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ExonMobil
Refining & Supply

July 31, 2006

Mr. Barney Chan Alameda County Health Care Services Agency 1131 Harbor Bay Parkway Alameda, California 94502

Subject: Fuel Leak Investigation Site No. RO0002635

Former Exxon RAS #7-4121, 10605 Foothill Boulevard, Oakland, California

Dear Mr. Chan:

Attached for your review and comment is a copy of the Subsurface Investigation and Risk Assessment Report dated July 2006 for the above-referenced site. The report, prepared by ETIC Engineering, Inc. of Pleasant Hill, California, details the results of a subsurface investigation and risk assessment performed for the site in support of case closure.

Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached report is true and correct.

If you have any questions or comments, please contact me at 510.547.8196.

Sincerely,

Jennifer C. Sedlachek

Project Manager

Attachment: ETIC Subsurface Investigation and Risk Assessment Report dated July 2006

c: w/ attachment:

Mr. Ken Phares - MacArthur Boulevard Associates, Oakland, California

Mr. Peter McIntyre - AEI Consultants

Sollacter

c: w/o attachment:

Ms. Christa Marting - ETIC Engineering, Inc.



Subsurface Investigation and Risk Assessment Report

Former Exxon Retail Site 7-4121 10605 Foothill Boulevard Oakland, California

Prepared for

ExxonMobil Oil Corporation 4096 Piedmont Avenue #194 Oakland, California 94611

Prepared by

ETIC Engineering, Inc. 2285 Morello Avenue Pleasant Hill, California 94523 (925) 602-4710

Sherris Prall Project Manager

Bryan Campbell, P.G. #7724

Senior Geologist

BRYAN CAMPBELL

No. 7724

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Date

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SITE CONTACTS

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1. INTRODUCTION

At the request of ExxonMobil Oil Corporation (ExxonMobil), ETIC Engineering, Inc. (ETIC) has prepared this Subsurface Investigation and Risk Assessment Report for former Exxon Retail Site (RS) 7-4121, located at 10605 Foothill Boulevard, Oakland, California (Figure 1).

In a letter dated 27 July 2005, the Alameda County Health Care Services Agency (ACHCSA) requested the performance of a conduit study including a well search, a characterization of the local hydrogeology and groundwater flow conditions, and the collection of additional soil and groundwater samples for further onsite delineation of soil and groundwater impacts. The ACHCSA also supported the performance of a human health risk assessment recommended by ETIC in the Subsurface Investigation Report dated July 2005 (ETIC 2005a) in preparation for case closure. A Risk Assessment Work Plan dated August 2005 addressing these items was submitted to the ACHSA (ETIC 2005b). The work plan was approved by the ACHCSA in a letter dated 6 September 2005.

As a result of telephone and electronic correspondence between ETIC and the ACHCSA between 6 September 2005 and 28 April 2006, additional soil borings for the collection of soil, groundwater, and soil vapor samples were added to the scope of work presented in the Risk Assessment Work Plan, and the locations of some of the proposed borings were altered. An extension for the submission of this report was granted by the ACHCSA in electronic correspondence dated 14 February 2006 and 13 June 2006. Copies of regulatory correspondence are included Appendix A.

Scope of Work

The investigation consisted of the following activities:

- On 26 and 27 April 2006, soil borings SB14 through SB20 and V1 through V10 were cleared for the presence of underground utilities using either an air-knife and vacuum rig or a hand auger to a depth of 4 feet below ground surface (bgs). Soil samples were collected at either 2.5 or 3 feet bgs from borings SB14 through SB20 and were analyzed for moisture content, specific gravity, and porosity. Borings SB14 through SB20 were backfilled with native soil while borings intended for shallow soil vapor sampling (V1 through V10) were backfilled with hydrated granular bentonite.
- on 1 May 2006, ETIC observed the advancement of direct-push soil borings V1 through V10 for the collection of shallow soil vapor samples. Due to the tightness of clay present at shallow depths beneath the site, soil vapor samples could only be drawn from borings V1, V3, V6, V7, V9, and V10. The soil vapor samples were analyzed onsite in a mobile laboratory for Total Petroleum Hydrocarbons as gasoline (TPH-g), benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tertiary butyl ether (MTBE). The samples were also analyzed for 1,1-difluoroethane, which was used as a quality control tracer during the sampling process.
- On 2 and 3 May 2006, ETIC observed the advancement of direct-push soil borings SB14 through SB21 for the collection of soil and groundwater samples. Prior to advancement,

boring SB21 was cleared for the presence of underground utilities to a depth of 8 feet bgs using a hand auger. Soil and groundwater samples collected from the borings were analyzed for Total Petroleum Hydrocarbons as diesel (TPH-d), TPH-g, BTEX, MTBE, 1,2-dibromoethane (EDB), 1,2-dichloroethane (1,2-DCA), di-isopropyl ether (DIPE), tert-butyl alcohol (TBA), tert-amyl methyl ether (TAME), and ethyl tert-butyl ether (ETBE).

- On 3 May 2006, soil samples were collected at depths between 5 and 10 feet bgs from direct-push soil borings advanced immediately adjacent to the borings from which soil vapor could not be drawn (V3, V4, V5, and V8). An additional boring was not advanced adjacent to boring V2 due to the close proximity of shallow soil samples collected from soil borings SB14 through SB16. The borings were advanced within the holes cleared on 26 and 27 April 2006. The soil samples were analyzed for TPH-d, TPH-g, BTEX, MTBE, EDB, 1,2-DCA, DIPE, TBA, TAME, and ETBE.
- An additional file review, a conduit study including a well search, and a human health risk assessment were also completed.

2. SITE BACKGROUND

2.1 SITE LOCATION, HISTORY, AND LAND USE

Former Exxon RS 7-4121 is currently a small landscaped area located at 10605 Foothill Boulevard, Oakland, California, on the south corner of the intersection of Foothill Boulevard and 106th Avenue (Figure 2). The site lies at an elevation of approximately 85 feet above mean sea level (msl). The property is currently owned by MacArthur Boulevard Associates and has a shopping center and a residential area nearby. According to internal Exxon Company, U.S.A. correspondence, the underground storage tanks (USTs) were removed from the site between 20 October 1981 and 15 June 1982. Site physical features and soil boring locations are presented on Figure 2. An aerial photograph of the site and vicinity is presented on Figure 3.

According to the property owner, a commercial retail structure is currently proposed for the north corner of the site. The remainder of the site will consist of paved areas.

2.2 SUMMARY OF PREVIOUS INVESTIGATIONS

In December 1998, AEI performed a geophysical survey (magnetometry and ground-penetrating radar) to ascertain the presence of USTs at the site (AEI 2004). No underground anomalies indicative of remaining USTs were identified (AEI 2004). Also, an ACHCSA letter dated 22 March 2005 indicated that the UST system was removed from the site prior to December 1998.

In March 2004, AEI conducted a subsurface investigation at the site in order to collect soil and grab groundwater samples (AEI 2004). Four soil borings (SB-1 through SB-4) were advanced to depths of 8 feet bgs (SB-3 and SB-4), 16 feet bgs (SB-1), and 22 feet bgs (SB-2) (AEI 2004). TPH-g was detected in soil samples at concentrations up to 1,000 milligrams per kilogram (mg/kg), TPH-d was detected up to 590 mg/kg, benzene was detected in one soil sample (SB-1) at 0.55 mg/kg, and MTBE was not detected above laboratory reporting limits in any of the soil samples. TPH-g and TPH-d were detected in groundwater samples at concentrations up to 7,000 micrograms per liter (μ g/L) and 26,000 μ g/L, respectively. Benzene was detected in groundwater samples at concentrations up to 250 μ g/L, and MTBE was not detected above the laboratory reporting limit of 17 μ g/L in any of the groundwater samples. Soil and groundwater analytical results are provided in Tables 1 and 2.

In May 2005, ETIC conducted a subsurface investigation at the site to collect soil and groundwater samples (ETIC 2005a). Nine soil borings (SB5-SB13) were advanced to approximately 25 feet bgs (Figure 2). TPH-g was detected in soil samples at concentrations up to 279 mg/kg, TPH-d was detected up to 10.6 mg/kg, benzene was detected up to 1.58 mg/kg, and MTBE was not detected above laboratory reporting limits in any of the soil samples. TPH-g and TPH-d were detected in groundwater samples at concentrations up to 2,250 μ g/L and 801 μ g/L, respectively. Benzene was detected in groundwater samples at concentrations up to 75.7 μ g/L, and MTBE was detected in the groundwater samples at concentrations up to 14.2 μ g/L. Soil and groundwater analytical results are provided in Tables 1 and 2.

2.3 AGENCY FILE REVIEW

An initial file review was conducted for the site and is presented in detail in the ETIC Subsurface Investigation Report dated July 2005 (ETIC 2005a). As requested by the ACHCSA in a letter dated 6 September 2005, aerial photos and Sanborn maps were reviewed and an additional file review was conducted in order to supplement the information obtained during the initial file review. Copies of regulatory correspondence are included in Appendix A.

Aerial Photographs

Aerial photos of the site for the years 1939, 1946, 1958, 1965, 1982, 1993, and 1998 were provided by Environmental Data Resources (EDR) (EDR 2005). Aerial photos from 1939, 1946, and 1958 show the property as being either a field or a vacant, grassy lot. The 1965 aerial photo shows a building and what appear to be dispenser islands. In the 1982, 1993, and 1998 aerial photos the building and dispenser islands are no longer visible on the site. Historical aerial photos are included as Appendix B. A current aerial photo of the site is provided as Figure 3.

Sanborn Maps

Sanborn Maps were provided by EDR (EDR 2005). Sanborn Maps are fire insurance maps that describe the historical property use. Sanborn Maps for the years 1926, 1949, 1952, 1959, 1960, and 1961 show the property as a vacant lot. Sanborn Maps for 1965, 1968, and 1969 show a building labeled "gas and oil." The Sanborn Maps for 1965, 1968, and 1969 are provided in Appendix C as requested by the ACHCSA.

Additional File Reviews

On 9 February 2006 an additional file review was conducted at the ACHCSA offices. Information was also obtained through the use of the GeoTracker online database which is maintained by the State Water Resources Control Board. The reviews were conducted to provide more information on the environmental conditions for six nearby sites which were identified in the report by EDR (EDR 2005). These sites were listed in one or more of the following databases: Cortese; Notify 65; Leaking Underground Storage Tank (LUST); Underground Storage Tank (UST); Facility Inventory Database (CA FID); Historical UST (HIST UST); and State or Local ASTM Supplemental (CA SLIC). These sites are listed below:

•	Southland Project	10501 Foothill Blvd.
•	USA Service Station No. 57	10700 Macarthur Blvd.
•	ARCO Service Station #0276	10600 Macarthur Blvd.
•	Shell #13-5676	230 Macarthur Blvd.
•	Kaiser Permanente Medical Center	280 Macarthur Blvd.
•	Macarthur Auto Service Center	10511 Macarthur Blvd.

The information obtained from the file review conducted at the ACHCSA office included one report which was a Site Conceptual Model prepared for USA Service Station No. 57 (Stratus 2005).

Information regarding the remaining sites was obtained from GeoTracker. Shell #13-5676 is an active service station located approximately 8 miles northwest of former Exxon RS 7-4121. Due to the distance of the Shell #13-5676 site to the former Exxon RS 7-4121 site, the environmental conditions at the Shell #13-5676 site were not considered for this review. With the exception of Macarthur Auto Service Center all of the sites above are listed in GeoTracker. Limited information was available for the Southland Project and Kaiser Permanente Medical Center. Information regarding the two remaining sites is summarized below.

Former USA Station No. 57

The USA Station No. 57 site is listed in the LUFT database and is located approximately 200 feet southeast of former Exxon RS 7-4121 on the eastern corner of the Foothills Square Shopping Center and lies at an elevation of approximately 80 feet above msl.

A Site Conceptual Model prepared for USA Gasoline Corporation by Stratus obtained from the file review conducted at the ACHCSA describes the site geology as interbedded strata of clay, silt, sand, and gravel overlying weathered, fractured silty sandstone, siltstone, claystone, and chert (Stratus 2005).

A Quarterly Groundwater Monitoring Report, Fourth Quarter 2005, obtained from GeoTracker indicates the existence of 12 groundwater monitoring wells (Stratus 2006). Groundwater flow direction and hydraulic gradient at the site were reported as south at a gradient of 0.17 foot/foot for fourth quarter 2005. Depth to water at the site has historically ranged between 7 and 21 feet bgs. This report is provided in Appendix D.

Arco Service Station #0276

The Arco Service Station #0276 site is listed in the LUFT database and is located approximately 1,100 feet southwest of former Exxon RS 7-4121 at the corner of 106th Avenue and Macarthur Boulevard and lies at an elevation of approximately 60 feet above msl.

A Fourth Quarter 2005 Groundwater Monitoring Report submitted to GeoTracker indicates the existence of 10 groundwater monitoring wells (URS 2005). Groundwater flow direction and hydraulic gradient at the site were reported as southwest at a gradient of 0.005 foot/foot for fourth quarter 2005. Depth to water at the site has historically ranged between approximately 14 and 46 feet bgs. This report is provided in Appendix E.

2.4 REGIONAL GEOLOGY AND HYDROGEOLOGY

The site is located within the Coast Range Geomorphic Province on the eastern side of San Francisco Bay near the base of the western flank of the Diablo Range. The site is located approximately 1,000 feet west of the Hayward Fault Zone through which traces of the Hayward Fault have been mapped. The site is underlain by Jurassic-age volcanic and highly altered volcanic rock. Bedrock mapped near the site includes the Coast Range ophiolite which consists of basalts, diabase, and gabbro (Braymer 2000). Immediately west of the site are Holocene age alluvial fan and fluvial deposits

which are mostly confined to narrow drainage valleys in the immediate area and spread out toward the west on the San Francisco Bay plain. The site is at an elevation of approximately 85 feet and the local topography slopes to the west toward San Francisco Bay (Figure 1).

The nearest surface water body to the site is San Leandro Creek, located approximately 2,500 feet south of the site.

2.5 CHARACTERIZATION OF LOCAL GEOLOGY, HYDROGEOLOGY, AND GROUNDWATER FLOW CONDITIONS

The geology and hydrogeology of the site have been evaluated using the boring logs from this investigation and previous site investigations, and information obtained from reports from nearby sites. The majority of the native soils encountered during investigations at the site generally consist of silty to sandy clay with some clayey silt from ground surface to between 17 and 19 feet bgs. The clay is underlain by a layer of silty to clayey sand approximately 4 feet thick, which is underlain by sand and gravelly sand to 25 feet bgs, the total depth explored. The site lies at an elevation of approximately 85 feet above msl.

Generally, depth to groundwater at the former Exxon RS 7-4121 site is first encountered between approximately 18 and 20.5 feet bgs and stabilizes between approximately 11-15 feet bgs.

Former USA Station No. 57 and Arco Service Station #0276 Sites

A geologic cross-section for the former USA Station No. 57 site shows interbedded clay, silt, clayey sand, silty sand, and sandy to clayey gravel from approximately 55 to 80 feet below msl, underlain by highly fractured bedrock (Stratus 2005). This site is located approximately 200 feet southeast of former Exxon RS 7-4121 on the eastern corner of the Foothills Square Shopping Center and lies at an elevation of approximately 80 feet above msl. No information on the geology underlying the Arco Service Station #0276 site was available.

Recent information for both the former USA Station No. 57 and Arco Service Station #0276 sites shows groundwater flow directions and hydraulic gradients to the south at 0.17 foot/foot (Stratus 2006) and to the southwest at 0.005 foot/foot (URS 2005), respectively. The depth to water for both sites has historically ranged between 7 and 21 feet bgs and 14 and 46 feet bgs, respectively.

3. SUBSURFACE INVESTIGATION

Between 26 April 2006 and 3 May 2006, ETIC observed the advancement of soil borings SB14 through SB21 and V1 through V10. The locations of borings SB14 through SB21 were selected for additional characterization of potential soil and groundwater impacts. The locations of borings V1 through V10 were selected for the collection of soil vapor samples to evaluate potential human health risks.

An advisory published by the Department of Toxic Substances Control and the Los Angeles Regional Water Quality Control Board (DTSC/LARWQCB 2003) was used as a guideline for the collection of the shallow soil vapor samples.

A permit to advance the soil borings was obtained from the Alameda County Public Works Agency. An Excavation Permit and an Obstruction Permit were obtained from the City of Oakland Community and Economic Development Agency for the advancement of soil boring SB21 in the public right-of-way. Copies of permits are included in Appendix F. The locations of the soil borings are shown on Figure 2.

3.1 ADVANCEMENT OF SOIL BORINGS AND SOIL SAMPLING

Soil borings SB14 through SB20 and V1 through V10 were cleared to a depth of 4 feet bgs by Cascade Drilling, Inc. of Rancho Cordova, California (C57 license #717510) with a hand auger or an air-knife and vacuum rig to ensure that there were no obstructions near the potential path of the direct-push equipment. Boring SB21 was cleared to a depth of 8 feet bgs using a hand auger by TEG Northern California, Inc. of Rancho Cordova, California (C57 license #7065658).

Borings SB14 through SB16 were advanced by Vironex of San Leandro, California (C57 license #705927) using a limited access direct-push rig. Borings SB17 through SB21 and V1 through V10 were advanced by TEG using a truck mounted direct-push rig. In boring V2, the soil vapor probe was advanced using a hand held Makita Rotohammer.

In borings SB14 through SB21 and in borings V3, V4, V5, and V8 where soil vapor could not be drawn (see Section 3.3), continuous soil samples were collected from the base of the cleared hole to the total depth of the borings unless there was no recovery. Soil samples were collected using the single-tube direct-push method. Sampling rods were attached to a stainless steel sample barrel containing a 4-foot or 5-foot acetate sample liner and were driven into undisturbed soil. After driving the rod 4 or 5 feet, the rods and sample barrel were withdrawn from the borehole and the sample sleeve was removed. Borings SB14 through SB21 were advanced to a total depth of 25 feet bgs, borings V4, V5, and V8 were advanced to a total depth of 8 feet bgs, and boring V3 was advanced to a total depth of 10 feet bgs.

All samples were examined for soil characteristics and screened in the field with a photo-ionization detector (PID) to determine the relative hydrocarbon content. The soils are described and the PID readings are recorded on the soil boring logs presented in Appendix G. Selected soil samples were sealed with Teflon tape, capped, labeled, placed in a cooler with ice, and submitted to a state-certified laboratory for analysis. Borings were logged and selected soil samples were collected from

each boring for laboratory analysis. Field methods and procedures are described in the protocols, presented in Appendix H.

Upon removal of sampling equipment, each boring was grouted with neat cement grout.

3.2 GROUNDWATER SAMPLE COLLECTION

Groundwater samples were collected from borings SB14 through SB21 on the same day that the borings were advanced. The borings were advanced to 25 feet bgs. A temporary ¾-inch polyvinyl chloride (PVC) slotted screen was placed in the boring and a sample was collected using factory-cleaned tubing with a check valve or a factory-cleaned disposable bailer.

Groundwater samples were poured into 40-ml glass volatile organic analysis vials and 1-liter glass amber bottles, which were labeled and placed in an ice-filled cooler for delivery to a state-certified laboratory for chemical analysis. Groundwater sample collection protocols are described in Appendix H.

3.3 ADVANCEMENT OF SOIL VAPOR BORINGS AND SOIL VAPOR SAMPLE COLLECTION

As proposed in the work plan, the collection of one soil vapor sample from soil between 5 and 10 feet bgs at locations V1, V2, and V4 through V9 and the collection of two soil vapor samples at approximately 5 and 10 feet bgs from boring locations V3 and V10 was planned. In the event that soil vapor samples could not be drawn from any of these borings, the collection of soil samples was proposed.

During this investigation, soil vapor samples were collected from locations V1, V6, V7, and V9, the shallower depth in V3, and both depths in V10. In locations where soil vapor could not be drawn (with the exception of V2), direct-push soil borings were advanced within the same cleared borehole immediately adjacent to the initial soil vapor sampling location and shallow soil samples were collected between 5 and 10 feet bgs. An additional boring was not advanced adjacent to boring V2 due to the proximity of shallow soil samples collected from soil borings SB14 through SB16. Soil sampling procedures at these locations are described in Section 3.1 and in Appendix H.

Soil vapor samples were attempted from borings V1 through V10 by TEG with 1-inch outer diameter, 4-foot long chrom-moly steel soil vapor probes equipped a steel drop off tip. Inert tubing was inserted into the soil vapor probes and attached to the vapor sampling port. Once the probe was driven to the desired depth and slightly retracted to open the drop off tip the sampling port was exposed. At least 20 minutes was allowed for equilibration.

A purge volume test was conducted at boring V1 by collecting vapor samples after purging 1, 3, and 7 casing volumes of vapor using a syringe connected to the valve on the tubing. The vapor samples were analyzed by a state-certified mobile laboratory operated by TEG. Based on the results of this sampling, the sample collected after purging 7 casing volumes had the highest concentrations and, therefore, 7 casing volumes were determined to be the preferred purge volume for remaining samples to be collected at the site.

The remaining vapor sample attempts were conducted using a syringe connected to a valve on the tubing. To ensure air-tight connections between the tubing, sampling port, valves, and other connections, 1,1-difluoroethane was applied to joints as a tracer. A leak would be evident if the tracer were detected in the onsite analysis of the soil vapor samples. TEG's soil vapor collection procedures are described in "Soil Vapor Survey Methodology, DTSC Protocols" provided in Appendix H.

3.4 SITE SURVEY

On 16 May 2006, boring locations and site features were surveyed by Morrow Surveying, a licensed land surveyor. The surveyor's report is provided in Appendix I.

3.5 WASTE CONTAINMENT AND DISPOSAL

The soil generated during field activities was collected in five 55-gallon drums and temporarily stored on the site. Soil samples were collected from the drums, submitted to Sequoia Analytical/TestAmerica Incorporated (Sequoia Analytical/Test America) in Morgan Hill, California, a state-certified laboratory. The samples were composited by the laboratory and analyzed for TPH-g, BTEX, and total lead to characterize the soil for proper disposal. The laboratory analytical report and chain-of-custody documentation are included in Appendix J. Five drums of soil were removed from the site on 9 June 2006 and transported to an ExxonMobil-approved facility for disposal.

4. RESULTS

4.1 SITE GEOLOGY AND HYDROGEOLOGY

The geology and hydrogeology of the site have been evaluated using the boring logs from this investigation and previous site investigations. The majority of the native soils encountered during drilling generally consist of silty to sandy clay with some clayey silt from ground surface to between 17 and 19 feet bgs. The clay is underlain by a layer of silty to clayey sand approximately 4 feet thick, which is underlain by sand and gravelly sand to 25 feet bgs, the total depth explored. Detailed soil descriptions are presented on the soil boring logs in Appendix G. Geologic cross-sections are included in this report as Figures 4, 5, and 6.

Generally, depth to groundwater at the site is first encountered between approximately 18 and 20.5 feet bgs and stabilizes between approximately 11 and 15 feet bgs.

4.2 SOIL SAMPLE ANALYTICAL METHODS AND RESULTS

Selected soil samples collected from borings SB14 through SB21, V3, V4, V5, and V8 were submitted to Sequoia Analytical/TestAmerica and analyzed for TPH-g and TPH-d by EPA Method 8015B, for BTEX by EPA Method 8021B, and for MTBE, EDB, 1,2-DCA, DIPE, TBA, TAME, and ETBE by EPA Method 8260B. Analytical results are summarized in Table 1 and on Figure 7. The laboratory analytical reports and chain-of-custody documentation for soil samples are included in Appendix J.

- TPH-g was detected at a maximum concentration of 2,700 mg/kg in boring SB20 (19.5-20 feet bgs). TPH-g was not detected above laboratory reporting limits in borings SB21, V3, V4, and V8.
- TPH-d was detected at a maximum concentration of 270 mg/kg (SB20, 15-15.5 feet bgs). TPH-d was not detected above laboratory reporting limits in soil samples collected from borings V3 through V5.
- Benzene was detected at a maximum concentration of 26 mg/kg in boring SB20 (15-15.5 feet bgs). Benzene was not detected above laboratory reporting limits in borings SB14, SB15, SB18, SB19, SB21, V3, V4, V5, and V8.
- MTBE was detected at a maximum concentration of 0.012 mg/kg in boring SB21 at 18 and 19.5 feet bgs, respectively. MTBE was not detected above laboratory reporting limits in any other boring advanced at the site during this investigation.
- EDB, 1,2-DCA, DIPE, TBA, TAME, and ETBE were not detected above laboratory reporting limits.

Soil samples collected at 2.5 to 3 feet bgs from borings SB14 through SB21 were submitted to Sequoia Analytical/TestAmerica and analyzed for percent moisture, specific gravity, and porosity. Soil physical properties were analyzed for a human health risk assessment and are summarized in

Table 3. The laboratory analytical reports and chain-of-custody documentation for soil samples are included in Appendix J.

4.3 GROUNDWATER SAMPLE ANALYTICAL METHODS AND RESULTS

Groundwater samples collected from borings SB14 through SB21 were submitted to Sequoia Analytical/TestAmerica and analyzed for TPH-g and TPH-d by EPA Method 8015B, and for BTEX, MTBE, EDB, 1,2-DCA, DIPE, TBA, TAME, and ETBE by EPA Method 8260B. Analytical results are summarized in Table 2 and on Figure 8. The laboratory analytical reports and chain-of-custody documentation for groundwater samples collected during this investigation are included in Appendix J.

- TPH-g was detected at a maximum concentration of 60,800 μg/L in boring SB17.
- TPH-d was detected at a maximum concentration of 7,500 μg/L (SB17).
- Benzene was detected at a maximum concentration of 3,240 μg/L (SB20). Benzene was not detected above laboratory reporting limits in samples collected from borings SB18 and SB21.
- MTBE was detected at a maximum concentration of 83.3 μg/L. MTBE was not detected above laboratory reporting limits in any other boring.
- EDB, 1,2-DCA, DIPE, TBA, TAME, and ETBE were not detected above laboratory reporting limits.

4.4 SOIL VAPOR SAMPLE ANALYTICAL METHODS AND RESULTS

Soil vapor samples collected from borings V1, V3, V6, V7, V9, and V10 were analyzed onsite in a mobile laboratory provided by TEG. A duplicate sample was collected from boring V7 (V7 dup) as a quality control measure. The samples were analyzed for TPH-g, BTEX, MTBE, oxygen, and 1,1-difluoroethane (as a tracer) by EPA Method 8260B. TEG's analytical methodology is described in detail in the "Soil Vapor Survey Methodology, DTSC Protocols" provided in Appendix H. The analytical results for the soil gas samples are presented in Table 4 and on Figure 9. The soil vapor sample laboratory analytical report is included in Appendix J.

- TPH-g was detected at a maximum concentration of 17,000,000 μg/m³ (V10, 10.0 feet bgs).
- Benzene was detected at a maximum concentration of 1,900 μg/m³ (V10, 10.0 feet bgs). Benzene was not detected above laboratory limits in boring V9.
- 1,1-Difluoroethane, used as a leak tracer, was not detected during this investigation.

The results for the soil vapor samples were used as part of a human health risk assessment (Section 7).

5. CONDUIT/RECEPTOR SURVEY STUDY

A conduit study for underground utilities was conducted at and near the site. The conduit study was requested in the letter from the ACHCSA dated 27 July 2005 (Appendix A). Information regarding the utilities in the area of the intersection of 106th Avenue and Foothill Boulevard was obtained and these utilities are shown on Figure 10.

The information regarding the utilities in this area was obtained from multiple sources. Several underground utilities exist in the intersection. This conduit study focused on the major utilities in this area, which include electric lines, gas lines, sanitary sewer lines, water pipe lines, and a storm drain. Exact depths of all utility lines were not available; therefore information regarding depths is based on conversations with representatives from each utility and from information collected in the field. The following is a summary of the information obtained for the utilities surrounding the site:

- Electric and Gas Lines: Information about the locations of these lines was shown on maps obtained from Pacific Gas and Electric Company (PG&E). According to the 2004 Electric and Gas Service Requirements by PG&E, gas and electric line trenches are a minimum of 24 inches deep and trenches combined with other utilities can range up to 7.3 feet deep.
- Storm Drains: Information regarding the location of the storm drain was shown on a map obtained from the City of Oakland Building Department. The map indicates that the storm drain extends northwest and southeast along Foothill Boulevard approximately 75 feet northeast of the former Exxon RS 7-4121 property boundary at a depth of approximately 2 to 3 feet bgs.
- Sanitary Sewers: Information about the locations of these lines was shown on a map obtained from the City of Oakland Building Services Department. The measurements listed on their maps are the elevations of the sewer lines above mean sea level. The maps indicate that the depth of the sewer line centered under and parallel to 106th Avenue is approximately 9 feet bgs in the area adjacent to the northwest former Exxon RS 7-4121 property boundary. The map indicates that the depth of the sewer line approximately 25 feet northeast of the northeast 7-4121 property boundary and parallel to Foothill Boulevard is also approximately 9 feet bgs.
- Water Pipe Lines: Information about the locations of these lines was shown on a map obtained from the East Bay Municipal Utility District (EBMUD). According to the EBMUD specifications and engineering design departments, the map shows a 6-inch diameter water pipeline, approximately 2 to 3 feet bgs, under and parallel to 106th Avenue and approximately 20 feet northwest of the former Exxon site property boundary. The map also shows a 48-inch diameter water pipeline, approximately 4 to 6 feet bgs, under and parallel to Foothill Boulevard and approximately 85 feet northeast of the former Exxon site property boundary.

Information regarding onsite utilities was obtained from the results of onsite visits and utility clearance surveys conducted prior to the advancement of the soil borings. Three discontinuous subsurface lines of unknown origin and depth were identified onsite during the most recent utility clearance survey and are shown on Figure 10. A building permit survey map of the former Exxon RS 7-4121 generated by Murray & McCormick Civil Engineers, obtained from AEI Consultants, does not show the presence of these lines.

Recent information for both the Former USA Station No. 57 and Arco Service Station #0276 sites shows that the depth to water for both sites has historically ranged between 7 and 21 feet bgs and 14 and 46 feet bgs, respectively (Stratus 2005 and URS 2005). However, generally, the depth to groundwater at the former Exxon site is first encountered between approximately 18 and 20.5 feet bgs and stabilizes between approximately 11-15 feet bgs. Depth to water in temporary soil borings SB14 through SB21 advanced by ETIC on 2 and 3 May 2006 ranged from 11 to 21 feet bgs.

Although the offsite utilities near the site may intersect the depth of static groundwater, lithologic information from soil borings onsite and offsite of former Exxon RS 7-4121 indicates that high permeability, saturated soils are not encountered above approximately 17 feet bgs. As such, groundwater is not expected to intersect the utilities in the vicinity of the former Exxon RS 7-4121 site.

6. WELL SEARCH

A well search was conducted for public and private wells within a 1/2-mile radius of the site. Wells identified as monitoring wells were not included in this search. The information in this search is based on a well search report from the Alameda County Public Works Agency (ACPWA) which was received in September 2005. The report included copies of the ACPWA well database and a portion of a United States Geological Survey quadrangle map showing the well locations. Correspondence with the ACPWA revealed that the current status of the wells listed in the well search report is unknown.

Ten wells were identified within a 1/2-mile radius from the site in the information provided by the ACPWA. Of those wells, five are located within a 2,000-foot radius from the site. The well names used below were assigned by ETIC and are defined in Table 5. The locations of the wells are presented on Figure 11. A compilation of detailed information for the wells within 2,000 feet of the site is provided below:

- Well IRR1 is located approximately 1,360 feet to the east of the site. The ACPWA well search report identifies the well as an irrigation well owned by John Kidder. The well is 79 feet deep and depth to water is reported as approximately 40 feet bgs.
- Well IRR2 is located approximately 1,640 feet to the southwest of the site. The well is identified as an irrigation well owned by Mrs. Kitcher by the ACPWA well search report. The well is 58 feet deep and depth to water is reported as approximately 38 feet bgs.
- Well D7 is located approximately 1,900 feet northeast of the site. The ACPWA well search report identifies the well as a domestic well owned by A.W. Bassigian. The well is 107 feet deep and depth to water is reported as approximately 50 feet bgs.
- Well D2 is located approximately 2,000 feet northeast of the site. The well is identified as a
 domestic well owned by Jack Ambro by the ACPWA well search report. The well is
 approximately 102 feet deep and depth to water is reported as approximately 35 feet bgs.
- Well IRR3 is located approximately 2,000 feet south of the site. The ACPWA well search report identifies the well as an irrigation well owned by Jor Bramse. The well is approximately 79 feet deep and depth to water is reported as approximately 40 feet bgs.

Recent information for both the Former USA Station No. 57 and Arco Service Station #0276 sites shows groundwater flow directions to the south (Stratus 2005) and to the southwest (URS 2005), respectively. As such, wells IRR1, D2, and D7 appear to be upgradient and wells U1, IRR2, and IRR3 appear to be downgradient from the former Exxon RS 7-4121 site. Based on the distance of these wells to the former Exxon RS 7-4121 site, groundwater at these wells is not expected to be impacted by the concentrations of hydrocarbons at the site.

7. HUMAN HEALTH RISK ASSESSMENT

7.1 EXPOSURE ASSESSMENT

As previously indicated, the site is currently a small landscaped area with no onsite buildings. Redevelopment of the site with a commercial retail structure in the north corner of the site is currently proposed by the property owner. Groundwater beneath the site averages in depth from 11 to 21 feet bgs. Five public or private wells are located within a 2,000-foot radius from the site and, based on the distance of these wells from the site, groundwater at these wells is not expected to be impacted by the concentrations of hydrocarbons at the site (see Section 6). Land use downgradient of the site is residential.

Based on the above site conditions, potential exposure pathways and receptors were evaluated as follows:

Daily Site Occupants

Currently the site is a vacant lot with no occupants; therefore, direct exposure (incidental ingestion and dermal contact) to chemicals of potential concern (COPCs) in soil at the site is considered incomplete for daily site occupants. Construction of a commercial structure is proposed for the north corner of the site and a paved surface is anticipated to cover the remaining portion of the site. Should the paved surface at the site be removed in the future, then potential direct exposure to COPCs in shallow soils (0 to 10 feet bgs) may be considered complete.

Given the depth to groundwater and the absence of onsite water supply wells, direct exposure to groundwater by future onsite occupants is considered incomplete.

Due to the volatile nature of select COPCs, exposure pathways associated with emission of volatiles from soil and groundwater to indoor air may be considered complete for future onsite occupants. The indoor air exposure pathway is quantitatively evaluated using the results of the soil gas investigation conducted by ETIC in May 2006.

Construction/Maintenance Workers

Due to the presence of landscaped areas across the site, direct exposure to COPCs in soil is considered complete for maintenance workers. Future construction/maintenance workers may also be exposed to COPCs in shallow soils (0 to 10 feet bgs) during the redevelopment of the site. Given the shallow depth to groundwater, construction/maintenance workers may also be potentially exposed to COPCs in groundwater. However, the potential for exposure to groundwater by construction/maintenance workers would be addressed by a site-specific worker health and safety plan outlining necessary protective measures, including use of personal protective equipment. It is worth noting that construction/maintenance activities to depths beneath the water table will likely be preceded by dewatering activities, which will limit the potential for incidental direct exposure to groundwater by future construction/maintenance workers.

Offsite Receptors

Offsite land use in the immediate vicinity of the site is residential toward the west and commercial toward the east. Five public or private wells are located within a 2,000-foot radius from the site and, based on the distance of these wells from the site, groundwater at these wells is not expected to be impacted by the concentrations of hydrocarbons at the site (see Section 6). As such, the sole potential for exposure to COPCs at offsite locations is emission of volatiles from groundwater from the site. Therefore, groundwater to indoor air exposure pathway may be considered complete for offsite receptors. The groundwater to indoor air exposure pathway for offsite residential and commercial receptors is quantitatively evaluated using the results of the onsite soil gas investigation conducted by ETIC in May 2006.

7.2 EVALUATION OF POTENTIAL HEALTH RISKS

An evaluation of potential health risks associated with COPCs at the site and corresponding to each of the complete exposure pathways discussed above is summarized in Tables 6 and 7. The maximum concentrations of soil are compared to the Tier I Environmental Screening Levels (ESLs) developed by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB).

Direct Exposure to Soil: Table 6 summarizes a comparison of maximum historical shallow soils (0 to 10 feet bgs) concentrations versus highly conservative ESLs corresponding to direct exposure by commercial/industrial workers and future construction/trench workers. As indicated in this table, none of the COPC concentrations exceeds the relevant ESLs.

Indoor Air Exposure: A site-specific soil gas investigation was conducted by ETIC in May 2006 to provide data for an indoor air exposure risk evaluation. The samples were collected from six temporary vapor probes as shown in Figure 9. The samples were collected at a subsurface depth ranging from 5.5 to 10.0 feet bgs. The analytical results of the samples are presented in Table 4. As seen in this table, COPC concentrations of varying magnitude were detected at different sampling depths.

The SFBRWQCB Tier I ESLs for soil gas to indoor air exposure are based on sampling depths of 5 feet bgs. Due to varying COPC concentrations at different sample depths and in order to better represent the site-specific conditions, a Tier II risk evaluation was conducted using USEPA's Johnson and Ettinger Vapor Intrusion Model Soil Gas – Advanced Screen version 2004 (SG-ADV). The model SG-ADV was run using USEPA's default values for a hypothetical building and risk evaluation. The model was modified to reflect the site-specific conditions for soil type (clay) and sampling depth. The risk evaluation was conducted for residential and commercial/industrial land use. The input and output data sheets from the SG-ADV model are presented in Appendix K. The results of the risk evaluation are presented in Table 7.

As indicated in Table 7, the total cumulative carcinogenic risk for the indoor air exposure pathway approximates 3.00×10^{-6} for residential land use and 1.80×10^{-6} for commercial/industrial land use. The estimated risk for onsite indoor air exposure pathway corresponding to residential land use exceeds the acceptable risk of 1.0×10^{-6} ; however, it is protective of the target acceptable risk range of 1.0×10^{-4} to 1.0×10^{-6} adopted by the USEPA and the RWQCB for commercial/industrial land

use. The total cumulative non-carcinogenic hazard for the indoor air pathway approximates 53 for residential land use and 38 for commercial/industrial land use, which exceeds the target hazard of 1.0 adopted by the USEPA and the RWQCB. As expected, more than 99 percent of the cumulative risk is due to potential exposure to benzene, and a similar percentage of the hazard is due to potential exposure to TPH-g.

8. SUMMARY AND CONCLUSIONS

Between 26 April and 3 May 2006, ETIC observed the advancement of temporary soil borings used for the collection of groundwater samples (SB14-SB21), for the collection of soil samples (SB14-SB21, V3-V5, and V8), and for the collection of soil vapor samples (V1, V3, V6, V7, V9, and V10).

Soils encountered during the drilling of the borings were generally consistent with those observed in the previous borings at the site. Clay and clayey silt are present from ground surface to approximately 17 to 18 feet bgs. The clay is underlain by silty sand to approximately 22 feet bgs, which is underlain by sand and gravelly sand to 25 feet bgs, the maximum depth explored at the site.

Selected soil samples collected from borings SB14 through SB21, V3 through V5, and V8 were analyzed for TPH-g, TPH-d, BTEX, MTBE, EDB, 1,2-DCA, DIPE, TBA, TAME, and ETBE. The maximum benzene concentration reported was 26 mg/kg in boring SB20 (15-15.5 feet bgs). TPH-g was detected at a maximum concentration of 2,700 mg/kg in boring SB20 (19.5-20 feet bgs). TPH-d was detected at a maximum concentration of 270 mg/kg in boring SB20 (15-15.5 ft bgs). MTBE was detected at concentrations of 0.0088 and 0.012 mg/kg in boring SB21 at 18 and 19.5 feet bgs, respectively.

Soil samples collected between 2.5 and 3.5 feet bgs from borings SB14 through SB21 were analyzed for dry density, percent moisture, specific gravity, and porosity. These results were analyzed for a human health risk assessment.

Groundwater samples collected from borings SB14 through SB21 were analyzed for TPH-g, TPH-d, BTEX, MTBE, EDB, 1,2-DCA, DIPE, TBA, TAME, and ETBE. Benzene was detected at a maximum concentration of 3,240 μ g/L in boring SB20. TPH-g was detected at a maximum concentration of 60,800 μ g/L in boring SB17. TPH-d was detected at a maximum concentration of 7,500 μ g/L in boring SB17. MTBE was detected only in the groundwater sample collected from boring SB21 at a concentration of 83.3 μ g/L.

Soil vapor samples were collected from borings V1, V3, V6, V7, V9, and V10. The samples were analyzed for TPH-g, BTEX, MTBE, oxygen, and 1,1-difluoroethane (as a tracer). TPH-g was detected at a maximum concentration of 17,000,000 μ g/m³ (V10, 10.0 feet bgs). Benzene was detected at a maximum concentration of 1,900 μ g/m³ (V10, 10.0 feet bgs). 1,1-Difluoroethane, used as a leak tracer, was not detected during this investigation.

Additional items were completed including additional file reviews in order to further explore local hydrogeologic conditions, a conduit study was performed, and a well search was performed. In addition, an evaluation of potential health risks associated with COPCs at the site corresponding to potential exposure pathways was completed.

Based on the results of the human health risk assessment presented in this report, the collection of additional vapor samples is proposed. The vapor sampling in this investigation was performed through the use of direct-push sampling. Soil vapor samples could not be drawn from borings V3, V4, V5, and V8 or at depth of approximately 5 feet bgs in most borings which is the depth for which the SFBRWQCB Tier I ESLs are based. The lack of vapor samples from approximately 5 feet bgs

may be due to low permeability clays at the site. In addition, the Tier II evaluation of potential health risks was based on conservative estimates. In order to more accurately assess the potential risks to onsite and offsite occupants, the collection of soil vapor samples at a depth of approximately 5 feet bgs through the installation of vapor sampling wells is planned. The scope and schedule for the collection of any additional soil vapor samples will be outlined in a work plan to be submitted to the ACHCSA.

Remedial alternatives will be reviewed and evaluated based on the results of the soil vapor investigation proposed above and will be discussed with the ACHCSA.

