04	11/16/04	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	4K16031	0.0010	0.0050	ND	1	11/16/04	11/16/04	
tert-Butanol (TBA)	EPA 8260B	4K16031	0.0047	0.050	ND	1	11/16/04	11/16/04	
Ethanol	EPA 8260B	4K16031	0.055	0.30	ND	1	11/16/04	11/16/04	IO
Surrogate: Dibromofluoromethane (80-125%)					*106 %*				
Surrogate: Toluene-d8 (80-120%)					*101 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*102 %*				

Del Mar Analytical, Irvine
Wendy Kirkeeng
Project Manager

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Attention: Cathy Sanford

Project ID: ARCO 0191, Los Angeles

Report Number: INK0967

Sampled: 11/10/04
Received: 11/11/04

BTEX/OXYGENATES by GC/MS (EPA 5035/8260B)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: INK0967-15 (B-9-75 - Soil)									
Reporting Units: mg/kg									
Benzene	EPA 8260B	4K16031	0.00050	0.0020	ND	1.04	11/16/04	11/16/04	
Ethylbenzene	EPA 8260B	4K16031	0.00051	0.0020	ND	1.04	11/16/04	11/16/04	
Toluene	EPA 8260B	4K16031	0.00091	0.0020	ND	1.04	11/16/04	11/16/04	
o-Xylene	EPA 8260B	4K16031	0.00047	0.0020	ND	1.04	11/16/04	11/16/04	
m,p-Xylenes	EPA 8260B	4K16031	0.00075	0.0020	ND	1.04	11/16/04	11/16/04	
Xylenes, Total	EPA 8260B	4K16031	0.00075	0.0040	ND	1.04	11/16/04	11/16/04	
Di-isopropyl Ether (DIPE)	EPA 8260B	4K16031	0.00035	0.0050	ND	1.04	11/16/04	11/16/04	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	4K16031	0.00058	0.0050	ND	1.04	11/16/04	11/16/04	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	4K16031	0.00064	0.0050	ND	1.04	11/16/04	11/16/04	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	4K16031	0.0010	0.0050	ND	1.04	11/16/04	11/16/04	
tert-Butanol (TBA)	EPA 8260B	4K16031	0.0047	0.050	ND	1.04	11/16/04	11/16/04	
Ethanol	EPA 8260B	4K16031	0.055	0.30	ND	1.04	11/16/04	11/16/04	IO
Surrogate: Dibromofluoromethane (80-125%)					*100 %*				
Surrogate: Toluene-d8 (80-120%)					*103 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*101 %*				
Sample ID: INK0967-17 (B-9-80 - Soil)									
Reporting Units: mg/kg									
Benzene	EPA 8260B	4K17029	0.00050	0.0020	ND	1.07	11/17/04	11/17/04	
Ethylbenzene	EPA 8260B	4K17029	0.00051	0.0020	ND	1.07	11/17/04	11/17/04	
Toluene	EPA 8260B	4K17029	0.00091	0.0020	ND	1.07	11/17/04	11/17/04	
o-Xylene	EPA 8260B	4K17029	0.00047	0.0020	ND	1.07	11/17/04	11/17/04	
m,p-Xylenes	EPA 8260B	4K17029	0.00075	0.0020	ND	1.07	11/17/04	11/17/04	
Xylenes, Total	EPA 8260B	4K17029	0.00075	0.0040	ND	1.07	11/17/04	11/17/04	
Di-isopropyl Ether (DIPE)	EPA 8260B	4K17029	0.00035	0.0050	ND	1.07	11/17/04	11/17/04	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	4K17029	0.00058	0.0050	ND	1.07	11/17/04	11/17/04	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	4K17029	0.00064	0.0050	ND	1.07	11/17/04	11/17/04	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	4K17029	0.0010	0.0050	ND	1.07	11/17/04	11/17/04	
tert-Butanol (TBA)	EPA 8260B	4K17029	0.0047	0.050	ND	1.07	11/17/04	11/17/04	
Ethanol	EPA 8260B	4K17029	0.055	0.30	ND	1.07	11/17/04	11/17/04	
Surrogate: Dibromofluoromethane (80-125%)					*104 %*				
Surrogate: Toluene-d8 (80-120%)					*103 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*101 %*				

Del Mar Analytical, Irvine
Wendy Kirkeeng
Project Manager

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Attention: Cathy Sanford

Project ID: ARCO 0191, Los Angeles

Report Number: INK0967

Sampled: 11/10/04
Received: 11/11/04

METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5035B/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4K15030 Extracted: 11/15/04											
Blank Analyzed: 11/15/04 (4K15030-BLK1)											
GRO (C4 - C12)	ND	1.0	0.13	mg/kg							
Surrogate: 4-BFB (FID)	*0.0204*			*mg/kg*	*0.0200*		*102*	*65-135*			
LCS Analyzed: 11/15/04 (4K15030-BS1)											
GRO (C4 - C12)	0.478	1.0	0.13	mg/kg	0.440		109	75-130			DU
Surrogate: 4-BFB (FID)	*0.0211*			*mg/kg*	*0.0200*		*106*	*65-135*			*J,DX*
LCS Dup Analyzed: 11/15/04 (4K15030-BSD1)											
GRO (C4 - C12)	0.476	1.0	0.13	mg/kg	0.440		108	75-130	0	20	*J,DX*
Surrogate: 4-BFB (FID)	*0.0196*			*mg/kg*	*0.0200*		*98*	*65-135*			
Batch: 4K15111 Extracted: 11/15/04											
Blank Analyzed: 11/16/04 (4K15111-BLK1)											
GRO (C4 - C12)	ND	50	6.5	mg/kg							
Surrogate: 4-BFB (FID)	*2.02*			*mg/kg*	*2.00*		*101*	*65-135*			
LCS Analyzed: 11/16/04 (4K15111-BS1)											DU
GRO (C4 - C12)	41.3	100	13	mg/kg	44.0		94	75-130			*J,DX*
Surrogate: 4-BFB (FID)	*2.08*			*mg/kg*	*2.00*		*104*	*65-135*			
LCS Dup Analyzed: 11/16/04 (4K15111-BSD1)											
GRO (C4 - C12)	45.6	100	13	mg/kg	44.0		104	75-130	10	20	*J,DX*
Surrogate: 4-BFB (FID)	*2.19*			*mg/kg*	*2.00*		*110*	*65-135*			