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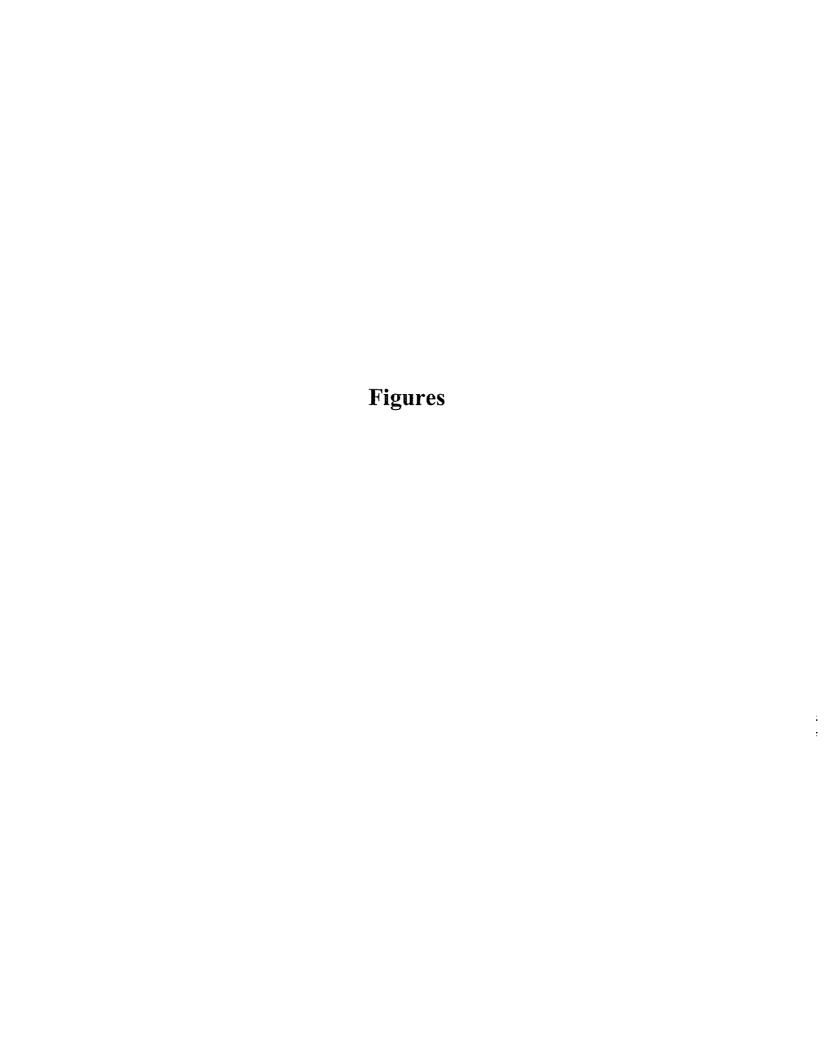
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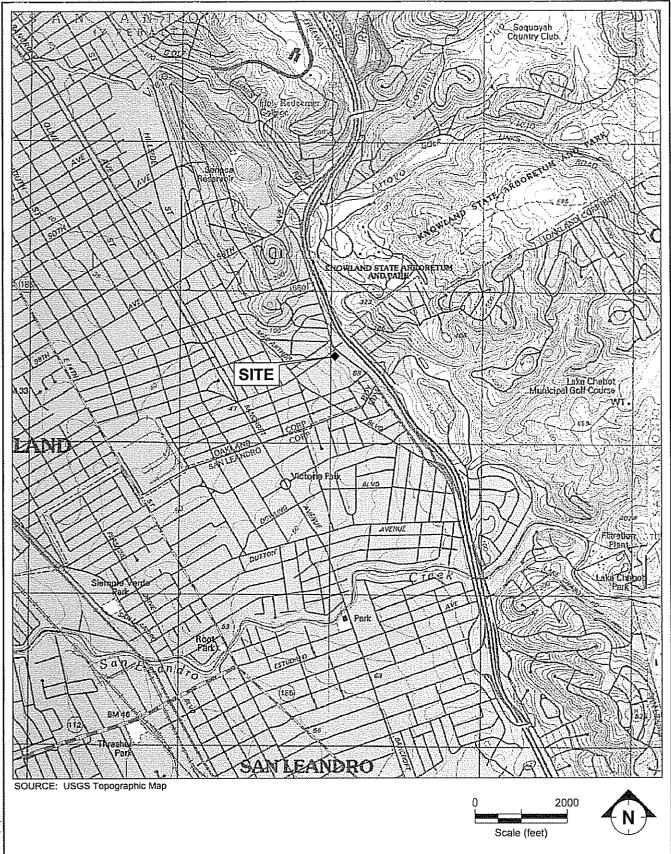
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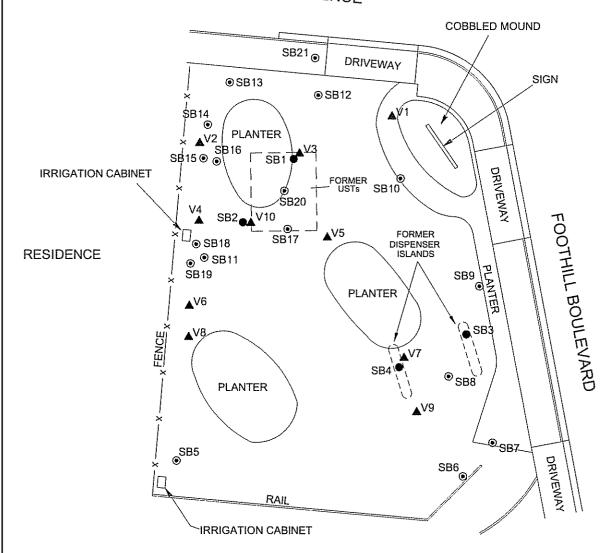




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SITE LOCATION AND TOPOGRAPHIC MAP FORMER EXXON RS 7-4121 10605 FOOTHILL BOULEVARD OAKLAND, CALIFORNIA FIGURE:

106th AVENUE

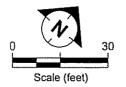


SHOPPING CENTER DRIVEWAY

LEGEND

- Soil Boring (Installed by AEI 3/19/04)
- Direct Push Soil Boring (Installed by ETIC)
- Soil Vapor Probe

Basemap Source: Morrow Surveying. 2006

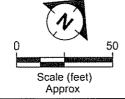




SITE PLAN FORMER EXXON RS 7-4121 10605 FOOTHILL BOULEVARD OAKLAND, CALIFORNIA FIGURE:

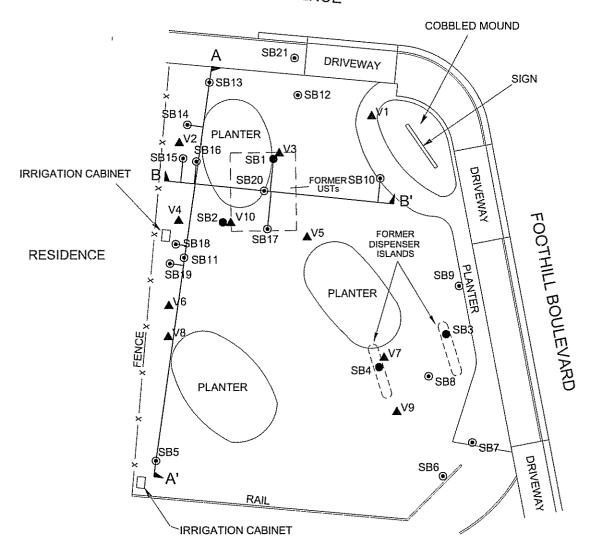


Photo Source: Terraserver USA





106th AVENUE

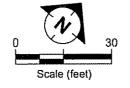


SHOPPING CENTER DRIVEWAY

LEGEND

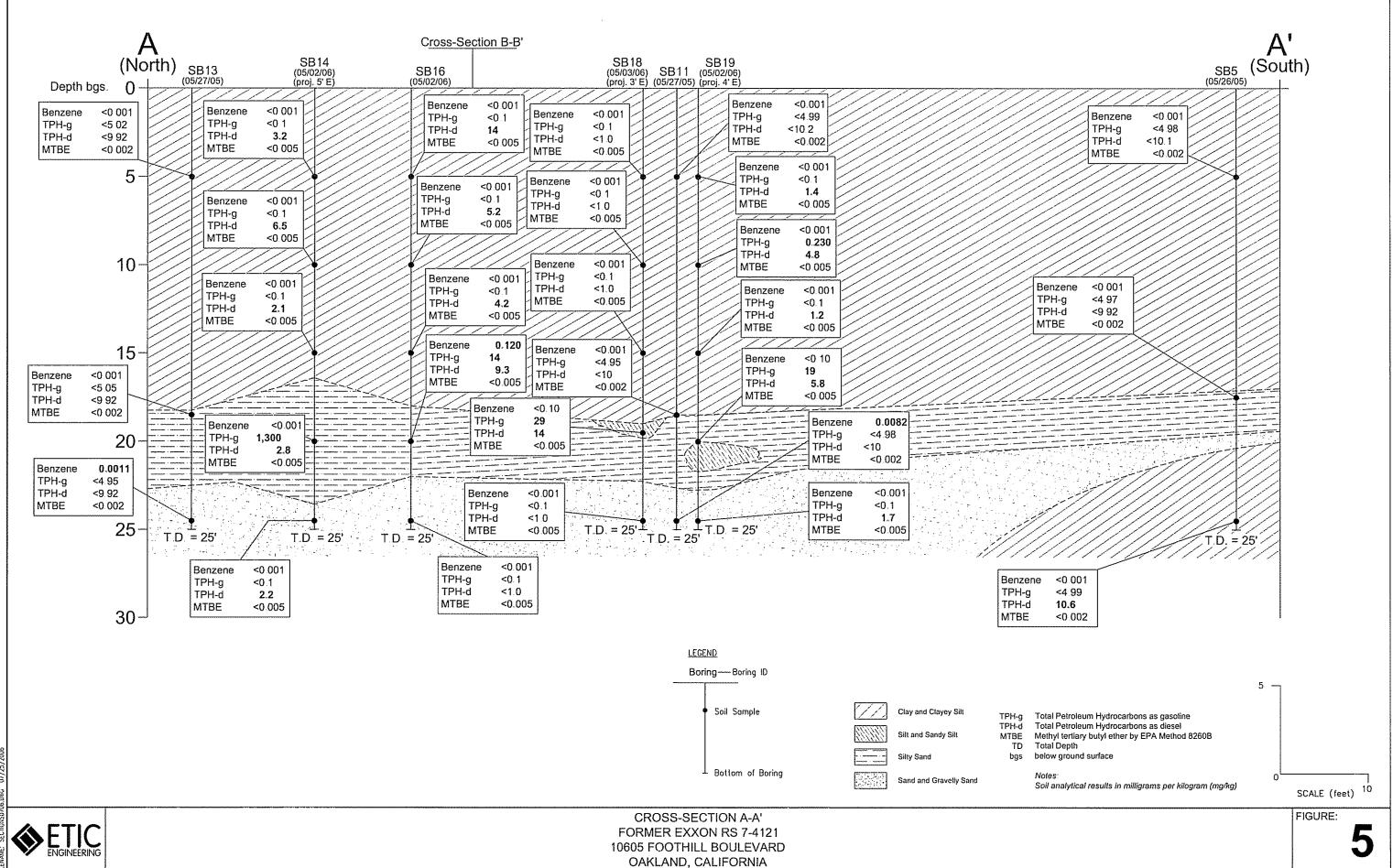
- Soil Boring (Installed by AEI 3/19/04)
- Direct Push Soil Boring (Installed by ETIC)
- ▲ Soil Vapor Probe

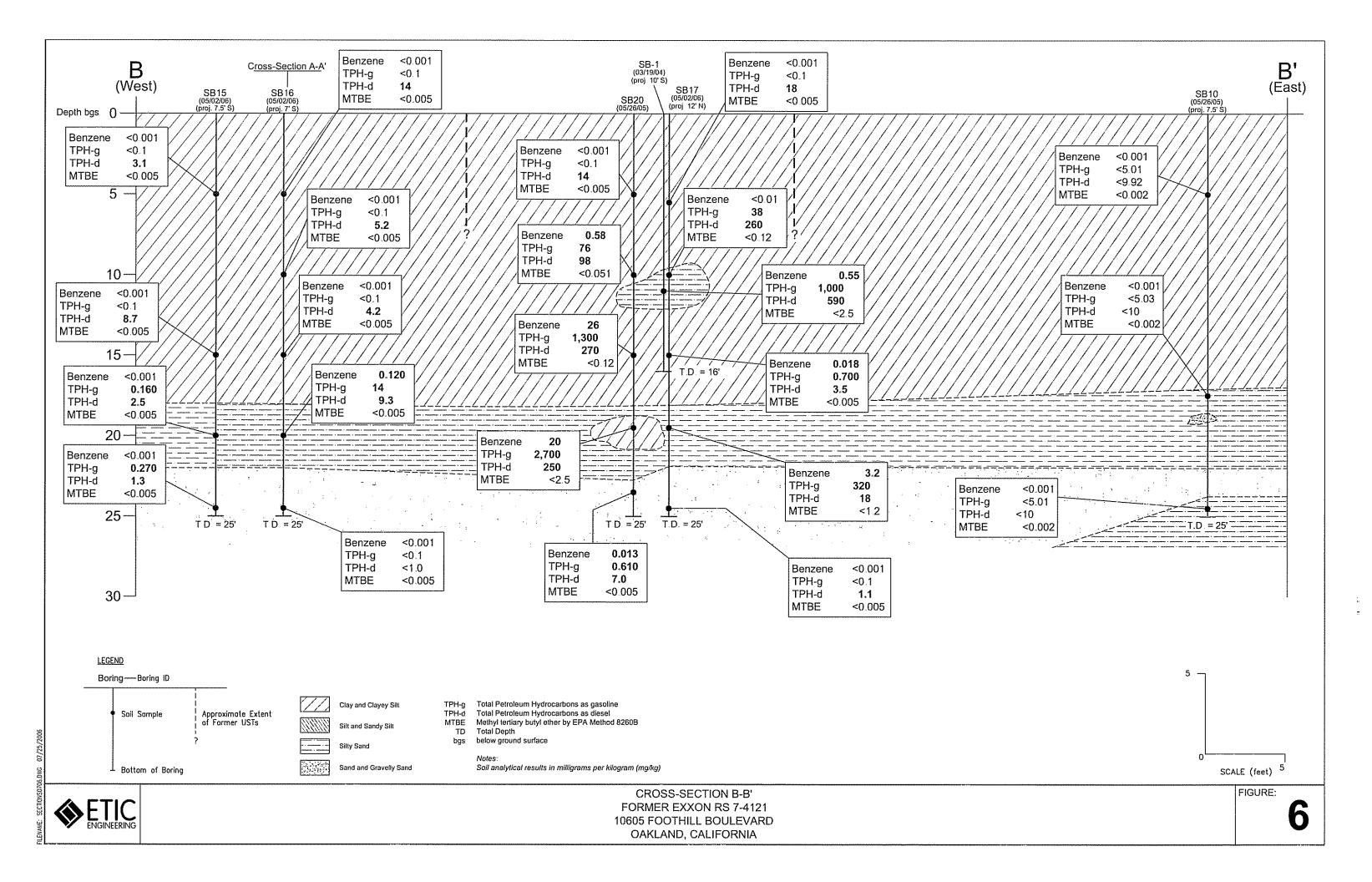
Basemap Source: Morrow Surveying. 2006

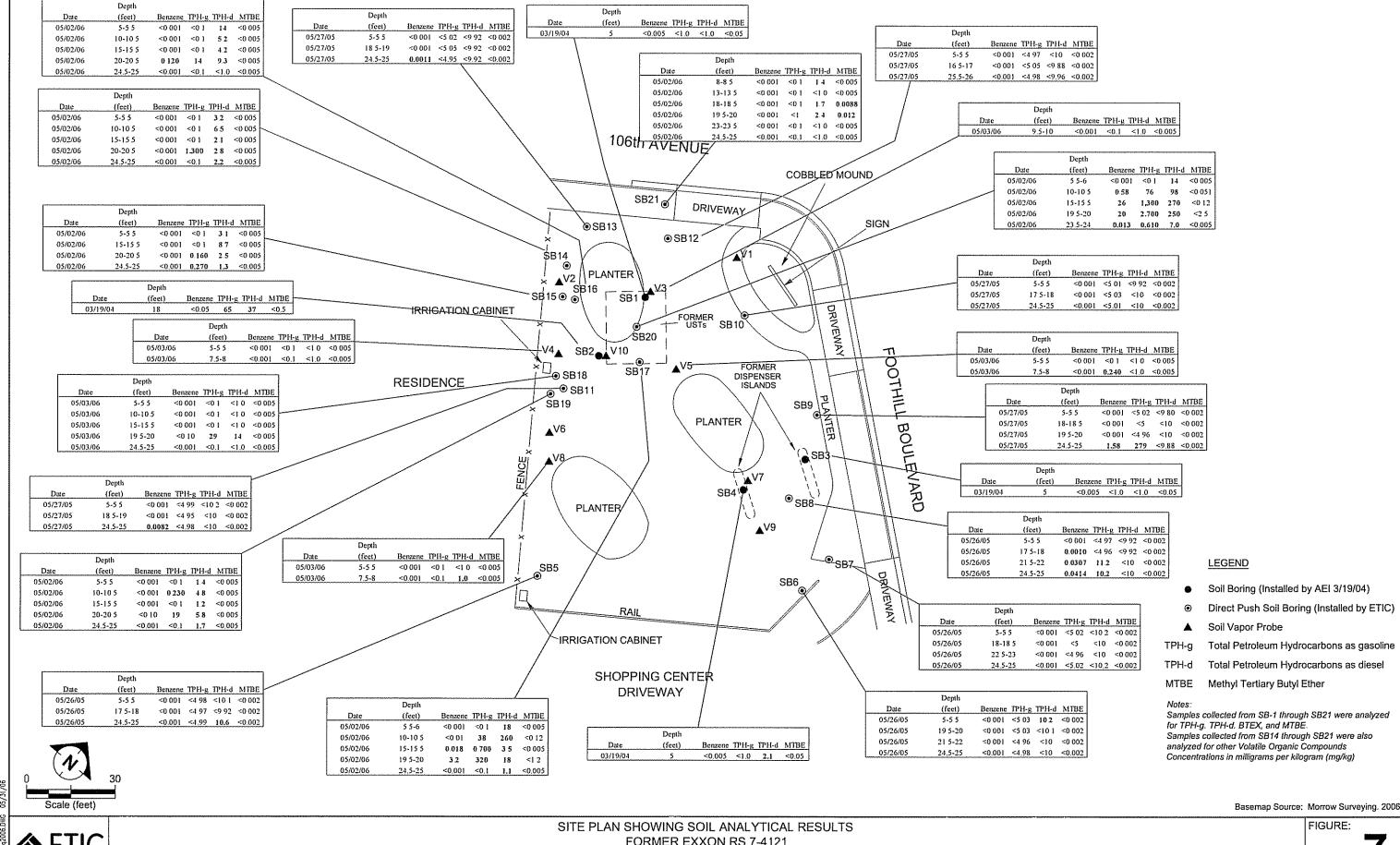


SITE PLAN SHOWING LINES OF CROSS-SECTION FORMER EXXON RS 7-4121 10605 FOOTHILL BOULEVARD OAKLAND, CALIFORNIA FIGURE:

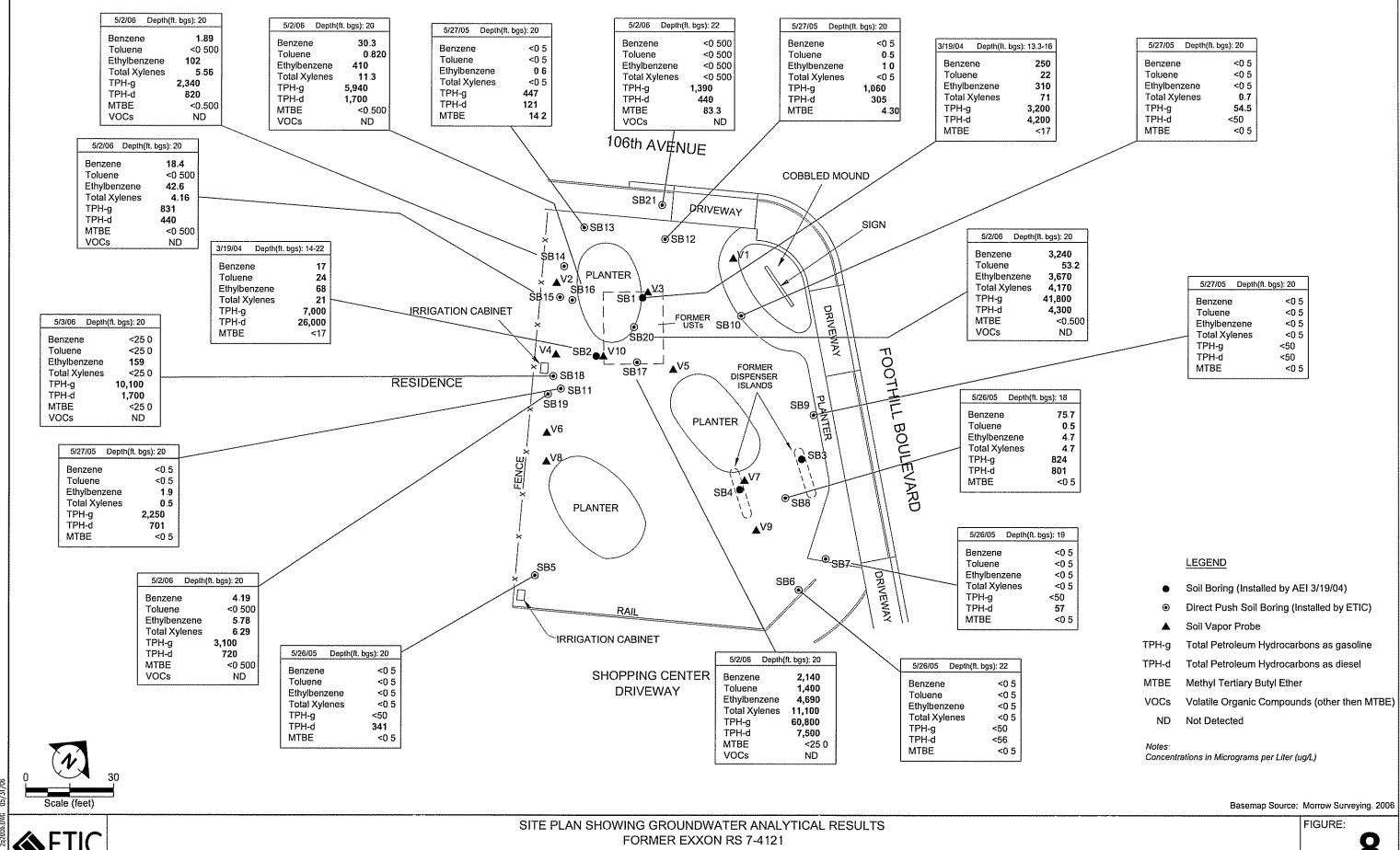




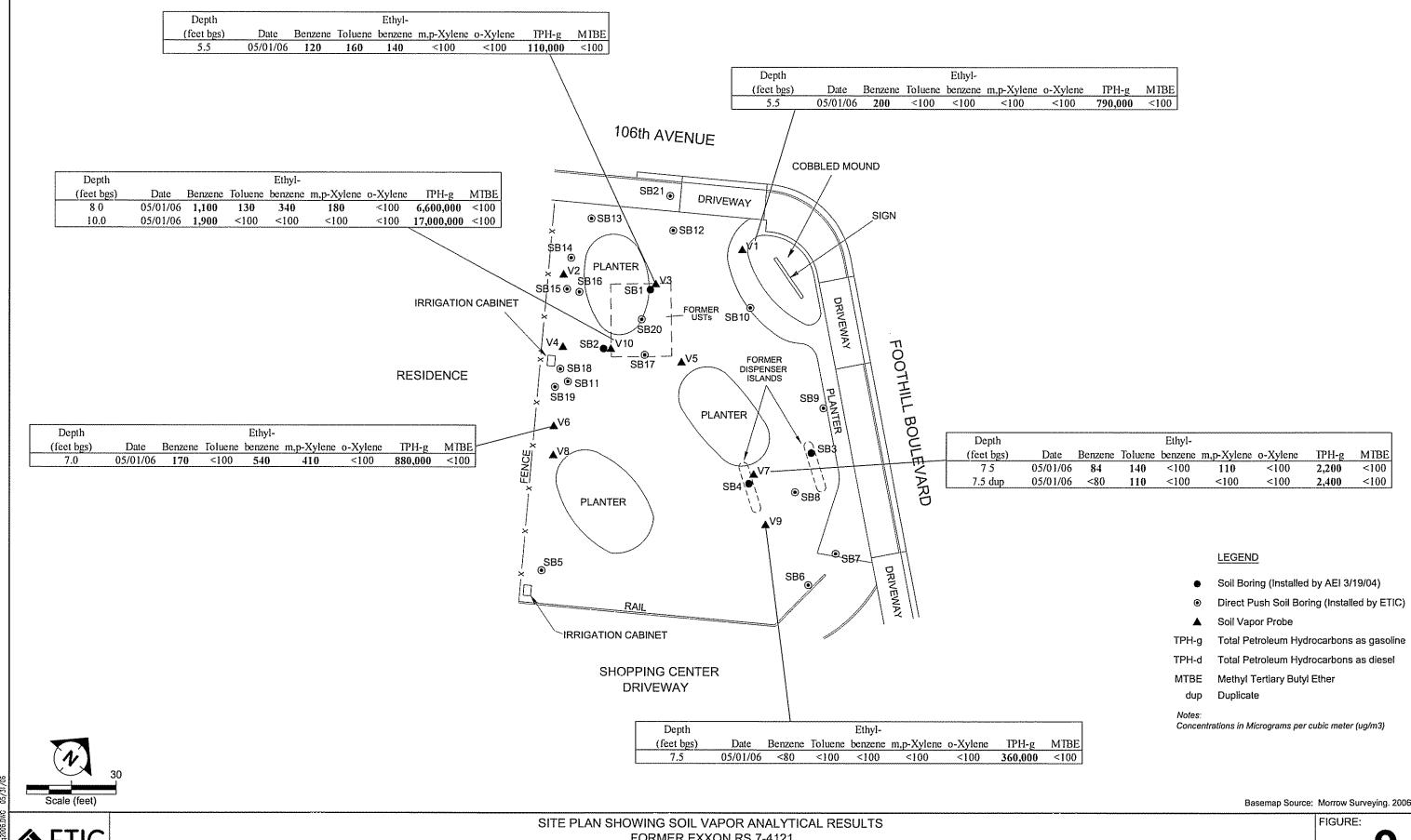




SITE PLAN SHOWING SOIL ANALYTICAL RESULTS
FORMER EXXON RS 7-4121
10605 FOOTHILL BOULEVARD
OAKLAND, CALIFORNIA

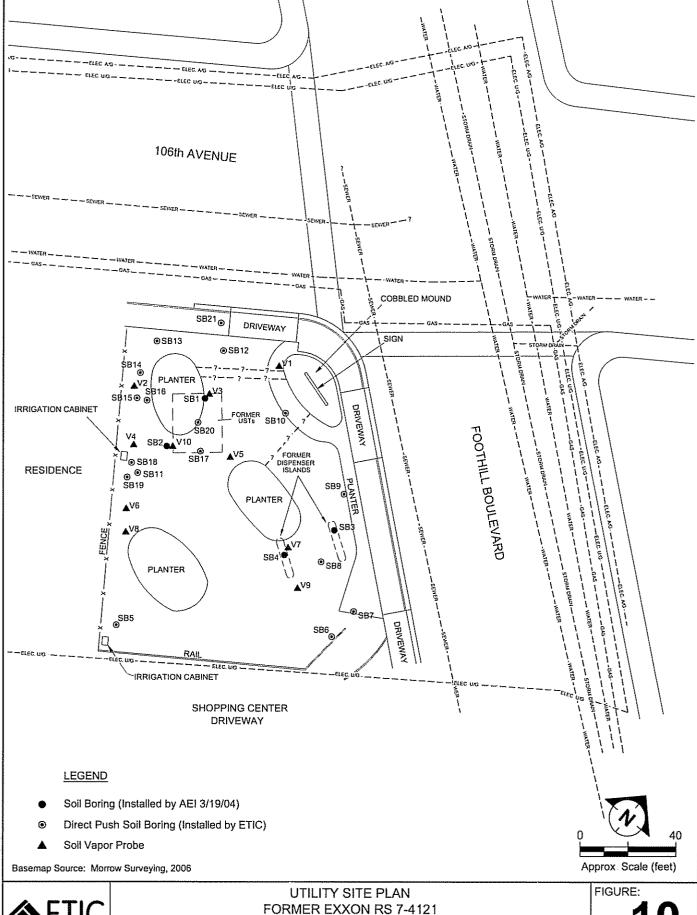


10605 FOOTHILL BOULEVARD OAKLAND, CALIFORNIA



ETIC ENGINEERING

SITE PLAN SHOWING SOIL VAPOR ANALYTICAL RESULTS
FORMER EXXON RS 7-4121
10605 FOOTHILL BOULEVARD
OAKLAND, CALIFORNIA

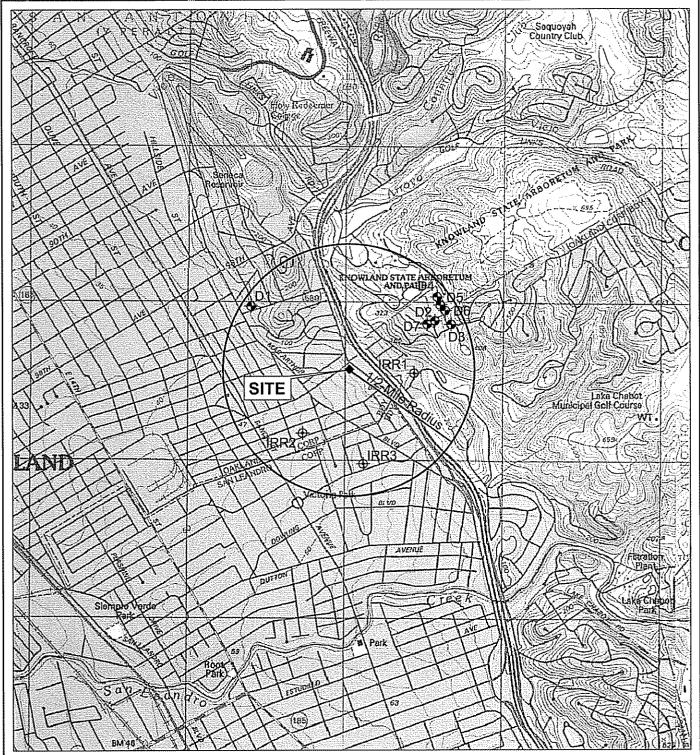


SETIC ENGINEERING

FORMER EXXON RS 7-4121 10605 FOOTHILL BOULEVARD OAKLAND, CALIFORNIA

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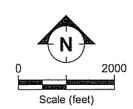


SOURCE: USGS Topographic Map

LEGEND: Wells Within

1/2-Mile Radius

7 • DOMESTIC WELL





TOPOGRAPHIC MAP SHOWING LOCATIONS OF GROUNDWATER WELLS
IN SITE VICINITY
FORMER EXXON RS 7-4121
10605 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

FIGURE:

11



TABLE I SOIL SAMPLE ANALYTICAL RESULTS,
FORMER EXXON RETAIL SITE 7-4121, 10605 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

			,		C C	oncentration (mg/k				
Sample		Depth			Ethyl-	Total		***************************************		
ID	Date	(feet)	Benzene	Toluene	benzene	Xylenes	ТРН-д	TPH-d	MTBE	VOCs
SB-1	03/19/04	11	0.55	11	0.92	2.6	1,000	590	<2.5 ^a	NA
SB-2	03/19/04	18	<0.05	0.39	0.40	0.13	65	37	<0.5 ^a	NA
SB-3	03/19/04	5	<0.005	< 0.005	<0.005	<0.005	<1.0	<1.0	<0.05 ^a	NA
SB-4	03/19/04	5	<0.005	< 0.005	<0.005	<0.005	<1.0	2.1	<0.05"	NA
SB5	05/26/05	5-5.5	100.0>	< 0.005	<0.005	< 0.005	<4.98	<10.1	< 0.002	NA
SB5	05/26/05	17.5-18	< 0.001	< 0.005	< 0.005	< 0.005	<4.97	<9.92	< 0.002	NA
SB5	05/26/05	24.5-25	< 0.001	<0.005	< 0.005	< 0.005	<4.99	10.6	<0.002	NA
SB6	05/26/05	5-5.5	<0.001	<0.005	<0.005	<0.005	<5.03	10.2	<0.002	NA
SB6	05/26/05	19.5-20	< 0.001	< 0.005	< 0.005	< 0.005	<5.03	<10.1	< 0.002	NA
SB6	05/26/05	21.5-22	< 0.001	< 0.005	< 0.005	< 0.005	<4.96	<10	< 0.002	NA
SB6	05/26/05	24.5-25	< 0.001	< 0.005	< 0.005	< 0.005	<4.98	<10	<0.002	NA
SB7	05/26/05	5-5.5	<0.001	< 0.005	<0.005	<0.005	<5.02	<10.2	<0.002	NA
SB7	05/26/05	18-18.5	< 0.001	< 0.005	< 0.005	< 0.005	<5	<10	< 0.002	NA
SB7	05/26/05	22.5-23	< 0.001	< 0.005	< 0.005	< 0.005	<4.96	<10	< 0.002	NA
SB7	05/26/05	24.5-25	<0.001	<0.005	< 0.005	< 0.005	<5.02	<10.2	<0.002	NA
SB8	05/26/05	5-5.5	< 0.001	< 0.005	<0.005	< 0.005	<4.97	<9.92	< 0.002	NA
SB8	05/26/05	17.5-18	0.0010^{b}	< 0.005	< 0.005	< 0.005	<4.96	<9.92	< 0.002	NA
SB8	05/26/05	21.5-22	0.0307	< 0.005	0.0120	0.0205	11.2	<10	< 0.002	NA
SB8	05/26/05	24.5-25	0.0414	0.0153	0.0184	0.0197	10.2	<10	<0.002	NA
SB9	05/27/05	5-5.5	< 0.001	<0.005	<0.005	< 0.005	<5.02	<9.80	<0.002	NA
SB9	05/27/05	18-18.5	< 0.001	< 0.005	< 0.005	< 0.005	<5	<10	< 0.002	NA
SB9	05/27/05	19.5-20	< 0.001	< 0.005	< 0.005	< 0.005	<4.96	<10	< 0.002	NA
SB9	05/27/05	24.5-25	1.58	1.10	0.400	1.72	279	<9.88	<0.002	NA
SB10	05/27/05	5-5.5	<0.001	<0.005	<0.005	< 0.005	<5.01	<9.92	<0.002	NA
SB10	05/27/05	17.5-18	< 0.001	< 0.005	< 0.005	< 0.005	<5.03	<10	< 0.002	NA
SB10	05/27/05	24.5-25	<0.001	< 0.005	< 0.005	< 0.005	< 5.01	<10	< 0.002	NA
SBII	05/27/05	5-5.5	< 0.001	<0.005	<0.005	< 0.005	<4.99	<10.2	<0.002	NA
SB11	05/27/05	18.5-19	<0.001	< 0.005	<0.005	< 0.005	<4.95	<10	<0.002	NA

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TABLE I SOIL SAMPLE ANALYTICAL RESULTS, FORMER EXXON RETAIL SITE 7-4121, 10605 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

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			Concentration (mg/kg)										
Sample		Depth			Ethyl-	Total							
ID	Date	(feet)	Benzene	Toluene	benzene	Xylenes	TPH-g	TPH-d	MTBE	VOCs			
SBII	05/27/05	24.5-25	0.0082	< 0.005	<0.005	0.0053	<4.98	<10	<0.002	NA			
SB12	05/27/05	5-5.5	<0.001	< 0.005	<0.005	<0.005	<4.97	<10	< 0.002	NA			
SB12	05/27/05	16.5-17	< 0.001	< 0.0051	< 0.0051	< 0.0051	<5.05	<9.88	< 0.002	NA			
SB12	05/27/05	25.5-26	<0.001	< 0.005	<0.005	< 0.005	<4.98	<9.96	<0.002	NA			
SB13	05/27/05	5-5.5	<0.001	< 0.005	<0.005	< 0.005	<5.02	<9.92	< 0.002	NA			
SB13	05/27/05	18.5-19	< 0.001	< 0.0051	< 0.0051	< 0.0051	<5.05	<9.92	< 0.002	NA			
SB13	05/27/05	24.5-25	0.0011	<0.005	< 0.005	<0.005	<4.95	<9.92	< 0.002	NA			
SB14	05/02/06	5-5.5	< 0.001	<0.001	<0.001	<0.001	<0.1	3.2	< 0.005	ND			
SB14	05/02/06	10-10.5	< 0.001	< 0.001	< 0.001	< 0.001	<0.1	6.5	< 0.005	ND			
SB14	05/02/06	15-15.5	< 0.001	< 0.001	< 0.001	< 0.001	<0.1	2.1	< 0.005	ND			
SB14	05/02/06	20-20.5	< 0.001	< 0.001	< 0.001	0.0088	1.300	2.8	< 0.005	ND			
SB14	05/02/06	24.5-25	<0.001	<0.001	<0.001	<0.001	<0.1	2.2	<0.005	ND			
SB15	05/02/06	5-5.5	<0.001	< 0.001	<0.001	< 0.001	<0.1	3.1	< 0.005	ND			
SB15	05/02/06	15-15.5	< 0.001	< 0.001	< 0.001	< 0.001	< 0.1	8.7	< 0.005	NĐ			
SB15	05/02/06	20-20.5	< 0.001	< 0.001	0.0016	< 0.001	0.160	2.5	< 0.005	ND			
SB15	05/02/06	24.5-25	<0.001	<0.001	0.0069	<0.001	0.270	1.3	<0.005	ND			
SB16	05/02/06	5-5.5	<0.001	<0.001	<0.001	< 0.001	<0.1	14	< 0.005	ND			
SB16	05/02/06	10-10.5	< 0.001	< 0.001	< 0.001	< 0.001	<0.1	5.2	< 0.005	ND			
SB16	05/02/06	15-15.5	< 0.001	< 0.001	< 0.001	< 0.001	< 0.1	4.2	< 0.005	ND			
SB16	05/02/06	20-20.5	0.120	0.052	0.043	0.060	14	9.3	< 0.005	ND			
SB16	05/02/06	24.5-25	<0.001	<0.001	0.0018	<0.001	<0.1	<1.0	<0.005	ND			
SB17	05/02/06	5.5-6	<0.001	< 0.001	<0.001	< 0.001	<0.1	18	<0.005	ND			
SB17	05/02/06	10-10.5	< 0.01	0.030	0.310	< 0.01	38	260	< 0.12	ND			
SB17	05/02/06	15-15.5	0.018	0.0028	0.017	0.0040	0.700	3.5	< 0.005	ND			
SB17	05/02/06	19.5-20	3.2	2.0	8.8	31	320	18	<1.2	ND			
SB17	05/02/06	24.5-25	<0.001	<0.001	<0.001	0.0011	<0.1	1.1	<0.005	ND			
SB18	05/03/06	5-5.5	<0.001	<0.001	< 0.001	<0.001	< 0.1	<1.0	<0.005	ND			
SB18	05/03/06	10-10.5	< 0.001	< 0.001	< 0.001	< 0.001	<0.1	<1.0	< 0.005	ND			
SB18	05/03/06	15-15.5	< 0.001	<0.001	< 0.001	< 0.001	< 0.1	<1.0	< 0.005	ND			
SB18	05/03/06	19.5-20	< 0.10	< 0.10	< 0.10	< 0.10	29	14	< 0.005	ND			
SB18	05/03/06	24.5-25	< 0.001	< 0.001	< 0.001	< 0.001	<0.1	<1.0	< 0.005	ND			

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TABLE I SOIL SAMPLE ANALYTICAL RESULTS, FORMER EXXON RETAIL SITE 7-4121, 10605 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

					Concentration (mg/kg)								
Sample		Depth			Ethyi-	Total							
ID	Date	(feet)	Benzene	Toluene	benzene	Xylenes	TPH-g	TPH-d	MTBE	VOC:			
SB19	05/02/06	5-5.5	<0.001	<0.001	< 0.001	< 0.001	< 0.1	1.4	<0.005	ND			
SB19	05/02/06	10-10.5	< 0.001	< 0.001	< 0.001	0.0015	0.230	4.8	< 0.005	ND			
SB19	05/02/06	15-15.5	< 0.001	< 0.001	< 0.001	< 0.001	< 0.1	1.2	< 0.005	ND			
SB19	05/02/06	20-20.5	<0.10	< 0.10	< 0.10	0.15	19	5.8	< 0.005	ND			
SB19	05/02/06	24.5-25	< 0.001	<0.001	<0.001	<0.001	<0.1	1.7	<0.005	ND			
SB20	05/02/06	5.5-6	<0.001	<0.001	<0.001	<0.001	<0.1	14	<0.005	ND			
SB20	05/02/06	10-10.5	0.58	0.60	0.80	0.72	76	98	< 0.051	ND			
SB20	05/02/06	15-15.5	26	39	24	12	1,300	270	< 0.12	ND			
SB20	05/02/06	19.5-20	20	18	66	280	2,700	250	<2.5	ND			
SB20	05/02/06	23.5-24	0.013	0.0047	0.023	0.0082	0.610	7.0	< 0.005	ND			
SB21	05/02/06	8-8.5	< 0.001	<0.001	<0.001	<0.001	<0.1	1.4	<0.005	ND			
SB21	05/02/06	13-13.5	< 0.001	< 0.001	< 0.001	< 0.001	<0.1	<1.0	< 0.005	ND			
SB21	05/02/06	18-18.5	< 0.001	< 0.001	< 0.001	< 0.001	< 0.1	1.7	0.0088	ND			
SB21	05/02/06	19.5-20	< 0.001	< 0.001	< 0.001	0.014	<1	2.4	0.012	ND			
SB21	05/02/06	23-23.5	< 0.001	<0.001	< 0.001	< 0.001	<0.1	<1.0	< 0.005	ND			
SB21	05/02/06	24.5-25	<0.001	<0.001	<0.001	<0.001	<0.1	<1.0	<0.005	ND			
V3	05/03/06	9.5-10	<0.001	<0.001	<0.001	<0.001	<0.1	<1.0	<0.005	ND			
V4	05/03/06	5-5.5	<0.001	<0.001	<0.001	< 0.001	<0.1	<1.0	<0.005	ND			
V4	05/03/06	7.5-8	<0.001	<0.001	<0.001	<0.001	<0.1	<1.0	<0.005	ND			
V5	05/03/06	5-5.5	<0.001	<0.001	<0.001	<0.001	<0.1	<1.0	<0.005	ND			
V5	05/03/06	7.5-8	<0.001	<0.001	<0.001	<0.001	0.240	<1.0	< 0.005	ND			
V8	05/03/06	5-5.5	<0.001	<0.001	<0.001	< 0.001	<0.1	<1.0	<0.005	ND			
V8	05/03/06	7.5-8	< 0.001	< 0.001	< 0.001	< 0.001	<0.1	1.0	< 0.005	ND			

a Methyl tertiary butyl ether by 8021B.

b Estimated value below report limit.

MTBE Methyl tertiary butyl ether by EPA Method 8260B unless otherwise indicated.

NA Not analyzed.

ND Not detected at or above laboratory reporting limits.

TPH-g Total Petroleum Hydrocarbons as gasoline by EPA Method 8015B.

TABLE I SOIL SAMPLE ANALYTICAL RESULTS,
FORMER EXXON RETAIL SITE 7-4121, 10605 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

					C	oncentration (mg/kg	<u>g)</u>			
Sample ID		Depth (feet)			Ethyl-	Total				
	Date		Benzene Toluene benzene	Xylenes	TPH-g	TPH-d	MTBE	VOCs		
ГРН-d VOCs	Total Petroleum Hydrocarbons as diesel by EPA Method 8015B. Tert-amyl methyl ether, tert-butyl alcohol, di-isopropyl ether, 1,2-dibromoethane, 1,2-dichloroethane, and ethyl tert-butyl ether by EPA Method 8260B.									
	by EPA Method 82	60B.								

TABLE 2 GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR TEMPORARY BORINGS, FORMER EXXON RETAIL SITE 7-4121, 10605 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

Do		Depth to			Concentra	ıtion (μg/L)				
Boring ID	Date	Water (feet bgs)	Benzene	TP = 1	Ethyl-	Total				
		(Icci ogs)	Delizelle	Toluene	benzene	Xylenes	ТРН-д	TPH-d	MTBE	VOCs
SB-1 W	03/19/04	13.3-16	250	22	310	71	3,200	4,200	<17ª	NA
SB-2 W	03/19/04	14-22	17	24	68	21	7,000	26,000	<17ª	NA
SB5	05/26/05	20 ^b	<0.5	<0.5	<0.5	<0.5	<50	341	<0.5	NA
SB6	05/26/05	22 ^b	<0.5	<0.5	<0.5	<0.5	<50	<56	<0.5	NA
5B7	05/26/05	19 ⁶	<0.5	<0.5	<0.5	<0.5	<50	57	<0.5	NA
B8	05/26/05	18 ⁶	75.7	0.5	4.7	4.7	824	801	<0.5	NA
B9	05/27/05	20 ⁶	<0.5	<0.5	<0.5	<0.5	<50	<50	<0.5	NA
B10	05/27/05	20 ⁶	<0.5	<0.5	<0.5	0.7	54.5	<50	<0.5	NA
B11	05/27/05	20 ⁶	<0.5	<0.5	1.9	0.5	2,250	701	<0.5	NA
B12	05/27/05	20 ^b	<0.5	0.5	1.0	<0.5	1,060	305	4.30	NA
B13	05/27/05	20 ⁶	<0.5	<0.5	0.6	<0.5	447	121	14.2	NA
314	05/02/06	20 ^b	1.89	<0.500	102	5.56	2,340	820°	<0.500	ND
315	05/02/06	20 ^b	18.4	<0.500	42.6	4.16	831	440°	<0.500	ND
316	05/02/06	20 ^b	30.3	0.820	410	11.3	5,940	1,700°	<0.500	ND
3 17	05/02/06	20 ^b	2,140	1,400	4,690	11,100	60,800	7,500°	<25.0	ND

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TABLE 2 GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR TEMPORARY BORINGS, FORMER EXXON RETAIL SITE 7-4121, 10605 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

		Depth to			Concentra					
Boring ID	Date	Water (feet bgs)	Benzene	Toluene	Ethyl- benzene	Total Xylenes	ТРН-д	TPH-d	MTBE	VOCs
SB18	05/03/06	20 ^b	<25.0	<25.0	159	<25.0	10,100	1,700°	<25.0	ND
SB19	05/02/06	20 ^b	4.19	<0.500	5.78	6.29	3,100	720°	<0.500	ND
SB20	05/02/06	20 ^b	3,240	53.2	3,670	4,170	41,800	4,300°	<0.500	ND
SB21	05/02/06	22 ^b	<0.500	<0.500	<0.500	<0.500	1,390	440°	83.3	ND

a Methyl tertiary butyl ether by EPA Method 8021B.