Del Mar Analytical, Irvine
Wendy Kirkeeng
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Del Mar Analytical

SECOR International, Inc.-Orange County
11085 Knott Ave, Suite B
Cypress, CA 90630
Attention: Cathy Sanford

Project ID: ARCO 0191, Los Angeles

Report Number: INK0967

Sampled: 11/10/04
Received: 11/11/04

METHOD BLANK/QC DATA

BTEX/OXYGENATES by GC/MS (EPA 5035/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4K15024 Extracted: 11/15/04											
Blank Analyzed: 11/15/04 (4K15024-BLK1)											
Benzene	ND	0.0020	0.00050	mg/kg							
Ethylbenzene	ND	0.0020	0.00051	mg/kg							
Toluene	ND	0.0020	0.00091	mg/kg							
o-Xylene	ND	0.0020	0.00047	mg/kg							
m,p-Xylenes	ND	0.0040	0.00075	mg/kg							
Xylenes, Total	ND	0.0050	0.00075	mg/kg							
Di-isopropyl Ether (DIPE)	ND	0.0050	0.00035	mg/kg							
Ethyl tert-Butyl Ether (ETBE)	ND	0.0050	0.00058	mg/kg							
tert-Amyl Methyl Ether (TAME)	ND	0.0050	0.00064	mg/kg							
Methyl-tert-butyl Ether (MTBE)	ND	0.0050	0.0010	mg/kg							
tert-Butanol (TBA)	ND	0.050	0.0047	mg/kg							
Ethanol	ND	0.30	0.055	mg/kg							
Surrogate: Dibromofluoromethane	*0.0487*			*mg/kg*	*0.0500*		*97*	*80-125*			
Surrogate: Toluene-d8	*0.0530*			*mg/kg*	*0.0500*		*106*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0473*			*mg/kg*	*0.0500*		*95*	*80-120*			
LCS Analyzed: 11/15/04 (4K15024-BS1)											
Benzene	0.0500	0.0020	0.00050	mg/kg	0.0500		100	70-120			
Ethylbenzene	0.0505	0.0020	0.00051	mg/kg	0.0500		101	75-125			
Toluene	0.0492	0.0020	0.00091	mg/kg	0.0500		98	75-120			
o-Xylene	0.0488	0.0020	0.00047	mg/kg	0.0500		98	80-125			
m,p-Xylenes	0.101	0.0020	0.00075	mg/kg	0.100		101	80-125			
Xylenes, Total	0.150	0.0040	0.00075	mg/kg	0.150		100	80-125			
Di-isopropyl Ether (DIPE)	0.0496	0.0050	0.00035	mg/kg	0.0500		99	65-135			
Ethyl tert-Butyl Ether (ETBE)	0.0474	0.0050	0.00058	mg/kg	0.0500		95	60-140			
tert-Amyl Methyl Ether (TAME)	0.0477	0.0050	0.00064	mg/kg	0.0500		95	60-140			
Methyl-tert-butyl Ether (MTBE)	0.0466	0.0050	0.0010	mg/kg	0.0500		93	55-145			
tert-Butanol (TBA)	0.270	0.050	0.0047	mg/kg	0.250		108	70-140			
Ethanol	0.512	0.30	0.055	mg/kg	0.500		102	35-165			
Surrogate: Dibromofluoromethane	*0.0490*			*mg/kg*	*0.0500*		*98*	*80-125*			
Surrogate: Toluene-d8	*0.0531*			*mg/kg*	*0.0500*		*106*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0479*			*mg/kg*	*0.0500*		*96*	*80-120*			