MTBE Methyl tertiary butyl ether analyzed by EPA Method 8260B unless otherwise indicated.

NA Not analyzed.

ND Not detected at or above laboratory reporting limits.

TPH-g Total Petroleum Hydrocarbons as gasoline analyzed by EPA Method 8015B.

TPH-d Total Petroleum Hydrocarbons as diesel analyzed by EPA Method 8015B.

VOCs Tert-amyl methyl ether, 1,2-dibromoethane, 1,2-dichloroethane, ethyl tert-butyl ether, diisopropyl ether, and tertiary butyl alcohol

analyzed by EPA Method 8260B.

μg/L Micrograms per liter.

b Depth of grab groundwater sample.

Hydrocarbon pattern is present within the requested fuel quantitation range but does not resemble the pattern of the requested fuel.

TABLE 3 PHYSICAL PROPERTIES ANALYTICAL RESULTS FOR SOIL SAMPLES, FORMER EXXON RETAIL SITE 7-4121, 10605 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

		Sample			
Boring	Sample	Depth		Porosity	Specific Gravity
No.	Date	(feet bgs)	Moisture Content (%)	(pore volume %)	gm/cc
SB14	04/26/06	2.5	23.91	38.57	2.63
SB15	04/27/06	2.5	22.08	42.04	2.63
SB16	04/27/06	2.5	20.18	46.82	2.57
SB17	04/26/06	2.5	20.32	39.20	2.56
SB18	04/26/06	3.0	23.88	43.45	2.61
SB19	04/26/06	2.5	23.54	41.35	2.58
SB20	04/26/06	2.5	21.83	43.04	2.54
SB21	05/02/06	2.5	20.89	38.81	2.65

feet bgs Feet below ground surface.
gm/cc Grams per cubic centimeter.
% Percent,

TABLE 4 SOIL VAPOR SAMPLE ANALYTICAL RESULTS. FORMER EXXON RETAIL SITE 7-4121, 10605 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

					Concentration (μg/m³)								
Boring No.	Depth (feet bgs)	Date	Oxygen % by Volume	Benzene	Toluene	Ethyl- benzene	m.p-Xylene	e-Xylene	TPH-g	мтве	1,1-Difluoroethane		
VI	5.5	05/01/06	9.4	200	<100	<100	<100	<100	790,000	<100	<10,000		
V2ª		05/01/06							**	***	**		
V3 V3 ^a	5.5 10	05/01/06 05/01/06	19	120 	160 	140 	<100 	<100	110,000	<100	<10,000		
V4ª		05/01/06	**	www.	artic						4141		
V5ª		05/01/06	***	-0-uk							***		
V6	7.0	05/01/06	9.1	170	<100	540	410	<100	000,088	<100	<10,000		
V7 V7 dup	7.5 7.5	05/01/06 05/01/06	21 20	84 <80	140 110	<100 <100	110 <100	<100 <100	2,200 2,400	<100 <100	<10,000 <10,000		
V8ª		05/01/06	-					**	**				
V9	7.5	05/01/06	19	<80	<100	<100	<100	<100	360,000	<100	<10,000		
V10 V10	8.0 10.0	05/01/06 05/01/06	11 9.0	1,100 1,900	130 <100	340 <100	180 <100	<100 <100	6,600,000 17,000,000	<100 <100	<10,000 <10,000		

Note: Soil vapor samples were collected after purging 7 casing volumes or approximately 70 cc of vapor from the tubing (10 cc per 12 feet of tubing).

a Soil vapor could not be extracted at depths between 4 and 10 feet bgs from this boring. Soil samples were collected at depths of 5 and 7.5 feet bgs in order to replace soil vapor analyses at this location. The results of soil analyses are included in the Soil Sample Analytical Results table.

feet bgs Feet below ground surface.

Total Petroleum Hydrocarbons as gasoline reported as C6-C12. TPH-g

MTBE Methyl t-butyl ether. EDB 1.2-Dibromoethane. 1,2-DCA 1,2-Dichloroethane. DIPE Diisopropyl ether. TBA t-Butyl alcohoí.

TAME tert-Amyl methyl ether.

ETBE tert-Butyl ethyl ether.

dup Duplicate.

Not analyzed.

μg/m micrograms per cubic meter.

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TABLE 5 LIST OF WELLS WITHIN ONE-HALF MILE FROM FORMER EXXON RS 7-4121, 10605 FOOTHILL BOULEVARD, OAKLAND, CA

Well ID*	Location	Use	Owner	Total Depth	Water Depth
	(Township/Range Section)			(feet)	(feet)
D1	2S/3W 23B1	Domestic	Mrs. Bennett	75	42
D2	2S/3W 24B1	Domestic	Jack Ambro	102	35
D3	2S/3W 24B2	Domestic	John Freitas	123	65
D4	2S/3W 24B3	Domestic	Christensen	55	45
D5	2S/3W 24B4	Domestic	Christensen	98	36
D6	2S/3W 24C3	Domestic	H. Mathews	97	23
D7	2S/3W 24C6	Domestic	A.W. Bassigian	107	50
IRR1	2S/3W 24F1	Irrigation	John Kidder	65	24
IRR2	2S/3W 24M1	Irrigation	Mrs. Kitcher	58	.38
IRR3	2S/3W 24N1	Irrigation	Jor Bramse	79	40

Notes:

Monitoring wells were not included in this survey.

Information was obtained from the Alameda County Public Works Agency.

^{*} Well ID assigned by ETIC.

TABLE 6 TIER I ENVIRONMENTAL SCREENING LEVELS FOR SHALLOW SOIL, FORMER EXXON RS 7-4121, 10605 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

				Concen	Concentration (mg/kg)					
					Tier I Environmental Scree	ening Levels for Shallow Soil				
					Direct .	Exposure				
	Sample		Depth	Maximum Reported	Commercial/Industrial Land	nd Construction/Trench Work				
Chemical	ID	Date	(feet)	Concentration*	Use	Scenario				
Benzene	SB-3, SB-4	03/19/04	5	<0.005	0.38	16				
Toluene	Multiple	03/19/04 and 05/26-27/05	5, 5-5.5	< 0.005	340	650				
Ethylbenzene	Multiple	03/19/04 and 05/26-27/05	5, 5-5.5	< 0.005	400	400				
Total Xylenes	Multiple	03/19/04 and 05/26-27/05	5, 5-5.5	< 0.005	420	420				
TPH-g	SB6	05/26/05	5-5.5	<5.03	750	6,000				
TPH-d	SB17	05/02/06	5-5.5	18	750	6,000				
MTBE	Multiple	05/26-27/05 and 05/2/06	5-5.5	< 0.005	68	2,500				
TPH-g	Total Petrolei	ım Hydrocarbons as gasoline								
TPH-d		ım Hydrocarbons as diesel								
MTBE	Methyl tert bu	•								
mg/kg	Milligrams pe	er kilogram								
Note:		nmental Screening Levels adopte K-2 and K-3: Direct Exposure S	-	•		•				
			-		•	- '				

* Historical maximum concentrations are from soil samples collected within shallow soils which are defined as soil from 0-10 feet below ground surface.

TABLE 7 INDOOR AIR EXPOSURE RISK EVALUATION
FORMER EXXON RS 7-4121, 10605 FOOTHILL BOULEVARD, OAKLAND, CALIFORNIA

						Tier II Risk	Evaluation**	
			Maximum Reported		Residen	tial Land Use	Commercial/Industrial Land Use	
Chemical	Sample ID	Sample Depth (feet bgs)	Date	Concentration (µg/m³)*	Carcinogenic Risk	Non-Carcinogenic Hazard	Carcinogenic Risk	Non-Carcinogenic Hazard
Benzene	V10	8.0	05/01/06	1,100	3.00E-06	3.00E-02	1.80E-06	2.20E-02
Toluene	V3	5.5	05/01/06	160	NA	4.50E-04	NA	3.20E-04
Ethylbenzene	V6	7.0	05/01/06	540	NA	4.40E-04	NA	3.10E-04
Total Xylenes***	V6	7.0	05/01/06	410	NA	3.40E-03	NA	2.40E-03
TPH-g****	V10	8.0	05/01/06	6,600,000	NA	5.30E+01	NA	3.80E+01
MTBEa	V1, V3, V6, V7, V9, V10	5.5, 7.0, 7.5, 8.0, 10.0	05/01/06	<100				
			Total Cumu	lative Risk/Hazard	3.00E-06	5.30E+01	1.80E-06	3.80E+01

TPH-g Total Petroleum Hydrocarbons as gasoline

MTBE Methyl tert butyl ether.

NA Not applicable

Analyzed by EPA Method 8260B

μg/m² Micrograms per cubic meter

Note:

* Data reflect maximum concentrations (converted to μg/m³) reported from the analysis of shallow soil vapor samples collected on 1 May 2006.

** Risk evaluation based on USEPA's Johnson and Ettinger Vapor Intrusion Model Soil Gas - Advanced Screen version 2004 using site-specific soil type and soil gas sample depth.

San Francisco Bay Regional Water Quality Control Board has used USEPA's Johnson and Ettinger Vapor Intrusion Model Soil Gas - Advanced Screen version 2003

to produce Tier I Environmental Screening Levels.

*** p-Xylene chemical specific values used in the model to represent total xylenes.

** **

**** Pyrene chemical specific values used in the model to represent TPH-g.

Appendix A Regulatory Correspondence

From: "Chan, Barney, Env. Health" <barney.chan@acgov.org>

To: "Sherris Prall" <SPrall@eticeng.com>

Date: 6/13/06 4:41PM

Subject: RE: 10605 Foothill Blvd., Oakland, CA, Former Exxon RS 74121

Your request for an extension for your Risk Assessment Report is approved.

Sincerely, Barney M. Chan Hazardous Materials Specialist Alameda County Environmental Health 510-567-6765

----Original Message-----

From: Sherris Prall [mailto:SPrall@eticeng.com]

Sent: Monday, June 12, 2006 3:10 PM

To: Chan, Barney, Env. Health

Cc: Bryan campbell; Christa Marting; Deborah Hensley;

gene n.ortega@exxonmobil.com

Subject: 10605 Foothill Blvd., Oakland, CA, Former Exxon RS 74121

Barney,

As Bryan Campbell and I discussed with you earlier today, at the request of ExxonMobil Oil Corporation, we are requesting an extension to the Risk Assessment Report for the subject site. The report was originally due 60 days from drilling; we will submit the report by 31 July 2006.

As always, thank you for your attention to this project. We will look for your response by e-mail.

Sincerely, Sherris Prall Project Manager

From:

Sherris Prall

To:

Barney Chan 4/14/06 12:52PM

Date: Subject:

10605 Foothill Blvd, Oakland, CA; Former Exxon RS 7-4121

Barney,

ETIC has scheduled vac rig borehole clearance for April 26-28 and soil vapor, soil, and groundwater sampling by direct push on May 1-4, 2006.

The scope of work on these dates will be completed in accordance with the August 2005, ETIC Risk Assessment Work Plan, and as modified and approved in March 17, 2006 e-mail correspondence between ETIC and Alameda County Health Care Services Agency. The report will be submitted 60 days after completion of the field work.

Thank you for your attention to this project. If you have any questions or comments, please contact me.

Sincerely, Sherris Prall Project Manager

Sherris Prall ETIC Engineering, Inc. 2285 Morello Avenue Pleasant Hill, CA 94523 Tel: 925-602-4710, Ext. 20 FAX: 925-602-4720 sprall@eticeng com

CC:

Bryan campbell; Christa Marting; Gene Ortega

From: "Chan, Barney, Env. Health" barney.chan@acgov.org

To: "Sherris Prall" <SPrall@eticeng.com>

Date: 3/17/06 3:28PM

Subject: RE: 10605 Foothill Blvd, Oakland, CA Former Exxon RS 7-4121

Sherris:

I concur with the proposed additions and changes to the prior work plan.

Sincerely,

Barney Chan 510-567-6765

----Original Message----

From: Sherris Prall [mailto:SPrall@eticeng.com]

Sent: Friday, March 17, 2006 12:30 PM

To: Chan, Barney, Env. Health

Cc: Bryan campbell; Christa Marting; Tracy lob;

gene n.ortega@exxonmobil.com

Subject: 10605 Foothill Blvd, Oakland, CA Former Exxon RS 7-4121

Barney,

As I mentioned to you on the phone, ETIC Engineering plans to drill at this site in mid-April. After reviewing the scope of work, we would like to add the following:

-soil vapor point 10, located in the former tank backfill area, samples at 5' and 10'

-SB-14-SB-21 - soil samples at 2.5' and analyze for porosity and moisture content

Please refer to the attached site map and summary of scope of work. We have also re-considered getting a borehole clearance variance from ExxonMobil. Instead of not clearing, we propose to use a vac-rig to clear to 2.5', collect a soil sample with the slide hammer, continue to clear to 4', then backfill with bentonite. The SB-21 boring will be cleared to 8' as will any other borings that are located near known utilities. The direct-push drilling rig will push through the bentonite-filled holes to collect soil vapor at 5', and in the case of soil vapor points 3 and 10, a second soil vapor sample will be collected at 10'. We anticipate that this work will address all risk-based decisions regarding this site.

We are currently evaluating the need for both onsite and offsite laboratories. An offsite lab may not be necessary, except for one or two confirmation samples if the detection limits of the onsite lab are low enough to meet our needs for risk assessment.

Thank you for your continued oversight and attention to this project. Let me know if you agree with these proposed additions and changes to the approved scope of work. Please call me if you have any questions.

Sincerely, Sherris Prall Project Manager Sherris Prall ETIC Engineering, Inc. 2285 Morello Avenue Pleasant Hill, CA 94523 Tel: 925-602-4710, Ext. 20 FAX: 925-602-4720

sprall@eticeng.com

From: "Chan, Barney, Env. Health" barney.chan@acgov.org

To: "Sherris Prall" <SPrall@eticeng.com>

Date: 2/14/06 9:07AM

Subject: RE: Fuel Case RO0002635, Exxon 7-4121, 10605 Foothill Blvd, Oakland, CA

Thank you for the update, your extension is granted. Sincerely,

Barney Chan 510=-567-6765

----Original Message----

From: Sherris Prall [mailto:SPrall@eticeng.com] Sent: Monday, February 13, 2006 12:46 PM

To: Chan, Barney, Env. Health

Subject: Fuel Case RO0002635, Exxon 7-4121, 10605 Foothill Blvd,

Oakland, CA

Barney,

Drilling for this site has been changed to March 20, 21, and 22. The City of Oakland will not give us an encroachment permit until our driller has a business license for the City of Oakland and we are still waiting for that. We began the process on October 31, 2005, and have been following up with the City periodically.

We have noted that you have asked for the report 45 days after drilling. Would you consider a 60-day deadline considering the risk assessment is included in this report?

Thanks for your attention to this project.

Sincerely, Sherris Prall

From: "Chan, Barney, Env. Health" <barney.chan@acgov.org>

To: "Sherris Prall" <SPrall@eticeng.com>

Date: 12/9/05 9:19AM

Subject: RE: Fuel Case RO0002635, Exxon 7-4121, 10605 Foothill Blvd., Oakland, CA

Sherris:

Thank you for the update. I believe that the proposed borings are enough to determine if this is a confined release or a more significant release than originally thought.

Barney

----Original Message----

From: Sherris Prall [mailto:SPrall@eticeng.com] Sent: Thursday, December 08, 2005 9:01 AM

To: Chan, Barney, Env. Health

Subject: Fuel Case RO0002635, Exxon 7-4121, 10605 Foothill Blvd.,

Oakland, CA

Barney,

I have attached a copy of the revised map with boring locations based on our telephone and e-mail conversations. We are currently working to get an encroachment permit from the City of Oakland for the boring in the sidewalk. We anticipate drilling as soon as January 2006. Please let me know if you have any other comments regarding the boring locations.

Hope you have a happy holiday!

Sincerely, Sherris Prall

From:

Sherris Prall

To:

Barney Chan 12/8/05 9:01AM

Date: Subject:

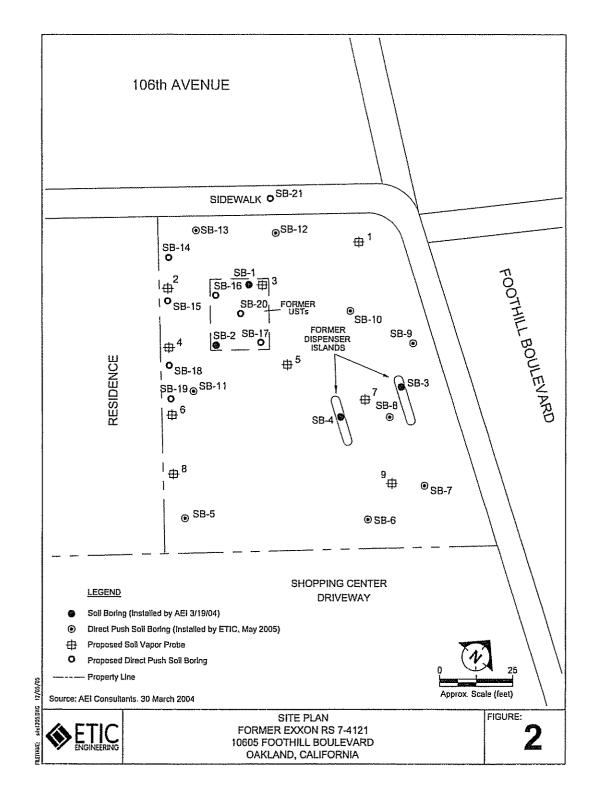
Fuel Case RO0002635, Exxon 7-4121, 10605 Foothill Blvd., Oakland, CA

Barney,

I have attached a copy of the revised map with boring locations based on our telephone and e-mail conversations. We are currently working to get an encroachment permit from the City of Oakland for the boring in the sidewalk. We anticipate drilling as soon as January 2006. Please let me know if you have any other comments regarding the boring locations.

Hope you have a happy holiday!

Sincerely, Sherris Prall



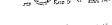
ALAMEDA COUNTY

HEALTH CARE SERVICES



DAVID J. KEARS, Agency Director





SEP 08 2005

ETC ENGINEERING

September 6, 2005

Ms. Jennifer Sadlachek ExxonMobil 4096 Piedmont Ave., #194 Oakland, CA 94611 Mr. Ken Phares MacArthur Blvd. Associates 10700 MacArthur Blvd. Oakland, CA 94605 ENVIRONMENTAL HEALTH SERVICES ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 (510) 567-6700 FAX (510) 337-9335

Dear Ms. Sadlachek and Mr. Phares:

Subject: Fuel Leak Case RO0002635, Exxon #7-4121, 10605 Foothill Blvd., Oakland, CA 94605

Alameda County Environmental Health staff has received and reviewed the August 29, 2005, *Risk Assessment Work Plan,* prepared by ETIC Engineering. This work plan responds to the County's July 27, 2005 letter requesting additional technical information for the subject site. The work plan proposes additional soil borings and soil vapor sampling. We generally approve the work plan, however, we request that you address the following technical comments and submit the technical report requested below when performing the proposed work.

TECHNICAL COMMENTS

- 1. The proposal to address the County's request to perform a Conduit/Receptor Survey Study and Characterize Local Hydrogeology and Groundwater Flow Conditions is approved. Please submit your technical report as requested below.
- 2. Contaminant Source Characterization- We request that the following modifications to your Soil and Groundwater Investigation be made:
 - An additional soil boring should be advanced near proposed vapor probe location 6 to determine the extent of groundwater impact reported in SB-11.
 - The extent of contamination within the former UST pit should be further investigated by advancing an additional boring within the center of the former tank pit. In addition, the locations of SB-16 & SB-17 should be moved the west and east corners of the former tank pit, respectively.
 - In our previous letter, we requested additional delineation "north towards 106th Ave." This may be achieved by advancing borings to the northwest of SB-12 and proposed soil vapor probe 1. We request that soil and groundwater samples be collected from all boreholes. Soil samples should be collected every 5 feet for screening and sent to the lab based upon soil characteristics and field organic vapor readings. In addition to the proposed chemicals, these samples should also be analyzed for TAME, ETBE, TBA, EDB and EDC.
- 3. Soil Vapor Sampling- Please insure that the soil from which the soil vapor sample is being collected in from an undisturbed location. We are concerned that the proposed clearing of soil prior to sampling will volatilize contaminants prior to sampling. Please explain how this was avoided in your report. The initial sample is proposed to be collected from 5'. Please note, as recommended in the DTSC/LARWQCB document, multi-depth sampling is appropriate for sites with USTs, backfilled material, or significant elevated VOC in shallow or previous vapor sampling. Please explain the logic of collecting vapor samples for testing at

Ms. Sadlachek & Mr. P....es RO0002635 September 6, 2005 Page 2 of 3

both onsite and offsite laboratories. Although the proposed soil vapor samples are approved, additional sampling may be warranted based upon the results of the proposed work.

4. Geotracker EDF Submittals - Pursuant to CCR Sections 2729 and 2729.1, beginning September 1, 2001, all analytical data, including monitoring well samples, submitted in a report to a regulatory agency as part of the LUFT program, must be transmitted electronically to the SWRCB Geotracker website via the internet. Additionally, beginning January 1, 2002, all permanent monitoring points utilized to collected groundwater samples (i.e. monitoring wells) and submitted in a report to a regulatory agency, must be surveyed (top of casing) to mean sea level and latitude and longitude accurate to within 1-meter accuracy, using NAD 83, and transmitted electronically to the SWRCB Geotracker website. Beginning July 1, 2005, electronic submittal of a complete copy of all reports (LUFT or SLIC) is required in Geotracker (in PDF format).

In order to remain in regulatory compliance, please upload all LUFT analytical data (collected on or after September 1, 2001, to the SWRCB's Geotracker database website in accordance with the above-cited regulation. Please perform the electronic submittals for applicable data and submit verification to this Agency by October 6, 2005.

TECHNICAL REPORT REQUEST

Please submit the following technical reports to our office according to the following schedule:

- 45 days after your soil and groundwater investigation- technical report including Conduit/Receptor Survey and Characterization of Local Hydrogeology and Groundwater Flow Conditions.
- 45 days after your soil vapor investigation- technical report and risk assessment.

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. Title 23, CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) now request submission of reports in electronic form. The electronic copy is intended to replace the need for a paper copy and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all reports is required in Geotracker (in PDF

Ms. Sadlachek & Mr. Pi. ..es RO0002635 September 6, 2005 Page 3 of 3

format). Please visit the State Water Resources Control Board for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following:

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

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

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

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

If you have any questions, please contact me at (510) 567-6765.

Sincerely,

Barney M. Chan

Hazardous Materials Specialist

Barrey M Cha

Enclosure: ACEH Electronic Report Upload (ftp) Instructions (Ms. Sadlachek & Ms. Prall)

C: files, D. Drogos

Ms. Sherris Prall, ETIC Engineering, 2285 Morello Ave., Pleasant Hill, CA 94523

9_6_05 10605 Foothill Blvd

ALAMEDA COUNTY

HEALTH CARE SERVICES





AUG 0 1 2005

ETIC ENGINEERING

ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250

Alameda, CA 94502-6577

(510) 567-6700

FAX (510) 337-9335

DAVID J. KEARS, Agency Director **ENVIRONMENTAL HEALTH SERVICES**

July 27, 2005

Ms. Jennifer Sadlachek ExxonMobil 4096 Piedmont Ave, #194 Oakland, CA 94611

Mr. Ken Phares MacArthur Blvd. Associates 10700 MacArthur Blvd. Oakland, CA 94605

Dear Ms. Sadlachek and Mr. Phares:

Subject: Fuel Leak Case RO0002635, Exxon #7-4121, 10605 Foothill Blvd., Oakland, CA 94605

Alameda County Environmental Health staff has received and reviewed the July 15, 2005 Subsurface Investigation Report, prepared by ETIC Engineering. This report details the results of soil and groundwater sampling from nine (9) borings advanced at the site in an attempt to determine the lateral and vertical extent of petroleum contamination from the former UST system. A previous investigation had detected soil and groundwater contamination in the vicinity of the former USTs, although the exact location of the UST system appears uncertain. We request that you address the following technical comments and submit the technical report requested below.

TECHNICAL COMMENTS

1. Conduit/Receptor Survey Study

The purpose of the conduit study is to locate potential migration pathways and potential conduits and determine the probability of the plume encountering preferential pathways and conduits that could spread the contamination. The conduit study shall include a detailed well survey of all wells (monitoring and production wells: active, inactive, standby, destroyed (sealed with concrete), abandoned (improperly destroyed); and dewatering, drainage, and cathodic protection wells) within a ½ mile radius of the subject site. As part of your detailed well survey, please perform a background study of the historical land uses of the site and properties in the vicinity of the site. Use the results of your background study to determine the existence of unrecorded/unknown (abandoned) wells, such as agricultural and domestic wells, that can act as pathways for migration of contamination at and/or from your site. Please review historical maps such as Sanborn maps, aerial photos, etc., when performing the background study. Provide a map(s) showing the location of all wells identified in your study. Please also provide copies of Sanborn maps indicating the presence of "gas and oil".

2. Characterization of Local Hydrogeology and Groundwater Flow Conditions

The purpose of this characterization is to understand the physical and geochemical characteristics of the subsurface, which may affect groundwater flow, the breakdown (fate),

Ms. Sadlachek & Mr. Phares RO0002635 July 27, 2005 Page 2 of 3

migration (transport), and the distribution of contaminants through the subsurface Additionally, factors such as water level fluctuations, gradient changes, local hydrogeology, groundwater extraction, and groundwater recharge activities (natural and artificial) can significantly alter groundwater flow conditions. We request that you properly characterize the hydrogeology and groundwater flow conditions in the vicinity of your site. We require that you prepare detailed cross-sections and determine the gradient for the site. Include soil concentrations and groundwater iso-concentration contours on your cross-section.

3. Contaminant Source Characterization

The purpose of contaminant source characterization is to determine the nature and extent of free product (liquid phase), petroleum saturated soils (residual phase), and hydrocarbons dissolved in groundwater (aqueous phase), and high concentrations of soil vapor (vapor phase) that will continue to increase the concentration and mass of the dissolved phase contaminant plume. Contaminant source characterization also includes characterization of dissolved phase contamination and an estimation of contaminant mass in the source area. We are concerned that soil contamination has not been adequately defined within the vicinity of the former USTs, which could leave a significant residual source of contamination. The lack of vertical delineation in SB-1 and the presence of elevated TPH in groundwater in SB-2 is of concern. In addition, the plume requires delineation towards the residence to the west and north towards 106th Ave. After completion of this characterization, an evaluation as to the need for permanent monitoring wells must be made.

4. Soil Vapor Sampling

We concur that soil vapor sampling would be useful to determine if vapor risk exists from residual contamination, however, it would be most appropriately done when site characterization is complete. Sampling in known areas of contamination and near receptors would typically be recommended.

TECHNICAL REPORT REQUEST

Please submit the following technical reports to our office according to the following schedule:

- August 29, 2005- Conduit/Receptor Survey study, hydrogeology characterization and work plan to further delineate soil and groundwater contamination.
- 30 days after the submittal of your soil and groundwater investigation report- Soil vapor sampling work plan

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. Title 23, CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from petroleum UST system, and require your compliance with this request.

Ms. Sadlachek & Mr. Phares RO0002635 July 27, 2005 Page 3 of 3

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following:

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

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835 1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

If you have any questions, please contact me at (510) 567-6765.

Sincerely,

Barney M. Chan

Hazardous Materials Specialist

Tawer Mella-

C: files, D. Drogos

Ms. Sherris Prall, ETIC Engineering, 2285 Morello Ave., Pleasant Hill, CA 94523

7_28_05 10605 Foothill Blvd

Appendix B Historical Aerial Photos



The EDR-Aerial Photography Print Service

Former Exxon RS 7-4121 10605 Foothill Boulevard Oakland, CA 94605

May 3, 2005

Inquiry Number: 1410819-5

The Standard In Environmental Risk Management Information

440 Wheelers Farms Road Milford, Connecticut 06460

Nationwide Customer Service

Telephone: 1-800-352-0050

Fax: 1-800-231-6802

Environmental Data Resources, Inc. Aerial Photography Print Service

Environmental Data Resources, Inc.'s (EDR) Aerial Photography Print Service is a screening tool designed to assist professionals in evaluating potential liability on a target property resulting from past activities. ASTM E 1527-00, Section 7.3 on Historical Use Information, identifies the prior use requirements for a Phase I environmental site assessment. The ASTM standard requires a review of reasonably ascertainable standard historical sources. Reasonably ascertainable means information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.

To meet the prior use requirements of ASTM E 1527-00, Section 7.3.4, the following standard historical sources may be used: aerial photographs, fire insurance maps, property tax files, land title records (although these cannot be the sole historical source consulted), topographic maps, city directories, building department records, or zoning/land use records. ASTM E 1527-00 requires "All obvious uses of the property shall be identified from the present, back to the property's obvious first developed use, or back to 1940, whichever is earlier. This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful." (ASTM E 1527-00, Section 7.3.2, page 12.)

Aerial Photographs

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

Aerial photographs are a valuable historical resource for documenting past land use and can be particularly helpful when other historical sources (such as city directories or fire insurance maps) are not reasonably ascertainable. The EDR Aerial Photograph Print Service includes a search of local aerial photograph collections flown by public and private agencies. EDR's professional field-based researchers provide digitally reproduced historical aerial photographs at ten year intervals.

Please call Environmental Data Resources, Inc. Nationwide Customer Service at 1-800-352-0050 (8am-8pm ET) with questions or comments about your report.

Thank you for your business!

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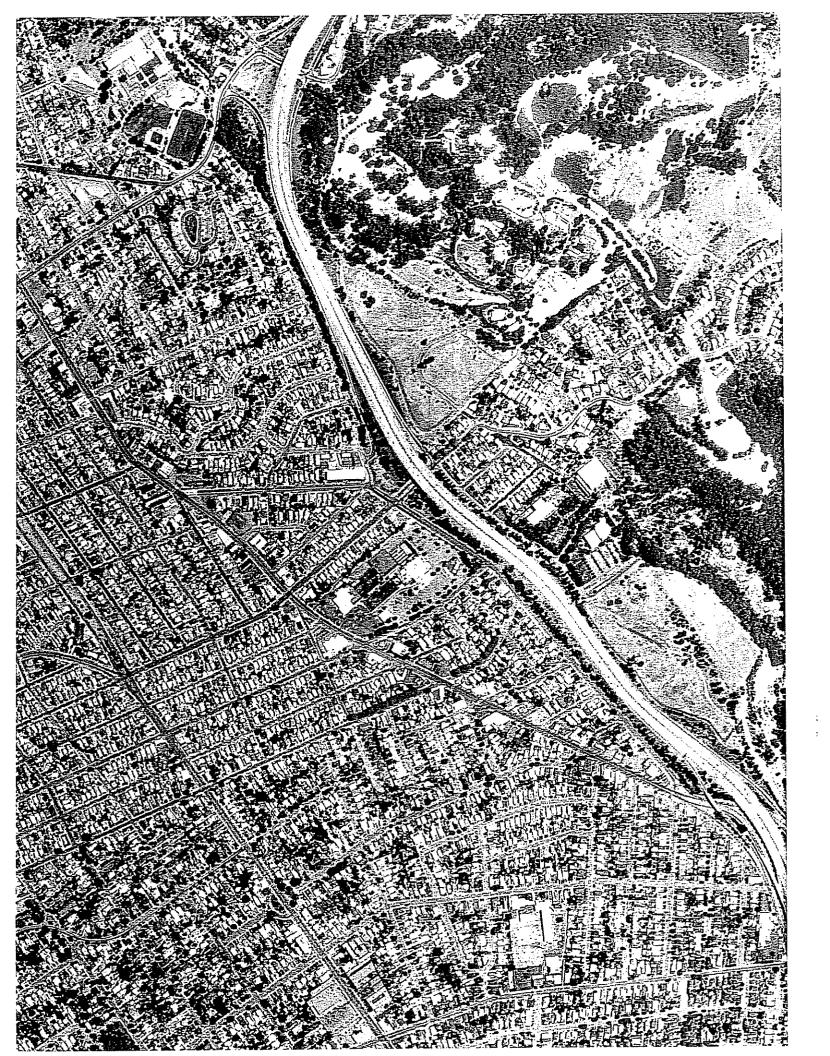
EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

Inquiry# /4/08/9.5 Year: 1939
Flyer: Fairchild
Scale: 1"=555'



Inquiry# <u>///08/9/5</u>
Year: 1946
Flyer: Jack Ammann
Scale: 1"=655"





Inquiry# <u>/4/03/9.5</u> Year: 1958

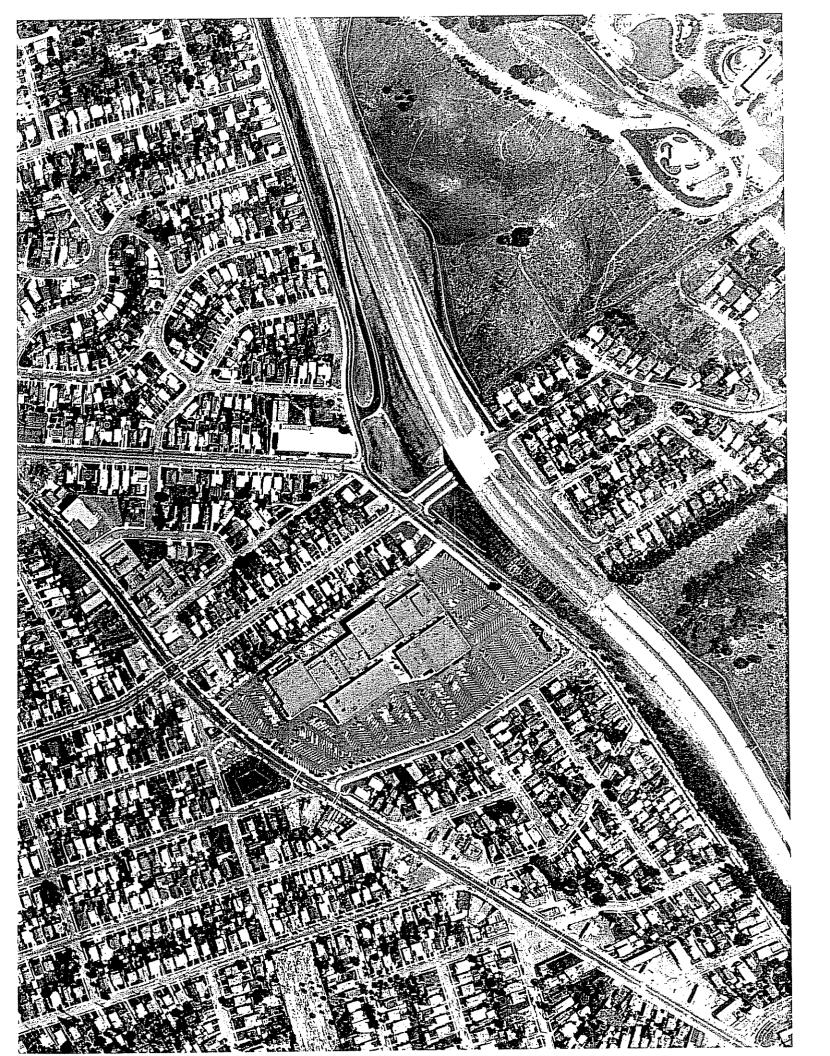
Flyer: Scale: Cartwright 1"=555'





Inquiry# /4/08/9. \(\)
Year: 1965
Flyer: Cartwright
Scale: 1"=333'





Inquiry# <u>/4/08/95</u> Year: 1982 Flyer: WSA Scale: 1"=690'





Inquiry# 1410819.5 Year: 1993 Flyer: USGS Scale: 1"=666'





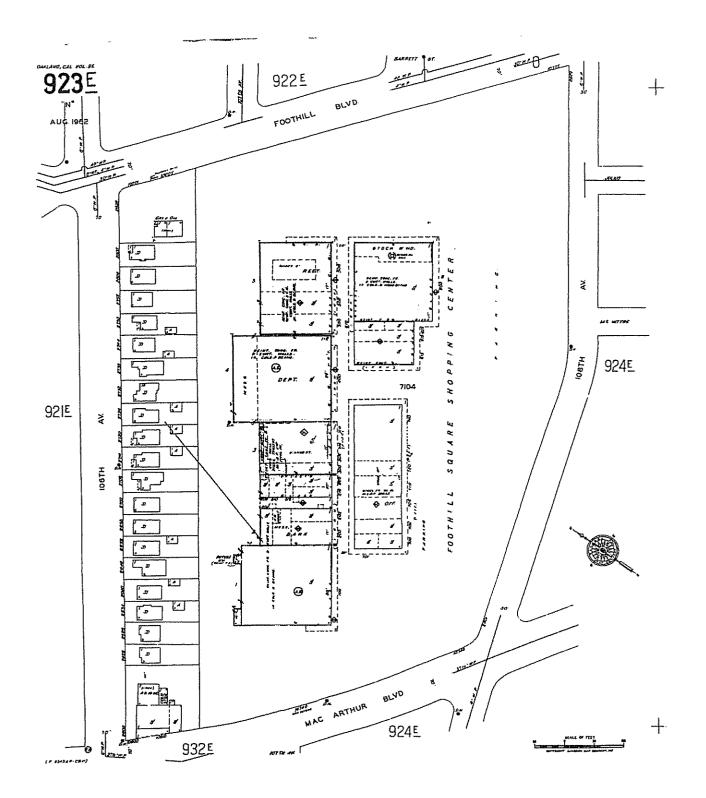
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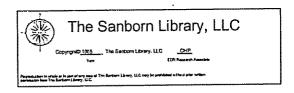
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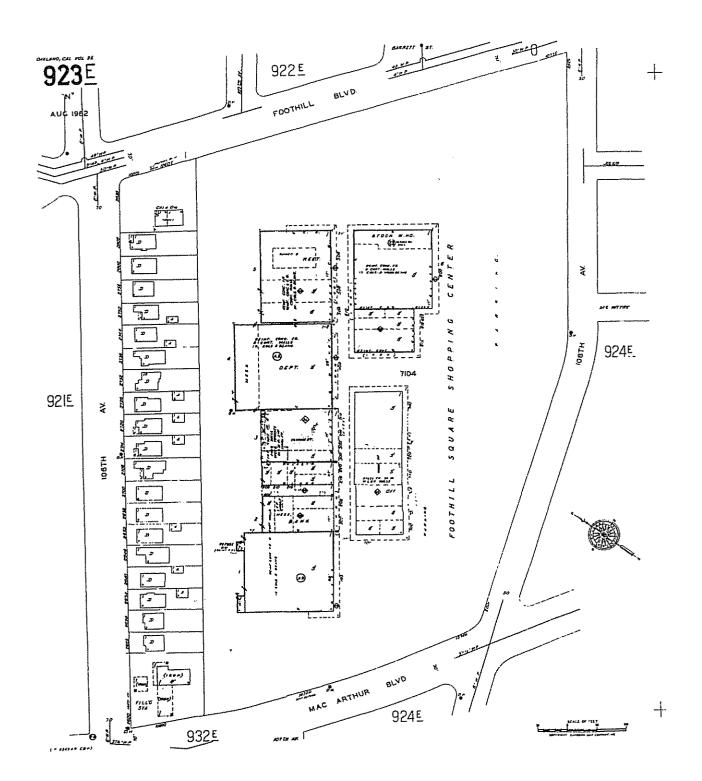


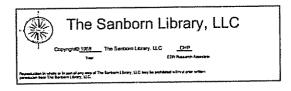


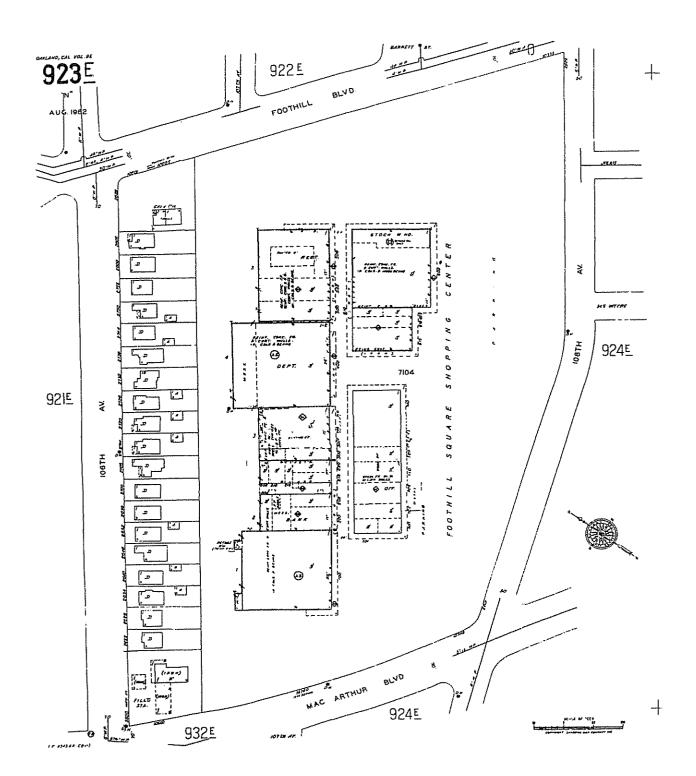
Appendix C
Sanborn Maps

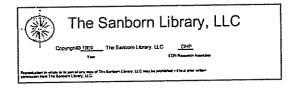












Appendix D

Quarterly Groundwater Monitoring Report, Fourth Quarter 2005 USA Station No. 57 (Stratus 2006)



January 27, 2006 Project No. 2007-0057-01

Mr. Barney Chan Alameda County Health Agency Department of Environmental Health 1131 Harbor Bay Parkway, 2nd Floor Alameda, California 94502

Re: Quarterly Groundwater Monitoring Report, Fourth Quarter 2005, for former USA Service Station No. 57, located at 10700 MacArthur Boulevard, Oakland, CA (LOP No. RO0000232)

Dear Mr. Chan:

Stratus Environmental, Inc. (Stratus) is submitting the attached report which presents the results of the fourth quarter 2005 quarterly monitoring and sampling program on behalf of USA Gasoline Corporation (USA) for the former USA Service Station No. 57, located at 10700 MacArthur Boulevard, Oakland, California (Figure 1). This report is in compliance with Alameda County Department of Environmental Health requirements for underground storage tank (UST) investigations.

If you have any questions regarding this report, please contact Gowri Kowtha at (530) 676-6001.

Sincerely,

STRATUS ENVIRONMENTA

Stephen J. Carter, P

Sr. Project Supervisor

No. 5577 Gowri S. K

Project Manager

wtha, P.E.

Quarterly Groundwater Monitoring Report, Fourth Quarter 2005 Attachment:

Mr. Charles Miller, USA Gasoline Corporation cc:

Stephen J Carter

Mr. Ken Phares, Jay-Phares Corporation

Mr. Peter McIntyre, AEI Consultants

Date	January	27	2006
Date	January	<i>د</i> ۱ ہے	2000

USA GASOLINE QUARTERLY GROUNDWATER MONITORING REPORT

Facility No: <u>57</u> Address:	10700 MacArthur Blvd., Oakland, California
USA Gasoline Project Supervisor:	Charles Miller
Consulting Co./Contact Person:	Stratus Environmental, Inc./ Gowri S. Kowtha, P.E.
Consultant Project No:	2007-0057-01
Primary Agency/Regulatory ID No:	Barney Chan, Alameda County Department of Environmental Health / RO0000232

WORK PERFORMED THIS QUARTER (Fourth 2005):

- Stratus measured groundwater elevations and collected groundwater samples from wells S-1, S-2, MW-3 through MW-5, MW-7, MW-8, and EX-1 through EX-4 on October 24, 2005. Well MW-6 was dry.
- 2 Stratus compiled and evaluated groundwater monitoring data
- Stratus installed DPE extraction wells EX-1 through EX-4 on October 6 and 7, 2005.
- 4. Stratus prepared and submitted a report for the third quarter 2005 mass removal event (dated November 11, 2005).
- 5. Stratus prepared and submitted (November 22, 2005) design drawing and pertinent applications to the City of Oakland Fire Department, requesting authorization for construction, installation and operation of the oxygen injection system using iSOCTM.
- 6 Stratus completed the construction and installation of the oxygen injection system during December 2005.
- 7. Upon approval from the Fire Department, Stratus started the operation of the oxygen injection system on January 18, 2006.

WORK PROPOSED FOR NEXT QUARTER (First 2006):

- 1. The next sampling event is tentatively scheduled for January 2006. Groundwater samples will be collected for laboratory analysis from wells S-1, S-2, MW-3 through MW-8, and EX-1 through EX-4.
- Groundwater samples will be analyzed for total petroleum hydrocarbons as gasoline (TPHG) using U.S. Environmental Protection Agency Method (EPA) Method SW8015B/DHS Luft Manual, and for benzene, toluene, ethylbenzene, total xylenes (BTEX), methyl tertiary butyl ether (MTBE), tertiary butyl alcohol (TBA), ethyl tertiary butyl ether (ETBE), di-isopropyl ether (DIPE), tertiary amyl methyl ether (TAME), 1,2-dichloroethane (1,2-DCA), 1,2-dibromoethane (EDB), methanol, and ethanol using EPA Method SW8260B
- 3 Stratus will prepare and submit a semi-annual waste discharge report to the East Bay Municipal District documenting the volume of treated groundwater that will discharge to the sanitary sewer during the dual phase extraction events.
- 4. Stratus will conduct bi-monthly site visits to conduct routine operation and maintenance of the oxygen injection system.

- Stratus will collect additional groundwater samples from select wells (S-1, S-2, MW-3, MW-7, MW-8, EX-1, EX-2, and EX-3) for analyzing biochemical oxygen demand (BOD), total organic carbon (TOC), nitrates, nitrite, ammonia, total phosphorus, orthophosphate, total iron, ferric iron, and heterotrophic plate counts.
- 6 Stratus will conduct the first quarter 2006 DPE mass removal event.

Current Phase of Project:	Monitoring / Interim Remediation
Frequency of Groundwater Sampling:	All Wells = Quarterly
Frequency of Groundwater Monitoring:	Quarterly
Groundwater Sampling Date:	October 24, 2005
Is Free Product (FP) Present on Site:	No
FP Recovered This Quarter:	NA
Cumulative FP Recovered to Date:	NA
Approximate Depth to Groundwater:	10.12 to 18.68 feet below top of well casing
Groundwater Flow Direction:	South
Groundwater Gradient:	0.017 ft/ft

DISCUSSION:

At the time of the fourth quarter 2005 monitoring event, groundwater elevations had decreased between 0.57 and 2.90 feet in all wells since the previous monitoring event (July 19, 2005). Depth-to-water measurements were corrected to mean sea level (MSL) and used to construct a groundwater elevation contour map (Figure 2). The groundwater flow direction was generally to the south at an average gradient of 0.017 ft/ft Radial groundwater flow patterns have been observed during previous monitoring events.

TPHG, benzene, and MTBE were reported in wells S-1, S-2, MW-3, EX-1, EX-2, and EX-4. TPHG and benzene were also reported in well EX-3. The highest concentrations of TPHG (42,000 μ g/L), benzene (13,000 μ g/L), and MTBE (410 μ g/L) were reported in well EX-2. TBA was reported in wells S-2 (33 μ g/L), MW-3 (750 μ g/L), EX-1 (120 μ g/L), and EX-4 (51 μ g/L). 1,2-DCA was reported in wells S-1 (2.2 μ g/L), S-2 (32 μ g/L), and MW-3 (210 μ g/L). DIPE, ETBE, TAME, EDB, methanol, or ethanol were not reported in any of the wells. These results are generally consistent with historical analytical data. The laboratory noted that the pH in the samples collected from wells S-1, S-2, MW-3 through MW-5, MW-7, and EX-1 through EX-4 were above the EPA recommended limit of 2. As the reported results for these wells appear to be generally consistent with historical data, it appears that the elevated pH has not affected data quality Analytical results of TPHG, benzene, and MTBE for groundwater samples collected on October 24, 2005, are presented in Figure 3.

Stratus completed the construction and installation of the oxygen injection system during December 2005. The oxygen injection system was started for continuous operation beginning January 18, 2006. Prior to start-up, groundwater samples from select monitoring wells were collected on January 11, 2006, to establish baseline concentrations of bio-parameters such as BOD, TOC, heterotrophic plate counts, etc. Stratus will continue to operate the oxygen injection, and collect additional groundwater samples from select wells for bio-parameters analysis to evaluate the performance of the oxygen injection system Details of system start-up, tabulated summaries of analytical results, and a summary of the monitoring plan for the oxygen injection system will be included in the first quarter 2006 groundwater monitoring report

ATTACHMENTS:

•	Table 1	Groundwater Elevation and Analytical Summary
0	Table 2	Groundwater Analytical Results for Oxygenates and Additional Compounds
۰	Figure 1	Site Location Map
٥	Figure 2	Groundwater Elevation Contour Map (Fourth Quarter 2005)
	Figure 3	Groundwater Analytical Summary (Fourth Quarter 2005)
•	Appendix A	Field Data Sheets
ø	Appendix B	Sampling and Analysis Procedures
•	Appendix C	Certified Analytical Reports and Chain-of-Custody Documentation

TABLE 1
GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY

<u> </u>											
Well	Date	Depth to	Well	Groundwater	TDII.	TTD IID	~			Total	
i		Water	Elevation	Elevation	TPHG	TPHD	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
Number	Collected	(feet)	(ft msl)	(ft msl)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)
S-1	02/12/87						630	4.4	3.5	37	NA
	03/03/95	13.10	74.74	61.64	910	5,900	260	7.6	3.5 16	37 14	
	07/24/95	12.35	, (47.1	62.39	NA	NA	NA	7.0 NA	NA	NA	NA NA
	11/22/95	19.30	78.68	59.38	460	6,100	13	0.69	0.99		11A 460*
	12/06/95	19.59	70.00	59.09	NA	NA	NA	NA	0.99 NA	1.1	
	01/04/96	19.52		59.16	NA	NA	NA NA			NA	NA
	01/31/97	15.07		63.61				NA	NA	NA	NA
	10/10/97	18.90			1,100	200	11	6	3	6	200*
				59.78	530	2,000	<0.5	2.1	<0.5	<2	230*
	01/20/98	16.79		61.89	1,800	200	< 0.5	< 0.5	1.5	10	87*
	04/28/98	8.37		70.31	130	7,300	1.9	3.2	< 0.5	< 0.5	310*
	07/31/98	11.61		67.07	310	2,000	0.54	4.6	3.8	0.82	280*
	06/10/99	14.35		64.33	660	150	0.99	< 0.5	< 0.5	2.4	80*[1]
	10/18/00	17.56		61.12	<50	330	< 0.5	0.93	< 0.5	< 0.5	44
	03/12/02	16.29		62.39	500	<50	2.8	4.8	0.79	4.4	63
	11/19/02	19.53		59.15	190	NA	< 0.50	< 0.50	< 0.50	< 0.50	190
	01/09/03	18.14		60.54	510	NA	1.1	< 0.50	0.52	<0.50	11
	04/14/03	18.04		60.64	300	NA	<1.0[2]	<1.0[2]	<1.0[2]	<1.0[2]	27
	07/21/03	20.31		58.37	300	NA	< 0.50	< 0.50	< 0.50	< 0.50	11
	10/09/03	19.46		59.22	390	NA	< 0.50	< 0.50	< 0.50	< 0.50	8.8
	01/15/04	18.21	79.66	61.45	200	NA	< 0.50	< 0.50	< 0.50	< 0.50	6.0
	04/08/04	19.29		60.37	140	NA	< 0.50	< 0.50	< 0.50	< 0.50	12
	08/10/04	18.86		60.80	110	NA	4.6	< 0.50	< 0.50	0.51	73
	11/11/04	19.81		59.85	160	NA	< 0.50	< 0.50	< 0.50	< 0.50	150
•	01/19/05	18.12		61.54	440	NA	< 0.50	< 0.50	1.4	< 0.50	140
	04/14/05	13.94		65.72	320	NA	< 0.50	< 0.50	<0.50	< 0.50	120
	07/19/05	14.11		65.55	240	NA	6.1	< 0.50	0.60	< 0.50	60
	10/24/05	16.53		63.13	320	NA	5.0	< 0.50	1.1	< 0.50	37

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TABLE 1

GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY

		Depth to	Well	Groundwater						Total	
Well	Date	Water	Elevation	Elevation	TPHG	TPHD	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
Number	Collected	(feet)	(ft msl)	(ft msl)	(μ g/L)	(μg/L)	(μg/ L)	(μg/L)	(μg/ L)	(μg/L)	(μg/L)
S-2	02/12/87		Sheen				3,400	3,800	1,300	11,000	NA
	03/03/95	15.39	76.86	61.47	24,000	6,000	1,900	440	600	2,500	NA
	07/24/95	14.47		62.39	NA	NA	NA	NA	NA	NA	NA
Sheen	11/22/95	21.52	80.93	59.41	NA	NA	NA	NA	NA	NA	NA
	12/06/95	21.78		59.15	NA	NA	NA	NA	NA	NA	NA
	01/04/96	21.75		59.18	NA	NA	NA	NA	NA	NA	NA
	01/31/97	17.25		63.68	NA	NA	NA	NA	NA	NA	NA
Sheen	10/10/97	21.21		59.72	13,000	<50	260	38	190	280	600*
Sheen	01/20/98	19.07		61.86	1,900	2,300	4.6	6.3	< 0.5	4.6	190*
	04/28/98	10.47		70.46	22,000	<100	980	160	320	680	570*
	07/31/98	13.71		67.22	160,000	<50	950	290	550	1,700	550*
	11/02/98	17.31		63.62	14,000	<500	170	70	170	230	490*
	06/10/99	16.48		64.45	17,000	<50	650	230	<25	750	490*[1]
	10/18/00	19.70		61.23	4,400	<50	2	64	5.1	12	270
	03/12/02	18.56		62.37	5,100	660	62	44	52	78	430
	11/19/02	21.70		59.23	26,000	NA	1,400	180	520	340	750
	01/09/03	20.37		60.56	16,000	NA	120	32	76	214	270
	04/14/03	19.93		61.00	16,000	NA	160	76	210	290	400
	07/21/03	22.00		58.93	9,700	NA	270	90	200	277	410
	10/09/03	21.58		59.35	10,000	NA	39	9.2	52	26.5	180
	01/15/04	20.44	81.90	61.46	6,300	NA	21	<2.0 [3]	20	3.1	130
	04/08/04	17.15		64.75	13,000	NA	160	76	170	231	430
	08/10/04	20.98		60.92	10,000	NA	76	13	<5.0[3]	500	92
	11/11/04	21.95		59.95	20,000	NA	530	240	370	1,730	420
	01/19/05	20.33		61.57	17,000	NA	590	150	250	990	580
	04/14/05	16.17		65.73	20,000	NA	830	230	570	1,980	510
	07/19/05	16.25		65.65	970	NA	48	13	16	57	72
	10/24/05	18.07		63.83	1,200	NA	100	13	52	41	69
								1	J. 444	71	0,5

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TABLE 1

GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY

		Depth to	Well	Groundwater						Total	
Well	Date	Water	Elevation	Elevation	TPHG	TPHD	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
Number	Collected	(feet)	(ft msl)	(ft msl)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)
MW-3	03/03/95	13.99	76.30	62.31	2,500	1,600	540	92	36	200	NA
	07/24/95	13.33		62.97	NA	NA	NA	NA	NA	NA	NA
	11/22/95	20.94	80.32	59.38	14,000	5,400	5,700	230	430	650	820*
	12/06/95	17.48		62.84	NA	NA	NA	NA	NA	NA	NA
	01/04/96	20.01		60.31	NA	NA	NA	NA	NA	NA	NA
	01/31/97	16.63		63.69	1,100	<50	130	8	5	5	NA
	10/10/97	20.62		59.70	3,400	1,100	830	4	100	<10	160*
	01/20/98	15.40		64.92	3,900	550	7.9	4.1	<0.5	3.7	<5.0*
	04/28/98	10.51		69.81	800	000,1	82	5.2	5.7	5.4	240*
	07/31/98	13.46		66.86	2,200	610	510	7.6	16	5.27	310*
	11/02/98	17.11		63.21	4,900	1,600	220	16	13	13.7	180*
	06/10/99	15.24		65.08	1,000	120	< 0.5	< 0.5	< 0.5	1.1	120*[1]
	10/18/00	15.41		64.91	<50	<50	< 0.5	< 0.5	<0.5	< 0.5	12
	04/08/04	13.70		66.62	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	19
	08/10/04	16.96		63.36	580	NA	19	<1.0[3]	<1.0[3]	3.3	300
	11/11/04	17.40		62.92	3,000	NA	810	<5.0[3]	43	<5.0[3]	690
	01/19/05	13.28		67.04	92	NA	18	< 0.50	0.77	< 0.50	17
	04/14/05	8.73		71.59	<50	NA	0.52	< 0.50	< 0.50	< 0.50	11
	07/19/05	11.94		68.38	390	NA	82	2.3	1.8	9.2	200
THE PROPERTY OF THE PROPERTY O	10/24/05	14.70	77.27	62.57	2,100	NA	460	6.9	7.7	11.9	300
	101 E-11 00	14.70	t I sime I	Om.U I	2,100	. 11 .		×	(**		

TABLE 1

GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY

		Depth to	Well	Groundwater						Total	
Well	Date	Water	Elevation	Elevation	TPHG	TPHD	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
Number	Collected	(feet)	(ft msl)	(ft msl)	(μg/L)	(μg/L)	(μg/ L)	(μg/ L)	(μg/L)	(μg/L)	(μg/L)
MW-4	11/22/95	14.99	76.42	61.43	<50	200	< 0.5	1.5	< 0.5	1.7	6.4*
	12/06/95	11.21		65.21	NA	NA	NA	NA	NA	NA	NA
	01/04/96	14.62		61.80	NA	NA	NA	NA	NA	NA	NA
	01/31/97	8.18		68.24	<50	<50	< 0.5	2	< 0.5	2	11*
	10/10/97	14.14		62.28	<50	<50	< 0.5	< 0.5	< 0.5	<2	<5.0*
	01/20/98	7.05		69.37	<50	<50	< 0.5	< 0.5	<0.5	< 0.5	<5.0*
	04/28/98	5.88		70.54	<50	<50	< 0.5	< 0.5	<0.5	< 0.5	<5.0*
	07/31/98	8.40		68.02	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	<5.0*
	11/02/98	16.08		60.34	NA	NA	NA	NA	NA	NA	NA
	06/10/99	14.81		61.61	NA	NA	NA	NA	NA	NA	NA
	10/18/00	12.71		63.71	<50	<50	<0.5	0.59	0.82	0.53	<5.0*
	03/12/02	8.92		67.50	<50	<50	< 0.5	0.61	0.72	2.5	1.8
	11/19/02	13.24		-13.24	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	01/09/03	11.00		-11.00	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	04/14/03	11.03		-11.03	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	<0.50
	07/21/03	13.10		-13.10	<50	NA	< 0.50	< 0.50	<0.50	< 0.50	<0.50
	10/09/03	13.33		-13.33	<50	NA	< 0.50	< 0.50	<0.50	< 0.50	< 0.50
	01/15/04	12.14		-12.14	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	<0.50
	04/08/04	10.76		65.66	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	08/10/04	12.62		63.80	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	11/11/04	11.93		64.49	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	01/19/05	10.34		66.08	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	04/14/05	5.66	[4]	NM	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	07/19/05	7.55	[4]	NM	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	10/24/05	10.12	76.26	66.14	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	<0.50

TABLE 1

GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY

		Depth to	Well	Groundwater						Total	
Well	Date	Water	Elevation	Elevation	TPHG	TPHD	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
Number	Collected	(feet)	(ft msl)	(ft msl)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)
MW-5	11/22/95	19.56	80.52	60.96	<50	280	<0.5	1.8	< 0.5	3	2.2*
	12/06/95	15.84		64.68	NA	NA	NA	NA	NA	NA	NA
	01/04/96	19.36		61.16	NA	NA	NA	NA	NA	NA	NA
	01/31/97	13.31		67.21	80	<50	< 0.5	0.6	<0.5	2	6*
	10/10/97	17.80		62.72	<50	<50	< 0.5	< 0.5	< 0.5	<2	<5*
	01/20/98	12.58		67.94	<50	<50	< 0.5	< 0.5	<0.5	< 0.5	<5.0*
	04/28/98	9.45		71.07	<50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	<5.0*
	07/31/98	7.38		73.14	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	<5.0*
	11/02/98	15.98		64.54	<50	<500	< 0.5	< 0.5	< 0.5	< 0.5	<5.0*
	06/10/99	14.60		65.92	NA	NA	NA	NA	NA	NA	NA
	10/18/00	17.77		62.75	<50	<50	< 0.5	0.75	<0.5	0.79	28
	03/12/02	15.72		64.80	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	<5.0*
	11/19/02	NM		NM				Well Dam			
	01/09/03	NM		NM				Well Dam	•		
	04/14/03	NM		NM				Well Dam	~		
	07/21/03	NM		NM				Well Dam	•		
	10/09/03	NM		NM				Well Dam	_		
	01/15/04	NM		NM				Well Dam			
	04/08/04	16.80		63.72	<100	NA	< 0.50	< 0.50	<0.50	< 0.50	< 0.50
	08/10/04	18.58		61.94	89	NA	< 0.50	< 0.50	<0.50	< 0.50	< 0.50
	11/11/04	NM		NM		4 14 4	0.50	Well Dam		.0.50	-U.J.U
	01/19/05	NM		NM				Well Dam	_		
	04/14/05	10.57	[4]	NM	<50	NA	<0.50	< 0.50	<0.50	<0.50	< 0.50
	07/19/05	11.77	[4]	NM	<100[2]	NA	< 0.50	< 0.50	<0.50	<0.50	<0.50
	10/24/05	14.29	80.78	66.49	<50	NA	<0.50	< 0.50	< 0.50	<0.50	<0.50

TABLE 1

GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY

		Depth to	Well	Groundwater						Total		
Well	Date	Water	Elevation	Elevation	TPHG	TPHD	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	
Number	Collected	(feet)	(ft msl)	(ft msl)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	
MW	11/00/05	21 72	01.64	50.01								
MW-6	11/22/95	21.73	81.64	59.91	<50	140	<0.5	1.2	<0.5	1.5	5.3*	
	12/06/95	18.03		63.61	NA	NA	NA	NA	NA	NA	NA	
	01/04/96	21.67		59.97	NA	NA	NA	NA	NA	NA	NA	
	01/31/97	16.01		65.63	70	<50	<0.5	2	<0.5	<1	5*	
	10/10/97	20.55		61.09	80	<50	<0.5	< 0.5	< 0.5	<2	<5*	
	01/20/98	15.74		65.90	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	<5.0*	
	04/28/98	10.78		70.86	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	<5.0*	
	07/31/98	13.97		67.67	<50	<50	<0.5	< 0.5	< 0.5	< 0.5	<5.0*	
	11/02/98	17.97		63.67	NA	NA	NA	NA	NA	NA	NA	
	06/10/99	16.92		64.72	NA	NA	NA	NA	NA	NA	NA	
	10/18/00	NM		NM				Unable to L	ocate			
	03/12/02 NM		NM	Unable to Locate								
	11/19/02	NM		NM	Unable to Locate							
	01/09/03	NM		NM	Unable to Locate							
	04/14/03	NM		NM				Unable to L	ocate			
	07/21/03	NM		NM				Unable to I				
	10/19/03	NM		NM				Unable to I.				
	01/15/04	NM		NM				Unable to L				
	04/08/04	NM		NM					Not Sampled			
	08/10/04	NM		NM					Not Sampled			
	11/11/04	NM		NM					Not Sampled			
	01/19/05	NM		NM					Not Sampled			
	04/14/05	15.78		65.86	<50	NA	<0.50	<0.50	<0.50	<0.50	< 0.50	
	07/19/05	NM		NM	-50	141.7			Not Sampled	AC.70	VC.0/	
	10/24/05	NM	82.32	NM					Not Sampled Not Sampled			

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TABLE 1

GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY

		Depth to	Well	Groundwater						Total	
Well	Date	Water	Elevation	Elevation	TPHG	TPHD	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
Number	Collected	(feet)	(ft msl)	(ft msl)	(μg/L)	(μg/ L)	(μg/ L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)
MW-7	11/22/95	19.38	78.86	59.48	<50	180	<0.5	0.57	< 0.5	0.62	0.73*
	12/06/95	19.72		59.14	NA	NA	NA	NA	NA	NA	NA
	01/04/96	19.76		59.10	NA	NA	NA	NA	NA	NA	NA
	01/31/97	15.25		63.61	70	<50	0.7	1	< 0.5	<1	8*
	10/10/97	19.03		59.83	<50	<50	< 0.5	< 0.5	< 0.5	<2	15*
	01/20/98	17.11		61.75	<50	<50	< 0.5	< 0.5	< 0.5	< 0.5	<5.0*
	04/28/98	8.22		70.64	<50	<50	< 0.5	< 0.5	<0.5	< 0.5	9.3*
	07/31/98	11.53		67.33	<50	<50	< 0.5	< 0.5	<0.5	< 0.5	<5.0*
	11/02/98	15.15		63.71	NA	NA	NA	NA	NA	NA	NA
	06/10/99	/99 14.23		64.63	NA	NA	NA	NA	NA	NA	NA
	10/18/00	17.59		61.27	NA	<50	< 0.5	< 0.5	< 0.5	< 0.5	<5.0*
	03/12/02	16.54		62.32	<50	<50	<0.5	< 0.5	< 0.5	< 0.5	2.9
	11/19/02	19.59		-19.59	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	3.8
	01/09/03	18.38		-18.38	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	2.7
	04/14/03	18.17		-18.17	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	07/21/03	20.29		-20.29	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	1.8
	10/09/03	19.48		-19.48	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	2.9
	01/15/04	18.45	79.81	61.36	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	2.6
	04/08/04	17.28		62.53	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	0.81
	08/10/04	18.85		60.96	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	2.1
	11/11/04	19.85		59.96	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	0.1
	01/19/05	19.59		60.22	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	1.5
	04/14/05	14.17		65.64	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	07/19/05	14.16		65.65	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	1.9
	10/24/05	16.65		63.16	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50

TABLE 1

GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY

		Depth to	Well	Groundwater						Total	
Well	Date	Water	Elevation	Elevation	TPHG	TPHD	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
Number	Collected	(feet)	(ft msl)	(ft msl)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)
					<u> </u>	(1.0.)	4, 6, 3	7. e - j _	V-9-7	\r- g -/	
MW-8	11/22/95	33.33	79.55	46.22	<50	360	< 0.5	1.3	< 0.5	2.1	2.1*
	12/06/95	17.57		61.98	NA	NA	NA	NA	NA	NA	NA
	01/04/96	20.08		59.47	NA	NA	NA	NA	NA	NA	NA
	01/31/97	18.72		60.83	80	<50	0.6	1	<0.5	ì	8*
	10/10/97	20.26		59.29	50	<50	< 0.5	< 0.5	< 0.5	<2	<5*
	01/20/98	15.91		63.64	<50	<50	< 0.5	< 0.5	<0.5	<0.5	<5.0*
	04/28/98	10.39		69.16	<50	<50	< 0.5	< 0.5	<0.5	< 0.5	<5.0*
	07/31/98	12.93		66.62	<50	<50	<0.5	< 0.5	<0.5	< 0.5	<5.0*
	11/02/98	16.90		62.65	<50	<500	< 0.5	< 0.5	< 0.5	< 0.5	<5.0*
	06/10/99	14.98		64.57	NA	NA	NA	NA	NA	NA	NA
	10/18/00	16.27		63.28	<50	<50	< 0.5	<0.5	1.1	6.3	8.6*
	03/12/02	14.56		64.99	<50	<50	< 0.5	0.63	0.55	1.7	0.94
	11/19/02	21.14		-21.14	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	01/09/03	17.90		-17.90	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	04/14/03	17.84		-17.84	<50	NA	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	07/21/03	19.79		-19.79	<100[2]	NA	< 0.50	< 0.50	<0.50	< 0.50	< 0.50
	10/09/03	21.02		-21.02	<50	NA	< 0.50	< 0.50	<0.50	< 0.50	< 0.50
	01/15/04	18.10	80.50	62.40	<50	NA	< 0.50	< 0.50	<0.50	< 0.50	< 0.50
	04/08/04	17.51		62.99	<50	NA	<0.50	< 0.50	<0.50	< 0.50	<0.50
	08/10/04	20.76		59.74	<50	NA	<0.50	< 0.50	<0.50	< 0.50	< 0.50
	11/11/04	21.38		59.12	<50	NA	< 0.50	< 0.50	<0.50	<0.50	< 0.50
	01/19/05	17.20		63.30	<50	NA	< 0.50	< 0.50	<0.50	< 0.50	<0.50
	04/14/05	12.68		67.82	<50	NA	< 0.50	< 0.50	<0.50	< 0.50	<0.50
	07/19/05	15.78		64.72	<50	NA	< 0.50	< 0.50	<0.50	< 0.50	< 0.50
	10/24/05	18.68		61.82	<50	NA	< 0.50	< 0.50	<0.50	< 0.50	< 0.50

TABLE 1

GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY

Former USA Service Station No. 57 10700 MacArthur Blvd., Oakland, California

	,,,,,	Depth to	Well	Groundwater						Total	
Well	Date	Water	Elevation	Elevation	TPHG	TPHD	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
Number	Collected	(feet)	(ft msl)	(ft msl)	(μg/L)	(μg/L)	(μg/L)	$(\mu g/L)$	(μg/L)	(μg/L)	(μg/L)
EX-I	10/24/05	14.37	77.72	63.35	5,000	NA	140	8.4	20	195	360
EX-2	10/24/05	16.00	76.96	60.96	42,000	NA	13,000	1,300	1,300	2,580	410
EX-3	10/24/05	14.85	78.87	63.02	20,000	NA	220	21	660	3,110	<10[3]
EX-4	10/24/05	14.93	77.96	63.03	1,900	NA	390	69	8.8	90	11

Note:

* = MTBE analyzed using EPA Method 8020/8021B

MTBE = Methyl tert-butyl ether

TPHD = Total petroleum hydrocarbons as diesel

TPHG = Total petroleum hydrocarbons as gasoline

TPHG analyzed using EPA Method 8015B and the remaining analytes using EPA Method 8260B

[1] Laboratory indicates the chromatogram does not match the diesel hydrocarbon range pattern.

- [2] Reporting limits were increased due to sample foaming.
- [3] Reporting limits were increased due to high concentrations of target analytes.
- [4] Casing elevation invalid well casing modified (cut) on April 12, 2005.

Monitoring wells surveyed by Morrow Surveying on February 10, 2004, and again on November 29, 2005.

Data prior to November 19, 2002 provided by GHH Engineering.

msl = Mean sea level

µg/L = micrograms per liter

NA = Not analyzed

NM = Not measured

TABLE 2

GROUNDWATER ANALYTICAL RESULTS FOR OXYGENATES AND ADDITIONAL COMPOUNDS

Well Number	Date Collected	MTBE (μg/L)	TBA (μg/L)	DIPE (μg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (μg/L)	EDB (μg/L)	Methanol (μg/L)	Ethanol (μg/L)
S-1	11/19/02	190	<10	<1.0	<1.0	<1.0	NA	NA	NA	NA
	01/09/03	11	<5.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	04/14/03	27	<20[2]	<2.0[2]	<2.0[2]	<2.0[2]	NA	NA	NA	NA
	07/21/03	11	<10[2]	<1.0	<1.0	<1.0	NA	NA	NA	NA
	10/09/03	8.8	6.4	<1.0	<1.0	<1.0	<1.0	<2.0	NA	NA
	01/15/04	6.0	10	<1.0	<1.0	<1.0	<1.0	<2.0	NA	NA
	04/08/04	12	8.5	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	08/10/04	73	28	<1.0	<1.0	<1.0	16	<2.0	<5,000	<5,000
	11/11/04	150	14	<1.0	<1.0	<1.0	7.3	<2.0	<5,000	<5,000
	01/19/05	140	14	<1.0	<1.0	<1.0	3.8	<2.0	<5,000	<5,000
	04/14/05	120	10	<1.0	<1.0	<1.0	1.4	<2.0	<5,000	<5,000
	07/19/05	60	11	<1.0	<1.0	<1.0	9.6	<2.0	<5,000	<5,000
	10/24/05	37	<10	<1.0	<1.0	<1.0	2.2	<2.0	<5,000	<5,000

TABLE 2

GROUNDWATER ANALYTICAL RESULTS FOR OXYGENATES AND ADDITIONAL COMPOUNDS

Well Number	Date Collected	MTBE (μg/L)	TBA (μg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (μg/L)	Methanol (µg/L)	Ethanol (μg/L)
S-2	11/19/02	750	<200[1]	<20[1]	<20[1]	<20[1]	NA	NA	NA	NA
	01/09/03	270	<100[1]	<10[1]	<10[1]	<10[1]	NA	NA	NA	NA
	04/14/03	400	95	<5.0[1]	<5.0[1]	<5.0[1]	NA	NA	NA	NA
	07/21/03	410	110	<5.0[1]	<5.0[1]	<5.0[1]	NA	NA	NA	NA
	10/09/03	180	57	<5.0[1]	<5.0[1]	<5.0[1]	<5.0[1]	<20[1]	NA	NA
	01/15/04	130	48	<4.0[1]	<4.0[1]	<4.0[1]	<4.0[1]	<16[1]	NA	NA
	04/08/04	430	130	<5.0[1]	<5.0[1]	<5.0[1]	<5.0[1]	<20[1]	<5,000	<5,000
	08/10/04	92	<100[1]	<10[1]	<10[1]	<10[1]	74	<40[1]	<5,000	<5,000
	11/11/04	420	<200[1]	<20[1]	<20[1]	<20[1]	<20[1]	<80[1]	<5,000	<5,000
	01/19/05	580	200	<5.0[1]	<5.0[1]	<5.0[1]	8.2	<20[1]	<5,000	<5,000
	04/14/05	510	150	<10[1]	<10[1]	<10[1]	<10[1]	<40[1]	<5,000	<5,000
	07/19/05	72	37	<1.0	<1.0	<1.0	38	<2.0	<5,000	<5,000
	10/24/05	69	33	<1.0	<1.0	<1.0	35	<4.0[1]	<5,000	<5,000

TABLE 2

GROUNDWATER ANALYTICAL RESULTS FOR OXYGENATES AND ADDITIONAL COMPOUNDS

Well Number	Date Collected	MTBE (μg/L)	TBA (μg/L)	DIPE (μg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (μg/L)	EDB (µg/L)	Methanol (μg/L)	Ethanol (µg/L)
MW-3	04/08/04	19	7.6	<1.0	<1.0	<1.0	0.1>	<2.0	<5,000	<5,000
	08/10/04	300	2,000	2.2	<2.0[1]	<2.0[1]	270	<8.0[1]	<5,000	<5,000
	11/11/04	690	1,400	<10[1]	<10[1]	<10[1]	140	<40[1]	<5,000	<5,000
	01/19/05	17	19	<1.0	<1.0	<1.0	1.4	<2.0	<5,000	<5,000
-	04/14/05	11	25	<1.0	<1.0	<1.0	6.2	<2.0	<5,000	<5,000
	07/19/05	200	000,1	<2.0[1]	<2.0[1]	<2.0[1]	240	<8.0[1]	<5,000	<5,000
	10/24/05	300	750	<5.0[1]	<5.0[1]	<5.0[1]	210	<20[1]	<5,000	<5,000
MW-4	11/19/02	<0.50	<5.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	01/09/03	< 0.50	<5.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	04/14/03	< 0.50	<5.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	07/21/03	< 0.50	<5.0	0.1>	<1.0	<1.0	NA	NA	NA	NA
	10/09/03	< 0.50	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	NA	NA
	01/15/04	< 0.50	7.8	<1.0	<1.0	<1.0	<1.0	<2.0	NA	NA
	04/08/04	< 0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	08/10/04	< 0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	11/11/04	< 0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	01/19/05	< 0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	04/14/05	< 0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	07/19/05	< 0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	10/24/05	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000

TABLE 2

GROUNDWATER ANALYTICAL RESULTS FOR OXYGENATES AND ADDITIONAL COMPOUNDS

Well	Date	MTBE	ТВА	DIPE	ЕТВЕ	TAME	1,2-DCA	EDB	Methanol	Ethanol	
Number	Collected	$(\mu g/L)$	(μg/L)	(μg/ L)	(μg/L)	(μg/L)	(μg/L)	μg/L)	(μg/L)		
MW-5	11/19/02			11.0	<u> </u>	Well Damageo		(1-8)	(FS-7	(1.6,2.)	
	01/09/03					Well Damage					
	04/14/03					Well Damageo					
	07/21/03					Well Damageo					
	10/09/03					Well Damageo	i				
	01/15/04					Well Damaged	d				
	04/08/04	< 0.50	<10	<1.0	<1.0	<1.0	<1.0	<4.0[2]	<5,000	<5,000	
	08/10/04	< 0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000	
	11/11/04					Well Damageo	d			·	
	01/19/05					Well Damageo	d				
	04/14/05	< 0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000	
	07/19/05	< 0.50	<10	<1.0	<1.0	<1.0	<1.0	<4.0[2]	<5,000	<5,000	
	10/24/05	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000	
MW-6	11/19/02				ι	Jnable to Loca	te				
	01/09/03				Ţ	Jnable to Loca	te				
	04/14/03				Ţ	Jnable to Loca	te				
	07/21/03				Ţ	Jnable to Loca	te				
	10/19/03	Unable to Locate									
	01/15/04				Ţ	Jnable to Loca	te				
	04/08/04				Well Ol	structed - Not	Sampled				
	08/10/04				Well Ol	structed - Not	Sampled				
	11/11/04					structed - Not					
	01/19/05					structed - Not	•				
	04/14/05	< 0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000	
	07/19/05				Wel	l Dry - Not Sar	npled		•	•	
	10/24/05					l Dry - Not Sar	•				

TABLE 2

GROUNDWATER ANALYTICAL RESULTS
FOR OXYGENATES AND ADDITIONAL COMPOUNDS

Well	Date	MTBE	TBA	DIPE	ETBE	TAME	1,2-DCA	EDB	Methanol	Ethanol
Number	Collected	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)
MW-7	11/19/02	3.8	<5.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	01/09/03	2.7	<5.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	04/14/03	<0.50	<5.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	07/21/03	1.8	<5.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	10/09/03	2.9	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	NA	NA
	01/15/04	2.6	7.9	<1.0	<1.0	<1.0	<1.0	<2.0	NA	NA
	04/08/04	0.81	9.0	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	08/10/04	2.1	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	11/11/04	1.0	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	01/19/05	1.5	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	04/14/05	< 0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	07/19/05	1.9	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	10/24/05	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
MW-8	11/19/02	<0.50	<5.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	01/09/03	< 0.50	<5.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	04/14/03	< 0.50	<5.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	07/21/03	< 0.50	<10[2]	<1.0	<1.0	<1.0	NA	NA	NA	NA
	10/09/03	<0.50	<5.0	<1.0	0.1>	<1.0	<1.0	<2.0	NA	NA
	01/15/04	< 0.50	9.9	<1.0	0.1>	<1.0	<1.0	<2.0	NA	NA
	04/08/04	< 0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	08/10/04	< 0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	11/11/04	< 0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	01/19/05	< 0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	04/14/05	< 0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	07/19/05	< 0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	10/24/05	< 0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000

TABLE 2

GROUNDWATER ANALYTICAL RESULTS FOR OXYGENATES AND ADDITIONAL COMPOUNDS

Former USA Service Station No. 57 10700 MacArthur Blvd., Oakland, California

Well Number	Date Collected	MTBE (μg/L)	TBA (μg/L)	DIPE (μg/L)	ETBE (μg/L)	TAME (µg/L)	1,2-DCA (μg/L)	EDB (μg/L)	Methanol (μg/L)	Ethanol (µg/L)
EX-I	10/24/05	360	120	<1.0	<1.0	<1.0	<1.0	<4.0[1]	<5,000	<5,000
EX-2	10/24/05	410	<2,000[1]	<200[1]	<200[1]	<200[1]	<200[1]	<800[1]	<5,000	<5,000
EX-3	10/24/05	<10[1]	<200[1]	<20[1]	<20[1]	<20[1]	<20[1]	<80[1]	<5,000	<5,000
EX-4	10/24/05	11	51	<5.0[1]	<5.0[1]	<5.0[1]	<5.0[1]	<20[1]	<5,000	<5,000

N	D14	٠.
<u> </u>	236	<u></u>

Oxygenates analyzed using EPA Method 8260B

μg/L = micrograms per liter

NA = Not analyzed

[1] Reporting limits were increased due to high concentrations of target analytes

[2] Reporting limits were increased due to sample foaming

MTBE = Methyl tertiary butyl ether

TBA = Tertiary butyl alcohol

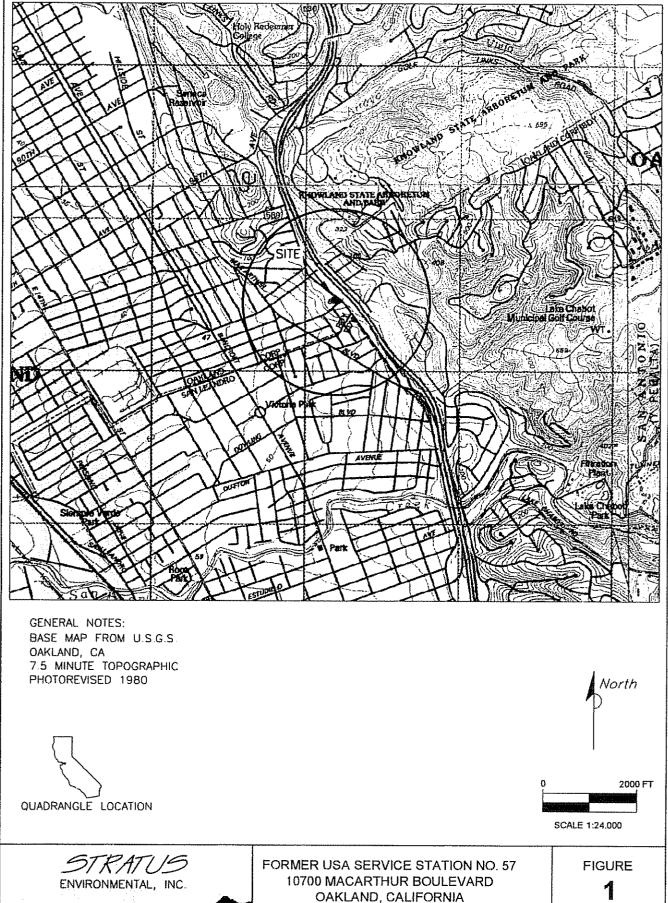
DIPE = Di-isopropyl ether

ETBE = Ethyl tertiary butyl ether

TAME = Tertiary amyl methyl ether

1,2-DCA = 1,2-Dichloroethane

EDB = 1,2-Dibromoethane

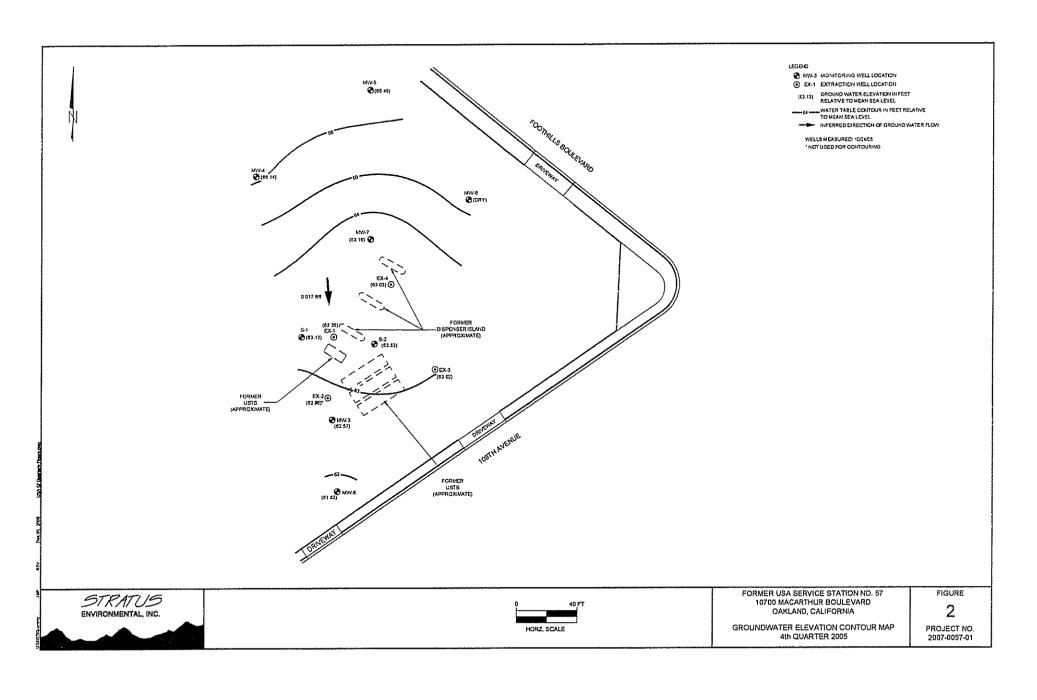


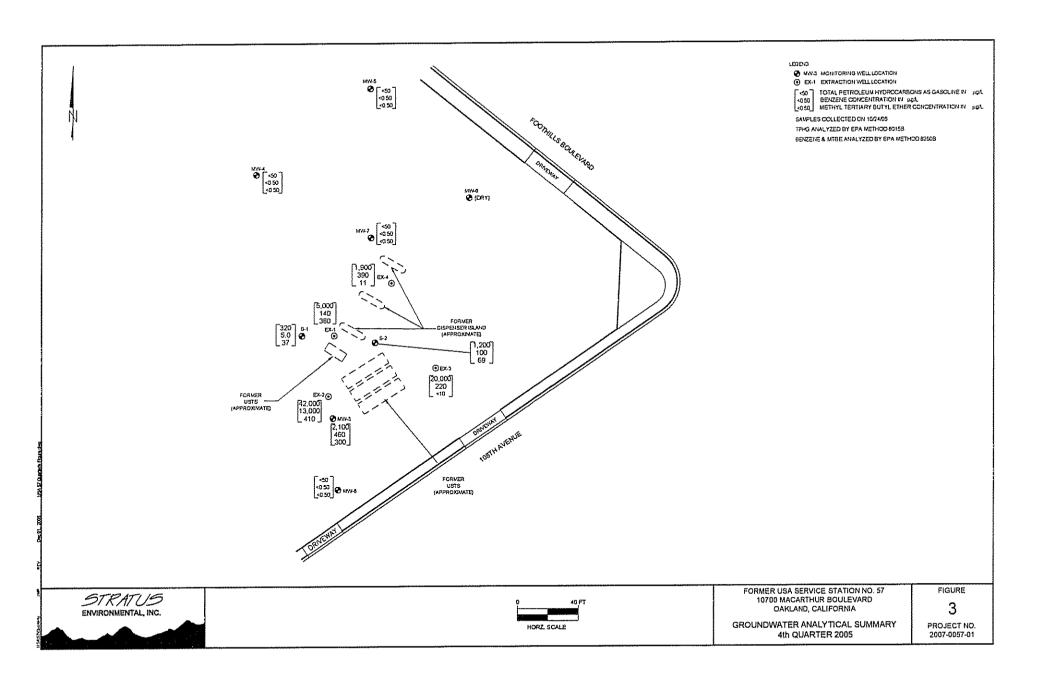
SITE LOCATION MAP

PROJECT NO.