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Attention: Cathy Sanford

Project ID: ARCO 0191, Los Angeles

Report Number: INK0967

Sampled: 11/10/04
Received: 11/11/04

METHOD BLANK/QC DATA

BTEX/OXYGENATES by GC/MS (EPA 5035/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4K15024 Extracted: 11/15/04											
Matrix Spike Analyzed: 11/15/04 (4K15024-MS1)						Source: INK1046-04					
Benzene	0.0537	0.0020	0.00050	mg/kg	0.0482	ND	111	65-130			
Ethylbenzene	0.0533	0.0020	0.00051	mg/kg	0.0482	ND	111	70-135			
Toluene	0.0531	0.0020	0.00091	mg/kg	0.0482	ND	110	70-125			
o-Xylene	0.0524	0.0020	0.00047	mg/kg	0.0482	ND	109	70-125			
m,p-Xylenes	0.106	0.0020	0.00075	mg/kg	0.0963	ND	110	70-130			
Xylenes, Total	0.159	0.0040	0.00075	mg/kg	0.145	ND	110	70-130			
Di-isopropyl Ether (DIPE)	0.0556	0.0050	0.00035	mg/kg	0.0482	ND	115	65-145			
Ethyl tert-Butyl Ether (ETBE)	0.0538	0.0050	0.00058	mg/kg	0.0482	ND	112	60-145			
tert-Amyl Methyl Ether (TAME)	0.0551	0.0050	0.00064	mg/kg	0.0482	ND	114	60-150			
Methyl-tert-butyl Ether (MTBE)	0.0541	0.0050	0.0010	mg/kg	0.0482	ND	112	50-155			
tert-Butanol (TBA)	0.276	0.050	0.0047	mg/kg	0.241	ND	115	65-145			
Ethanol	0.409	0.30	0.055	mg/kg	0.482	ND	85	30-165			
Surrogate: Dibromofluoromethane	*0.0451*			*mg/kg*	*0.0482*		*94*	*80-125*			
Surrogate: Toluene-d8	*0.0509*			*mg/kg*	*0.0482*		*106*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0461*			*mg/kg*	*0.0482*		*96*	*80-120*			
Matrix Spike Dup Analyzed: 11/15/04 (4K15024-MSD1)						Source: INK1046-04					
Benzene	0.0537	0.0020	0.00050	mg/kg	0.0483	ND	111	65-130	0	20	
Ethylbenzene	0.0536	0.0020	0.00051	mg/kg	0.0483	ND	111	70-135	1	25	
Toluene	0.0530	0.0020	0.00091	mg/kg	0.0483	ND	110	70-125	0	20	
o-Xylene	0.0527	0.0020	0.00047	mg/kg	0.0483	ND	109	70-125	1	25	
m,p-Xylenes	0.108	0.0020	0.00075	mg/kg	0.0965	ND	112	70-130	2	25	
Xylenes, Total	0.161	0.0040	0.00075	mg/kg	0.145	ND	111	70-130	1	25	
Di-isopropyl Ether (DIPE)	0.0535	0.0050	0.00035	mg/kg	0.0483	ND	111	65-145	4	25	
Ethyl tert-Butyl Ether (ETBE)	0.0502	0.0050	0.00058	mg/kg	0.0483	ND	104	60-145	7	30	
tert-Amyl Methyl Ether (TAME)	0.0501	0.0050	0.00064	mg/kg	0.0483	ND	104	60-150	10	25	
Methyl-tert-butyl Ether (MTBE)	0.0480	0.0050	0.0010	mg/kg	0.0483	ND	99	50-155	12	35	
tert-Butanol (TBA)	0.281	0.050	0.0047	mg/kg	0.241	ND	117	65-145	2	30	
Ethanol	0.483	0.30	0.055	mg/kg	0.483	ND	100	30-165	17	40	
Surrogate: Dibromofluoromethane	*0.0438*			*mg/kg*	*0.0483*		*91*	*80-125*			
Surrogate: Toluene-d8	*0.0514*			*mg/kg*	*0.0483*		*106*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0463*			*mg/kg*	*0.0483*		*96*	*80-120*			

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Attention: Cathy Sanford

Project ID: ARCO 0191, Los Angeles

Report Number: INK0967

Sampled: 11/10/04
Received: 11/11/04

METHOD BLANK/QC DATA

BTEX/OXYGENATES by GC/MS (EPA 5035/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4K16025 Extracted: 11/16/04											
Blank Analyzed: 11/16/04 (4K16025-BLK1)											
Benzene	ND	0.0020	0.00050	mg/kg							
Ethylbenzene	ND	0.0020	0.00051	mg/kg							
Toluene	ND	0.0020	0.00091	mg/kg							
o-Xylene	ND	0.0020	0.00047	mg/kg							
m,p-Xylenes	ND	0.0040	0.00075	mg/kg							
Xylenes, Total	ND	0.0050	0.00075	mg/kg							
Di-isopropyl Ether (DIPE)	ND	0.0050	0.00035	mg/kg							
Ethyl tert-Butyl Ether (ETBE)	ND	0.0050	0.00058	mg/kg							
tert-Amyl Methyl Ether (TAME)	ND	0.0050	0.00064	mg/kg							
Methyl-tert-butyl Ether (MTBE)	ND	0.0050	0.0010	mg/kg							
tert-Butanol (TBA)	ND	0.050	0.0047	mg/kg							
Ethanol	ND	0.30	0.055	mg/kg							
Surrogate: Dibromofluoromethane	*0.0520*			*mg/kg*	*0.0500*		*104*	*80-125*			
Surrogate: Toluene-d8	*0.0547*			*mg/kg*	*0.0500*		*109*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0499*			*mg/kg*	*0.0500*		*100*	*80-120*			
LCS Analyzed: 11/16/04 (4K16025-BS1)											
Benzene	0.0491	0.0020	0.00050	mg/kg	0.0500		98	70-120			
Ethylbenzene	0.0543	0.0020	0.00051	mg/kg	0.0500		109	75-125			
Toluene	0.0540	0.0020	0.00091	mg/kg	0.0500		108	75-120			
o-Xylene	0.0512	0.0020	0.00047	mg/kg	0.0500		102	80-125			
m,p-Xylenes	0.106	0.0020	0.00075	mg/kg	0.100		106	80-125			
Xylenes, Total	0.157	0.0040	0.00075	mg/kg	0.150		105	80-125			
Di-isopropyl Ether (DIPE)	0.0534	0.0050	0.00035	mg/kg	0.0500		107	65-135			
Ethyl tert-Butyl Ether (ETBE)	0.0575	0.0050	0.00058	mg/kg	0.0500		115	60-140			
tert-Amyl Methyl Ether (TAME)	0.0621	0.0050	0.00064	mg/kg	0.0500		124	60-140			
Methyl-tert-butyl Ether (MTBE)	0.0618	0.0050	0.0010	mg/kg	0.0500		124	55-145			
tert-Butanol (TBA)	0.262	0.050	0.0047	mg/kg	0.250		105	70-140			
Ethanol	0.314	0.30	0.055	mg/kg	0.500		63	35-165			
Surrogate: Dibromofluoromethane	*0.0508*			*mg/kg*	*0.0500*		*102*	*80-125*			
Surrogate: Toluene-d8	*0.0543*			*mg/kg*	*0.0500*		*109*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0510*			*mg/kg*	*0.0500*		*102*	*80-120*			