2007-0057-01

SAIS MOunterly J





APPENDIX A FIELD DATA SHEETS

T0600101808



Global ID: T0600101808

Site Address 10700 Macarthur Blvd
City Oakland, CA
Sampled By: Vince Zalutka

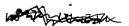
Site Number	U\$A 57		
Project No.	1157		
Project PM		-	
⊃ate	10/24/05	-	andre s and red

10/24/05

Market Contract Contr	مبد العد	**				1	ocks	- //	/		*			LENNE		10/24	105
	Water Level Data Purge Volume Calculations ;/el! Funge Method				he a	Sâ	πρίε Reco	2 4	-ield Dat								
Well ID	Time	Depth to water feet	Top of Screen feet	Total Depth of well feet	Casing Water Column (A)	Well Diameter (Inches)	Multiplier Value (B)	Three Casing Volumes (Gallons)	Actual Water Purged (Gallons)	Nc		Pump	Other	DTW A: Sample Time	Siar uple-	Sample time	Dissolved Oxygen (mg/L)
MW-3	0551	14.70		42.5	27.8	4	2	56	28-500			X		37.30	MW-3	0827	l.33
MW-4	0602	10.12		39	28,88	4	2	58	58			X		32.45	14147-4	1050	4.18
MW-5	0607	14.29	Stat	1534	19.7/	4	2	39	10-D/4			X		14.71	VALU-5	1431	N/M
MW-6	0436	47	Dry	17/40-	D	4	2	0	Dry'	X				N/M	MW&	N/S	
MW-7	0611	16.45	1	42	25.35	4	2	5	51			X		27.87	MWT	1246	N/W
8-WM	0545	18.68		37.5	18.82	4	2	38	24-Dry			X		32.29	MW-8	0958	5.35
S-1	0558	16.53		41	24.47	3	1	24	12-Dry			X		20.03	<u>S-1</u>	0944	.95
\$-2	0618	18.07		42	23.93	3	1	24	20- Dry			X		25.70	S-2	1420	N/W
EX-1	0509	14.37	'	25	10.63	4	2	21	16-Dex		X	/		22.25	EX-1	1104	1.15
EX-2	0555	16.00		25	9	4	2	18	14-Dcy		X			23.32	EX-2	0810	2.83
EX-3		14.85		25	10.15	4	2	20	15-Dry		X			22.97	EX-3	1356	N/M
EX-4	0615	14.93		25	10.07	4	2	20	15-Dry		X			22.75	EX-4	1407	NIM
																	The second secon

(A) Casing water Column Depth wtr. Depth to Bottom

Multiplier Values 2" = 0.5 3" = 1.0 4"=2.0 6"=4.4





Site Address	10700 Macarthur Blvd
City	Oakland, CA

Sampled By: Vince Zalutka

Site Number <u>USA 57</u>

Project No <u>U 57</u>

Project PM <u>0</u>

Date 10/24/05

ORIGINAL

<u> </u>				************	1	A			
Well ID		M۷	V-3 ·		Well ID		M\	N-4 /	
purge start tir	me 0756	<u> </u>	Lite	Odor_	purge start time	1018		No Do	dor-
	Temp C	pH_	cond	gailons		Temp C	pН	cond	gallons
time	19.9	6.66	561	82	time	20.7	7.13	510	8
time	19.7	6,71	540	28	time	21,5		I	29
time	DR	[28.5		time	20.1	7.23	494	58
time	19.4	6.65	536	28.5	time	***************************************			
purge stop tin	ne	TANK MARINA M			purge stop time	1040			
Well ID MW-5 / 4 3 (Well ID		ΜV	V-6	
purge start time /3/2 No Odor					purge start time	• {	ORY		
	Temp C	pН	cond	gallons		Temp C	pH	cond	gallons
time	20.8	8.27	591	と	time				
time	Dry	@/	o gul	2	time		\leq		
time	20.6	8.13	554	10	time				
time					time				,
purge stop tin	ne ,	i ••			puros de dec				,
Well ID		M۷	V-7 <i>i</i>	246	Well ID		M۷	V-8 0	958
Purge start tir	me 1217		No O	dor	Purge start time	0 P4 S	5	No	Odo r
	Temp C	рH	cond	gallons		Temp C	pН	corid	gallons
time	19.5	7.4/	493	B	time	19.4	6.78	605	B
time	19.7	7.45	470	25	time	19.6	7.00	560	19
lime	19.2	7.43	457	51	time	Dry	@ 29	gal	
time					time	19.1	6.74	532	(2K)
purge stop tin	ne (ム3フ	>			purge stop time)			
Well ID		S-	-1 0	944	Well ID		5	2	
purge start tin	ne 0909	7	No 0	dor	purge start time	1335		# O	dor
	Temp C	pН	cond	gallons		Temp C	Hu	Cond	gallons
time	19.9	7.05	503	R	time	19.4	6.88	490	×
time	19.8	6.92	517	12	time	20.0	7.03	454	12
time	Dry	e	10 1	5	time	Das	18.	20 g	zel
time	19.5	6.88	541	(12)	time	19.1	4.95	434	20
purge stop tin	ne		,		purge stop time	,			



Site Address 10700 Macarthur Blvd
City Oakland, CA
Sampled By: Vince Zalutka

Site Number USA 57 Project No U 57 Project PM 0 Date 10/24/05



C					<u> </u>				
Well ID		EX	(-1 / ·	104	Well ID		E	(-2 08	310
purge start time	Bai	1er	No	Okol	purge start time	, B	ailer	·	Odor
	Temp C	рН	cond	gallons		Temp C	рH	cond	gallons
time	20.6	6.56	585	82	time	20.9	6.85	588	S
time	1907	6.64	646	1 1	time	20.7	6.88	602	10
time	Dr	10	16		time	DR	Ye	14 90	<u>e</u> _
time	19.6	6.66	638	(16)	time	19.8	6.87	663	14
purge stop time					purge stop Ems				
Well ID		EX	(-3 /_	356	Well ID		EX	(-4 /4	107
purge start time	Ba	iler	N	6 Odol	purge start time	Ba	iler	No	Odor
	Temp C	рН	cond	gallons		Temp C	ρH	cand	gallores
time	19.5	7.06	676	80	time	19.9	7.27	530	80
time	19.4	7.07	675	11	time	20.0	7.37	<i>957</i>	10
time	Dry	@1	5 gal	7	time.	Dry	@ 19	gel	
time	19.2	7.07	609	(15)	time	19.4	7,37	NIM	15
purge stop time	· · · · · · · · · · · · · · · · · · ·		ľ		por a charthar				
Well ID		()		Well ID		()	
Purge start time)	,		·····	Purge start time				
	Temp C	рН	cond	gallons		Temp C	рН	cond	gallons
time					time				
time					time	***************************************			
time					time				
time					time	. , .			
purge stop time					pinaio dei Beri				
Weli ID		()		Well ID		()	
purge start time					purge start time				
	Temp C	рН	cond	gallons		Temp C	рН	cond	gallona
time					time				
time					time				
time					time				
time					time				
purge stop time				purge stop time					



Site Address: 10 700 Mara Hur City Oakland Sampled By CHICA

Site Number: 15A 57
Project No.
Project PM Gows 51we
Date Sampled 10-17-18-5

Site Contact Phone No.

Development Water Level Data Purge Volume Calculations Well Purge Method Field Sample Record Total Casing Casing Actual DTW Data Depth to Top of Denth of Water Well Multiplier Water Αt Dissolved water Screen Well Column Diameter Value Volumes Purged No Sample Sample Sample Oxvaen Well ID Time feet feet (inches) (B) (gallons) (gallons) Purge Bailer Pump Other feet (A) Time LD. Time (ma/L) 25 11.68 20074 X 25 9.53 4 20 284 X 8.8 4 20 DRK X 20 774 10.43 25 X Very stow Richard LXZ GALS DRY 20 6465 DRY 10 GALS DRY EXM 20 6465 sorge ucls Bur

APPENDIX B SAMPLING AND ANALYSIS PROCEDURES

SAMPLING AND ANALYSIS PROCEDURES

The sampling and analysis procedures as well as the quality assurance plan are contained in this appendix. The procedures and adherence to the quality assurance plan will provide for consistent and reproducible sampling methods; proper application of analytical methods; accurate and precise analytical results; and finally, these procedures will provide guidelines so that the overall objectives of the monitoring program are achieved.

Ground Water and Liquid-Phase Petroleum Hydrocarbon Depth Assessment

A water/hydrocarbon interface probe is used to assess the liquid-phase petroleum hydrocarbon (LPH) thickness, if present, and a water level indicator is used to measure the ground water depth in monitoring wells that do not contain LPH. Depth to ground water or LPH is measured from a datum point at the top of each monitoring well casing. The datum point is typical a notch cut in the north side of the casing edge. If a water level indicator is used, the tip is subjectively analyzed for hydrocarbon sheen.

Subjective Analysis of Ground Water

Prior to purging, a water sample is collected from the monitoring well for subjective assessment. The sample is retrieved by gently lowering a clean, disposable bailer to approximately one-half the bailer length past the air/liquid interface. The bailer is then retrieved, and the sample contained within the bailer is examined for floating LPH and the appearance of a LPH sheen.

Monitoring Well Purging and Sampling

Monitoring wells are purged using a pump or bailer until pH, temperature, and conductivity of the purge water has stabilized and a minimum of three well volumes of water have been removed. If three well volumes can not be removed in one half hour's time the well is allowed to recharge to 80% of original level. After recharging, a ground water sample is then removed from each of the wells using a disposable bailer.

A Teflon bailer, electric submersible or bladder pump will be the only equipment used for well sampling. When samples for volatile organic analysis are being collected, the pump flow will be regulated at approximately 100 milliliters per minute to minimize pump effluent turbulence and aeration. Glass bottles of at least 40-milliliters volume and fitted with Teflon-lined septa will be used in sampling for volatile organics. These bottles will be filled completely to prevent air from remaining in the bottle. A positive meniscus forms when the bottle is completely full. A convex Teflon septum will be placed over the positive meniscus to eliminate air. After the bottle is capped, it is inverted and tapped to verify that it contains no air bubbles. The sample containers for other parameters will be filled, filtered as required, and capped.

The water sample is collected, labeled, and handled according to the Quality Assurance Plan. Water generated during the monitoring event is disposed of accruing to regulatory accepted method pertaining to the site.

QUALITY ASSURANCE PLAN

Procedures to provide data quality should be established and documented so that conditions adverse to quality, such as deficiencies, deviations, nonconforments, defective material, services, and/or equipment, can be promptly identified and corrected.

General Sample Collection and Handling Procedures

Proper collection and handling are essential to ensure the quality of a sample. Each sample is collected in a suitable container, preserved correctly for the intended analysis, and stored prior to analysis for no longer than the maximum allowable holding time. Details on the procedures for collection and handling of samples used on this project can be found in this section.

Soil and Water Sample Labeling and Preservation

Label information includes a unique sample identification number, job identification number, date, and time. After labeling all soil and water samples are placed in a Ziploc[®] type bag and placed in an ice chest cooled to approximately 4° Celsius. Upon arriving at Stratus' office the samples are transferred to a locked refrigerator cooled to approximately 4° Celsius. Chemical preservation is controlled by the required analysis and is noted on the chain-of-custody form. Trip blanks supplied by the laboratory accompany the groundwater sample containers and groundwater samples.

Upon recovery, the sample container is sealed to minimize the potential of volatilization and cross-contamination prior to chemical analysis. Soil sampling tubes are typically closed at each end with Teflon[®] sheeting and plastic caps. The sample is then placed in a Ziploc[®] type bag and sealed. The sample is labeled and refrigerated at approximately 4° Celsius for delivery, under strict chain-of-custody, to the analytical laboratory.

Sample Identification and Chain-of-Custody Procedures

Sample identification and chain-of-custody procedures document sample possession from the time of collection to ultimate disposal. Each sample container submitted for analysis has a label affixed to identify the job number, sampler, date and time of sample collection, and a sample number unique to that sample. This information, in addition to a description of the sample, field measurements made, sampling methodology, names of on-site personnel, and any other pertinent field observations, is recorded on the borehole log or in the field records. The samples are analyzed by a California-certified laboratory.

A chain-of-custody form is used to record possession of the sample from time of collection to its arrival at the laboratory. When the samples are shipped, the person in custody of them relinquishes the samples by signing the chain-of-custody form and

noting the time. The sample-control officer at the laboratory verifies sample integrity and confirms that the samples are collected in the proper containers, preserved correctly, and contain adequate volumes for analysis. These conditions are noted on a Laboratory Sample Receipt Checklist that becomes part of the laboratory report upon request.

If these conditions are met, each sample is assigned a unique log number for identification throughout analysis and reporting. The log number is recorded on the chain-of-custody form and in the legally-required log book maintained by the laboratory. The sample description, date received, client's name, and other relevant information is also recorded.

Equipment Cleaning

Sample bottles, caps, and septa used in sampling for volatile and semivolatile organics will be triple rinsed with high-purity deionized water. After being rinsed, sample bottles will be dried overnight at a temperature of 200°C. Sample caps and septa will be dried overnight at a temperature of 60°C. Sample bottles, caps, and septa will be protected from solvent contact between drying and actual use at the sampling site. Sampling containers will be used only once and discarded after analysis is complete.

Plastic bottles and caps used in sampling for metals will be soaked overnight in a 1-percent nitric acid solution. Next, the bottles and caps will be triple rinsed with deionized water. Finally, the bottles and caps will be air dried before being used at the site. Plastic bottles and caps will be constructed of linear polyethylene or polypropylene. Sampling containers will be used only once and discarded after analysis is complete. Glass and plastic bottles used by Stratus to collect groundwater samples are supplied by the laboratory.

Before the sampling event is started, equipment that will be placed in the well or will come in contact with groundwater will be disassembled and cleaned thoroughly with detergent water, and then steam cleaned with deionized water. Any parts that may absorb contaminants, such as plastic pump valves, etc. will be cleaned as described above or replaced.

During field sampling, equipment surfaces that are placed in the well or contact groundwater will be steam cleaned with deionized water before the next well is purged or sampled. Equipment blanks will be collected and analyzed from non-disposable sampling equipment that is used for collecting groundwater samples at the rate of one blank per twenty samples collected.

Internal Quality Assurance Checks

Internal quality assurance procedures are designed to provide reliability of monitoring and measurement of data. Both field and laboratory quality assurance checks are necessary to evaluate the reliability of sampling and analysis results. Internal quality assurance procedures generally include:

- Laboratory Quality Assurance

- Documentation of instrument performance checks
- Documentation of instrument calibration
- Documentation of the traceability of instrument standards, samples, and data
- Documentation of analytical and QC methodology (QC methodology includes use of spiked samples, duplicate samples, split samples, use of reference blanks, and check standards to check method accuracy and precision)

- Field Quality Assurance

- Documentation of sample preservation and transportation
- Documentation of field instrument calibration and irregularities in performance

Internal laboratory quality assurance checks will be the responsibility of the contract laboratories. Data and reports submitted by field personnel and the contract laboratory will be reviewed and maintained in the project files.

Types of Quality Control Checks

Samples are analyzed using analytical methods outlined in EPA Manual SW 846 and approved by the California Regional Water Quality Control Board-Central Valley Region in the Leaking Underground Fuel Tanks (LUFT) manual and appendices. Standard contract laboratory quality control may include analysis or use of the following:

- Method blanks reagent water used to prepare calibration standards, spike solutions, etc. is analyzed in the same manner as the sample to demonstrate that analytical interferences are under control.
- Matrix spiked samples a known amount of spike solution containing selected constituents is added to the sample at concentrations at which the accuracy of the analytical method is to satisfactorily monitor and evaluate laboratory data quality.
- Split samples a sample is split into two separate aliquots before analysis to assess the reproducibility of the analysis.
- Surrogate samples samples are spiked with surrogate constituents at known concentrations to monitor both the performance of the analytical system and the effectiveness of the method in dealing with the sample matrix.
- Control charts graphical presentation of spike or split sample results used to track the accuracy or precision of the analysis.
- Quality control check samples when spiked sample analysis indicates atypical
 instrument performance, a quality check sample, which is prepared independently
 of the calibration standards and contains the constituents of interest, is analyzed to
 confirm that measurements were performed accurately.

• Calibration standards and devices – traceable standards or devices to set instrument response so that sample analysis results represent the absolute concentration of the constituent.

Field QA samples will be collected to assess sample handling procedures and conditions. Standard field quality control may include the use of the following, and will be collected and analyzed as outlined in EPA Manual SW 846.

- Field blanks reagent water samples are prepared at the sampling location by the same procedure used to collect field groundwater samples and analyzed with the groundwater samples to assess the impact of sampling techniques on data quality. Typically, one field blank per twenty groundwater samples collected will be analyzed per sampling event.
- Field replicates duplicate or triplicate samples are collected and analyzed to assess the reproducibility of the analytical data. One replicate groundwater sample per twenty samples collected will be analyzed per sampling event, unless otherwise specified. Triplicate samples will be collected only when specific conditions warrant and generally are sent to an alternate laboratory to confirm the accuracy of the routinely used laboratory.
- Trip blanks reagent water samples are prepared before field work, transported
 and stored with the samples and analyzed to assess the impact of sample transport
 and storage for data quality. In the event that any analyte is detected in the field
 blank, a trip blank will be included in the subsequent groundwater sampling
 event.

Data reliability will be evaluated by the certified laboratory and reported on a cover sheet attached to the laboratory data report. Analytical data resulting from the testing of field or trip blanks will be included in the laboratory's report. Results from matrix spike, surrogate, and method blank testing will be reported, along with a statement of whether the samples were analyzed within the appropriate holding time.

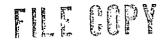
Stratus will evaluate the laboratory's report on data reliability and note significant QC results that may make the data biased or unacceptable. Data viability will be performed as outlined in EPA Manual SW 846. If biased or unacceptable data is noted, corrective actions (including re-sample/re-analyze, etc.) will be evaluated on a site-specific basis.

APPENDIX C

CERTIFIED ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION



255 Glendale Ave • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183



ANALYTICAL REPORT

COPY

Stratus Environmental 3330 Cameron Park Drive Cameron Park, CA 956828861 Attn: Gowri Kowtha Phone: (530) 676-6001

NOV 1 7 2005

Fax: (530) 676-6005 Date Received: 10/26/05

Job#: 2007-0057-01/ USA 57

GC/MSD by Direct Injection EPA Method SW8260B-DI

		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID:	S-1					
Lab ID:	STR05102634-01A	Methanol Ethanol	ND ND	5,000 μg/L 5,000 μg/L	10/24/05 10/24/05	10/27/05 10/27/05
Client ID:	S-2					
Lab ID:	STR05102634-02A	Methanol Ethanol	ND ND	5,000 µg/L 5,000 µg/L	10/24/05 10/24/05	10/27/05 10/27/05
Client ID:	MW-3					
Lab ID:	STR05102634-03A	Methanol Ethanol	ND ND	5,000 μg/L 5,000 μg/L		10/27/05 10/27/05
Client ID:	MW-4					
Lab ID:	STR05102634-04A	Methanol Ethanol	ND ND	5,000 µg/L 5,000 µg/L		10/27/05 10/27/05
Client ID:	MW-5					
Lab ID:	STR05102634-05A	Methanol Ethanol	ND ND	5,000 µg/L 5,000 µg/L		10/27/05 10/27/05
Client ID:	MW-7					
Lab ID:	STR05102634-06A	Methanol Ethanol	ND ND	5,000 μg/L 5,000 μg/L		10/27/05 10/27/05
Client ID:	MW-8					
Lab ID:	STR05102634-07A	Methanol Ethanol	ND ND	5,000 μg/L 5,000 μg/L		10/27/05 10/27/05
Client ID:	EX-1					
Lab ID :	STR05102634-08A	Methanol Ethanol	ND ND	5,000 μg/L 5,000 μg/L		10/27/05 10/27/05
Client ID:	EX-2					
Lab ID :	STR05102634-09A	Methanol Ethanol	ND ND	5,000 μg/L 5,000 μg/L		10/27/05 10/27/05
Client ID:	EX-3					
Lab ID:	STR05102634-10A	Methanol Ethanol	ИD D	5,000 μg/L 5,000 μg/L		10/27/05 10/27/05
Client ID:	EX-4					
Lnb ID :	STR05102634-11A	Methanol Ethanol	ND ND	5,000 μg/L 5.000 μg/L		10/27/05 10/27/05



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Reported in micrograms per liter, per client request.

ND = Not Detected

Roger Scholl Kandy Soulner. Walter Hinchman, Quality Assurance Officer

Sacramento, CA = (916) 366-9089 / Las Vegas, NV = (702) 281-4848 / info@alpha-analytical.com

Report Date

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ANALYTICAL REPORT

Stratus Environmental 3330 Cameron Park Drive Cameron Park, CA 956828861

Job#:

2007-0057-01/ USA 57

Attn: Gowri Kowtha
Phone: (530) 676-6001
Fax: (530) 676-6005
Date Received: 10/26/05

Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B/DHS LUFT Manual Volatile Organic Compounds (VOCs) EPA Method SW8260B

	Parameter	Concen	tration	Reporting	Date	Date
				Limit	Sampled	Analyzed
Client ID:	TPH Purgeable	320		50 μg/L	10/24/05	10/28/05
S-1	Tertiary Butyl Alcohol (TBA)	ND		10 µg/L	10/24/05	10/28/05
Lub ID:	Methyl tert-butyl other (MTBE)	37		0 50 μg/L	10/24/05	10/28/05
STR05102634-01A	Di-isopropyl Ether (DIPE)	ND		10 μg/L.	10/24/05	10/28/05
	Ethyl Tertiary Butyl Ether (ETBE)	ND		1.0 μg/L	10/24/05	10/28/05
	1,2-Dichloroethane	2 2		1 0 μg/L	10/24/05	10/28/05
	Benzene	5 0		0.50 μg/L	10/24/05	10/28/05
	Tertiary Amyl Methyl Ether (TAME)	ND		1 0 μg/L	10/24/05	10/28/05
	Toluene	ND		0 50 μg/L	10/24/05	10/28/05
	1,2-Dibromoethane (EDB)	ND		2 0 μg/L	10/24/05	10/28/05
	Ethylhenzene	11		0 50 μg/L	10/24/05	10/28/05
	m,p-Xylene	ND		0 50 μg/L	10/24/05	10/28/05
	o-Xylene	ND		0 50 րg/L	10/24/05	10/28/05
Client ID:	TPH Purgeable	1,200		100 μg/L	10/24/05	10/28/05
S-2	Tertiary Butyl Alcohol (TBA)	33		10 μg/L	10/24/05	10/28/05
Lab ID :	Methyl tert-butyl ether (MTBE)	69		0 50 µg/L	10/24/05	10/28/05
STR05102634-02A	Di-isopropyl Ether (DIPE)	ND		10 μg/L	10/24/05	10/28/05
	Ethyl Tertiary Butyl Ether (ETBE)	ND		1 0 μg/L	10/24/05	10/28/05
	1,2-Dichloroethane	35		1.0 µg/L	10/24/05	10/28/05
	Benzenc	100		0.50 μg/L	10/24/05	10/28/05
	Tertiary Amyl Methyl Ether (TAME)	ND		1.0 µg/L	10/24/05	10/28/05
	Toluene	13		0 50 μg/L	10/24/05	10/28/05
	1,2-Dibromoethane (EDB)	ND	V	4 0 µg/L	10/24/05	10/28/05
	Ethylbenzene	52		0 50 μg/L	10/24/05	10/28/05
	m,p-Xylene	27		0.50 μg/L	10/24/05	10/28/05
	o-Xylene	14		0 50 µg/L	10/24/05	10/28/05
Client ID :	TPH Purgeable	2,100		500 μg/L	10/24/05	10/28/05
MW-3	Tertiary Butyl Alcohol (TBA)	750		50 μg/L	10/24/05	10/28/05
Lab ID:	Methyl tert-butyl ether (MTBE)	300		2.5 μg/L	10/24/05	10/28/05
STR05102634-03A	Di-isopropyl Ether (DIPE)	ND	٧	5.0 μg/L	10/24/05	10/28/05
	Ethyl Tertiary Butyl Ether (ETBE)	ND	V	5 0 μg/L	10/24/05	10/28/05
	1,2-Dichloroethane	210		5 0 μg/L	10/24/05	10/28/05
	Benzene	460		2 5 μg/L.	10/24/05	10/28/05
	Tertiary Amyl Methyl Ether (TAME)	ND	V	5 0 μg/L	10/24/05	10/28/05
	I oluene	69		2.5 µg/L	10/24/05	10/28/05
	1,2-Dibromoethane (EDB)	ND	V	20 μg/L	10/24/05	10/28/05
	Ethylbenzene	77		25 μg/L	10/24/05	10/28/05
	m,p-Xylene	8 8		2.5 μg/L	10/24/05	10/28/05
	o-Xylene	3 1		2.5 µg/L	10/24/05	10/28/05

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Client ID:	TPH Purgenble	ND	50 μg/L	10/24/05	10/28/05
MW-4	Tertiary Butyl Alcohol (TBA)	ND	10 րg/L	10/24/05	10/28/05
Lab ID :	Methyl tert-butyl ether (MTBE)	ND	0 50 µg/L	10/24/05	10/28/05
STR05102634-04A	Di-isopropyl Ether (DIPE)	ND	1 0 μg/L	10/24/05	10/28/05
	Ethyl Tertiary Butyl Ether (EIBE)	ND	1.0 μg/L	10/24/05	10/28/05
	1,2-Dichloroethane	ND	1.0 μg/L	10/24/05	10/28/05
	Benzene	ND	0 50 µg/L	10/24/05	10/28/05
	Tertiary Amyl Methyl Ether (TAME)	ND	1 0 μg/L	10/24/05	10/28/05
	Toluene	ND	0 50 րg/L	10/24/05	10/28/05
	1,2-Dibromoethane (EDB)	ND	2 0 μg/L	10/24/05	10/28/05
	Ethylbenzene	ND	0 50 μg/L	10/24/05	10/28/05
	m,p-Xylene	ND	0.50 μg/L	10/24/05	10/28/05
	o-Xylene	ND	0.50 μg/L	10/24/05	10/28/05
	•				
Client ID:	IPH Purgenble	ND	50 µg/L	10/24/05	10/28/05
MW-5	Tertiary Butyl Alcohol (TBA)	ND	10 μg/L	10/24/05	10/28/05
Lab ID:	Methyl tert-butyl ether (MTBE)	ND	0 50 μg/L	10/24/05	10/28/05
STR05102634-05A	Di-isopropyl Ether (DIPE)	ND	1 0 μg/L	10/24/05	10/28/05
	Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 μg/L	10/24/05	10/28/05
	1,2-Dichloroethane	ND	1 0 μg/L	10/24/05	10/28/05
	Benzene	ND	0.50 μg/L	10/24/05	10/28/05
	Tertiary Amyl Methyl Ether (TAME)	ND	1 0 րg/L	10/24/05	10/28/05
	Toluene	ND	0 50 μg/L	10/24/05	10/28/05
	1,2-Dibromoethane (EDB)	ND	2 0 μg/L	10/24/05	10/28/05
	Ethylhenzene	ND	0 50 µg/L	10/24/05	10/28/05
	m,p-Xylene	ND	0 50 μg/L	10/24/05	10/28/05
	o-Xylene	ND	0 50 μg/L	10/24/05	10/28/05
Client ID:	IPH Purgeable	ND	50 μg/L	10/24/05	10/28/05
MW-7	Tertiary Butyl Alcohol (TBA)	ND	10 μg/L	10/24/05	10/28/05
Lab ID:	Methyl tert-butyl ether (MTBE)	ND	0 50 μg/L	10/24/05	10/28/05
STR05102634-06A	Di-isopropyl Ether (DIPE)	ND	1 0 μg/L	10/24/05	10/28/05
	Ethyl Tertiary Butyl Ether (ETBE)	ND	10 μg/L	10/24/05	10/28/05
	1,2-Dichloroethane	ND	10 μg/L	10/24/05	10/28/05
	Benzene	ND	0.50 μg/L	10/24/05	10/28/05
	Tertiary Amyl Methyl Ether (TAME)	ND	1 0 μg/L	10/24/05	10/28/05
	Toluene	ND	0.50 μg/L	10/24/05	10/28/05
	1,2-Dibromocthane (EDB)	ND	2 0 μg/L	10/24/05	10/28/05
	Ethylbenzene	ND	0.50 μg/L	10/24/05	10/28/05
	m,p-Xylene	ND	0 50 μg/L	10/24/05	10/28/05
	o-Xylene	ND	0.50 րք/L	10/24/05	10/28/05
Client ID:	I PH Purgenble	ND	50 μg/L	10/24/05	10/28/05
MW-8	Tertiary Butyl Alcohol (TBA)	ND	10 μg/L	10/24/05	10/28/05
Lab ID:	Methyl tert-butyl ether (MTBE)	ND	0.50 μg/L	10/24/05	10/28/05
STR05102634-07A	Di-isopropyl Ether (DIPE)	ND	1.0 μg/L	10/24/05	10/28/05
	Ethyl Tertiary Butyl Ether (EIBE)	ND	t 0 μg/L	10/24/05	10/28/05
	1,2-Dichloroethane	ND	1.0 µg/L	10/24/05	10/28/05
	Benzene	ND	0 50 μg/L	10/24/05	10/28/05
	Tertiary Amyl Methyl Ether (TAME)	ND	1 0 μg/L	10/24/05	10/28/05
	Toluene	ND	0 50 μg/L	10/24/05	10/28/05
	1,2-Dibromoethane (EDB)	ND	2 0 μg/L	10/24/05	10/28/05
	Ethylbenzene	ND	0 50 μg/L	10/24/05	10/28/05
	m,p-Xylene	ND	0 50 µg/L.	10/24/05	10/28/05
	o-Xylene	ND	0 50 μg/L	10/24/05	10/28/05
			· -		

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Client ID:	TPH Purgeable	5,000		100 μg/L	10/24/05	10/31/05
EX-1	Tertiary Butyl Alcohol (TBA)	120		10 μg/L	16/24/05	10/31/05
Lab ID:	Methyl tert-butyl ether (MTBE)	360		0 50 μg/L	10/24/05	10/31/05
STR05102634-08A	Di-isopropyl Ether (DIPE)	ND		10 μg/L	10/24/05	10/31/05
	Ethyl Tertiary Butyl Ether (ETBE)	ND		10 μg/L	10/24/05	10/31/05
	1.2-Dichloroethane	ND		1.0 μg/L	10/24/05	10/31/05
	Benzene	140		0.50 μg/L	10/24/05	10/31/05
	Tertizry Amyl Methyl Ether (TAME)	ND		1 0 μg/L	10/24/05	10/31/05
	Toluene	8.4		0.50 μg/L	10/24/05	10/31/05
	1.2-Dibromoethane (EDB)	ND	V	4.0 μg/L	10/24/05	10/31/05
	Ethylbenzene	20	•	0 50 μg/L	10/24/05	10/31/05
	m,p-Xylene	160		0 50 μg/L	19/24/05	10/31/05
	o-Xylene	35		0.50 μg/L	10/24/05	10/31/05
or m	·					
Client ID:	TPH Purgeable	42,000		20.000 μg/L	10/24/05	10/28/05
EX-2	Tertiary Butyl Alcohol (TBA)	ND	٧	2,000 μg/L	10/24/05	10/28/05
Lab ID:	Methyl tert-butyl ether (MTBE)	410		100 μg/L	10/24/05	10/28/05
STR05102634-09A	Di-isopropyl Ether (DIPE)	ND	V	200 μg/L	10/24/05	10/28/05
	Ethyl Tertiary Butyl Ether (ETBE)	ND	V	200 μg/L	10/24/05	10/28/05
	1,2-Dichloroethane	ND	V	200 μg/L	10/24/05	10/28/05
	Benzene	13,000		100 µg/L	10/24/05	10/28/05
	Tertiary Amyl Methyl Ether (TAME)	ND	ν	200 μg/L	10/24/05	10/28/05
	Toluene	1.300		100 μg/L	10/24/05	10/28/05
	1,2-Dibromoethane (EDB)	ИD	V	800 μg/L	10/24/05	10/28/05
	Ethylbenzene	1,300		100 μg/L	10/24/05	10/28/05
	m,p-Xylene	1.600		100 μg/L,	10/24/05	10/28/05
	o-Xylene	980		100 μg/L	10/24/05	10/28/05
Client ID:	TPH Purgeable	20,000		2,000 μg/L	10/24/05	10/28/05
EX-3	Tertiary Butyl Alcohol (TBA)	ND	٧	200 μg/L	10/24/05	10/28/05
Lab ID:	Methyl tert-butyl ether (MTBE)	ND	V	10 μg/L	10/24/05	10/28/05
STR05102634-10A	Di-isopropyi Ether (DIPE)	ND	٧	20 μg/L	10/24/05	10/28/05
	Ethyl Tertiary Butyl Ether (ETBE)	ND	V	20 μg/L.	10/24/05	10/28/05
	I,2-Dichloroethane	ND	V	20 μg/L	10/24/05	10/28/05
	Benzene	220		10 μg/L	10/24/05	10/28/05
	Tertiory Amyl Methyl Ether (IAME)	ND	V	20 μg/L	10/24/05	10/28/05
	Toluene	21		10 μg/L	10/24/05	10/28/05
	1,2-Dibromoethane (EDB)	ND	ν	 80 μg/L	10/24/05	10/28/05
	Ethyloenzene	660		10 μg/L	10/24/05	10/28/05
	m.p-Xylene	2,800		10 μg/L	10/24/05	10/28/05
	o-Xylene	310		10 μg/L	10/24/05	10/28/05
Client ID:	TPH Purgeable	1.900		500 μg/L	10/24/05	10/28/05
EX-4	Tertiary Butyl Alcohol (TBA)	51		50 μg/L	10/24/05	10/28/05
Lab ID :	Methyl tert-butyl ether (MTBE)	11		2 5 μg/L	10/24/05	10/28/05
STR05102634-11A	Di-isopropy! Ether (DIPE)	ND	V	5 0 μg/L	10/24/05	10/28/05
	Ethyl Tertiary Butyl Ether (ETBE)	ND	v	5 0 μg/L	10/24/05	10/28/05
	1.2-Dichloroethane	ND	V	5 0 μg/L	10/24/05	10/28/05
	Benzene	390		2 5 μg/L	10/24/05	10/28/05
	Tertiary Amyl Methyl Ether (TAME)	ND	ν	5 0 μg/L	10/24/05	10/28/05
	Toluene	69	•	2 5 μg/L	10/24/05	10/28/05
	1,2-Dibromoethane (EDB)	ND	v	20 μg/L	10/24/05	10/28/05
	Ethylbenzene	8.8	•	2.5 μg/L	10/24/05	10/28/05
	m,p-Xylene	54		25 μg/L	10/24/05	10/28/05
	o-Xylene	36		2.5 μg/L	10/24/05	10/28/05
	•	<u></u>				



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Reported in micrograms per liter, per client request.

V = Reporting Limits were increased due to high concentrations of target analytes

ND = Not Detected

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinelman, Quality Assurance Office Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / info@alpha-analytical.com

Report Date

2007-0057-01/ USA 57



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VOC Sample Preservation Report

Alpha's Sample ID	Client's Sample ID	Matrix	рН	
05102634-01A	S-1	Aqueous	5	
05102634-02A	S-2	Aqueous	3	
05102634-03A	MW-3	Aqueous	3	
05102634-04A	MW-4	Aqueous	3	
05102634-05A	MW-5	Aqueous	3	
05102634-06A	MW-7	Aqueous	3	
05102634-07A	MW-8	Aqueous	2	
05102634-08A	EX-1	Aqueous	6	
05102634-09A	EX-2	Aqueous	5	
05102634-10A	EX-3	Aqueous	5	
05102634-11A	EX-4	Aqueous	5	

11/2/05

Report Date



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Date: 03-Nov-05	(OC Su	ımmary	/ Repor	t				Work Order: 05102634
Method Blank File ID: 05102810.D Sample ID: MBLK MS08W1028B Analyte	Units : µg/L Result	Type: M	Ba Run ID: MS	tch ID: MS0 D_08_0510	8W10:	28B	Prep Date	Date:	nual 10/28/2005 13:25 I 0/28/2005 al %RPD(Limit) Qual
TPH Purgeable Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene	ND 9.75 10.7 9.98	50	10 10 10		98 107 99.8	76 84 79	127 113 119		
Laboratory Control Spike File ID: 05102808 D Sample ID: GLCS MS08W1028B Analyte	Units : µg/L Result	Type: LO	Ba Run ID: MS	tch ID: MS0 D_08_0510	18W102 128A	28B	Prep Date	Date: 1	nual 10/28/2005 12:39 10/28/2005 al %RPD(Limit) Qual
TPH Purgeable Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene	399 9,78 10.1 9,57	50	400 10 10 10		99.7 98 101 96	78 76 84 79	127 127 113 119		
Sample Matrix Spike File ID: 05102813.D Sample ID: 05102630-01AGS Analyte	Units : µ g/L Result	Type: M:	Ba Run ID: MS	tch ID: MS0 D_08_0510	8W102 28A	28B	Prep Date	Date: 1	nual 10/28/2005 14:33 0/28/2005 al %RPD(Limit) Qual
TPH Purgeable Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene	2270 48 2 51 1 48.6	250	2000 50 50 50	71 89		70 76 84 79	139 127 113 119		
Sample Matrix Spike Duplicate File ID: 05102814.D Sample ID: 05102630-01AGSD Analyte	Units : µg/L Result	Type: M:	Ba Run ID: MS	tch ID: MS0 D_08_0510	8W102 28A	28B	Prep Date	Date: 1	nual 10/28/2005 14:56 0/28/2005 al %RPD(Limit) Qual
TPH Purgeable Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene	2250 47.4 51.1 48.8	250	2000 50 50 50	71 89	109 95 102 98	70 76 84 79	139 127 113 119	2275	1 2(12)

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly

Reported in micrograms per liter, per client request



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Date: 03-Nov-05	(oc s	umma	ry Repoi	t				Work Order: 05102634
Method Blank File ID: 05102810.D		Type: N		Fest Code: E Batch ID: MS			Analy		10/28/2005 13:25
Sample ID: MBLK MS08W1028A	Units : µg/L Result	PQL		1SD_08_051		2 Loudinal	Prep I		10/28/2005 /al %RPD(Limit) Qual
Analyte	· · · · · · · · · · · · · · · · · · ·			і оркпетуа:	70TEC	LOWEIIII	rigitime	ULDUGIA	at 76th D(Limit) Qual
Tertiary Butyl Alcohol (TBA) Methyl tert-butyl ether (MTBE)	ND ND	1(0.5							
Di-isopropyl Ether (DIPE)	ND								
Ethyl Tertiary Butyl Ether (ETBE)	ND	1	ĺ						
1,2-Dichloroethane	ND	1							
Benzene	ND	0.5							
Tertiary Amyl Methyl Ether (TAME) Toluene	ND ND	0.5							
1,2-Dibromoethane (EDB)	ND ND	2							
Ethylbenzene	ND	0.5							
m,p-Xylene	ND	0.5							
o-Xylene	ND	0.8					407		
Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8	9.75 10.7		1(1(98 107	76 84	127 113		
Surr: 4-Bromofluorobenzene	9.98		10		99.8	79	119		
Laboratory Control Spike		Type: L	.cs `	est Code: El	PA Met	hod SW8	260B	*************************************	
File ID: 05102807.D		. , ,		Batch ID: MS				sis Date:	10/28/2005 12:16
Sample ID: LCS MS08W1028A	Units : µg/L			SD_08_051			Prep I		10/28/2005
Analyte	Result	PQL				' Low imit			al %RPD(Limit) Qual
	******************************							TIPLICIV	ai 7011 D(Liliii) Quai
Benzene Toluene	11 11.5	0.5 0.5			110 115	81 80	122 120		
Ethylbenzene	119	0.5			119	80	120		
m,p-Xylene	11.8	0.5	10)	118	80	129		
o-Xvlene	11.9	0.5			119	80	129		
Surr: 1,2-Dichloroethane-d4	10.3		10		103	76 84	127		
Surr: Toluene-d8 Surr: 4-Bromofluorobenzene	10.4 9.08		10 10		104 91	79	113 119		
Comple Matrix Spiles		Type: N	is 1	est Code: El	2Δ Met	hod SW8	2608		
Sample Matrix Spike File ID: 05102811.D		, ypu		atch ID: MS				ale Date:	10/28/2005 13:48
	Dans select					LOA	Prep [10/28/2005 10:40
Sample ID: 05102630-01AMS	Units : µg/L Result	PQL		ISD_08_0510		Loud imit	•		al %RPD(Limit) Qual
Analyte								ULDUGIA	ai /enrb(Liliii) Quai
Benzene Toluene	46.1 75.6	1.3 1.3			92 94	74 76	125 120		
Ethylbenzene	50.5	1.3			101	77	124		
m,p-Xylene	50.5	1.3			99.6	73	130		
o-Xylene	51.5	1 3			103	74	131		
Surr: 1,2-Dichloroethane-d4	48.4		50		97	76	127		
Surr: Toluene-d8 Surr: 4-Bromofluorobenzene	52.1 45.3		50 50		104 91	84 79	113 119		
	······································	Tuna: N					···		
Sample Matrix Spike Duplicate		Type: N		est Code: EF				sie Dato:	10/28/2005 14:11
File ID: 05102812.D	()_ tı · · · ·			atch ID: MS0		OA	Prep E		
Sample ID: 05102630-01AMSD	Units : µg/L			SD_08_0510			•		10/28/2005
Analyte	Result	PQL					···		al %RPD(Limit) Qual
Benzene	49.3	1.3			99	74	124	46 13	
Toluene	80.2	13			103	76	119	75.63 50 46	
Ethylbenzene m,p-Xylene	53.6 53.5	13			107 106	77 73	124 130	50.51	5.8(14)
o-Xylene	53.8	1.3				74	131	51 46	
Surr: 1.2-Dichloroethane-d4	49.8		50		99 7	76	127		• •
Surr: Toluene-d8	51.8		50		104	84	113		
Surr: 4-Bromofluorobenzene	45.9		50		92	79	119		



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Date: 03-Nov-05 OC Summary Report Work Order: 05102634

Comments:

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Date: 03-Nov-05	QC S	ummar	y Repor	t			· · · · · · · · · · · · · · · · · · ·	Work Order: 05102634
Method Blank	Type: N	IBLK T	est Code: EF	A Met	hod SW8	260B-DI		
File ID: C:\HPCHEM\MS11\DATA\051027\05102703.D		В	atch ID: 1340)4		Analysis	Date: 1	0/27/2005 10:12
Sample ID: MBLK-13404 Units :	ig/L	Run ID: M	SD_11_0510	27A		Prep Date	e: 1	0/27/2005
Analyte Resu	lt PQL	SpkVal	SpkRefVal	%REC	LowLimi	t HighLimlt AP	DRefVa	ıl %RPD(Limit) Qual
Methanol ND	5000							
Ethanol ND	5000			97	63	137		
Surr: Hexafluoro-2-propanol 480	3	500	т - р	91	00	137	·-···	
Laboratory Control Spike	Type: L		est Code: EP		hod SW8			
File ID: C:\HPCHEM\MS11\DATA\051027\05102704.D			atch ID: 1340	-		•		0/27/2005 10:32
Sample ID: LCS-13404 Units : µ	-		SD_11_0510			Prep Date		0/27/2005
Analyte Resul	t PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit RP	DRefVa	I %RPD(Limit) Qual
Methanol 270				108	45	155		
Ethanol 252 Surr: Hexafluoro-2-propanol 468		250 500		101 94	51 63	144 137		
- Total Florida - Total - Tota								
Sample Matrix Spike	Type: M	_	est Code: EP		hod SW8			
File ID: C:\HPCHEM\MS11\DATA\051027\05102706.D			atch ID: 1340	-		-		0/27/2005 11:12
Sample ID: 05102634-02AMS Units : µ	_		SD_11_0510			Prep Date		0/27/2005
Analyte Resul							DHeiva	I %RPD(Limit) Qual
Methanol 292 Ethanol 266			0	117 106	45 50	163 149		
Surr: Hexatluoro-2-propanol 469		500 500	U	94	63	137		
Manufacture 11 - 12 - 12 - 12 - 12 - 12 - 12 - 12	Type: M	en T	est Code: EP	A Stat	had SW8	SEAR-DI		
Sample Matrix Spike Duplicate File ID: C:\HPCHEM\MS11\DATA\051027\05102707.D	rypo. W		est Code. Er atch ID: 1340		104 040		Date: 1	0/27/2005 11:33
Sample ID: 05102634-02AMSD Units : µ	ıg/L	Run ID: MS	SD_11_0510	27A		Prep Date		0/27/2005
Analyte Resul	_	SpkVal	SpkRefVal ⁴	%REC	LowLimit	HighLimit RPI	DRefVa	%RPD(Limit) Qual
Methanol 274	50	250	0	110	45	163	291.6	6.3(22)
Ethanol 268		*****	0	107	50	149	265 8	0.8(15)
Surr: Hexafluoro-2-propanol 471		500		94	63	137		

Comments:

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Reported in micrograms per liter, per client request.