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Attention: Cathy Sanford

Project ID: ARCO 0191, Los Angeles

Report Number: INK0967

Sampled: 11/10/04
Received: 11/11/04

METHOD BLANK/QC DATA

BTEX/OXYGENATES by GC/MS (EPA 5035/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4K16025 Extracted: 11/16/04											
LCS Dup Analyzed: 11/16/04 (4K16025-BSD1)											
Benzene	0.0459	0.0020	0.00050	mg/kg	0.0500		92	70-120	7	20	
Ethylbenzene	0.0517	0.0020	0.00051	mg/kg	0.0500		103	75-125	5	20	
Toluene	0.0499	0.0020	0.00091	mg/kg	0.0500		100	75-120	8	20	
o-Xylene	0.0487	0.0020	0.00047	mg/kg	0.0500		97	80-125	5	20	
m,p-Xylenes	0.101	0.0020	0.00075	mg/kg	0.100		101	80-125	5	20	
Xylenes, Total	0.149	0.0040	0.00075	mg/kg	0.150		99	80-125	5	20	
Di-isopropyl Ether (DIPE)	0.0470	0.0050	0.00035	mg/kg	0.0500		94	65-135	13	20	
Ethyl tert-Butyl Ether (ETBE)	0.0481	0.0050	0.00058	mg/kg	0.0500		96	60-140	18	20	
tert-Amyl Methyl Ether (TAME)	0.0493	0.0050	0.00064	mg/kg	0.0500		99	60-140	23	20	*RB*
Methyl-tert-butyl Ether (MTBE)	0.0468	0.0050	0.0010	mg/kg	0.0500		94	55-145	28	25	*RB*
tert-Butanol (TBA)	0.240	0.050	0.0047	mg/kg	0.250		96	70-140	9	20	
Ethanol	0.366	0.30	0.055	mg/kg	0.500		73	35-165	15	30	
Surrogate: Dibromofluoromethane	*0.0506*			*mg/kg*	*0.0500*		*101*	*80-125*			
Surrogate: Toluene-d8	*0.0544*			*mg/kg*	*0.0500*		*109*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0508*			*mg/kg*	*0.0500*		*102*	*80-120*			
Batch: 4K16031 Extracted: 11/16/04											
Blank Analyzed: 11/16/04 (4K16031-BLK1)											
Benzene	ND	0.0020	0.00050	mg/kg							
Ethylbenzene	ND	0.0020	0.00051	mg/kg							
Toluene	ND	0.0020	0.00091	mg/kg							
o-Xylene	ND	0.0020	0.00047	mg/kg							
m,p-Xylenes	ND	0.0020	0.00075	mg/kg							
Xylenes, Total	ND	0.0040	0.00075	mg/kg							
Di-isopropyl Ether (DIPE)	ND	0.0050	0.00035	mg/kg							
Ethyl tert-Butyl Ether (ETBE)	ND	0.0050	0.00058	mg/kg							
tert-Amyl Methyl Ether (TAME)	ND	0.0050	0.00064	mg/kg							
Methyl-tert-butyl Ether (MTBE)	ND	0.0050	0.0010	mg/kg							
tert-Butanol (TBA)	ND	0.050	0.0047	mg/kg							
Ethanol	ND	0.30	0.055	mg/kg							
Surrogate: Dibromofluoromethane	*0.0495*			*mg/kg*	*0.0500*		*99*	*80-125*			
Surrogate: Toluene-d8	*0.0520*			*mg/kg*	*0.0500*		*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0508*			*mg/kg*	*0.0500*		*102*	*80-120*			

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Project ID: ARCO 0191, Los Angeles

Report Number: INK0967

Sampled: 11/10/04
Received: 11/11/04

METHOD BLANK/QC DATA

BTEX/OXYGENATES by GC/MS (EPA 5035/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4K16031 Extracted: 11/16/04											
LCS Analyzed: 11/16/04 (4K16031-BS1)											
Benzene	0.0519	0.0020	0.00050	mg/kg	0.0500		104	70-120			
Ethylbenzene	0.0599	0.0020	0.00051	mg/kg	0.0500		120	75-125			
Toluene	0.0558	0.0020	0.00091	mg/kg	0.0500		112	75-120			
o-Xylene	0.0493	0.0020	0.00047	mg/kg	0.0500		99	80-125			
m,p-Xylenes	0.104	0.0020	0.00075	mg/kg	0.100		104	80-125			
Xylenes, Total	0.153	0.0040	0.00075	mg/kg	0.150		102	80-125			
Di-isopropyl Ether (DIPE)	0.0572	0.0050	0.00035	mg/kg	0.0500		114	65-135			
Ethyl tert-Butyl Ether (ETBE)	0.0588	0.0050	0.00058	mg/kg	0.0500		118	60-140			
tert-Amyl Methyl Ether (TAME)	0.0510	0.0050	0.00064	mg/kg	0.0500		102	60-140			
Methyl-tert-butyl Ether (MTBE)	0.0503	0.0050	0.0010	mg/kg	0.0500		101	55-145			
tert-Butanol (TBA)	0.276	0.050	0.0047	mg/kg	0.250		110	70-140			
Ethanol	0.484	0.30	0.055	mg/kg	0.500		97	35-165			
Surrogate: Dibromofluoromethane	*0.0470*			*mg/kg*	*0.0500*		*94*	*80-125*			
Surrogate: Toluene-d8	*0.0518*			*mg/kg*	*0.0500*		*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0501*			*mg/kg*	*0.0500*		*100*	*80-120*			
Matrix Spike Analyzed: 11/16/04 (4K16031-MS1)						**Source: INK0485-02**					
Benzene	0.0457	0.0020	0.00050	mg/kg	0.0489	ND	93	65-130			
Ethylbenzene	0.0505	0.0020	0.00051	mg/kg	0.0489	ND	103	70-135			
Toluene	0.0486	0.0020	0.00091	mg/kg	0.0489	ND	99	70-125			
o-Xylene	0.0431	0.0020	0.00047	mg/kg	0.0489	ND	88	70-125			
m,p-Xylenes	0.0869	0.0020	0.00075	mg/kg	0.0978	ND	89	70-130			
Xylenes, Total	0.130	0.0040	0.00075	mg/kg	0.147	ND	88	70-130			
Di-isopropyl Ether (DIPE)	0.0550	0.0050	0.00035	mg/kg	0.0489	ND	112	65-145			
Ethyl tert-Butyl Ether (ETBE)	0.0619	0.0050	0.00058	mg/kg	0.0489	ND	127	60-145			
tert-Amyl Methyl Ether (TAME)	0.0541	0.0050	0.00064	mg/kg	0.0489	ND	111	60-150			
Methyl-tert-butyl Ether (MTBE)	0.0558	0.0050	0.0010	mg/kg	0.0489	ND	114	50-155			
tert-Butanol (TBA)	0.211	0.050	0.0047	mg/kg	0.245	ND	86	65-145			
Ethanol	0.347	0.30	0.055	mg/kg	0.489	ND	71	30-165			
Surrogate: Dibromofluoromethane	*0.0509*			*mg/kg*	*0.0489*		*104*	*80-125*			
Surrogate: Toluene-d8	*0.0505*			*mg/kg*	*0.0489*		*103*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0479*			*mg/kg*	*0.0489*		*98*	*80-120*			

Del Mar Analytical, Irvine
Wendy Kirkeeng
Project Manager

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Del Mar Analytical

SECOR International, Inc.-Orange County
11085 Knott Ave, Suite B
Cypress, CA 90630
Attention: Cathy Sanford

Project ID: ARCO 0191, Los Angeles

Report Number: INK0967

Sampled: 11/10/04
Received: 11/11/04

METHOD BLANK/QC DATA

BTEX/OXYGENATES by GC/MS (EPA 5035/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4K16031 Extracted: 11/16/04											
Matrix Spike Dup Analyzed: 11/16/04 (4K16031-MSD1)						Source: INK0485-02					
Benzene	0.0470	0.0020	0.00050	mg/kg	0.0501	ND	94	65-130	3	20	
Ethylbenzene	0.0511	0.0020	0.00051	mg/kg	0.0501	ND	102	70-135	1	25	
Toluene	0.0491	0.0020	0.00091	mg/kg	0.0501	ND	98	70-125	1	20	
o-Xylene	0.0445	0.0020	0.00047	mg/kg	0.0501	ND	89	70-125	3	25	
m,p-Xylenes	0.0913	0.0020	0.00075	mg/kg	0.100	ND	91	70-130	5	25	
Xylenes, Total	0.136	0.0040	0.00075	mg/kg	0.150	ND	91	70-130	5	25	
Di-isopropyl Ether (DIPE)	0.0539	0.0050	0.00035	mg/kg	0.0501	ND	108	65-145	2	25	
Ethyl tert-Butyl Ether (ETBE)	0.0588	0.0050	0.00058	mg/kg	0.0501	ND	117	60-145	5	30	
tert-Amyl Methyl Ether (TAME)	0.0532	0.0050	0.00064	mg/kg	0.0501	ND	106	60-150	2	25	
Methyl-tert-butyl Ether (MTBE)	0.0546	0.0050	0.0010	mg/kg	0.0501	ND	109	50-155	2	35	
tert-Butanol (TBA)	0.221	0.050	0.0047	mg/kg	0.251	ND	88	65-145	5	30	
Ethanol	0.383	0.30	0.055	mg/kg	0.501	ND	76	30-165	10	40	
Surrogate: Dibromofluoromethane	*0.0494*			*mg/kg*	*0.0501*		*99*	*80-125*			
Surrogate: Toluene-d8	*0.0523*			*mg/kg*	*0.0501*		*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0511*			*mg/kg*	*0.0501*		*102*	*80-120*			
Batch: 4K16091 Extracted: 11/16/04											
Blank Analyzed: 11/17/04 (4K16091-BLK1)											
Benzene	ND	0.10	0.034	mg/kg							
Ethylbenzene	ND	0.10	0.027	mg/kg							
Toluene	ND	0.10	0.033	mg/kg							
o-Xylene	ND	0.10	0.028	mg/kg							
m,p-Xylenes	ND	0.20	0.053	mg/kg							
Xylenes, Total	ND	0.25	0.053	mg/kg							
Di-isopropyl Ether (DIPE)	ND	0.25	0.051	mg/kg							
Ethyl tert-Butyl Ether (ETBE)	ND	0.25	0.066	mg/kg							
tert-Amyl Methyl Ether (TAME)	ND	0.25	0.068	mg/kg							
Methyl-tert-butyl Ether (MTBE)	ND	0.25	0.062	mg/kg							
tert-Butanol (TBA)	ND	5.0	0.25	mg/kg							
Ethanol	ND	15	4.3	mg/kg							
Surrogate: Dibromofluoromethane	*3.15*			*mg/kg*	*2.50*		*126*	*55-155*			
Surrogate: Toluene-d8	*2.72*			*mg/kg*	*2.50*		*109*	*60-160*			
Surrogate: 4-Bromofluorobenzene	*2.70*			*mg/kg*	*2.50*		*108*	*60-155*			

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Del Mar Analytical

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11085 Knott Ave, Suite B
Cypress, CA 90630
Attention: Cathy Sanford