Alpha Analytical, Inc.Phone: (775) 355-1044 FAX: (775) 355-0406

Sample Receipt Checklist

Date Report is due to Client: 11/3/2005

Date of Notice: 10/26/2005 4:02:12

Please take note of any NO check marks. If we receive no response concerning these items within 24 hours of the date of this notice, all of the samples will be analyzed as requested.

Client Name: Stratus Environmental	•	0057-01/ USA	
Project Manager: Gowri Kowtha	Client's EMail: gkowth Client's Phone: (530) 6	-	c.net Client's FAX: (530) 676-6005
Work Order Number: STR05102634	Date Received: 10/26/		Received by: Graciela Navarrete
Chair	n of Custody (COC) Inf	ormation	
Carrier name: FedEx			
Chain of custody present ?	Yes 🗹	☐ No	
Custody seals intact on shippping container/cooler ?	Yes 🗹	☐ No	Not Present
Custody seals intact on sample bottles?	Yes 🔲	☐ No	Not Present 🗹
Chain of custody signed when relinquished and received?	Yes 🗹	☐ No	
Chain of custody agrees with sample labels?	Yes 🗹	☐ No	
Sample ID noted by Client on COC ?	Yes 🗹	□ No	
Date and time of collection noted by Client on COC ?	Yes 🔽	□ No	
Samplers's name noted on COC ?	Yes 🗹	□ No	
Internal Chain of Custody (COC) requested ?	Yes 🗌	☑ No	
Sub Contract Lab Used :	None 🗹	SEM	Other (see comments)
<u>s</u>	ample Receipt Informa	<u>ation</u>	
Shipping container/cooler in good condition?	Yes 🗹	☐ No	Not Present
Samples in proper container/bottle?	Yes 🗹	□ No	
Sample containers intact?	Yes 🗹	□ No	
Sufficient sample volume for indicated test?	Yes 🗹	☐ No	
Sample Prese	rvation and Hold Time	(HT) Informa	tion
All samples received within holding time?	Yes 🗹	☐ No	Cooler Temperature
Container/Temp Blank temperature in compliance (0-6°C)?	Yes 🗹	☐ No	4°C
Water - VOA vials have zero headspace / no bubbles?	Yes 🗹	☐ No	No VOA vials submitted
Sample labels checked for correct preservation?	Yes 🗹	□ No	
TOC Water - pH acceptable upon receipt (H2SO4 pH<2)?	Yes 🗌	☐ No	N/A ☑
Analy	tical Requirement Info	rmation	
Are non-Standard or Modified methods requested ?	Yes 🗌	☑ No	
Are there client specific Project requirements?	Yes 🗌	✓ No	If YES : see the Chain of Custody (COC)
Comments :			

D.1111		
HILLOO	Information	٠
-mang	HINORHIGHOT.	٠

CHAIN-OF-CUSTODY RECORD

Page: 1 of 2

Alpha Analytical, Inc.

255 Glendale Avenue. Suite 21 Sparks. Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder: STR05102634

Report Due By: 5:00 PM On: 03-Nov-05

Client:

Stratus Environmental 3330 Cameron Park Drive Suite 550

Cameron Park, CA 95682-8861

Report Attention: Gowri Kowtha CC Report : Steve Carter

Gowri Kowtha TEL: (530) 676-6001 FAX. (530) 676-6005 EMail: gkowtha@stratusinc.net

PO:

Job: 2007-0057-01/ USA 57

TEL: (530) 676-6008 FAX: (530) 676-6005

Client's COC #: none

EMail: scarter@stratusinc.net

Steve Carter

EDD Required . Yes

Sampled by : Vince Zalutka

Cooler Temp

4°C Date Printed:

26-Oct-05

QC Level: S3

= Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sampie ID	Client Sample ID		Collection Collection	No. of	Bottle:	S TAT	PWS#	ALCOHOL_ W	TPH/P_W	Request voc_w	ed Tests			· · · · · · · · · · · · · · · · · · ·
STR05102634-01A	S-1	AQ	10/24/05	5	0	6	F445#	MeOH /	GAS-C	BTEX			 	Sample Remarks
STR05102634-02A	S-2	ρA	09:44 10/24/05 14:20	5	0	6	·	MeOH / EtOH	GAS-C	SOXY-1,2- DCA/ EDB_C BTEX/ SOXY-1,2-	·	****		
STR05102634-03A	MW-3	AQ	10/24/05 08:27	5	0	6		MeOH / EIOH	GAS-C	DCA- EDB_C BTEX- 50XY-1,2				1
STR05102634-04A	MW-4	AQ	10/24/05 10:50	5	0	, 6		MeOH / E(OH	GAS-C	DCA EDB_C BTEX- 50XY-1.2- DCA-	····	, , , , , , , , , , , , , , , , , , ,		
STR05102634-05A	MW-5	AQ	10/24/05 14:31	5	0	6		MeOH / EtOH	GAS-C	EDB_C BTEX: 50XY: 1.2- DCA:			,	
STR05102634-06A	MW-7	AQ	10/24/05 12:46	5	0	6		MeOH / EiOH	GAS-C	EDB_C BTEX: 50XY: 1.2- DCA: EDB_C				

_					
Co	E73	1773	OB	10.	

Security seals intact, ice frozen. Ca samples, Send copy of receipt checklist with final report,

Signature	Print Name	the season risks as	Company	Date/Ti	ime
Logged in by: - > knowle What a voice to	9 Novarrete	* / white every same at	Alpha Analytical, Inc. /	0/26/05	350

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report. Matrix Type: AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information:

CHAIN-OF-CUSTODY RECORD

Page: 2 of 2

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder: STR05102634

Client

Stratus Environmental 3330 Cameron Park Drive

Suite 550

Cameron Park, CA 95682-8861 Report Attention :

Gowri Kowtha

Gowri Kowtha TEL: (530) 676-6001 FAX: (530) 676-6005

: EMail: gkowtha@stratusinc.net

Steve Carter TEL: (530) 676-6008 FAX: (530) 676-6005

EMail: scarter@stratusinc.net

EDD Required : Yes

Sampled by : Vince Zalutka

Report Due By: 5:00 PM On: 03-Nov-05

Steve Carter

Job : 2007-0057-01/ USA 57 PO:

Client's COC # · none

Cooler Temp

Date Printed:

26-Oct-05

QC Level: S3

CC Report :

= Final Rpt, MBLK, LCS, MS/MSD With Surrogates

√lpha	Client		0.35 44					i 4			Request	ed Test	S	 		
Sample ID	Sample ID		Collection ix Date	No. o ORG	f Bottles SUB		PWS#	ALCOHOL W	TPH/P_W	voc_w						
STR05102634-07	7A MW-8	AQ	10/24/05	5	0	6		MeOH /	GAS-C	BTEX			<u> </u>		;	Sample Remarks
			09:58		1	•		EIOH	l i	SOXY 1.2. DCA				!	.	
TR05102634-08	BA EX-1	AQ	10/24/05	5	T				· ····	EDB_C			•	1	1	
	=	· · · - ·	11:04	,	0	6		MeOH / EtOH	GAS-C	BTEX: 50XY-1,2-	-		7		1	
TR05102634-09	PA: EX-2	AQ	10/04/05		: "					DCA- EDB_C	'		1	THE STATE OF THE S	1	
		AQ	10/24/05 08:10	5	0	6		MeOH / EtOH	GAS-C	BTEX 50XY [,] 1,2-		···		 ·····		
TR05102634-10	in. Plan		·							DCA' EDB_C	1		Í		•	
11(03102034-10	A EX-3	AQ	10/24/05 13:56	5	0	6		MeOH / EIOH	GAS-C	BTEX			T	 	1	
			10,00	1	ı			LION		50XY/1.2 DCA/	i		1			
TR05102634-11	A EX-4	AQ	10/24/05	5 .	0	6		MeOH /	GAS-C	EDB_C BTEX [/]				 		
			14:07	•				EIOH		50XY/ 1,2- DCA ⁻	ļ		ĺ		!	
										EDB C					,	

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Security seals intact, ice frozen. Ca samples. Send copy of receipt checklist with final report, .

Logged in by:

Print Name

Company Alpha Analytical, Inc. Date/Time

NOTE. Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type: AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

City Fax:	Address y, State, Zip 530-67	1:	3330 Cameron Park Driv Cameron Park, CA 9566		EDF:	T0600101 YES							201	Mie.						
j	-		Cameron Park, CA 9566							i		/ 1	11	. 10	. `			al n c		
Fax:	530-67	76-6005		7	Project#	2007-0057	7-01		·····	-	/	\$ 10°	7		\ \\	\		Al. or Analy		C.
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1					Report Attenti	on: Gowni /	Steve			-	- (1				Ш			State (1		
[Client	·	USA 57		Sampled By:					-	- /:	3/			/ ŝ	/		Sparks, NV 894:	11	
	Address	:	10700 McArthur Blvd.							┪		17.0	nme	enta	ン			(775) 355-1044		
City	, State, Zip		Oakland, CA					····		١,	44							1775) 355-0406 F	9 00	
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Tîme	Date						1		TAT	G		f.3	AC.	***************************************	nc!		***************************************	Cf Le	t doe't	-
Sampled	Sampled	Matrix	Lab ID (For Lab Use ONLY)		Sample Desci	intion		C=======	(Working	TPH-G	BTEX	5 OXY's	1,2-DCA	EDB	Methanc					
0944 1440 0821	10/24/2005	ΑQ	05/02634-01	S-1		150011		Containers	Days)		_	- 1				前		R	≥mer\s	
1490	10/24/2005	AQ		S-2	***************************************			HCL VOA's	510	Х	Х	X	X		X	<u> </u>				
0827	10/24/2005	AQ		MW-3				HCL VOA's	STD	X	X	<u> </u>	Х	<u> </u>	X	X.				***************************************
1050	10/24/2005	AQ	4	MW-4				HCL VOA's	STD	X	Х	<u> </u>	X.	X.	X	× L				
1431	10/24/2005	AQ	3	MW-5			····	HCL VOA's	STD	Х	X	<u> </u>	X	X.	Х	X.				
N/5	10:24/2005	AQ		MW-6				HCL VOA's	STD	Х	Х	X	Х	x	Х	x			·····	*
1246	10.24/2005	AQ	6	MW-7				HCL VOA'S	- 610	*		<u> </u>	<u> </u>	<u> </u>	×	×		- not sa	mpled	
0958	10-724/2005	AQ	7	MW-8				HCL VOA's	STD	X	X	<u> </u>	X	<u>x </u>	X	x L				
1104	10/24/2005	AQ		EX-1				HCL VOA's	STD	Х	_X.		x	x	х	x L				
0810	10/24/2005	AQ	9	EX-2				HCL VOA's	510	X	<u> </u>		X	<u> </u>	X	x				
1356	10/24/2005	AQ	10	EX-3				HCL VOA's	grz	Х	X	X	X .	x	x	x L				
1407	10/24/2005	AQ	77	EX-4		·····		HCL VOA's	510	X	X			X.	X .	x L				
								HCL VOA's	STD	Х	X	X	<u> </u>	Х <u>.</u>	X .	<u> </u>				
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			Signature																	
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eceived by	:				· · · · · · · · · · · · · · · · · · ·															
			Key: AQ - Aqueous WA - 1				- VOA	S-Soil Jar	O - Orbo		Ť - Te	adler	-	- Bra						
NOTE:	Samples	are discard	ded 60 days after sample receipt t applicable only to the	nless other arra se samples rec	ingements are m eived by the labo	ade. Hazaro ratory with th	dous sam his COC.			*********							Plastic The re	OT - Other port for the analysis of	the above sam	iples is

Appendix E

Fourth Quarter 2005 Groundwater Monitoring Report ARCO Service Station #0276 (URS 2005)

URS

December 22, 2005

Mr. Don Hwang Alameda County Environmental Health (ACEH) 1131 Harbor Bay Parkway, Second Floor, Suite 250 Alameda, CA 94502

Re: Fourth Quarter 2005 Groundwater Monitoring Report

ARCO Service Station #0276 10600 MacArthur Boulevard Oakland, California ACEH Case #3756

Dear Mr. Hwang:

On behalf of Atlantic Richfield Company, a BP-affiliated company, URS Corporation (URS) is submitting the *Fourth Quarter 2005 Groundwater Monitoring Report* for ARCO Service Station #0276, located at 10600 MacArthur Boulevard, Oakland, California.

If you have any questions regarding this submission, please call (510) 874-3280.

No. 7829

OF CALIF

Sincerely,

URS CORPORATION

Scott Robinson, P.G.

Project Manager

Enclosure: Fourth Quarter 2005 Groundwater Monitoring Report

cc: Mr. Paul Supple, Atlantic Richfield Company (RM), electronic copy uploaded to ENFOS

REPORT

FOURTH QUARTER 2005 GROUNDWATER MONITORING REPORT

ARCO SERVICE STATION #0276 10600 MACARTHUR BOULEVARD OAKLAND, CALIFORNIA

Prepared for RM

December 22, 2005



URS Corporation 1333 Broadway, Suite 800 Oakland, California 94612

Date:

December 22, 2005

Quarter:

4Q05

FOURTH QUARTER 2005 GROUNDWATER MONITORING REPORT

Facility No :	0276	Address:	10600 MacArthur Boulevard, Oakland, California	
RM Environmental I	Business Manager:		Paul Supple	
Consulting Co./Cont	act Person:		URS Corporation / Scott Robinson	
Primary Agency:			Alameda County Environmental Health (ACEH)	
ACEH Case #:			3756	

WORK PERFORMED THIS QUARTER

(Fourth - 2005):

- 1. Performed the fourth quarter 2005 groundwater monitoring event on November 18, 2005.
- Prepared and submitted this Fourth Quarter 2005 Groundwater Monitoring Report.

WORK PROPOSED FOR NEXT QUARTER

(First - 2006):

- Perform the first quarter 2006 groundwater monitoring event.
- 2. Prepare and submit the First Quarter 2006 Groundwater Monitoring Report.

SITE SUMMARY:

Current Phase of Project:	Groundwater monitoring/sampling
Frequency of Groundwater Sampling:	Quarterly: Wells MW-2, MW-5 and MW-8
	Semi-annually (1 st & 3 rd quarter): Wells MW-6 and MW-7
	Annually (1st quarter): Wells MW-1, MW-3, MW-4, WGR-3 and
	RW-1
Frequency of Groundwater Monitoring:	Quarterly
Is Free Product (FP) Present On-Site:	No
Current Remediation Techniques:	None
Approximate Depth to Groundwater:	17.66 (MW-2) to 34.50 (MW-6) feet
Groundwater Gradient (direction):	Southwest
Groundwater Gradient (magnitude):	0.005 feet per foot

DISCUSSION:

Gasoline range organics, benzene, toluene, ethylbenzene and xylenes were detected at or above their respective laboratory reporting limits in one of the three wells (MW-2) sampled this quarter at concentrations of 990 micrograms per liter (µg/L), 3.2 µg/L, 0.64 µg/L, 3.8 µg/L, and 1.6 µg/L, respectively. Methyl tert-butyl ether was detected at or above the laboratory reporting limit in three wells at concentrations ranging from 49 µg/L (MW-2) to 390 µg/L (MW-8). Tert-amyl methyl ether was detected at or above the laboratory reporting limit in three wells at concentrations ranging from 9.2 µg/L (MW-5) to 23 µg/L (MW-8). 1,2-Dichloroethane was detected at or above the laboratory reporting limit in one well at a concentration of 10 µg/L (MW-5). No other fuel components were detected at or above their respective laboratory reporting limits in any wells sampled this quarter.

ATTACHMENTS:

- Figure 1 Groundwater Elevation Contour and Analytical Summary Map November 18, 2005
- Table 1 Groundwater Elevation and Analytical Data
- Table 2 Fuel Additives Analytical Data
- Table 3 Groundwater Gradient Data
- Attachment A Field Procedures and Field Data Sheets
- Attachment B Laboratory Procedures, Certified Analytical Reports, Chain-of-Custody Records
- Attachment C Historical Groundwater Data
- Attachment D Error Check Reports and EDF/Geowell Submittal Confirmations

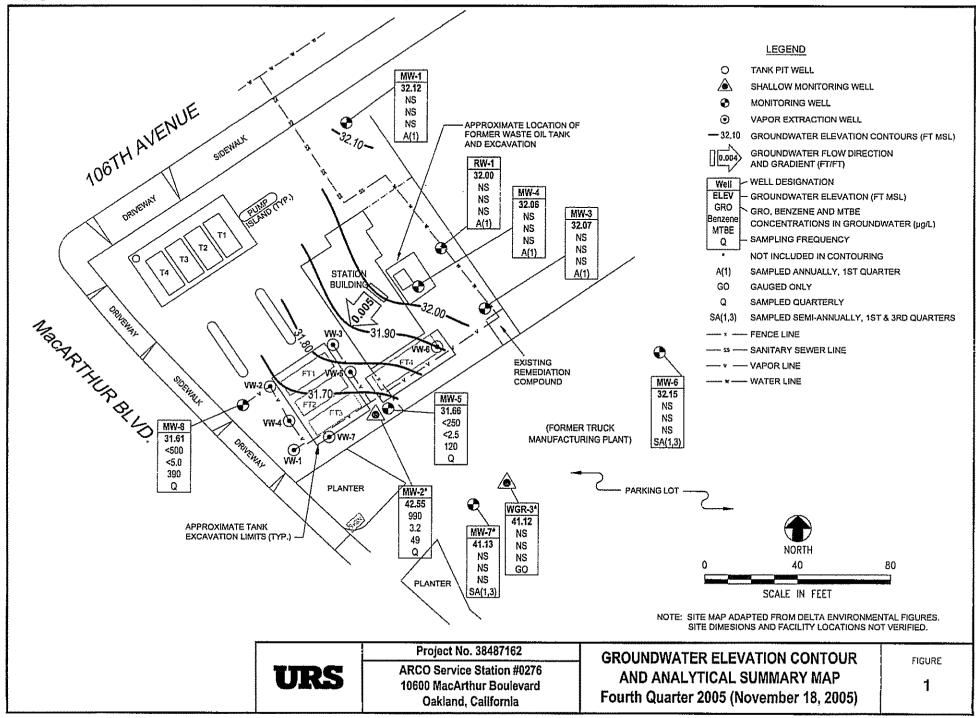


Table 1

Groundwater Elevation and Analytical Data

ARCO Service Station #0276 10600 Macarthur Blvd., Oakland, CA

Well		P/	Footnotes/	тос	Top of Screen	Bottom of Screen	DTW	GWE	GRO/ TPH-g	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	DO	
No.	Date	NP	Comments	(ft MSL)	(ft bgs)	(ft bgs)	(ft bgs)	(ft MSL)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	рН
MW-1	12/17/2000			55.92	23.50	28.50	29.16	26.76	5.09	<u> </u>	-		***	•	-	-
	12/28/2001			55.92	23.50	28.50	27.38	28.54	8.8					-		
	11/27/2002	NP		55.92	23.50	28,50	29.45	26.47	4.2					-	2.3	6.7
	7/22/2003	NP		55.92	23.50	28.50	27.58	28.34	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.1	6.7
	11/07/2003	NP		55.92	23.50	28.50	30.42	25.50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	6.6
	02/03/2004	NP		55.92	23.50	28.50	38.80	17.12		-					1.5	-
	05/04/2004	NP	g	61.26	23.50	28.50	26.67	34.59	<50	<0.50	<0.50	<0.50	<0.50	<0.50	-	6.6
	08/12/2004	NP		61.26	23.50	28.50	29.49	31.77	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.2	6.6
	11/10/2004	NP		61.26	23.50	28.50	30.29	30.97	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	6.6
	02/03/2005	NP		61.26	23.50	28.50	26.23	35.03	-			-	-		0.89	
	05/09/2005			61.26	23.50	28.50	22.93	38.33	-	-	-					
	08/11/2005	_		61.26	23.50	28.50	26,11	35.15	***************************************							
	11/18/2005			61.26	,23.50	28.50	29.14	32.12								-
MW-2	12/17/2000	-		55.1	15.00	25.00	15.72	39.38	***	***	**			-	T —	
	12/28/2001			55.1	15.00	25.00	27.38	27.72					*****			
	11/27/2002	-		55.1	15.00	25.00	16.35	38.75				***				
***************************************	7/22/2003			55.1	15.00	25.00	16.20	38.90		***						
	11/07/2003	Р		55.10	15.00	25.00	18.22	36.88	990	<5.0	<5.0	<5.0	<5.0	110	1.8	6.7
•	02/03/2004	P		55.10	15.00	25.00	13.63	41.47	180	<2.5	<2.5	2.6	4.1	55	1.8	6.5
	05/04/2004	P	g	60.21	15.00	25.00	15.76	44.45	290	<2.5	<2.5	<2.5	<2.5	70	0.6	6.3
	08/12/2004	Р		60.21	15.00	25.00	17.21	43.00	<250	<2.5	<2.5	3.2	<2.5	49	1.6	6.6
	11/10/2004	Р		60.21	15.00	25.00	15.90	44.31	270	<1.0	<1.0	1.6	<1.0	90	0.9	6.2
	02/03/2005	Р		60.21	15.00	25.00	14.29	45.92	480	1.7	<0.50	2.0	1.4	37	1.53	6.5
	05/09/2005	Р		60.21	15.00	25.00	14.38	45.83	320	<0.50	<0.50	<0.50	0.64	56	0.57	6.5
	08/11/2005	Р		60.21	15.00	25.00	15.97	44.24	320	<0.50	<0.50	<0.50	<0.50	50	1.0	6.3
	11/18/2005	Р		60.21	15.00	25.00	17.66	42.55	990	3.2	0.64	3.8	1.6	49	3.23	6.5
MW-3	12/17/2000			56.55	22.00	27.00	29.78	26.77	158		***				T	_
	12/28/2001	***		56.55	22.00	27.00	27.95	28.60	310	20	1.5	13			-	
	11/27/2002	NP		56.55	22.00	27.00	30.10	26.45	110						2.0	7.2
	7/22/2003	NP		56.55	22.00	27.00	28.32	28.23	120	<0.50	<0.50	<0.50	<0.50	<0.50	2.2	5.9
	11/07/2003	NP		56.55	22.00	27.00	30.86	25.69	70	<0.50	<0.50	<0.50	<0.50	<0.50	2.8	6.5
	02/03/2004	NP	MOTORIAL	56.55	22.00	27.00	27.65	28.90	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	6.7
***************************************	05/04/2004	NP	g	61.89	22.00	27.00	27.57	34.32	<100	<1.0	<1,0	<1.0	<1.0	<1.0	1.6	6.4

Table 1

Groundwater Elevation and Analytical Data

ARCO Service Station #0276 10600 Macarthur Blvd., Oakland, CA

	<u> </u>			1 1	Top of	Bottom		<u> </u>	GRO/			Ethyl-	Total		T	
Well No.	Date	P/ NP	Footnotes/ Comments	TOC (ft MSL)	Screen (ft bgs)	of Screen (ft bgs)	DTW (ft bgs)	GWE (ft MSL)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	рН
MW-3	08/12/2004	NP	0011111101110	61.89	22.00	27.00	30.31	31.58	52	<0.50	<0.50	<0.50	<0.50	<0.50	1.6	6.3
	11/10/2004	NP		61.89	22.00	27.00	31.00	30.89	91	<0.50	<0.50	<0.50	<0.50	<0.50	2.6	6.7
	02/03/2005	NP	ì	61.89	22.00	27.00	26.85	35.04	180	<0.50	<0.50	<0.50	<0.50	<0.50	2.25	6.5
	05/09/2005	-		61.89	22.00	27.00	23.72	38.17		-0.00	-0.00				†	
	08/11/2005			61.89	22.00	27.00	26.84	35.05			-			**		
	11/18/2005			61.89	22.00	27.00	29.82	32.07	**	-		**		**		
MW-4	12/17/2000			55.98	25.00	45.00	29,22	26.76	225		_				T	T = 1
	12/28/2001			55.98	25.00	45.00	27.37	28.61	160	1.2	***			***		
	11/27/2002	NP		55.98	25.00	45.00	29.55	26.43	95						3.7	6.7
	7/22/2003	NP		55.98	25.00	45.00	27.73	28.25	130	<0.50	<0.50	<0.50	<0.50	<0.50	2.9	6.6
	11/07/2003	NP	****	55.98	25.00	45.00	30.41	25.57	59	<0.50	<0.50	<0.50	<0.50	<0.50	2.6	6.5
	02/03/2004	NP		55.98	25.00	45.00	27.01	28.97	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.2	7.1
	05/04/2004	NP	g	61.30	25.00	45.00	26.91	34.39	<100	<1.0	<1.0	<1.0	<1.0	<1.0	2.1	6.5
	08/12/2004	NP		61.30	25.00	45.00	29.76	31.54	58	<0.50	<0.50	<0.50	<0.50	<0.50	2.3	6.4
	11/10/2004	NP		61.30	25.00	45.00	30.40	30.90	69	<0.50	<0.50	<0.50	<0.50	<0.50	2.4	6.6
	02/03/2005	NP	i	61.30	25.00	45.00	26.28	35.02	51	<0.50	<0.50	<0.50	<0.50	<0.50	3.77	6.8
	05/09/2005			61.30	25.00	45.00	23.14	38.16	**	_	-			_	_	
	08/11/2005			61.30	25.00	45.00	26.23	35.07				_	-	***	_	-
	11/18/2005			61.30	25.00	45.00	29.24	32.06	**							
MW-5	12/17/2000	-		55.43	23,50	31.50	28.82	26.61	1,040	_						
	12/28/2001			55.43	23.50	31.50	26.91	28.52	3,200	190	2/4/1900	140	1.9/3.2/2.0			
	11/27/2002	P		55.43	23.50	31.50	29.15	26.28	110				***		1.4	6.4
	7/22/2003	р		55.43	23.50	31.50	27.43	28.00	160	<1.0	<1.0	<1.0	<1.0	110	1.5	6.6
	11/07/2003	Ρ		55.43	23.50	31.50	29.99	25.44	<250	<2.5	<2.5	<2.5	<2.5	120	0.6	6.2
	02/03/2004	Ρ		55.43	23.50	31.50	26.55	28.88	85	<2.5	<2.5	<2.5	<2.5	71	1.7	6.7
	05/04/2004	P	g	60.73	23.50	31.50	26.47	34.26	<250	<2.5	<2.5	<2.5	<2.5	150	0.9	6.2
	08/12/2004	Ρ		60.73	23.50	31.50	29.49	31,24	<250	<2.5	<2.5	<2.5	<2.5	140	1.8	6.3
	11/10/2004	Ρ		60.73	23.50	31,50	30.15	30.58	170	<1.0	<1.0	<1.0	<1.0	150	1.0	6.3
	02/03/2005	P		60.73	23.50	31.50	25.85	34.88	100	<0.50	<0.50	<0.50	<0.50	16	1.65	6.5
	05/09/2005	Р		60.73	23.50	31.50	22.85	37.88	340	<2.5	<2.5	<2.5	<2.5	140	0.87	6.3
	08/11/2005	Р		60.73	23.50	31.50	26.05	34.68	<250	<2.5	<2.5	<2.5	<2.5	160	1.6	6.3
	11/18/2005	Р		60.73	23.50	31.50	29.07	31.66	<250	<2.5	<2.5	<2,5	<2.5	120	1.98	6.3
MW-6	12/17/2000	_		61.21	37,50	56.00	34,61	26.60						-		

Table 1

Groundwater Elevation and Analytical Data

ARCO Service Station #0276 10600 Macarthur Blvd., Oakland, CA

Well No.	Date	P/ NP	Footnotes/ Comments	TOC (ft MSL)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (ft bgs)	GWE (ft MSL)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	рĦ
MW-6	12/28/2001			61.21	37.50	56.00	32.80	28.41								
	11/27/2002		_	61.21	37.50	56.00	35,00	26.21		****		_		**		
	7/22/2003	-		61.21	37.50	56.00	33.17	28.04						 -	****	
	11/07/2003	Р	d, e	61.21	37.50	56.00	35.70	25.51	<500	<5.0	<5.0	<5.0	<5.0	<5.0	2.7	6.9
	02/03/2004	Þ		61.21	37.50	56.00	32.17	29.04	84	<2.5	<2.5	<2.5	<2.5	<2.5	1.9	7.0
	05/04/2004	þ	g	66.65	37.50	56.00	32.07	34.58	<250	<2.5	<2.5	<2.5	<2.5	<2.5	2.0	6.7
	08/12/2004	₽		66.65	37.50	56.00	34.90	31.75	660	<0.50	<0.50	<0.50	<0.50	0.81	1.4	6.9
	11/10/2004	P		66.65	37.50	56.00	35.70	30.95	640	<0.50	<0.50	<0.50	<0.50	0.89	2.6	6.8
*****	02/03/2005	P	ı	66.65	37.50	56.00	31.48	35.17	77	<0.50	<0.50	<0.50	<0.50	<0.50	1.73	7.0
***************************************	05/09/2005			66.65	37.50	56.00	28.37	38.28			-	_		-	_	-
***************************************	08/11/2005	Р		66.65	37.50	56.00	31.40	35.25	630	<0.50	<0.50	<0.50	<0.50	0.77	1.9	6.3
	11/18/2005	-		66.65	37.50	56.00	34.50	32.15			-			47		
MW-7	12/17/2000			58.22	17.50	37.50	19.94	38.28							—	
	12/28/2001			58.22	17.50	37.50	17.29	40.93					_	-		
	11/27/2002	**		58.22	17.50	37.50	21.30	36,92		-					_	 -
	7/22/2003			58.22	17.50	37.50	21.36	36.86						**		
	11/07/2003	P	d	58.22	17.50	37.50	23.76	34.46	3,200	15	<2.5	130	11	53	2.2	6.8
	02/03/2004	P		58.22	17.50	37.50	17.74	40.48	53	<0.50	<0.50	<0.50	0.54	32	1.9	6.4
	02/03/2005	Р		63.54	17.50	37.50	18.13	45.41	61	<0.50	<0.50	<0.50	<0.50	14	3.39	6.5
***************************************	05/09/2005			63.54	17.50	37.50	18.39	45.15		-		_		-	-	T-
	08/11/2005	Р		63.54	17.50	37.50	21.47	42.07	1,500	1.8	<1.0	4.2	1.2	21	2.0	6.3
	11/18/2005			63.54	17.50	37.50	22.41	41.13			_	-				
MW-8	12/17/2000	-	_	53.65	29.00	49.00	27.02	26.63		***					***	
	12/28/2001			53.65	29.00	49.00	24.99	28.66			-			~*		
	11/27/2002	**		53.65	29.00	49.00	27.45	26.20		_		-				
	7/22/2003	-		53.65	29.00	49.00	25.74	27.91						**		
	11/07/2003	Р	<u> </u>	53.65	29.00	49.00	28.27	25.38	<500	<5.0	<5.0	<5.0	<5.0	440	2.6	6.5
	02/03/2004	Р	f	53.65	29.00	49.00	24.80	28.85	170	<12	<12	<12	<12	470	3.0	6.7
	05/04/2004	P	g	58.96	29.00	49.00	24.81	34.15	<1,000	<10	<10	<10	<10	700	3.8	6.4
	08/12/2004	Р		58.96	29.00	49.00	27.72	31.24	<2,500	<25	<25	<25	<25	400	3.4	6.5
	11/10/2004	Р		58.96	29.00	49.00	28.41	30.55	<500	<5.0	<5.0	<5.0	<5.0	480	3.4	6.3
	02/03/2005	P		58.96	29.00	49.00	24.01	34.95	<50	<0.50	<0.50	<0.50	<0.50	45	1.43	6.4
***************************************	05/09/2005	Р	1	58.96	29.00	49.00	21.07	37.89	640	<5.0	<5.0	<5.0	<5.0	440	1.06	6.4

Table 1

Groundwater Elevation and Analytical Data

ARCO Service Station #0276 10600 Macarthur Blvd., Oakland, CA

Well No.	Date	P/ NP	Footnotes/ Comments	TOC (ft MSL)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW	GWE (ft MSL)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (μg/L)	MTBE (µg/L)	DO (mg/L)	рН
MW-8	08/11/2005	þ		58.96	29.00	49.00	24.32	34.64	<500	<5.0	<5.0	<5.0	<5.0	420	5.0	6.1
	11/18/2005	p		58.96	29.00	49.00	27.35	31.61	<500	<5.0	<5.0	<5.0	<5.0	390	3.51	6.4
RW-1	12/17/2000			56.32	36,00	51.00	29.57	26.75							—	T
	12/28/2001		***************************************	56.32	36.00	51.00	27.64	28,68	***					_		
	11/27/2002		***************************************	56.32	36.00	51.00	29.93	26.39						**		-
	7/22/2003		<u></u>	56.32	36.00	51.00	28.09	28.23		_	****	_				
	11/07/2003	Ρ		56.32	36,00	51,00	30.64	25.68	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.1	7.0
	02/03/2004	P	<u> </u>	56.32	36.00	51.00	27.28	29.04	<50	<0.50	<0.50	<0.50	<0.50	<0.50	6,7	7.1
	05/04/2004	Р	g	61.65	36.00	51.00	27.16	34.49	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.4	6.8
	08/12/2004	Р		61.65	36.00	51.00	30.10	31.55	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.2	7.1
	11/10/2004	P	***************************************	61.65	36.00	51.00	30.79	30.86	<100	<0.50	<0.50	<0.50	<0.50	<0.50	5.7	6.9
	02/03/2005	P		61.65	36.00	51.00	26.61	35.04	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.57	7,1
	05/09/2005			61.65	36.00	51.00	23.51	38.14	-	**		-	**	_		
	08/11/2005			61.65	36.00	51.00	26.60	35.05					-			
	11/18/2005	-		61.65	36.00	51.00	29.65	32.00	-	-		-		**	_	
WGR-3	12/17/2000						19.21					****		**		T
7701-0	12/28/2001		ħ									-			 -	†
	11/27/2002	_	**		_		20.60									
	7/22/2003				**		20.77			-					—	<u> </u>
	05/04/2004	Р	g	63.27			19.53	43.74	<50	<0.50	<0.50	<0.50	<0.50	11	1.8	6.5
	08/12/2004	P	3	63.27			22.20	41.07	<50	<0.50	<0.50	<0.50	<0.50	35	2.0	
	11/10/2004	Р		63.27	_		19.98	43.29	<50	<0.50	<0.50	<0.50	<0.50	5.6	0.3	6.3
	02/03/2005	P		63.27			16.91	46,36	<50	<0.50	<0.50	<0.50	<0.50	1.1	2.04	6.5
	05/09/2005			63.27	***	-	17.29	45.98		_			_	***	_	T-
	08/11/2005			63.27			20.88	42.39		_		-	**			
	11/18/2005	****		63.27	***		22.15	41.12			**				<u> </u>	-

Table 1

Groundwater Elevation and Analytical Data

ARCO Service Station #0276 10600 Macarthur Blvd., Oakland, CA

SYMBOLS & ABBREVIATIONS:

-- = Not analyzed/applicable/measured/available

< = Not detected at or above laboratory reporting limit

BTEX = Benzene, toluene, ethylbenzene and xylenes

DO = Dissolved oxygen

DTW = Depth to water in ft bgs

ft bas = feet below around surface

ft MSL = feet above mean sea level

GRO = Gasoline range organics, range C4-C12

GWE = Groundwater elevation measured in ft MSL

mg/L = Milligrams per liter

MTBE = Methyl tert butyl ether

NP = Not Purged prior to sampling

P = Purged prior to sampling

TOC = Top of casing measured in ft MSL

TPH-q = Total petroleum hydrocarbons as gasoline

ug/L = Micrograms per liter

FOOTNOTES:

a = 1.1 DCE; this footnote is no longer applicable

b = 1.2 DCA; this footnote is no longer applicable

c = Chlorobenzene: this footnote is no longer applicable

- d = Sample was originally analyzed within the EPA recommended hold time. Re-analysis for confirmation or dilution was performed past the recommended hold time. Results may still be used for intended purpose.
- e = The sample was diluted due to the presence of high levels of non-target analytes resulting in elevated reporting limits
- f = Discrete peak @ C5 for GRO/TPH-g.
- g = Site was re-surveyed to NAVD' 88 on January 26, 2004.
- h = Well was dry.
- i = Hydrocarbon result for GRO partly due to individual peak(s) in quantitative range.

NOTES:

Beginning in the fourth quarter 2003, the laboratory modified the reported analyte list. TPH-g was changed to GRO. The resulting data may be impacted by the potential of non-TPH-g analytes within the requested fuel range resulting in a higher concentration being reported.

Beginning in the second quarter 2004, the carbon range for GRO was changed from C6-C10 to C4-C12

Groundwater samples were analyzed by EPA method 8015B for GRO and EPA method 8260B for BTEX, fuel oxygenates, ethanol, and PCE.

pH and DO levels are field measurements.

Table 2

Fuel Additives Analytical Data

ARCO Service Station #0276 10600 Macarthur Blvd., Oakland, CA

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (μg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	trans-1,2 DCE (µg/L)	cis-1,2 DCE (μg/L)	VOC (µg/L)	Oxygen (µg/L)	PCE (µg/L)	TCE (µg/L)	Footnotes/ Comments
MW-1	12/17/2000						*****				-	**	_	5.09	**	
***************************************	12/28/2001		****	-					***	-	**			8.8		
	11/27/2002			**			***						_	4.2		
	7/22/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50					6.0		
	11/07/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	_	***				_	3.0		
	05/04/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		_			34	-	
	08/12/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		_	***		4.5	_	A12.00
	11/10/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		-			4.9		
MW-2	11/07/2003	<1,000	<200	110	<5.0	<5.0	28	-						<5.0	-	
	02/03/2004	<500	<100	55	<5.0	<5.0	16	<2.5	<2.5			_		<2.5	_	
	05/04/2004	<500	<100	70	<2,5	<2.5	15	<2.5	<2.5					<2.5		
	08/12/2004	<500	<100	49	<2.5	<2.5	14	<2.5	<2.5					<0.50	-	
	11/10/2004	<200	<40	90	<1.0	<1.0	19	<1.0	<1.0	**		-		<1.0		
	02/03/2005	<100	<20	37	<0.50	<0.50	13	<0.50	<0.50	***		-		<0.50	_	е
	05/09/2005	<100	<20	56	<0.50	<0.50	17	<0.50	<0.50			_	-	<0.50		е
	08/11/2005	<100	<20	50	<0.50	<0.50	8.5	<0.50	<0.50					<0.50		
	11/18/2005	<100	<20	49	<0.50	<0.50	11	<0.50	<0.50	***				<0.50		f
MW-3	12/17/2000			-										158		
•••	12/28/2001		-	_	_					1.5	13	_		310	20	
	11/27/2002												-	110		
····	7/22/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50					80		
	11/07/2003	<100	<20	<0.50	<0.50	<0,50	<0.50			-		_	_	80		
	02/03/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50					110	-	
	05/04/2004	<200	<40	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	_			-	110		**
***************************************	08/12/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50					61	_	
	11/10/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	***	-			99		
	02/03/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50			_		160		е
MW-4	12/17/2000				****									225		
•	12/28/2001				*****		***			_				160	1.2	
	11/27/2002						***		_	**		**		95		
	7/22/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0,50	<0.50	_		-	-	94		
,	11/07/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	**			-	••		68		
	02/03/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50			_	-	83	-	

Table 2

Fuel Additives Analytical Data

ARCO Service Station #0276 10600 Macarthur Blvd., Oakland, CA

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	trans-1,2 DCE (µg/L)	cis-1,2 DCE (µg/L)	VOC (µg/L)	Oxygen (µg/L)	PCE (µg/L)	TCE (µg/L)	Footnotes/ Comments
MW-4	05/04/2004	<200	<40	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0				_	81		
	08/12/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	-				59	-	
······································	11/10/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50					78		
	02/03/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		**	**	**	61		е
MW-5	12/17/2000			_				—	<u> </u>					1,040		
	12/28/2001			-		1	***	***		36	140	1.9, 3.2, 2.0		3,200	190	a,b,c
	11/27/2002	***	1	_			_	—	_				-	110		
	7/22/2003	<200	<40	110	1.4	<1.0	3.2	12	<1.0			_	-	55		
	11/07/2003	<500	<100	120	<2.5	<2.5	6.6					-	_	42		
	02/03/2004	<500	<100	71	<5.0	<5.0	<5.0	12	<2.5	_		-	-	130	***	
	05/04/2004	<500	<100	150	<2.5	<2.5	5.9	8.8	<2.5	-		***	**	36		
	08/12/2004	<500	<100	140	<2.5	<2.5	10	10	<2.5					37		
	11/10/2004	<200	<40	150	1.1	<1.0	9.5	9.8	<1.0	_	-			50	-	
	02/03/2005	<100	<20	16	<0.50	<0.50	0.54	2.7	<0.50	-	-		***	480		e
***************************************	05/09/2005	<500	<100	140	<2.5	<2.5	9.2	10	<2.5				-	78	-	е
	08/11/2005	<500	<100	160	<2.5	<2.5	10	9.6	<2.5	_	-			27	-	
	11/18/2005	<500	<100	120	<2.5	<2.5	9.2	10	<2.5	***	-	***	_	19		f
MW-6	11/07/2003	<1,000	<200	<5.0	<5.0	<5.0	<5.0					_	_	560		
	02/03/2004	<500	<100	<2.5	<5.0	<5.0	<5.0	<2.5	<2.5	***			***	220		
***************************************	05/04/2004	<500	<100	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5					210		
	08/12/2004	<100	<20	0.81	<0.50	<0.50	<0.50	<0.50	<0.50					750	-	
***************************************	11/10/2004	<100	<20	0.89	<0.50	<0.50	<0.50	<0.50	<0.50			***		530		
	02/03/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50				-	85	_	е
	08/11/2005	<100	<20	0.77	<0.50	<0.50	<0.50	<0.50	<0.50	-	-	_		610		
MW-7	11/07/2003	<500	<100	53	<2.5	<2.5	13	-	-					<2.5	_	
	02/03/2004	<100	<20	32	<1.0	<1.0	7.4	<0.50	<0.50			-	_	0.74		
	02/03/2005	<100	<20	14	<0.50	<0.50	3.9	<0.50	<0.50				***	1.6		е
	08/11/2005	<200	<40	21	<1.0	<1.0	4.7	<1.0	<1.0	-				1.0		е
MW-8	11/07/2003	<1,000	<200	440	<5.0	<5.0	18	*****		-	-	_	_	<5.0		
	02/03/2004	<2,500	<500	470	<25	<25	<25	<12	<12		-			<12	_	
	05/04/2004	<2,000	<400	700	<10	<10	21	<10	<10		-		_	12		
***************************************	08/12/2004	<5,000	<1,000	400	<25	<25	<25	<25	<25	_		-	-	1.1		

Table 2

Fuel Additives Analytical Data

ARCO Service Station #0276 10600 Macarthur Blvd., Oakland, CA

Well Number	Date Sampled	Ethanol (μg/L)	TBA (μg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	trans-1,2 DCE (µg/L)	cis-1,2 DCE (µg/L)	VOC (µg/L)	Oxygen (µg/L)	PCE (µg/L)	TCE (µg/L)	Footnotes/ Comments
MW-8	11/10/2004	<1,000	<200	480	<5.0	<5.0	21	<5.0	<5.0		+			8.9	-	
	02/03/2005	<100	<20	45	<0.50	<0.50	1.9	<0.50	<0.50	-				0.59		е
	05/09/2005	<1,000	<200	440	<5.0	<5.0	21	<5.0	<5.0				-	<5.0	-	8
	08/11/2005	<1,000	<200	420	<5.0	<5.0	24	<5.0	<5,0			**		<0.50		e
	11/18/2005	<1,000	<200	390	<5.0	<5.0	23	<5.0	<5.0	-	**		**	4.2		f
RW-1	11/07/2003	<100	<20	<0.50	<0.50	<0.50	<0.50		-					3.1		
	02/03/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50		_		-	0.76		
	05/04/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50				_	1.8		
	08/12/2004	330/<100 d	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50				****	2.9	_	đ
	11/10/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50					5.2		
	02/03/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50					1.7		е
WGR-3	05/04/2004	<100	<20	11	<0.50	<0.50	2.4	<0.50	<0.50	_		_	-	<0.50	-	
	08/12/2004	<100	<20	35	<0.50	<0.50	7.5	<0.50	<0.50	-			<u>-</u>	<0.50	_	
	11/10/2004	<100	<20	5.6	<0.50	<0.50	1.3	<0.50	<0.50	_				<0.50	_	
	02/03/2005	<100	<20	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	_		_		<0.50	-	0

Table 2

Fuel Additives Analytical Data

ARCO Service Station #0276 10600 Macarthur Blvd., Oakland, CA

SYMBOLS & ABBREVIATIONS:

-- = Not analyzed/applicable/measured/available

<= Not detected at or above the laboratory reporting limit.