Project ID: ARCO 0191, Los Angeles

Report Number: INK0967

Sampled: 11/10/04
Received: 11/11/04

METHOD BLANK/QC DATA

BTEX/OXYGENATES by GC/MS (EPA 5035/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4K16091 Extracted: 11/16/04											
LCS Analyzed: 11/17/04 (4K16091-BS1)											
Benzene	2.73	0.10	0.034	mg/kg	2.50		109	75-120			
Ethylbenzene	2.91	0.10	0.027	mg/kg	2.50		116	80-120			
Toluene	2.80	0.10	0.033	mg/kg	2.50		112	80-120			
o-Xylene	2.70	0.10	0.028	mg/kg	2.50		108	80-125			
m,p-Xylenes	5.59	0.10	0.053	mg/kg	5.00		112	80-120			
Xylenes, Total	8.30	0.20	0.053	mg/kg	7.50		111	80-125			
Di-isopropyl Ether (DIPE)	2.56	0.25	0.051	mg/kg	2.50		102	65-140			
Ethyl tert-Butyl Ether (ETBE)	2.42	0.25	0.066	mg/kg	2.50		97	60-145			
tert-Amyl Methyl Ether (TAME)	2.44	0.25	0.068	mg/kg	2.50		98	60-150			
Methyl-tert-butyl Ether (MTBE)	2.29	0.25	0.062	mg/kg	2.50		92	55-150			
tert-Butanol (TBA)	15.4	5.0	0.25	mg/kg	12.5		123	75-140			
Ethanol	52.3	15	4.3	mg/kg	25.0		209	30-165			LP
Surrogate: Dibromofluoromethane	*2.88*			*mg/kg*	*2.50*		*115*	*55-155*			
Surrogate: Toluene-d8	*2.58*			*mg/kg*	*2.50*		*103*	*60-160*			
Surrogate: 4-Bromofluorobenzene	*2.66*			*mg/kg*	*2.50*		*106*	*60-155*			
LCS Dup Analyzed: 11/17/04 (4K16091-BSD1)											
Benzene	2.36	0.10	0.034	mg/kg	2.50		94	75-120	15	20	
Ethylbenzene	2.54	0.10	0.027	mg/kg	2.50		102	80-120	14	20	
Toluene	2.43	0.10	0.033	mg/kg	2.50		97	80-120	14	20	
o-Xylene	2.36	0.10	0.028	mg/kg	2.50		94	80-125	13	20	
m,p-Xylenes	4.87	0.10	0.053	mg/kg	5.00		97	80-120	14	20	
Xylenes, Total	7.23	0.20	0.053	mg/kg	7.50		96	80-125	14	20	
Di-isopropyl Ether (DIPE)	2.38	0.25	0.051	mg/kg	2.50		95	65-140	7	20	
Ethyl tert-Butyl Ether (ETBE)	2.26	0.25	0.066	mg/kg	2.50		90	60-145	7	25	
tert-Amyl Methyl Ether (TAME)	2.23	0.25	0.068	mg/kg	2.50		89	60-150	9	25	
Methyl-tert-butyl Ether (MTBE)	2.11	0.25	0.062	mg/kg	2.50		84	55-150	8	25	
tert-Butanol (TBA)	13.8	5.0	0.25	mg/kg	12.5		110	75-140	11	20	
Ethanol	49.6	15	4.3	mg/kg	25.0		198	30-165	5	30	LP
Surrogate: Dibromofluoromethane	*2.73*			*mg/kg*	*2.50*		*109*	*55-155*			
Surrogate: Toluene-d8	*2.46*			*mg/kg*	*2.50*		*98*	*60-160*			
Surrogate: 4-Bromofluorobenzene	*2.50*			*mg/kg*	*2.50*		*100*	*60-155*			

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Del Mar Analytical

SECOR International, Inc.-Orange County
11085 Knott Ave, Suite B
Cypress, CA 90630
Attention: Cathy Sanford

Project ID: ARCO 0191, Los Angeles

Report Number: INK0967

Sampled: 11/10/04
Received: 11/11/04

METHOD BLANK/QC DATA

BTEX/OXYGENATES by GC/MS (EPA 5035/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4K17029 Extracted: 11/17/04											
Blank Analyzed: 11/17/04 (4K17029-BLK1)											
Benzene	ND	0.0020	0.00050	mg/kg							
Ethylbenzene	ND	0.0020	0.00051	mg/kg							
Toluene	ND	0.0020	0.00091	mg/kg							
o-Xylene	ND	0.0020	0.00047	mg/kg							
m,p-Xylenes	ND	0.0020	0.00075	mg/kg							
Xylenes, Total	ND	0.0040	0.00075	mg/kg							
Di-isopropyl Ether (DIPE)	ND	0.0050	0.00035	mg/kg							
Ethyl tert-Butyl Ether (ETBE)	ND	0.0050	0.00058	mg/kg							
tert-Amyl Methyl Ether (TAME)	ND	0.0050	0.00064	mg/kg							
Methyl-tert-butyl Ether (MTBE)	ND	0.0050	0.0010	mg/kg							
tert-Butanol (TBA)	ND	0.050	0.0047	mg/kg							
Ethanol	ND	0.30	0.055	mg/kg							
Surrogate: Dibromofluoromethane	*0.0515*			*mg/kg*	*0.0500*		*103*	*80-125*			
Surrogate: Toluene-d8	*0.0513*			*mg/kg*	*0.0500*		*103*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0506*			*mg/kg*	*0.0500*		*101*	*80-120*			
LCS Analyzed: 11/17/04 (4K17029-BS1)											
Benzene	0.0458	0.0020	0.00050	mg/kg	0.0500		92	70-120			
Ethylbenzene	0.0453	0.0020	0.00051	mg/kg	0.0500		91	75-125			
Toluene	0.0456	0.0020	0.00091	mg/kg	0.0500		91	75-120			
o-Xylene	0.0440	0.0020	0.00047	mg/kg	0.0500		88	80-125			
m,p-Xylenes	0.0886	0.0020	0.00075	mg/kg	0.100		89	80-125			
Xylenes, Total	0.133	0.0040	0.00075	mg/kg	0.150		89	80-125			
Di-isopropyl Ether (DIPE)	0.0529	0.0050	0.00035	mg/kg	0.0500		106	65-135			
Ethyl tert-Butyl Ether (ETBE)	0.0527	0.0050	0.00058	mg/kg	0.0500		105	60-140			
tert-Amyl Methyl Ether (TAME)	0.0573	0.0050	0.00064	mg/kg	0.0500		115	60-140			
Methyl-tert-butyl Ether (MTBE)	0.0588	0.0050	0.0010	mg/kg	0.0500		118	55-145			
tert-Butanol (TBA)	0.214	0.050	0.0047	mg/kg	0.250		86	70-140			
Ethanol	0.385	0.30	0.055	mg/kg	0.500		77	35-165			
Surrogate: Dibromofluoromethane	*0.0530*			*mg/kg*	*0.0500*		*106*	*80-125*			
Surrogate: Toluene-d8	*0.0512*			*mg/kg*	*0.0500*		*102*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0514*			*mg/kg*	*0.0500*		*103*	*80-120*			