1.2-DCA = 1.2-Dichloroethane

cis-1,2-DCE = cis-1,2-Dichloroethene

DIPE = Di-isopropyl ether

EDB = 1,2-Dibromoethane

ETBE = Ethyl tert-butyl ether

MTBE = Methyl tert-butyl ether

PCE = Tetrachloroethene

TAME = tert-Amvl methyl ether

TBA = tert-Butyl alcohol

TCE = Trichloroethene

trans-1,2-DCE = trans 1,2-Dichloroethene

VOC = Volatile Organic Compounds

µg/L = Micrograms per Liter

BTEX = Benzene, toluene, ethylbenzene and xylenes

FOOTNOTES:

- a = VOC 1.1 DCE detected at a concentration of 1.9 ug/L.
- b = VOC 1,2 DCA detected at a concentration of 3.2 ug/L.
- c = VOC Chlorobenzene detected at a concentration of 2.0 ug/L.
- d = Ethanol was re-analyzed two days out of holding time and was not detected above a laboratory reporting limit of 100 ug/L.
- e = Calibration verification for ethanol was within method limits but outside contract limits.
- f = Sample for PCE analyzed after holding time expired.

NOTES:

PCE was analyzed using EPA Method 8260B. Samples were analyzed by EPA method 8015B for GRO and EPA method 8260B for BTEX, fuel oxygenates, ethanol, and PCE.

Table 3

Groundwater Gradient Data

ARCO Service Station #0276 10600 Macarthur Blvd., Oakland, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
12/17/2000	South-Southeast	0.003
12/28/2001	Southeast	0.002
11/27/2002	South-Southeast	0.003
07/22/2003	South	0.007
11/07/2003	Southwest	0.002
02/03/2004	South-Southwest	0.002
05/04/2004	South-Southwest	0.003
08/12/2004	South	0.004
11/10/2004	Southwest	0.004
02/03/2005	Southwest	0.003
05/09/2005	South-Southwest	0.004
08/11/2005	South-Southwest	0.007
11/18/2005	Southwest	0.005

Source: The data within this table collected prior to November 2002 was provided to URS by RM and their previous consultants. URS has not verified the accuracy of this information.

ATTACHMENT A FIELD PROCEDURES AND FIELD DATA SHEETS

FIELD PROCEDURES

Sampling Procedures

The sampling procedure for each well consists first of measuring the water level and depth to bottom, and checking for the presence of free phase petroleum product (free product), using either an electronic indicator and a clear TeflonTM bailer or an oil-water interface probe. Wells not containing free product are purged approximately three casing volumes of water (or until dewatered) using a centrifugal pump, gas displacement pump, or bailer. Equipment and purging method used for the current sampling event is noted on the attached field data sheets. During purging, temperature, pH, and electrical conductivity are monitored to document that these parameters are stable prior to collecting samples. After purging, water levels are allowed to partially (approximately 80%) recover. Groundwater samples (both purge and no purge) are collected using a Teflon bailer, placed into appropriate Environmental Protection Agency- (EPA) approved containers, labeled, logged onto chain-of-custody records, and transported on ice to a California State-certified laboratory. Wells with free product are not sampled and free product is removed according to California Code of Regulation, Title 23, Div. 3, Chap. 16, Section 2655, UST Regulations.

WELL GAUGING DATA

Project # 05118 PCZ	Date 11/18/05	Client Avro 276	
Site 10600MacArthurBNd	on Oakland		

	T				,				
	Well		Double	Thickness	Volume of				
	Size	Sheen /	Depth to	of	Immiscibles		PS - 0 - 11	Survey	
Well ID	(in.)	Odor		Immiscible		Depth to water			
Well ID	(111.)	Odor	ridnia (it')	Liquid (ft.)	(ml)	(ft.)	bottom (ft.)	or TOC	
MUI	2					00.44	3	- 10 m	<i>c</i> .
FIWI						29.14	38.01	700	67.0.
MN.Z	4					1766	25.37		
90 W 2							20.34		·
mw-3	2					0000	~ P ~ ~		
W. CO.	_) 				29.82	38.60		<u>5,0,</u>
MWY	2					29-24	47.76	\	1-0
7-1 00 1						21-69	1510		67.0.
MW-S	ц					29.07	46.96		
\$P(CO)			**************************************			2001	وردما		
MUB	2					211.00	12 m 4.0		den 10
01,000	_^			de III. Kalur		<u> રુપાંક્ર</u> ુ	48.49		4.0
T'UM	2.					77111	71 101		lin n
						22.41	36.81		40.
MUR	u					2725	LIT 101	1	
	`			y		27.35	47.07		
RW-1	6					29.65	1-1-0-00-0		4.0.
						2- (-191)	46.62		4.0.
WGR3	૫					22.15	77	L	CTO.
V0 - (· ·	`			· · · · · · · · · · · · · · · · · · ·		26.17	27.02	, , , , , , , , , , , , , , , , , , ,	~ r.O.
								4.50	

				7					
									45.51
									•
							· 17		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
							į		
]								

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

ARCO / BP WELL MONITORING DATA SHEET

BTS#: 💅	51118-A.2	•		Station # Arco	276							
Sampler: [W-11-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	Date: ulges								
Well I.D.:	MW-2			Well Diameter:	2 3 🕖	6 8						
•	Depth: Z	5-37		Depth to Water:	17.66							
Depth to F	ree Produc	xt:		Thickness of Fr	ee Product (fe	et):						
Reference	d to:	SAD	Grade	D.O. Meter (if r	eq'd):	FP HACH						
Purge Metho	Wei) Diameter 1" 2" 3"		ultíplier Y 0.04 0.16 0.37	Well Diameter Multiplier 4" 0.65 6" 1.47 Other radius² * 0.163 Sampling Method: Bailer								
		posable Baile			Disposable Bailer							
		e Air Displaci tric Submersi		Other	Extraction Port							
	- 1	traction Pum		Outon.		*						
	Other:		ust arras plantafaceris									
Top of Scree	n :			a no-purge, confirm t ise, the well must be		below the top						
	5		x 3		Gals.							
	1 Case Volu	ıme (Gals.)	Specified Ve	olumes Calc	ulated Volume							
			Conductivity									
Time	Temp (°F)	pН	(mS or (LS)	Gals. Removed	Observations							
1328	71.4	7.2	599	5								
1330	70.2	6.6	589	10								
1332	69.B	6.5	579	15								
To a final transfer or from						The State of the Control of the Cont						
Did well	dewater?	Yes	®	Gallons actual	y evacuated:	18						
Sampling	g Time: رع	40		Sampling Date: 11 18/05								
Sample I	.D.: 14 W-	ι		Laboratory:	Pace Sequota	Other						
Analyzed	l for:	RO BEEX M	THE DRO Quy's 1,2-	DCA EDB Ellerot	Other: PCK							
D.O. (if 1	req'd):		Pre-purg	e: mg/i	Post-purg	e: 3.23 mg						
O.R.P. (i			Pre-purg									
Blaine 1	Tech Serv	rices, Inc	:. 1680 Roge	rs Ave., San J	ose, CA 9511	12 (408) 573-0559						

ARCO / BP WELL MONITORING DATA SHEET

TS#: @9	1118-PCZ	F-2-2-2-		Station # Avco 216								
ampler:			ŀ	Date: 11 1860								
Vell I.D.:	MW.Z			Well Diameter:	2 3 4 9 6	8						
otal Wel	ا Depth: ا	0.96		Depth to Water:	Z907							
	Free Produc			Thickness of Fra	ee Product (feet):							
Reference	······································	PVI	Grade	D.O. Meter (if re	eq'd): (SI) насн						
	Well Diameter		lultiplier <u>Y</u> 0.04	/cll Diameter Mu 4" 0.4	itiplier 55							
	2* 3"		0.16 0.37	6 ⁸ L.								
urge Metho		Bailer	4.37	Other radius ² * 0.163 Sampling Method: Bailer								
m.5		posable Baile	ः		Disposable Bailer							
		e Air Displac			Extraction Port							
		tric Submersi		Other:								
		traction Pum	p									
T		•	Yfwr 11 in Hotod on	ana muraa aanfirm t	hat water level is belo	su tha tan						
tob of scree	en:			ise, the well must be		w me tob						
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				The state of the s						
	1 Case Volu		x <u>3</u> Specified V	·····	H . Gals.							
			Conductivity		N							
Time	Temp (°F)	pН	(mS or pS)	Gals. Removed	Observations	HIGH AND THE STREET AND THE STREET WAS A TRANSPORTED TO THE STREET WAS A TRANSPORTED TO THE STREET WAS A STRE						
1340	67-5	6-5	822	11-5								
1351	620	(e-3	851	22		- TO 1 - 1999-1 Palamentary and a second sec						
1-35(-	106.7	6.3	865	35								
					1	***************************************						
Did well	dewater?	Yes	<u>@</u>	Gallons actual	ly evacuated:35							
Samplin	g Time: լ և	00		Sampling Date: 11 (1865								
Sample	I.D.: MUJ-	5		Laboratory:	Pace Scqudia	Other						
Analyze	d for:	GRO BEEX N	ATBE DRO OXY 1.2		Other: Ry							
D.O. (if	req'd):		Pre-purg	e: mg/	Post-purge:	1.98						
O.R.P. ((if req'd):		Pre-purg	e: mV	Post-purge:	Į						
Blaine	Tech Ser	vices. In	c. 1680 Roge	rs Ave San J	ose, CA 95112	(408) 573-05						

ARCO / BP WELL MONITORING DATA SHEET

TS#: ₀₅	UIB-PCZ		7 5 5 7 M 7 M 7 M 7 M 7 M 7 M 7 M 7 M 7	Station # A-co 2	16							
ampler: p				Date: ulteles			•					
Vell I.D.:	M W-18			Well Diameter:	2 3 🚯	6 8						
	l Depth: ပျ	787		Depth to Water: 27.35								
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ree Produc	,		Thickness of Free Product (feet):								
Reference		E	Grade	D.O. Meter (if re	eq'd): <u>(</u>	§ н.	ACH					
	Well Diameter 1" 2" 3"	(<u>ultiplier y</u> 0.04 0.16 0.37	4" 0.6 6" 1.4								
urge Metho	od:	Bailer		Sampling Method:	Bailer							
	Positive Elec	posable Baile e Air Displace tric Submersi traction Pum	ement ble	•	Disposable Bailer Extraction Port							
	Other:											
Top of Scree				a no-purge, confirm t vise, the well must be		low the top						
	1 Case Volu	ime (Gals.)	x Specified V		Gals. ulated Volume							
Time	Temp (°F)	pН	Conductivity (mS or uS)	Gals. Removed	Observations							
1414	69.5	6.4	712	13.5								
. ૄધા	69.6	63	736	27								
(421	69.6	6.4	743	40	water the second se	F1 - F1 F1 8 W. Salaman	on has faith the man of Parents					
Did well	dewater?	Yes	®	Gallons actually evacuated: 40								
Samplin	g Time: {५	30		Sampling Date: [1][8]05								
Sample	I.D.: MW-	Ø		Laboratory:	Pace Sequoia	Other_						
Analyze	d for:	TRO BIEX M	ITBE DRO Oxy's L		Other: PE							
D.O. (if	req'd):		Pre-pur	ge: mg/1	Post-purge:	3,5	mg					
O.R.P. (if req'd):		Pre-pur	ge: mV	Post-purge:		m'					
Blaine	Tech Sen	vices. In	c. 1680 Roge	ers Ave., San J	ose, CA 95112	(408) 5	73-055					

BP GEM OIL COMPANY TYPE A BILL OF LADING

BILL OF LADING FOR NON-SOURCE RECORD HAZARDOUS RECOVERED **FROM** PURGEWATER GROUNDWATER WELLS AT BP GEM OIL COMPANY FACILITIES IN THE STATE OF CALIFORNIA. THE NON-HAZARDOUS PURGE- WATER WHICH HAS BEEN RECOVERED FROM GROUND- WATER WELLS IS COLLECTED BY THE CONTRACTOR, MADE UP INTO LOADS OF APPROPRIATE SIZE AND HAULED BY DILLARD ENVIRONMENTAL TO THE ALTAMONT LANDFILL AND RESOURCE RECOVERY FACILITY IN LIVERMORE, CALIFORNIA.

The contractor performing this work is BLAINE TECH SERVICES, INC. (BTS), 1680 Rogers Avenue, San Jose, CA 95112 (phone [408] 573-0555). Blaine Tech Services, Inc. is authorized by BP GEM OIL COMPANY to recover, collect, apportion into loads the Non-Hazardous Well Purgewater that is drawn from wells at the BP GEM Oil Company facility indicated below and deliver that purgewater to BTS. Transport routing of the Non-Hazardous Well Purgewater may be direct from one BP GEM facility to the designated destination point; from one BP GEM facility; from a BP GEM facility to the designated destination point via another BP GEM facility; from a BP GEM facility, or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of BP GEM Oil Company.

This Source Record BILL OF LADING was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the BP GEM Oil Company facility described below:

Arco 276	
Station #	
Description of the Plan	104
Station Address	d, Carloud
Station Address	•
Total Gallons Collected From (Groundwater Monitoring Wells:
90	
added equip.	any other
added equip. rinse water 2	adjustments
TOTAL GALS. RECOVERED 102	loaded onto BTS vehicle # 58
RECOVERED 102	DIS venicie #
BTS event#	time date
7 Po 7	11/00 11/18/00
051118.92	1400 11/18/05
signature (1#///	

REC'D AT	time date
RECD AI	une unc
BTS	
unloaded by	
signature FUNT M	

ATTACHMENT B

LABORATORY PROCEDURES, CERTIFIED ANALYTICAL REPORTS, AND CHAIN-OF-CUSTODY RECORDS

LABORATORY PROCEDURES

Laboratory Procedures

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



13 December, 2005

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

RE: ARCO #0276, Oakland, CA

Work Order: MOK0961

Enclosed are the results of analyses for samples received by the laboratory on 11/21/05 09:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

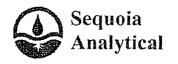
Lisa Race

Senior Project Manager

CA ELAP Certificate #1210

The results in this laboratory report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the BPGCLN Technical Specifications, applicable Federal, State, local regulations and certification requirements as well as the methodologies as described in laboratory SOPs reviewed by the BPGCLN. This entire report was reviewed and approved for release.





URS Corporation [Arco]	Project:ARCO #0276, Onkland, CA	MOK.0961
1333 Broadway, Suite 800	Project Number:G0C20-0004	Reported:
Oakland CA, 94612	Project Manager:Scott Robinson	12/13/05 14:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-2	MOK0961-01	Water	11/18/05 13:40	11/21/05 09:40
MW-5	MOK0961-02	Water	11/18/05 14:00	11/21/05 09:40
MW-8	MOK0961-03	Water	11/18/05 14:30	11/21/05 09:40
TB27611182005	MOK.0961-04	Water	11/18/05 00:00	11/21/05 09:40

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

These samples were received with no custody seals.

Revised report created 12/13/05. Sample date corrected per revised COC.





Project:ARCO #0276, Oakland, CA Project Number:G0C20-0004

Project Number:G0C20-0004
Project Manager:Scott Robinson

MOK0961 Reported: 12/13/05 14:20

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (MOK0961-01) Water	Sampled: 11/18/05 13:40	Received:	11/21/0	5 09:40					,,,,
tert-Amyl methyl ether	11	0.50	ug/l	1	51,02014	12/02/05	12/02/05	EPA 8260B	
Benzene	3.2	0.50		tt	t)	87	u	ft.	
tert-Butyl alcohol	ND	20	11	H	#1	**	н	\$ }	
Di-isopropyl ether	ND	0.50	н	#	#I	"	"	53	
1,2-Dibromoethane (EDB)	ND	0.50	17	te	"	**	**	\$1	
1,2-Dichloroethane	ND	0.50	++	4)	1t	स	**	11	
Ethanol	ND	100	**	11	H	Tř	Ħ	11	
Ethyl tert-butyl ether	ND	0.50	**	n	u	**	Ħ	11	
Ethylbenzene	3.8	0.50	41	0	**	11	11	ŋ	
Methyl tert-butyl ether	49	0.50	47	It	**	**	Ħ	tt.	
Toluene	0.64	0 50	•	11	n	tt	H	31	
Xylenes (total)	1.6	0.50	O.	a	*1	**	Ħ	**	
Gasoline Range Organics (C4-	C12) 990	50	tr	#	21	"	17	15	
Surrogate: 1,2-Dichloroethane-	14	116%	60-	135	"	,,	rt	tr	
MW-5 (MOK0961-02) Water	Sampled: 11/18/05 14:00	Received	: 11/21/0	5 09:40					
tert-Amyl methyl ether	9.2	2.5	ug/i	5	51.02014	12/02/05	12/02/05	EPA 8260B	
Benzene	ND	2.5	**	11	19	11	π	**	
tert-Butyl alcohol	ND	100	#1	It	H	H	77	11	
Di-isopropyl ether	ND	2.5	**	n	17	Ħ	+1	U	
1,2-Dibromoethane (EDB)	ND	2.5	n	II	17	***	17	u	
1,2-Dichloroethane	10	2.5	10	11	17	**	l e	**	
Ethanol	ND	500	**	16	**	17	17	**	
Ethyl tert-butyl ether	ND	2.5	~*	••	n	**	4	**	
Ethylbenzene	ND	2.5	**	10	n	tı	**	**	
Methyl tert-butyl ether	120	2.5	**	+7	n	**	19	**	
Toluene	ND	2.5	+7	**	11	**	19	**	
Xylenes (total)	ND	2.5	**	79	н	Ħ	**	**	
Gasoline Range Organics (C4-C	12) ND	250	**	**		11	**	*	
Surrogate: 1,2-Dichloroethane-		88 %	60	-135	<i>H</i>	Ħ	70	n .	





Project:ARCO #0276, Oakland, CA Project Number: G0C20-0004 Project Manager:Scott Robinson

MOK.0961 Reported: 12/13/05 14:20

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
MW-8 (MOK0961-03) Water	Sampled: 11/18/05 14:30	Received	11/21/0	5 09:40					
tert-Amyl methyl ether	23	5.0	ug/l	10	5L02014	12/02/05	12/02/05	EPA 8260B	
Benzene	ND	5.0	**	π	**	#	**	35	
tert-Butyl alcohol	ND	200	•	ħ	**	ât	**	18	
Di-isopropyl ether	ND	5.0	44	**	**	n	**		
1,2-Dibromoethane (EDB)	ND	5.0	**	Ħ	*	"	ìτ	17	
1,2-Dichloroethane	ND	5.0	**	**	**	"	11	17	
Ethanol	ND	1000	#	11	19	n	IP .	**	
Ethyl tert-butyl ether	ND	5.0	**	**	44	***	II	4	
Ethylbenzene	ND	5.0	19	II.	41	11	If	**	
Methyl tert-butyl ether	390	5.0	17	***	**	n	π	ų	
Toluene	ND	5.0	**	"	n	#1	0	Ħ	
Xylenes (total)	ND	5.0	**	(1	п	tr	ŧŧ	**	
Gasoline Range Organics (C4-C	12) ND	500	~	**	11	11	11	п	
Surrogate: 1,2-Dichloroethane-	14	91%	60	-135	*	17	N	и	





Project:ARCO #0276, Oakland, CA Project Number:G0C20-0004 Project Manager:Scott Robinson MOK0961 Reported: 12/13/05 14:20

EPA 8010 list Volatile Organic Compounds by EPA 8260B Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (MOK0961-01) Water	Sampled: 11/18/05 13:40	Received:	11/21/05 (9:40					BU
Tetrachloroethene	ND	0.50	ug/l	1	5L05002	12/05/05	12/05/05	EPA 8260B	
Surrogate: Dibromofluoromethan	re	91%	65-13	0	#	н	"	Is	
Surrogate: 1,2-Dichloroethane-de	‡	106 %	60-13	.5	**	**	**	"	
Surrogate: Toluene-d8		112%	70-12	0	н	tr	"	,,	
Surrogate: 4-Bromofluorobenzene	e	103 %	70-12	0	н	n	*	н	
MW-5 (MOK0961-02) Water	Sampled: 11/18/05 14:00	Received:	11/21/05	9:40					BU
Tetrachloroethene	19	0.50	ug/l	1	5L05002	12/05/05	12/05/05	EPA 8260B	
Surrogate: Dibromofluoromethan	ie	88 %	65-13	0	"	н	n	H	
Surrogate: 1,2-Dichloroethane-d-	1	102 %	60-13	5	н	#	#	D .	
Surrogate: Toluene-d8		94 %	70-12	0	"	N	"	n	
Surrogate: 4-Bromofluorobenzen	e	91%	70-12	0	"	"	17	n	
MW-8 (MOK0961-03) Water	Sampled: 11/18/05 14:30	Received	11/21/05	9:40					BU
Tetrachloroethene	4.2	0.50	ug/l	1	5L05002	12/05/05	12/05/05	EPA 8260B	
Surrogate: Dibromofluoromethan	ie	88 %	65-13	0	11	n	и	n	
Surrogate: 1,2-Dichloroethane-d-	4	102 %	60-13	5	t	"	II	π	
Surrogate: Toluene-d8		93 %	70-12	0	n	u	ı	ar .	
Surrogate: 4-Bromofluorobenzen	e	90 %	70-12	0	н	rr	"	#	





Project:ARCO #0276, Oakland, CA

Project Number: G0C20-0004
Project Manager: Scott Robinson

MOK 0961 Reported: 12/13/05 14:20

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5L02014 - EPA 5030B P/T /	EPA 8260B									
Blank (5L02014-BLK1)				Prepared	& Analyz	ed: 12/02/)5			
tert-Arnyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	14							
tert-Butyl alcohol	ND	20	н							
Di-isopropyl ether	ND	0.50	II							
1,2-Dibromoethane (EDB)	ND	0.50	**							
1,2-Dichloroethane	ND	0.50	**							
Ethanol	ND	100	U							
Ethyl tert-butyl ether	ND	0.50	**							
Ethylbenzene	ND	0.50	н							
Methyl tert-butyl ether	ND	0.50	**							
Toluene	ND	0.50	н							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C4-C12)	ND	50	**							
Surrogate: 1.2-Dichloroethane-d4	4.59	***************************************	"	5 00		92	60-135			
Laboratory Control Sample (SL02014	-BS1)			Prepared	& Analyz	ed: 12/02/	05			
tert-Amyl methyl ether	16.0	0.50	ug/l	15.0		107	80-115			
Benzene	5 24	0.50	*	5.16		102	65-115			
tert-Butyl alcohol	179	20	n	143		125	75-150			
Di-isopropyl ether	16.1	0.50	n	15.1		107	75-125			
1,2-Dibromoethane (EDB)	18.9	0.50	11	14.9		127	85-120			13
1,2-Dichloroethane	16.6	0.50	11	14.7		113	85-130			
Ethanol	188	100	п	142		132	70-135			
Ethyl tert-butyl ether	16.2	0.50	0	15.0		108	75-130			
Ethylbenzene	7.98	0.50	lr .	7.54		106	75-135			
Methyl tert-butyl ether	7.25	0.50	п	7.02		103	65-125			
Toluene	398	0.50	п	37.2		107	85-120			
Xylenes (total)	43.7	0.50	0	412		106	85-125			
Gasoline Range Organics (C4-C12)	542	50	U	440		123	60-140			
Surrogate: 1.2-Dichloroethane-d4	4,96		11	5.00		99	60-135			





Project:ARCO #0276, Oakland, CA Project Number:G0C20-0004 Project Manager:Scott Robinson MOK0961 Reported: 12/13/05 14:20

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5L02014 - EPA 5030B P/T / E	PA 8260B			** ** *********************************						**************************************
Matrix Spike (SL02014-MS1)	Source: M	OK0961-02		Prepared	& Analyz	ed: 12/02/	05			
tert-Amyl methyl ether	117	2.5	ug/l	113	9.2	95	80-115			
Benzene	36.0	2.5	11	38.7	ND	93	65-115			
tert-Butyl alcohol	1090	100	**	1070	ND	102	75-120			
Di-isopropyl ether	109	2.5	**	113	1.2	95	75-125			
1,2-Dibromoethane (EDB)	122	2 5	28	112	ND	109	85-120			
1,2-Dichloroethane	117	2.5	\$1	110	10	97	85-130			
Ethanol	1120	500	n	1060	ND	106	70-135			
Ethyl tert-butyl ether	105	2 5	17	113	ND	93	75-130			
Ethylbenzene	49.0	2 5	11	56.6	ND	87	75-135			
Methyl tert-butyl ether	167	2.5	u	52.6	120	89	65-125			
Toluene	263	2.5	н	279	ND	94	85-120			
Xylenes (total)	267	2.5	n	309	ND	86	85-125			
Gasoline Range Organics (C4-C12)	3870	250	ìř	3300	240	110	60-140			
Surrogate: 1,2-Dichloroethane-d4	5.74	······	**	5.00		115	60-135			
Matrix Spike Dup (5L02014-MSD1)	Source: M	OK0961-02		Prepared	& Analyze	ed: 12/02/0	05			
tert-Amyl methyl ether	117	2.5	ug/I	113	9.2	95	80-115	0	15	
Benzene	34 0	2.5	H	38.7	ND	88	65-115	6	20	
tert-Butyl alcohol	1230	100	11	1070	ND	115	75-120	12	25	
Di-isopropyl ether	106	2 5	11	113	1.2	93	75-125	3	15	
1,2-Dibromoethane (EDB)	120	2.5	**	112	ND	107	85-120	2	15	
1,2-Dichloroethane	115	25	"	110	10	95	85-130	2	20	
Ethanol	1200	500	7	1060	ND	113	70-135	7	35	
Ethyl tert-butyl ether	104	25	**	113	ND	92	75-130	1	25	
Ethylbenzene	52.5	2.5	**	56.6	ND	93	75-135	7	15	
Methyl tert-butyl ether	172	2.5	**	52.6	120	99	65-125	3	20	
Toluene	243	2.5	**	279	ND	87	85-120	8	20	
Xylenes (iotal)	293	2.5	**	309	ND	95	85-125	9	20	
Gasoline Range Organics (C4-C12)	3660	250	4	3300	240	104	60-140	6	25	
Surrogate: 1.2-Dichloroethane-d4	5.24		"	5.00	·····	105	60-135			





Project:ARCO #0276, Oakland, CA Project Number:G0C20-0004 Project Manager:Scott Robinson MOK.0961 Reported: 12/13/05 14:20

EPA 8010 list Volatile Organic Compounds by EPA 8260B - Quality Control Sequoia Analytical - Morgan Hill

		Reporting	** .	Spike	Source	0.170.000	%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 5L05002 - EPA 5030B P/T / EPA 8	3260B			····		***************************************			***************************************	
Blank (5L05002-BLK1)				Prepared of	& Analyze	:d: 12/05/	95		·	***************************************
Tetrachloroethene	ND	050	ug/l							
Surrogate: Dibromofluoromethane	2.17		"	2.50		87	65-130			
Surrogate: 1,2-Dichloroethane-d4	2.47		"	2.50		99	60-135			
Surrogate: Toluene-d8	2.31		"	2.50		92	70-120			
Surrogate: 4-Bromofluorobenzene	2.22		ir	2.50		89	70-120			
Laboratory Control Sample (5L05002-BS1)				Prepared &	& Analyze	ed: 12/05/0	05			
Tetrachloroethene	10.8	0.50	սց/ใ	10.0		108	85-125			
Surrogate: Dibromofluoromethane	2.24		rr	2.50		90	65-130			
Surrogate: 1,2-Dichloroethane-d4	2.59		rt	2.50		104	60-135			
Surrogate: Toluene-d8	2.38		n	2.50		95	70-120			
Surrogate: 4-Bromofluorobenzene	2.33		H	2.50		93	70-120			
Laboratory Control Sample Dup (5L05002-B	SD1)			Prepared a	& Analyze	ed: 12/05/0	05			
Tetrachloroethene	10.2	0.50	ug/i	10.0	······································	102	85-125	6	15	
Surrogate: Dibromofluoromethane	2.27		н	2.50		91	65-130			
Surrogate: 1.2-Dichloroethane-d4	2.56		*	250		102	60-135			
Surrogate: Toluene-d8	2.36		11	2.50		94	70-120			
Surrogate: 4-Bromofluorobenzene	2.31		10	2.50		92	70-120			





URS Corporation [Arco]	Project:ARCO #0276, Onkland, CA	MOK.0961
1333 Broadway, Suite 800	Project Number:G0C20-0004	Reported:
Oakland CA, 94612	Project Manager:Scott Robinson	12/13/05 14:20

Notes and Definitions

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

Chain of Custody Record

Project Name: Analytical for QMR sampling

BP BU/AR Region/Enfos Segment:

BP > Americas > West Coast > Retail > WCBU > CA > Central > 276 > HistoricalBL

State or Lead Regulatory Agency:

California Regional Water Quality Control Board - San Frt

Requested Due Date (mm/dd/yy): 10 Day TAT

Page of 1

On-site Time: 1244	Temp: 70 F
Off-site Time: (455	Tenip: 79 F
Sky Conditions: 4 leav	
Meteorological Events: howe	
Wind Speed:	Direction:

Lab Name: Sequoia		BP/AR Facility No	:	276										Cons	ultant	/Cont	racte	or:	1	URS				
Address: 885 Jarvis Drive		BP/AR Pacility Ad	iress	106	00 M	lacar	thur	Blve	1.,0	aklar	ıd, C	A 94	605	Addı	ess:					ray, Suite 800				
Morean Hill, CA 95037		Site Lat/Long:		37.74	255	/-1/	2.15	13											_	94612	12 D: 38487009 Scott Robinson 10.874.3268 11 with BDF (@urscorp.com 1 Company MOROGO Sample Point Lav/Long and REVISED Lt			
Lab PM: Lisa Race / Jamshid Kekobad		California Global I	D No	.: 1	060	010	0082	!																
Tele/Fax: 408.782.8156 / 408.782.6308		Enfos Project No.:		G0C	20-0	004								Cons	ultant						nson	<u> </u>		
BP/AR PM Contact: Paul Supple		Provision or RCOP	:	Provi	sion										Pax:			_		0/510.874.3268				
Address: P.O. Box 6549		Phase/WBS:	04 -	Mon/	Ren	ied b	y Na	itura	Att	enua	tion									Level 1 with BDF				
Moraga, CA 94570	Ì			Anal																osper@urscorp.com				
Tele/Fax: 925.299.8891 / 925.299.8872		Cost Element:	05 -	Subc						,					ice to:		llan	tic R	tich.	ifield Company				
Lab Bottle Order No: 276 M	latrix				Pr	eser	vati	ye.		<u> </u>				es(er	Ans	lysis			_{	4 . m L m C	101			
Item Sample Description Lelip Helip Lelip Lel	Wates/Liquid Air	Laboratory No.	No. of Containors	Unpreserved	H,SO,	HNO,	HCI	Methanol		3RO/3TEK (8260)	MTBR, TAMB, ETBR DIPS, TBA (\$260)	EDB, 1,2-DCA (8260)	Gthanol (\$260)	PCB (8010)						Sample Point	Lat/Long	Þη¢		
1 MU-Z 1340 MIKOS	 		6				1			X	^	٨.		1										
2 MU-5 1400 1	*		6		-		1			1	9	X	X	4							·····			
3 MJB 1430	1		6				1			A	٨	٠, ٨	Ň	1		_ _	<u>.</u>	4	_					
4 7327611189,005	<u> </u>		<u>2</u>				ユ									4	4	_		on hole				
5																_		_	_					
6																								
7			П		-												┸					;		
8				П													-							
9																								
	H											•						\top						
Sampler's Name: P-Coruzh		Relinqu	lishe:	By/	LIDA.	lintio	n			D:	a(o	Ţi	ELC			Ac	cepte	ed By	y / A	ffilistlon.	Date	Time		
Sampler's Company: (\$7)		PUTON								Ш	f los	15	45	-4.5	ء سخت			\leq	SA	YRE COSTOSIN	148/65	1545		
Shipment Date:																						 		
Shipment Method:											[
Shipment Tracking No:									-		ل			<u> </u>					******		1	<u> </u>		
Special Instructions:		2					···																	
Custody Seals In Place Yes No Ter	mp Blar	ık Yes K No					Coc	ler T	<u> Fem</u>	pera	ture	on R	ecei	pt	C	F/C		า		Blank Yes † No				

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: URS REC. BY (PRINT) MARCOS WORKORDER: MOK 691		,	DATE REC'D AT LAB: TIME REC'D AT LAB: DATE LOGGED IN:	9:48	-65	, .	//	DRINKING V	TER YES NO
CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE#	DASH #	CLĮENT ID .	CONTAINER DESCRIPTION	PRESERV ATIVE	рH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
Custody Seal(s) Present / Absent Intact / Broken*			1V//7-5						
2. Chain-of-Custody Present / Absent*				`	, ,	£		•	
3. Traffic Reports or Packing List: Present 7 Absent		*	,	,			<u> </u>		
4. Airbill: Alrbill / Sticker. Present / Absent								<i>,</i>	
5. Airbill #:									
6. Sample Labels: Present/ Absent		<u> </u>	,	`		•	<u> </u>		· · · · · · · · · · · · · · · · · · ·
7. Sample IDs: Listed Not Listed on Chain-of-Custody		 					1.00		
8. Sample Condition: Intect/ Broken* / Leaking*			7 -	- 7	<i>\</i> .			,	
9. Does information on chain-of-custody,				()			<u> </u>		
traffic reports and sample labels agree? (Yes)/ No*							<u> </u>		
10. Sample received within hold time?	4.		Ge!	A	\ \			—	
11. Adequate sample volume				1771				٠.	
received? (Yes / No* 12. Proper preservatives used? (Yes) / No*		 		4.			 -	·	
13. Trip Blank / Temp Blank Received		.,							
(circle which, if yes) . (Yes) No*								,	
14. Read Temp: 3.5	ļ	 						1	
Gorrected Temp: 5.5 is corrected temp 4 +/-2°C? Ves / No**	-	/		•			,,,		
(Acceptance range for samples regulding thermal pres.)				1		-			
**Exception (if any): METALS / DFF ON ICE				·		\$			
or Problem COC		a response	CONTACT PROJECT N	HE INTERNATION OF THE	-250-278-2745-1	चेत्रं स्थान स्थान	1	own programme	en en montalità de la company de la comp

SRL Revision 7 Replaces Rev 5 (07/13/04) Filective 07/19/05

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ATTACHMENT C

HISTORICAL GROUNDWATER DATA

Table 1
Historical Groundwater Elevation and Analytical Data
Halogenated Volatile Organic Compounds (EPA method 8010 or 8240)
1995-Present**

17 IF		TOC					Tetra-	Tri-	trans-	-1-10		D:	1/27
Well Number	Date Gauged	Elevatio n (ft MSL)	Depth to Water (feet)	FP Thickness (ft MSL)	Groundwate r Elevation (ft MSL)	Date Sampled	chloro- ethene (PCE) (µg/L)	chloro- ethene (TCE) (µg/L)	1,2- Dichloro- ethene (µg/L)	cis-1,2- Dichloro- ethene (µg/L)	Freon 12 (µg/L)	Oxygen (mg/L)	Purged/Not Purged (P/NP)
MW-1	03-10-95	55.92	26,26	ND	29.66	03-10-95	170	<		<1			
l.	06-05-95	55.92	25.71	ND	30.21	06-05-95	210	<5		<5			
	08-29-95	55.92	28.44	ND	27.48	08-29-95	130	<1		<1			
	11-16-95	55.92	30.85	ND	25.07	11-16-95	45	<1		<1	<1		
	02-28-96	55.92	24.99	ND	30.93	02-28-96	97	<1	<1	<u>-</u> </td <td></td> <td></td> <td></td>			
	05-28-96	55.92	24.92	ND	31.00	05-28-96	160	<5	<5	<5			
	08-19-96	55.92	28.04	ND	27.88	08-19-96	77	<1	<1	<1			
	11-21-96	55.92	30.19	ND	25.73	11-21-96	30	<Î	i>	1>			
	03-26-97	55.92	24.90	ND	31.02	03-26-97	66	<1	<1	<1			
	05-20-97	55.92	26.99	ND	28.93	05-20-97	36	<0.5	<0.5	< 0.5			
	08-18-97	55.92	29.98	ND	25.94	08-18-97	11	<0.5	<0.5	< 0.5			
	-11-17-97	55.92	31.72	ND	24.20			for Halogena			npounds		
t .	12-02-99		Not surveyed	•	_,,_,			: well was ma					
MW-2	03-10-95	55.10	13.98	ND	41.12	03-11-95	<1	<1		<1			
	06-05-95	55.10	15.65	ND	39.45	06-05-95	<i< td=""><td>i></td><td></td><td>< </td><td></td><td></td><td></td></i<>	i>		<			
	08-29-95	55.10	17.14	ND	37.96	08-29-95	<5	<5	**	<5			
	11-16-95	55.10	Not surveyed				lot surveyed	: well was ina	ccessible				
MW-2	02-28-96	55.10	12.46	ND	42,64	02-28-96	<1	<1	<1	<1			
	05-28-96	55.10	15.23	ND	39.87	05-28-96	<1	<1	<1	<1			
MW-2	08-19-96	55.10	16.84	ND	38.26	08-21-96	<1	<1	<i< td=""><td><1</td><td></td><td></td><td></td></i<>	<1			
	11-21-96	55.10	15.44	ND	39.66	11-21-96	<1	<1	<1	<1			
	03-26-97	55.10	15.73	ND	39.37	03-26-97	<10^	<10^	<10^	<10^			
	05-20-97	55.10	16.07	ND	39.03	05-20-97	^</td <td><1^</td> <td><1^</td> <td><1^</td> <td></td> <td></td> <td></td>	<1^	<1^	<1^			
	08-18-97	55.10	17.28	ND	37.82	08-18-97	<5^	<5^	<5^	<5^			
	11-17-97	55.10	16.75	ND	38.35		lot analyzed	for Halogena	ted Volatile (Organic Cor	npounds		
	12-02-99	55.10	Not surveyed				•	not on sampl		_	•		

Table 1
Historical Groundwater Elevation and Analytical Data
Halogenated Volatile Organic Compounds (EPA method 8010 or 8240)
1995-Present**

							Tetra-	Tri-	trans-				
Well		TOC	Depth to	75.51.1	Groundwate	***	chloro-	chloro-	1,2-	cis-1,2-	Freon	Dissolved	Purged/No
	Date	Elevatio	Water	FP Thickness	r Elevation	Date	ethene	ethene	Dichloro-	Dichloro-	12	Oxygen	Purged
	Gauged	n (ft	(feet)	(ft MSL)	(ft MSL)	Sampled	(PCE)	(TCE)	ethene	ethene	(μg/L)	(mg/L)	(P/NP)
Number	•	MSL)					(μg/L)	(μg/L)	(μg/L)	(μg/L)			
MW-3	03-10-95	56.55	26.74	ND	29.81	03-11-95	1700	<10		<10			
MW-3	06-05-95	56.55	26.34	ND	30.21	06-05-95	2500	<20		<20			
MW-3	08-29-95	56.55	29.15	ND	27.40	08-29-95	1600	<20		<20			
MW-3	11-16-95	56.55	31.50	ND	25.05	11-16-95	1100	<20		<20	<20		
MW-3	02-28-96	56.55	25.32	ND	31.23	02-28-96	1100	<10	<10	<10			
MW-3	05-28-96	56.55	25.46	ND	31.09	05-28-96	1700	<20	<20	<20			
MW-3	08-19-96	56.55	28.71	ND	27.84	08-19-96	1200	<20	<20	<20			
MW-3	11-21-96	56.55	30.85	ND	25.70	11-21-96	710	<20^	<20^	<20^			
MW-3	03-26-97	56.55	25.36	ND	31.19	03-26-97	710	<40^	<40^	<40^			
MW-3	05-20-97	56.55	27.61	ND	28.94	05-20-97	800	<25^	<25^	<25^			
MW-3	08-18-97	56.55	30.62	ND	25.93	08-18-97	420	<5^	<5^	<5^			
MW-3	11-17-97	56.55	32.40	ND	24.15	11-17-97 1	lot analyzed	for Halogena	ted Volatile (Organic Cor	npounds		
MW-3	12-02-99	56.55	30.75	ND	25.80	12-02-99	210*	<0.5*	<0.5*	<0.5*	`	0.47	NP
MW-4	03-10-95	55.98	26.22	ND	29.76	03-11-95	2600	<20		<20			
MW-4	06-05-95	55.98	25.79	ND	30.19	06-05-95	3100	<20		<20			
MW-4	08-29-95	55.98	28.56	ND	27.42	08-29-95	2900	<20		<20			
MW-4	11-16-95	55,98	31.00	ND	24.98	11-16-95	2100	<20		<20	<20		
MW-4	02-28-96	55.98	24.77	ND	31.21	02-28-96	2400	<20	<20	<20			
MW-4	05-28-96	55.98	24.91	ND	31.07	05-28-96	2700	<20	<20	<20			
MW-4	08-19-96	55.98	28.17	ND	27.81	08-19-96	2600	<20	<20	<20			
MW-4	11-21-96		30.30	ND	25.68	11-21-96	1100	<20^	<20^	<20^			
MW-4	03-26-97		24.80	ND	31.18	03-26-97	1900	<40^	<40^	<40^			
MW-4	05-20-97	55.98	27.03	ND	28.95	05-20-97	1600	<50^	<50^	<50^			
MW-4	08-18-97	55.98	30.10	ND	25.88	08-18-97	600	<125^	<125^				
	11-17-97	55.98	31.84	ND	24.14			for Halogena		Organic Cor	npounds		
	12-02-99		30.20	ND	25.78	12-02-99	320*	<0.5*	<0.5*	<0.5*		1.03	NP

X:\x_env_waste\BP GEM\sites\Scott Robinson\Paul Supple\0276\276 Delta's Files\HISTORICAL DATA XLS\0276q499.x/s Recreated from electronic data provided by Pinnacle