Del Mar Analytical, Irvine
Wendy Kirkeeng
Project Manager

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Cypress, CA 90630
Attention: Cathy Sanford

Project ID: ARCO 0191, Los Angeles

Report Number: INK0967

Sampled: 11/10/04
Received: 11/11/04

METHOD BLANK/QC DATA

BTEX/OXYGENATES by GC/MS (EPA 5035/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 4K17029 Extracted: 11/17/04											
Matrix Spike Analyzed: 11/17/04 (4K17029-MS1)						Source: INK0531-01					
Benzene	0.0586	0.0020	0.00050	mg/kg	0.0548	ND	107	65-130			
Ethylbenzene	0.0559	0.0020	0.00051	mg/kg	0.0548	ND	102	70-135			
Toluene	0.0555	0.0020	0.00091	mg/kg	0.0548	0.0013	99	70-125			
o-Xylene	0.0507	0.0020	0.00047	mg/kg	0.0548	ND	93	70-125			
m,p-Xylenes	0.105	0.0020	0.00075	mg/kg	0.110	ND	95	70-130			
Xylenes, Total	0.156	0.0040	0.00075	mg/kg	0.164	ND	95	70-130			
Di-isopropyl Ether (DIPE)	0.0594	0.0050	0.00035	mg/kg	0.0548	ND	108	65-145			
Ethyl tert-Butyl Ether (ETBE)	0.0525	0.0050	0.00058	mg/kg	0.0548	ND	96	60-145			
tert-Amyl Methyl Ether (TAME)	0.0516	0.0050	0.00064	mg/kg	0.0548	ND	94	60-150			
Methyl-tert-butyl Ether (MTBE)	0.0512	0.0050	0.0010	mg/kg	0.0548	ND	93	50-155			
tert-Butanol (TBA)	0.326	0.050	0.0047	mg/kg	0.274	ND	119	65-145			
Ethanol	0.664	0.30	0.055	mg/kg	0.548	ND	121	30-165			
Surrogate: Dibromofluoromethane	*0.0534*			*mg/kg*	*0.0548*		*97*	*80-125*			
Surrogate: Toluene-d8	*0.0526*			*mg/kg*	*0.0548*		*96*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0492*			*mg/kg*	*0.0548*		*90*	*80-120*			
Matrix Spike Dup Analyzed: 11/17/04 (4K17029-MSD1)						Source: INK0531-01					
Benzene	0.0573	0.0020	0.00050	mg/kg	0.0546	ND	105	65-130	2	20	
Ethylbenzene	0.0533	0.0020	0.00051	mg/kg	0.0546	ND	98	70-135	5	25	
Toluene	0.0555	0.0020	0.00091	mg/kg	0.0546	0.0013	99	70-125	0	20	
o-Xylene	0.0502	0.0020	0.00047	mg/kg	0.0546	ND	92	70-125	1	25	
m,p-Xylenes	0.103	0.0020	0.00075	mg/kg	0.109	ND	94	70-130	2	25	
Xylenes, Total	0.153	0.0040	0.00075	mg/kg	0.164	ND	93	70-130	2	25	
Di-isopropyl Ether (DIPE)	0.0632	0.0050	0.00035	mg/kg	0.0546	ND	116	65-145	6	25	
Ethyl tert-Butyl Ether (ETBE)	0.0614	0.0050	0.00058	mg/kg	0.0546	ND	112	60-145	16	30	
tert-Amyl Methyl Ether (TAME)	0.0638	0.0050	0.00064	mg/kg	0.0546	ND	117	60-150	21	25	
Methyl-tert-butyl Ether (MTBE)	0.0660	0.0050	0.0010	mg/kg	0.0546	ND	121	50-155	25	35	
tert-Butanol (TBA)	0.299	0.050	0.0047	mg/kg	0.273	ND	110	65-145	9	30	
Ethanol	0.572	0.30	0.055	mg/kg	0.546	ND	105	30-165	15	40	
Surrogate: Dibromofluoromethane	*0.0557*			*mg/kg*	*0.0546*		*102*	*80-125*			
Surrogate: Toluene-d8	*0.0541*			*mg/kg*	*0.0546*		*99*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0522*			*mg/kg*	*0.0546*		*96*	*80-120*			

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Project Manager

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11085 Knott Ave, Suite B
Cypress, CA 90630
Attention: Cathy Sanford

Project ID: ARCO 0191, Los Angeles

Report Number: INK0967

Sampled: 11/10/04
Received: 11/11/04

DATA QUALIFIERS AND DEFINITIONS

AX	Sample too dilute to quantify surrogate
AZ	Surr. recovery outside of acceptance limits due to matrix interf.
DU	Insufficient sample quantity for matrix spike/dup matrix spike
IO	Contract limits originate from BP-GCLN Technical Requirements
J,DX	EPA Flag - Estimated value, Value < lowest standard (MQL), but > than MDL
LP	Laboratory Control Sample recovery was above method control limits. Analyte not detected, data not impacted.
RB	RPD exceeded method control limit; % recoveries within limits.
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 GRO (C4-C12):

GRO (C4-C12) is quantitated against a gasoline standard. Quantitation begins immediately following the methanol peak.

8015 Analysis EDF Parlabel Cross Reference

Analyte	EDF Parlabel
GRO (C4 - C12)	GROC4C12

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Attention: Cathy Sanford

Project ID: ARCO 0191, Los Angeles

Report Number: INK0967

Sampled: 11/10/04
Received: 11/11/04

Certification Summary

Del Mar Analytical, Irvine

Method	Matrix	NELAP	CA
EPA 8015B	Soil	X	X
EPA 8015B	Soil-extr	X	X
EPA 8260B	Soil	X	X
EPA 8260B	Soil-extr	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
Wendy Kirkeeng
Project Manager

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Chain of Custody Record

Project Name: Site Assessment
BP BU/AR Region/Enfos Segment: San Diego/West Los Angeles
State or Lead Regulatory Agency: City of Los Angeles Fire Department
Requested Due Date (mm/dd/yy): ## 11/27/04

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

Lab Name:	Del Mar Analytical
Address:	17461 Derian Way Suite 100
	Irvine, California 92614-5817
Lab PM:	Chris Roberts
Tele/Fax:	949-261-1022/1228
BP/AR PM Contact:	Roy Thun
Address:	6 Centerpointe Drive
	La Palma, CA 90623
Tele/Fax:	661-287-3855 222-7349
Lab Bottle Order No:	

BP/AR Facility No.:	00 191
BP/AR Facility Address:	3401 Whittier Blvd, Los Angeles
Site Lat/Long:	
California Global ID No.:	T060370065
Enfos Project No.:	G09K4-0456 WR 86320
Provision or RCOP (circle one)	Provision
Phase/WBS:	1 Assessment
Sub Phase/Task:	.1103 analytical
Cost Element:	subcontractor costs

Consultant/Contractor:	SECOR International Inc.
Address:	11085 Knott Ave Suite B
	Cypress, CA 90630
Consultant/Contractor Project No.:	14BP.00191.01
Consultant/Contractor PM:	Cathy Sanford
Tele/Fax:	714-379-3366/ 3375
Report Type & QC Level:	Standard
E-mail EDD To:	bauchard@secor.com
Invoice to:	Consultant or BP or Atlantic Richfield Co. (circle one)

Item No.	Sample Description	Time (WAH)	Date	Matrix: Soil/Solid	Water/Liquid	Air	Laboratory No. (TN60967)	No. of Containers	Preservative: Unpreserved	H_2SO_4	HNO_3	HCl	Methanol	Requested Analysis: BTEX 8021	BTEX/TPH	BTEX/Oxy/TPH	EPA 8260 BTEX/OXY/Eth	EPA 8270	EPA 8015 TPHg	Sample Point Lat/Long and Comments
1	B-9-5	11:20	11/10/04	x				7	x								x		x	
2	B-9-10	14:25		x				7	x								x		x	
3	B-9-15	14:30		x				7	x								x		x	
4	B-9-20	14:35		x				7	x								x		x	
5	B-9-25	14:40		x				7	x								x		x	
6	B-9-30	15:00		x				7	x								x		x	
7	B-9-35	15:05		x				7	x								x		x	
8	B-9-40	15:15		x				7	x								x		x	
9	B-9-45	15:25		x				7	x								x		x	
10	B-9-50	15:30	✓	x				7	x								x		x	

Sampler's Name:	NICOLE ALLEN
Sampler's Company:	SECOR
Shipment Date:	11/11/04
Shipment Method:	courier
Shipment Tracking No:	

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Nicole Allen	11/10/04	17:00	DMAI	11/10	600
DMAI	11/10/04	955		11/10	9:55

Special Instructions:

Cooler Temperature on Receipt 4 °F/C Trip Blank Yes ✗ No

Custody Seals In Place Yes No ✗ Temp Blank Yes No ✗ Blank Copy Consultant/Contractor

Chain of Custody Record

bp

Project Name: Site Assessment
BP BU/AR Region/Enfos Segment: San Diego/West Los Angeles
State or Lead Regulatory Agency: City of Los Angeles Fire Department
Requested Due Date (mm/dd/yy): ## 11/27/04

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

Lab Name:	Del Mar Analytical
Address:	17461 Derian Way Suite 100
	Irvine, California 92614-5817
Lab PM:	Chris Roberts
Tele/Fax:	949-261-1022/1228
BP/AR PM Contact:	Roy Thun
Address:	6 Centerpointe Drive
	La Palma, CA 90623
Tele/Fax:	661-287-3855 222-7349
Lab Bottle Order No:	

BP/AR Facility No.:	00 191
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Provision or RCOP (circle one)	Provision
Phase/WBS:	1 Assessment
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Report Type & QC Level:	Standard
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Item No.	Sample Description	Time	Date	Matrix: Soil/Solid	Matrix: Water/Liquid	Matrix: Air	Laboratory No.	No. of Containers	Preservative: Unpreserved	Preservative: H_2SO_4	Preservative: HNO_3	Preservative: HCl	Preservative: Methanol	Requested Analysis: BTEX 8021	Requested Analysis: BTEX/TPH	Requested Analysis: BTEX/Oxy/TPH	Requested Analysis: EPA 8260 BTEX/OXY/Eth	Requested Analysis: EPA 8270	Requested Analysis: EPA 8015 TPHg	Sample Point Lat/Long and Comments
		DM																		
1	B-9-55	15:35		x				7	x								x		x	
2	B-9-60	15:45		x				7	x								x		x	
3	B-9-65	15:55		x				7	x								x		x	
4	B-9-70	16:05		x				7	x								x		x	
5	B-9-75	16:10		x				7	x								x		x	HOLD ~~NO TB~~
6	TB-00191-20041110	—			x			3												HOLD
7	EB-00191-20041110	—			x			3												
8	B-9-80	16:55		X	X			7	X								X		X	
9																				
10																				

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
[illegible]	11/10/04	1900	[illegible] DMAE	11-10-04	1900
[illegible] DMAE	11/10/04	955	[illegible]	11-10-04	955

Sampler's Name: NICOLE ALKEN
Sampler's Company: SECOR
Shipment Date: 11/11/04
Shipment Method: courier
Shipment Tracking No:

Special Instructions:

Cooler Temperature on Receipt 4 °F/C Trip Blank Yes X No

Custody Seals in Place Yes No X Temp Blank Yes No X