Table 1
Historical Groundwater Elevation and Analytical Data
Halogenated Volatile Organic Compounds (EPA method 8010 or 8240)
1995-Present**

Well Number	Date Gauged	TOC Elevatio n (ft MSL)	Depth to Water (feet)	FP Thickness (ft MSL)	Groundwate r Elevation (ft MSL)	Date Sampled	Tetra- chloro- ethene (PCE) (µg/L)	Tri- chloro- ethene (TCE) (µg/L)	trans- 1,2- Dichloro- ethene (µg/L)	cis-1,2- Dichloro- ethene (µg/L)		Oxygen	Purged/Not Purged (P/NP)
3.437.5	03-10-95	55.43	25.62	ND	29.81	03-10-95	270	<5	- W W.	<5			
	06-05-95	55.43	25.30	ND	30.13	06-05-95	310	<5		<5			
	08-29-95	55.43	28.21	ND	27.22	08-29-95	240	<5		<5			
i E	11-16-95	55.43	30.63	ND		11-16-95	940	<5		<5	<5		
	02-28-96	55.43			24.80				 -10	<10			
l l	05-28-96		24.07	ND ND	31.36	02-28-96	1100	<10 <5	<10	<5			
l .	03-26-90	55.43	24.42		31.01	05-28-96 08-21-96	360	<1	<5 -1				
	11-21-96	55.43 55.43	27.82 29.92	ND ND	27.61	11-21-96	150 1900	<20^	<1 <20^	2 <20^			
1	03-26-97	55.43 55.43	29.92	DN	25.51 31.21	03-26-97	270	<10^	<10^	<10^			
	05-20-97	55.43	26.60	ND		05-20-97	290	<5^	<5^	<5^			
	03-20-97	55.43	20.60 NR	ND ND	28.83 NR	03-20-97	290	~ 3···	~J.,				
i E	11-17-97	55.43 55.43	Not surveyed	עא	IVIC			for Halogena			annunde		
l l	12-02-99	55.43	29.84	ND	25.59	12-02-99	46*	<0.5*	<0.5*	>1gaine eoi <0.5*		0.53	P
	03-10-95	61.21	31.54	ND	29.67	03-11-95	1300	<20		<20		0.55	
	06-05-95	61.21	31.15	ND ND	30.06	06-05-95	2000	<20 <20		<20			
ı	08-29-95	61.21	34.03	ND ND	27.18	08-29-95	1300	<20		<20			
	11-16-95	61.21	36.40	ND	24.81	11-16-95	1300	<20		<20	<20		
1	02-28-96	61.21	30.18	ND	31.03	02-28-96	960	<20	<20	<20	-20		
l .	05-28-96	61.21	30.18	ND	30.92	05-28-96	970	<20	<20	<20			
l i	03-20-90	61.21	33.54	ND	27.67	03-20-90	820	<20	<20 <20	<20			
	11-21-96	61.21	35.70	ND ND	25.51	11-21-96	680	<20^	<20^	<20^			
E	03-26-97	61.21	30.15	ND	31.06	03-26-97	830	<40^	<40^	<40^			
ŧ .	05-20-97	61.21	32.40	ND	28.81	05-20-97	270	<5^	<5^	<5^			
I	03-20-97	61.21	35.47	ND	25.74	03-20-97	420	<62.5^	<62.5^				
I .	11-17-97	61.21	37.25	ND	23.74			for Halogena			nnounde		
	12-02-99	61.21	35.55	ND	25.66		•	not on sampl		~	ripoutida		

Table 1
Historical Groundwater Elevation and Analytical Data
Halogenated Volatile Organic Compounds (EPA method 8010 or 8240)
1995-Present**

Date	TOC					Tetra-	Tri-	trans-				
Date		Depth to		Groundwate	- .	chloro-	chloro-	1,2-	cis-1,2-	Freon	Dissolved	Purged/Not
	Elevatio	Water	FP Thickness	r Elevation (ft MSL)	Date Sampled	ethene (PCE)	ethene	Dichloro-	Dichloro-	12	Oxygen	Purged
Gauged	n (ft	(feet)	(ft MSL)				(TCE)	ethene	ethene	(µg/L)	(mg/L)	(P/NP)
	MSL)					(μg/L)	(μg/L)	(μg/L)	(μg/L)			
03-10-95	58.22	17.69	ND^^	40.53	03-11-95 N	Not sampled	: floating prod	uct entered th	ne well durn	ng purgii	ng	
			ND		06-05-95	<10	<10		<10		_	
						<10	<10		<10	- -		
					11-16-95	<20	<20		<20	<20		
						<10	<10	<10	<10			
						<10	<10	<10	<10			
				36.38	08-21-96	<1	<1	<1	<1			
				38.64	11-21-96	<10^	<10^	<10^	<10^			
					03-26-97	<20^	<20^	<20^	<20^			
					05-20-97		<10^	<10^	<10^			
					08-18-97	<10^	<10^	<10^	<10^			
					11-17-97 N	Vot analyzed	i for Halogena	ted Volatile (Organic Cor	npounds		
12-02-99		20.92	ND	37.30					•	•		
03_10_05	53 <i>6</i> 5	<i>7</i> 3.60	ND	30.05	03-10-95	<1	<1		<1			
									=			
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									J. Danie O.			
	08-19-96 11-21-96 03-26-97 05-20-97 08-18-97 11-17-97 12-02-99 03-10-95 06-05-95 08-29-95 11-16-95 02-28-96 05-28-96 01-21-96 03-26-97 05-20-97 08-18-97 11-17-97	06-05-95 58.22 08-29-95 58.22 11-16-95 58.22 02-28-96 58.22 05-28-96 58.22 08-19-96 58.22 11-21-96 58.22 03-26-97 58.22 05-20-97 58.22 08-18-97 58.22 11-17-97 58.22 11-17-97 58.22 12-02-99 58.22	MSL) 03-10-95	03-10-95 58.22 17.69 ND^^ 06-05-95 58.22 19.68 ND 08-29-95 58.22 21.70 ND 11-16-95 58.22 23.02 ND 02-28-96 58.22 16.54 ND 05-28-96 58.22 19.29 ND 08-19-96 58.22 21.84 ND 11-21-96 58.22 19.58 ND 03-26-97 58.22 19.67 ND 05-20-97 58.22 20.18 ND 08-18-97 58.22 22.21 ND 11-17-97 58.22 20.85 ND 12-02-99 58.22 20.85 ND 12-02-99 58.22 20.92 ND 03-10-95 53.65 23.48 ND 08-29-95 53.65 23.48 ND 08-29-95 53.65 22.48 ND 01-16-95 53.65 22.62 ND 05-28-96 53.65 22.16 ND 05-28-96 53.65 22.16 ND 05-28-96 53.65 22.62 ND 08-19-96 53.65 22.42 ND 03-26-97 53.65 22.42 ND 03-26-97 53.65 22.42 ND 03-26-97 53.65 22.42 ND 08-18-97 53.65 22.42 ND 08-18-97 53.65 22.42 ND 08-18-97 53.65 22.42 ND 08-18-97 53.65 22.48 ND	03-10-95	03-10-95	03-10-95 58.22 17.69 ND^ 40.53 03-11-95 Not sampled 06-05-95 58.22 19.68 ND 38.54 06-05-95 <10 08-29-95 58.22 21.70 ND 36.52 08-29-95 <10 11-16-95 58.22 23.02 ND 35.20 11-16-95 <20 02-28-96 58.22 16.54 ND 41.68 02-28-96 <10 05-28-96 58.22 19.29 ND 38.93 05-28-96 <10 08-19-96 58.22 19.29 ND 38.93 05-28-96 <10 08-19-96 58.22 19.58 ND 36.4 11-21-96 <10^ 03-26-97 58.22 19.58 ND 38.64 11-21-96 <10^ 03-26-97 58.22 19.67 ND 38.55 03-26-97 <20^ 05-20-97 58.22 20.18 ND 38.04 05-20-97 <10^ 08-18-97 58.22 20.18 ND 36.01 08-18-97 <10^ 11-17-97 58.22 20.85 ND 37.37 11-17-97 Not analyzed 12-02-99 58.22 20.92 ND 37.30 12-02-99 Not sampled 03-10-95 53.65 23.48 ND 30.17 06-05-95 <1 06-05-95 53.65 23.48 ND 30.17 06-05-95 <1 06-22-96 53.65 22.16 ND 31.49 02-28-96 3 02-28-96 53.65 22.16 ND 31.49 02-28-96 3 05-28-96 53.65 22.62 ND 31.03 05-28-96 <1 08-29-95 53.65 22.62 ND 31.03 05-28-96 <1 08-29-95 53.65 22.62 ND 31.03 05-28-96 <1 08-19-96 53.65 22.62 ND 31.03 05-28-96 <1 08-19-96 53.65 22.42 ND 31.23 03-26-97 <1 08-19-96 53.65 22.42 ND 31.23 03-26-97 <1 08-29-97 53.65 22.44 ND 28.81 05-20-97 <0.5 08-18-97 53.65 28.03 ND 25.62 08-18-97 <5 11-17-97 53.65 29.16 ND 24.49 11-17-97 Not analyzed	03-10-95 58.22 17.69 ND ^{ΛΛ} 40.53 03-11-95 Not sampled: floating prod 06-05-95 58.22 19.68 ND 38.54 06-05-95 <10 <10 08-29-95 58.22 21.70 ND 36.52 08-29-95 <10 <10 11-16-95 58.22 23.02 ND 35.20 11-16-95 <20 <20 02-28-96 58.22 16.54 ND 41.68 02-28-96 <10 <10 05-28-96 58.22 19.29 ND 38.93 05-28-96 <10 <10 06-10 08-19-96 58.22 19.58 ND 36.43 08-21-96 <1 <1 11-21-96 58.22 19.58 ND 38.64 11-21-96 <10 <10 03-26-97 58.22 19.67 ND 38.53 03-26-97 <20 ^20 ^20 ^20 ^20 ^20 ^20 ^20 ^20 ^20 ^	MSL (µg/L) (µg/L) (µg/L) (µg/L) (µg/L)	MSL	MSL (μg/L) (μg/L) (μg/L) (μg/L) (μg/L) (μg/L) (μg/L) (μg/L)	MSL (μg/L) (μg/L) (μg/L) (μg/L) (μg/L) (μg/L) (μg/L) (μg/L) (μg/L)

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Table 1
Historical Groundwater Elevation and Analytical Data
Halogenated Volatile Organic Compounds (EPA method 8010 or 8240)
1995-Present**

Well Number	Date Gauged	TOC Elevatio n (ft MSL)	Depth to Water (feet)	FP Thickness (ft MSL)	Groundwate r Elevation (ft MSL)	Date Sampled	Tetra- chloro- ethene (PCE) (µg/L)	Tri- chloro- ethene (TCE) (µg/L)	trans- 1,2- Dichloro- ethene (µg/L)	cis-1,2- Dichloro- ethene (µg/L)	Freon 12 (µg/L)	Oxygen	Purged/Not Purged (P/NP)
RW-I	03-10-95	56.32	26.48	Sheen	29.84	03-10-95	260	<5		<5			
RW-I	06-05-95	56.32	26.20	ND	30.12	06-05-95	59	<1	** **	<1			
RW-I	08-29-95	56.32	28.98	ND	27,34	08-29-95	570	<5		<5			
RW-1	11-16-95	56.32	31.34	ND	24.98	11-16-95	140	<1		<1	<1		
RW-1	02-28-96	56.32	25.12	ND	31.20	02-28-96	6	<1	<1	<1			
RW-I	05-28-96	56.32	25.26	ND	31.06	05-28-96	12	<1	<1	<1			
RW-1	08-19-96	56.32	28.51	ND	27.81	08-21-96	100	<1	</td <td><!--</td--><td></td><td></td><td></td></td>	</td <td></td> <td></td> <td></td>			
RW-1	11-21-96	56.32	30.65	ND	25.67	11-21-96	190	1	<1	<			
RW-I	03-26-97	56.32	25.15	ND	31.17	03-26-97	6	<1	<1	<]			
RW-1	05-20-97	56.32	27.44	ND	28.88	05-20-97	5.3	<0.5	<0.5	<0.5			
RW-1	08-18-97	56.32	30.46	ND	25.86	08-18-97	46	<5	<5				
	11-17-97	56.32	32.16	ND	24.16	11-17-97 N	lot analyzed	for Halogena	ted Volatile (Organic Con	npounds		
RW-1	12-02-99	56.32	30.54	ND	25.78	12-02-99 N	lot sampled:	not on sampl	ing schedule				
WGR-3	03-10-95	NR	15.20	ND	NR	03-11-95	<1	<1		<1			
WGR-3	06-05-95	NR	19.25	ND	NR	06-05-95	<1	<1		<1			
WGR-3	08-29-95	NR	21.41	ND	NR	08-29-95	<1	<1		<			
WGR-3	11-16-95	NR	22.50	ND	NR	11-16-95	<1	<1		<1	<1		
WGR-3	02-28-96	NR	14.90	ND	NR	02-28-96	<	<1	<1	<1			
WGR-3	05-28-96	NR	18.33	ND	NR	05-28-96	<1	<1	<1	<1			
WGR-3	08-19-96	NR	21.38	ND	NR	08-19-96	<1	<1	<1	<1	* *		
WGR-3	11-21-96	NR	18.70	ND	NR	11-21-96	<1	<1	<1	<1			
WGR-3	03-26-97	NR	18.98	ND	NR	03-26-97	<1	<1	<1	<1			
WGR-3	05-20-97	NR	19.70	ND	NR	05-20-97	< 0.5	<0.5	<0.5	< 0.5			

Table 1 Historical Groundwater Elevation and Analytical Data Halogenated Volatile Organic Compounds (EPA method 8010 or 8240) 1995-Present**

ARCO Service Station 276 10600 MacArthur Boulevard, Oakland, California

Well Number	Date Gauged	TOC Elevatio n (ft MSL)	Depth to Water (feet)	FP Thickness (ft MSL)	Groundwate r Elevation (ft MSL)	Date Sampled	Tetra- chloro- ethene (PCE) (µg/L)	Tri- chloro- ethene (TCE) (µg/L)	trans- 1,2- Dichloro- ethene (µg/L)	cis-1,2- Dichloro- ethene (µg/L)		Dissolved Oxygen (mg/L)	Purged/Not Purged (P/NP)
WGR-3	08-18-97	NR	21.81	ND	NR	08-18-97	<5	<5	<5				
WGR-3	11-17-97	NR	20.42	ND	NR	11-17-97 N	lot analyzed	for Halogena	ited Volatile (Organic Cor	npounds		
WGR-3	12-02-99	NR	20.58	ND	NR	12-02-99 N	lot sampled:	not on samp	ling schedule				

TOC: Top of Casing

ft-MSL: elevation in feet, relative to mean sea level

µg/L: micrograms per liter

ND: none detected

NR: not reported; data not available or not measurable

- -: not analyzed or not applicable
- e: analyzed by EPA method 8021B
- h; method reporting limit was raised due to: (1) high analyte concentration requiring sample dilution, or (2) matrix interference
- ^^: floating product entered the well during purging
- **: For previous historical groundwater elevation and analytical data please refer to Fourth Quarter 1995 Groundwater Monitoring Results and Remediation System Performance Evaluation Report, Retail Service Station 10600 and 10700 MacArthur Boulevard, Oakland, California, (EMCON, March 22, 1996).

ATTACHMENT D

ERROR CHECK REPORTS AND EDF/GEOWELL SUBMITTAL CONFIRMATIONS

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4Q 2005 BP/ARCO 276

GEOWELL

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Confirmation

8067138493

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URS Corporation-Oakland

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ARCO#0276-Revised EDF-

MOK0961.zip

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Regional Board - Case #: 01-0089 ARCO

SAN FRANCISCO BAY RWQCB (REGION 10600 MACARTHUR

BLVD 2) - (BG)

Local Agency (lead agency) - Case #: 3756 OAKLAND, CA 94605

ALAMEDA COUNTY LOP - (RWS)

SAMPLE DETECTIONS REPORT

- # FIELD POINTS SAMPLED
- # FIELD POINTS WITH DETECTIONS
- # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL
- SAMPLE MATRIX TYPES

WATER

3

3 3

METHOD QA/QC REPORT

METHODS USED

8260FA,SW8260B

TESTED FOR REQUIRED ANALYTES? LAB NOTE DATA QUALIFIERS

Υ

QA/QC FOR 8021/8260 SERIES SAMPLES

TECHNICAL HOLDING TIME VIOLATIONS	15
METHOD HOLDING TIME VIOLATIONS	0
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	0
LAB BLANK DETECTIONS	0
DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?	
- LAB METHOD BLANK	Y
- MATRIX SPIKE	Ν
	h t

- MATRIX SPIKE DUPLICATE
- BLANK SPIKE
- SURROGATE SPIKE

WATER SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30% SURROGATE SPIKES % RECOVERY BETWEEN 85-115%

Y Ν

Υ

Υ

BLANK SPIKE / BLANK SI	PIKE DUPLICATES % RECOV	ERY BETWEEN 70-130%	N
SOIL SAMPLES FOR	8 8021/8260 SERIES		
MATRIX SPIKE / MATRIX 135%	SPIKE DUPLICATE(S) % RE	COVERY BETWEEN 65-	n/a
MATRIX SPIKE / MATRIX	SPIKE DUPLICATE(S) RPD L	ESS THAN 30%	n/a
	ECOVERY BETWEEN 70-125	5%	n/a
SURROGATE SPIKES % F	CCCAFILL DELAIPEIS LOLYET		
	PIKE DUPLICATES % RECOV	·	n/a
BLANK SPIKE / BLANK SI	PIKE DUPLICATES % RECOV	·	
BLANK SPIKE / BLANK SI 130%	PIKE DUPLICATES % RECOV	·	n/a
BLANK SPIKE / BLANK SI 130% FIELD QC SAMPLES	PIKE DUPLICATES % RECOV	ERY BETWEEN 70-	n/a
BLANK SPIKE / BLANK SI 130% FIELD QC SAMPLES SAMPLE	COLLECTED	ERY BETWEEN 70-	n/a

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Date/Time of Submittal: 12/14/2005 11:08:24 AM

Facility Global ID: T0600100082

Facility Name: ARCO

Submittal Title: 4Q 2005 BP/ARCO 276 EDF

Submittal Type: GW Monitoring Report

Click here to view the detections report for this upload.

ARCO 10600 MACARTHUR BLVD Regional Board - Case #: 01-0089

SAN FRANCISCO BAY RWQCB (REGION 2) - (BG)

OAKLAND, CA 94605

Local Agency (lead agency) - Case #: 3756

ALAMEDA COUNTY LOP - (RWS)

NOTE: THIS DATA WAS SUBMITTED AFTER THE SITE WAS CLOSED

CONF # 4932017028 TITLE

4Q 2005 BP/ARCO 276 EDF

QUARTER Q4 2005

SUBMITTED BY

SUBMIT DATE

STATUS

Srijesh Thapa

12/14/2005

PENDING REVIEW

SAMPLE DETECTIONS REPORT

- # FIELD POINTS SAMPLED
- # FIELD POINTS WITH DETECTIONS
- # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL
- SAMPLE MATRIX TYPES

WATER

3

3

3

15

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0

0

Ν

Ν

Υ

METHOD QA/QC REPORT

METHODS USED

8260FA,SW8260B

TESTED FOR REQUIRED ANALYTES? LAB NOTE DATA QUALIFIERS

Y Y

OA/OC FOR 8021/8260 SERIES SAMPLES

TECHNICAL HOLDING TIME VIOLATIONS
METHOD HOLDING TIME VIOLATIONS
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT
LAB BLANK DETECTIONS

DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING? - LAB METHOD BLANK

- MATRIX SPIKE - MATRIX SPIKE DUPLICATE - BLANK SPIKE

- SURROGATE SPIKE

WATER SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135% Y

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30% Y

SURROGATE SPIKES % RECOVERY BETWEEN 85-115% N

BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130% N

SOIL SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%

n/a

	PIKE DUPLICATE(S) RPD LESS TH	AN 30%	n/a
	COVERY BETWEEN 70-125%		n/a
BLANK SPIKE / BLANK SPIK	E DUPLICATES % RECOVERY BE	TWEEN 70-130%	n/a
	adentalisamente 1600) konsan menteu de dar denderen von herrenne de er er benemente de de de de de de de de de		
FIELD QC SAMPLES			
	COLLECTED	DETECTION:	S > REPOL
SAMPLE	COLLECTED		
SAMPLE QCTB SAMPLES	N	(0
	N N	(0

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CONTACT SITE ADMINISTRATOR

Appendix F

Permits

Alameda County Public Works Agency - Water Resources Well Permit



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

Application Approved on: 01/09/2006 By jamesy

Permits Issued:

W2006-0020

Application ld:

1135284468917

Site Location:

10605 Foothill Blvd., Oakland, CA 94605

Project Start Date: 04/24/2006

Applicant:

ETIC Engineering - Vallerye Anderson

2285 Morello Avenue, Pleasant Hill, CA 94523 Ken Phares Macarthur Blvd. Association

Property Owner:

10700 MacArthur Blvd., Oakland, CA 94605

Client:

** same as Property Owner **

Total Due:

\$200.00

Total Amount Paid:

200.00

Payer Name: ETIC Engineering Paid By: CHECK

Receipt Number: WR2006-0011

City of Project Site: Oakland

Completion Date: 05/05/2006

Permits Valid from 04/24/2006 to 05/05/2006

Phone: 925-602-4710

Phone: 510-522-0450

PAID IN FULL

Works Requesting Permits:

Borehole(s) for Investigation-Contamination Study - 18 Boreholes

Driller: TEG - Lic #: 706568 - Method: DP

Work Total: \$200.00

Specifications

Permit **Issued Dt Expire Dt Hole Diam** Max Depth Number **Boreholes** W2006-01/09/2006 -04/23/2006- 18 2.00 in. 25.00 ft 515106 0020

Specific Work Permit Conditions

- 1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site.
- 2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
- 3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
- 4. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
- 5. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.
- 6. Applicant shall contact James Yoo for an inspection time at 510-670-6633 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

CITY OF OAKLAND • Community and Economic Development Agency 250 Frank H Ogawa Plaza. 2nd Floor. Oakland, CA 94612 • Phone (510) 238-3443 • FAX (510) 238-2263

Job Site 10605 FOOTHILL BL

Parcel# 047 -5594-001-00

Appl# X0600312

Descr soil boring on 106th Ave

Permit Issued 03/22/06

Work Type EXCAVATION-PRIVATE P

USA #

Util Co. Job #

Acctg#:

Util Fund #:

Applcnt Phone#

Lic# --License Classes--

Owner MACARTHUR BOULEVARD ASSOCIATES

Contractor TEG - NORTHERN CALIFORNIA INC X

706568 A C57

Arch/Engr

Agent ETIC ENGINEERS / B CAMPBELL

(925)602-4710

Applic Addr 11350 MONIER PARK PLACE, RANCHO CORDOVA, CA, 95742

\$411.96 TOTAL FEES PAID AT ISSUANCE \$59.00 Applic \$300.00 Permit \$.00 Process \$34.11 Rec Mgmt \$.00 Gen Plan \$.00 Invstg

\$.00 Gen Plan

\$.00 Other

\$18.85 Tech Enh

JOB SITE

CITY OF OAKLAND . Community and Economic Development Agency

250 Frank H Ogawa Plaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • FAX (510) 238-2263

Job Site 10605 FOOTHILL BL

Parcel# 047 -5594-001-00

Appl# OB060246

block s/w only per approved TCP soil boring on 106th Ave Permit Issued 03/22/06

Nbr of days: 1

Effective: 05/02/06

Linear feet:

50

Expiration:

05/02/06

SHORT TERM NON-METERED

Applont

Phone#

Lic# --License Classes--

Owner MACARTHUR BOULEVARD ASSOCIATES

Contractor TEG - NORTHERN CALIFORNIA INC X

706568 A C57

Arch/Engr

Agent ETIC ENGINEERS / B CAMPBELL

(925)602-4710

Applic Addr 11350 MONIER PARK PLACE, RANCHO CORDOVA, CA, 95742

\$100.98 TOTAL FEES PAID AT ISSUANCE

\$59.00 Applic \$29.00 Permit

\$.00 Process

\$8.36 Rec Mgmt

\$.00 Gen Plan \$.00 Other

\$.00 Invstg \$4.62 Tech Enh

JOB SITE

TCP needs to be approved by Transportation Services every 30 days or whenever deviated from the previously approved plan.

Issued by:

Appendix G

Boring Logs

	MAJOR DIVIS	IONS			TYPICAL NAMES
	Assault 100 - 100	Clean gravels with	GW	6.0	Well graded gravels with or without sand, little or no fines
တ	GRAVELS more than half	little or no fines	GP		Poorly graded gravels with or without sand, little or no fines.
COARSE-GRAINED SOILS More than half is coarser than No. 200 sieve	coarse fraction is larger than No. 4 sieve size	Gravels with	GM		Silty gravels, silty gravels with sand
AINEC alf is c 200 si		over 12% fines	GC		Clayey gravels, clayey gravels with sand
RSE-GR re than h than No.		Clean sands with	sw		Well graded sands with or without gravel, little or по fines
OARS More t	SANDS more than half coarse fraction is	little or no fines	SP		Poorly graded sands with or without gravels, little or no fines.
ပ	smaller than No. 4 sieve size	Sands with	SM	72222	Silty sands with or without gravel
		over 12% fines	sc		Clayey sands with or without gravel.
4.0			ML		Inorganic silts and very fine sands, rock flour, silts with sands and gravels.
SOILS s finer sieve	SILTS ANI liquid limit 5		CL		Inorganic clays of low to medium plasticity, clays with sands and gravels, lean clays
	AMERICANA AND AND AND AND AND AND AND AND AND		OL		Organic silts or clays of low plasticity
FINE-GRAINED SOILS More than half is finer than No. 200 sieve			МН		Inorganic silts, micaceous or diatomaceous, fine sandy or silty soils, elastic silts.
Mor th	SILTS AN liquid limit grea		СН		Inorganic clays of high plasticity, fat clays
······································		- Patrick Management	ОН		Organic clays or clays of medium to high plasticity.
	HIGHLY ORGANIC	SOILS	PT	4 34 34	Peat and other highly organic soils.
	SYMBOL	S			DRILL LOG ROCK TYPES
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	First Encountered Groun Gauged Groundwater Le	Samples			Limestone
	Portland Cement	Air			Dolomite
	Blank Casing Bentonite Pellets	Soil			Mudstone
	Filter Pack	Water	* 1 * **** *****	* * * * * * * * * * * * * * * * * * *	Sandstone
	Screened Casing	Open Hole	八 六		Igneous
Æ E		IIFIED SOIL CLAS	SIFIC	ATION :	SYSTEM DESCRIPTIONS



UNIFIED SOIL CLASSIFICATION SYSTEM DESCRIPTIONS AND SYMBOLS USED ON ETIC DRILL LOGS

ربا کی		A						CLIENT		SITE NUMBER	LOCATION	
								Exxon Mobil Oil Co	orp.	7-4121	10605 Foo Oakland, (
ngineer .OG OF	ing, Ir	nc.	RING:		SI	B 1	4	DRILLING AND SAMPLING METHODS	Bor S limi line	ehole cleared to 4 feet bgs using ted access direct-push rig using rs	ng a hand auger. Advar	ced with a
COORDI	NIATE	ç.						WATER LEVEL		▼ 11.0		
ELEVATI			OF CA	SING	ì:			TIME	START			FINISH TIME
CASING	BELO	W S	URFA	ACE:				DATE		05/02/06	0845	1000
DRILLING LICENSE								REFERENCE		GS	DATE 5/2/06	DATE 5/2/06
INCHES	·····			-1003	ر چرو اس			SURFACE CONDITIONS				
DRIVEN	BLOWS / 6"	PLER	OVA READING	Ħ_	ALFPLE R SALEP	SAMPLE	GRAPHIC LOG			Top soil/Grass		
DRIVEN	BLO	SAM	OVA	DEPTH (feet)	WATER	SOIL SAI	GRA LOG	DESCRIPTION BY:		E. Appel		
				0		_		SILTY CLAY, dark olive to	orowr	n (2.5Y 3/3), soft, low plas	ticity, some fine san	d.
				1		-		moist to dry.				
	<u> </u>			2—								
	-											
				3								
	_			4		-		Color change to yellowish	h bro	wn (10YR 5/6).		
				5—								
60 6		-	2.2			X						
		-		6								
		-		7								
				8								
				_				SILTY CLAY W/ SAND,	yellov	wish brown (10YR 5/6) mo	ottled with red and g	ray, stiff
				9				to very stiff, low plasticity	r, tine	to medium grained sand,	, MOISL.	
				10		X						
60 6	0	-	0 5	¥ 11—								
		-			-							
				12-				Decrease in sand conter	it			
				13				Change to no sand conte	ent			
				14				SILTY CLAY olive grav	(5Y 4	//2), soft, moderate plastic	itv. some coarse sa	nd.
								moist.	,014	,, cara moderate place	,,	
60 6	0		0.3	15		X						
		-		16	1 E							
		-		17	1			SILTY SAND, olive (5Y 4	4/4). ı	medium dense, fine graine	ed, very moist to we	t.
**************************************				4.5								
				18			SM					
				19-	1 🗏							
				20-] =							

Engineering, Inc. Cakland, Califor Cakland, Ca								CLIENT	SITE NUMBER	LOCATION
SAND, dark olive (5Y 3/2), loose to medium dense, poorly graded, medium grained, subangular to subrounded, wet SP 23- 23- 24- 25- 25- 26- 27- 29- 30- 31- 31- 33- 33- 33- 33- 33- 33- 33- 33	Engir	neering	g, Inc.					Exxon Mobil Oil Corp	7-4121	10605 Foothill Blvd Oakland, California
SAND, dark olive (5Y 3/2), loose to medium dense, poorly graded, medium grained, subangular to subrounded, wet SP Some subrounded at 25 feet bgs			BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	AIR SAMPLE WATER SAMPLE SOIL SAMPLE RECOVERED	GRAPHIC LOG	LOG OF SOIL BORING		
			-		21— 22— 23— 24— 25— 26— 27— 28— 29— 30— 31— 32— 33— 34— 35— 36— 37— 38— 39—	AIR SAI MATER SOIL S/ RECOV	SP		ose to medium dense, po unded, wet	orly graded, medium
42-				The state of the s	41-		-			
43-							-			

	IA	<u> </u>						CLIENT		SITE	NUMBER	LC	CATION	
ET	16							Exxon Mobil Oil C	orp.		7-4121		10605 Foo Oakland, (
ngineer	ing, Inc.	1		SI	31	5		DRILLING AND SAMPLING METHOD:	Bor S limit	ted acce:	ared to 4 feet bgs ss direct-push rig	using a hand	d auger Advar	ced with a
COORDIN	NATES:						-	WATER LEVEL			y 13.0			
ELEVATION		OF CA	ASING	ì:				TIME	•		1130		START TIME	FINISH TIME
CASING I					***************************************	************		DATE	***************************************		05/02/06		1000	1200
	RILLING COMPANY: Vironex ICENSE NUMBER: C57-705927							REFERENCE			GS		DATE 5/2/06	DATE 5/2/06
INCHES	P.G.	(1)		표	ща	0	su	RFACE CONDITIONS		~				···
DRIVEN	BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	AIR SAMPLE Water Sam	COVERE	GRAPHIC LOG	25	SCRIPTION BY:			op soil/Grass		***************************************	
P K	SA	6₩	 	AIR SA WATE	RECO	<u>69</u>	100	SCRIPTION DT.			E. Appel	*************************	*****	
			0				C	LAY W/ SILT, very dark asticity, moist	gray	ish brov	wn (10YR 5/2),	medium st	iff to soft, mo	oderate
			1											
			2											
			3											
			4											
distribution		unament properties of the control of		Water			S	ILTY CLAY, brown (10° rained sand, moist	/R 4/3	3), stiff t	to medium stiff.	. low plastic	city, trace me	edium
60 60		1.3	5		X									
			6-			//cl//								
	-		7	***************************************										
		1	8											
		-	9											
60 60		1.4	10		X		ln	crease in stiffness to v	ery sti	ff. som	e caliche depos	sits		
	-		11											
			12											
		***************************************	¥ 13					LAYEY SILT/SILTY CL	AY, o	live (5Y	4/4), stiff to m	edium stiff,	, low plasticit	у.
		***************************************	13				lm	oist.						
			14-				***************************************							
			15—		X	 ML/CL								
60 60	-	13	16											
			17											
			18-					ILTY SAND TO SAND	W/ SI	LT, oliv	e (5Y 4/4). den	se. fine gra	ained sand. v	ery
	***************************************	***************************************	19			SP-SM 	1							
			20			***************************************	С	hange to wet						

	ر سريد						CLIENT	SITE NUMBER	LOCATION
Engin	neering	G, Inc.					Exxon Mobil Oil Corp.	7-4121	10605 Foothill Blvd Oakland, California
DRIVEN		BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	WATER SAMPLE SOIL SAMPLE RECOVERED	907	LOG OF SOIL BORING:	SB15	
60	60		48 9	21—		the state of the s	Same as above. Interbedded sand and silt. 4"	thick from 21 to 23 feet bg	s
				22-	SF	-SM			
			1 4	24			Boring terminated at 25 feet b	ogs.	
				26					
***************************************				28-	Administration of the state of				
	************			30—					
***************************************				31—					
				33-					
				35— 36—					
			The state of the s	37 38	120000000000000000000000000000000000000				
	WWW.			- 39					
				41					
				42-					
				44					

		A						CLIENT		SITE NUMBER	LOCATION	
								Exxon Mobil Oil Cor	p.	7-4121	10605 Foo Oakland, C	
Engin	eering	g, Inc.			SI	B1	16	SAMPLING METHODS	Boret limite liners	nole cleared to 4 feet bgs usin d access direct-push rig usin	ng a hand auger Advan	ced with a
വവ	RDINA	TES:						WATER LEVEL		<u>v</u> 11.0		
	'ATION		OF CA	ASING	i:			TIME		1300	START TIME	FINISH TIME
	ASING BELOW SURFACE:							DATE		05/02/06	1100	1330
	CENSE NUMBER: C57-705927							REFERENCE		GS	DATE 5/2/06	DATE 5/2/06
INC	HES				3			SURFACE CONDITIONS	***************************************			
DRIVEN	RECOVER	BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	AIR SALIPLE WATER SALIF	SOIL SAMPLE RECOVERED	GRAPHIC LOG	DESCRIPTION BY:		Top soil/Grass		······································
<u></u>	8	я А	6분	9 e)	WA.	SE	BS	DESCRIPTION D1.		E. Appel		
				1	***************************************			SILTY CLAY, brown (10YR medium grained sand. mois	. 4/3) st	, stiff to very stiff. low pla	asticity, some fine to	
				2								
············				3		-						
				4								
				5								
60	60		0.8	5		X						
		-		6								
		-		7								
				8								
				9—								
				10				Some gravel, subangular to	0.5	" diameter		
60	60		32			X						
				<u>¥</u> 11—				Wet				
		-		12-								
				13								
			1.2	14				Color change to olive (10YI	R 4/3	3)		
				15								
60	60	-	3.6			X						
		-		16-								
		~		17								
	<u> </u>			18				SILTY SAND, olive (10YR	4/4).	medium dense, fine gra	ined, moist to very n	noist
				19			SM	,	•		·	
		•	L									

E								CLIENT	SITE NUMBER	LOCATION
Engir	neering	g, Inc.						Exxon Mobil Oil Corp.	. 7-4121	10605 Foothill Blvd Oakland, California
	HES	,e''	(f)	***************************************	F	H 0	U	LOG OF SOIL BORING		
DRIVEN	RECOVER	BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	SAMPL TER SAM	COVERE	GRAPHIC LOG		SB16	
		19 g		3 e)	WAR	S #2	59 1915			
60	60	-	24.3	21			SM	CH TV CAND - It - (10VD 4/	A) mading dama San ma	
		-						SILTY SAND, olive (10YR 4/4		
				22				SAND, dark olive gray (5Y 3/ medium grained with some fi	medium dense, subrour ne grains, wet	nded to subangular,
				23			SP			
				24—			V '			
	ļ		-1 0	25		X	ا الفائد	Boring terminated at 25 feet l	has	
				26		Ш			- -	
				27						
************				28						
]	29—						
				30—		Н				
			<u> </u> 							
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				32-						
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	<u> </u>			36						
				37—	$\left \ \right \left \ \right $	\parallel				
				- 38						
		***************************************	<u> </u> 							
				39	$\left \ \right \left \ \right $					
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				42-						
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				44		H				
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	ا التراث	IA						CLIENT		SITE NUMBER	LOCATION	
		C						Exxon Mobil Oil C	orp.	7-4121	10605 Foo Oakland, 0	
•	eering OF SC	g, Inc. IL BOF	RING:		S	В	17	DRILLING AND SAMPLING METHOD	; Adva	red via air-knife and vacuum anced using a truck mounted nology Sampled with 4-foot-	geoprobe with dual-tube	o 4 feet bgs direct-push
2001		TEC.						WATER LEVEL		▼ 13.0		
	RDINA ATION	TOP	OF CA	ASINO	3:			TIME	TIME 0946			FINISH
CASI	NG BE	LOW	SURFA	ACE:				DATE		05/02/06	TIME 0840	1015
DRILL	ING C	OMPA	ANY: T	EG					·····		DATE	DATE
		UMBE	R: C57	7-706	568	3 TT		REFERENCE SURFACE CONDITIONS		GS	5/2/06	5/2/06
INCH		3 / 6" ER	Ď		33,00	PLE	일일	SURPACE CONDITIONS		Top soil/Grass		
DRIVEN	RECOVER	BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	R SAME	SOIL SAM	GRAPHIC	DESCRIPTION BY:		77 1-6		
	<u> </u>	n s	0&	0-	₹ 3	2 00 0	2 03			T. lob		
						-	<i>\\\\\\\</i>	SILTY CLAY, dark olive moist to dry	brown	(2 5Y 3/3). soft. firm, lov	v plasticity, some find	e sand.
				1								
				2-								
				_		-						
				3								
				4	-			Moderate fine to medium	sand			
48	48							Woderate line to median				
		-		5-								
			—3.6—	6		X						
				7	1							
				8								
48	48	<u> </u>										
		<u> </u>		9	-							
ĺ		-		10			SM	SILTY SAND. dark gray	(2.5Y	4/1), medium dense, fine	e to medium sand, m	oist
			4.0				المادية - المنطقية	SAND dark gray (2.5V	(/1) m	edium dense, fine sand	with trace coarse sa	nd
	<u> </u>	<u> </u>		11	4		SP	moist				
				12-	$\rfloor $			SILTY CLAY, light olive to dry	brown	(2.5Y 5/4), stiff, low plas	sticity, trace fine sand	i, moist
48	48		<u> </u> 					, , ,				
		 -		▼ 13-	-							
		-		14						(m) (D (D)		
		ļ		'				Color change to dark oli	e gra	y (5Y 3/2)		
		<u> </u>		15-	1	\pm						
			9.6	16-				CLAYEY SILT. olive gra	y (5Y •	4/2), soft, very low plastic	city. trace fine sand,	moist
48	48		-	10-			ML					
	ļ	-		17-	- -	∄ [SILTY CLAY, olive gray	(5Y 4/	2), soft, low plasticity. tra	ace fine sand, moist	
		_		4 n			///CL/					
		1	T	18-	7 F	- 1		Some fine sand				
						∄▮	4444	7 1		/ A/O) locos ne= =!==#!-	fine aread mariet	
				19	-		SC/	7 1		/ 4/2). loose, non-plastic	. fine sand, moist	

	ر کری	IA						CLIENT	SITE NUMBER	LOCATION
Engin	neering	Cg, Inc.						Exxon Mobil Oil Corp	7-4121	10605 Foothill Blvd Oakland, California
DRIVEN	RECOVER 53	BLOWS / 6" SAMPLER	OVA READING	DEРТН (feet)	AIR SAMPLE WATER SAMPLE	SOIL SAMPLE RECOVERED GRAPHIC	907	LOG OF SOIL BORING	SB17	
48	48	-	149	21— 22— 23—			M SP	SILTY SAND. olive gray (5Y Wet SAND. dark olive gray (5Y 3)		
12	12	_	2.6	24 25 26				SAND, same as above with a Boring terminated at 25 feet		er
				27 28	***************************************					
				29 30	waaaraa					
				31— 32—						
				33 34						
				35 36						
				37—						
				39	~					
				41	***************************************					
				43-						

	ا السب							CLIENT		SITE NUMBER	LC	CATION			
	7	G						Exxon Mobil Oil Co	·	7-4121		10605 Foo Oakland, C	alifornia		
	neering							DRILLING AND Cleared via air-knife and vacuum rig by Cascade Drilling to 4 feet bgs SAMPLING METHODS Advanced using a truck mounted geoprobe with dual-tube direct-push technology Sampled with 4-foot-long acetate liners							
LOG	OF SO	IL BOF	RING:	,	SE	318			techr	nology Sampled with 4-foot	-long acel	ate liners.			
coo	RDINA	TES:						WATER LEVEL	STAF			START	FINISH		
	'ATION				i:			TIME		1030 TIME			TIME 0945		
	NG BE							DATE		05/03/06		0800 DATE	DATE		
1	LING C NSE N				568			REFERENCE		GS		5/3/06	5/3/06		
 	HES						- 1	L L SURFACE CONDITIONS				.l	J		
DRIVEN	RECOVER	BLOWS / 6" SAMPLER	OVA READING	H.	ALIPLE R SALIP	SOIL SAMPLE RECOVERED GRAPHIC				Top soil/Grass					
DRIV	REC	BLO	REA	DEPTH (feet)	AIR SAM WATER	GRAI GRAI	<u> </u>	DESCRIPTION BY:		T. lob					
				0				SILTY CLAY, dark olive I	brown	(2.5Y 3/3), stiff, low pla	sticity. tra	ace fine sand	, moist		
				1				to dry							
				2											
				3											
48	48			4											
		-		5		\mathbf{x}									
***************************************		-	42	6				Color change to light oliv	e brow	ın (2 5Y 5/4)					
				7											
				8											
48	48														
				9											
				10		\mathbf{x}									
			2.9	11—											
48	48			12											
		-		13	-										
/31/06	***************************************	<u> </u>													
) IOS				¶ 14—				CLAYEY SILT, light olive	a hrown	n /2 5Y 5/4\ firm \/en/ l	ow plact	icity trace fin	e		
<u> </u>	<u> </u>			15-	$\ \mathbf{f} \ $	X		sand. dry	. W. WYI	The state of the s	on plast		-		
<u> </u>			2.2	16	目	7//		SILTY CLAY, olive (5Y 5	5/4), fire	m. low plasticity, moist	to dry				
48	48														
74121		-		17											
S				- 18											
E BO				19											
LOG OF SOIL BORING 7-4121 LOGS.GPJ ETIC.GDT 7/31/06				13		V		SANDY SILT. olive (5Y !	5/4), sc	oft, some fine sand. mo	ist				
<u> </u>				20											

		IA						CLIENT	SITE NUMBER	LOCATION
Engin	eering	Cg, Inc.						Exxon Mobil Oil Corp.	7-4121	10605 Foothill Blvd Oakland, California
DRIVEN ON	RECOVER 9	BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	AIR SAMPLE WATER SAMPLE	SOIL SAMPLE RECOVERED	GRAPHIC LOG	LOG OF SOIL BORING	SB18	
48	48	_	12 7	21			SM	SILTY SAND, olive (5Y 4/3), Fine to medium sand	medium dense, fine sand.	wet
				22				SAND, very dark gray (5Y 3/	1), medium dense. fine to n	nedium sand, wet
				23 24			SP	Change to loose, fine to coar	se sand, trace subrounded	gravel to 0.5"
			-2.4	25		X	24-2	Boring terminated at 25 feet	bgs	
				26— 27—						
				28	***************************************					
				29 30						
				31 32						
				33						
				34 35						
			-	- 36						
				37 38						
		Water and the second se		39-						
				41-						
				42-						
				44-						
				45-						Page 2 o

		CLIENT	SITE NUMBER	LOCATION				
ETIC		Exxon Mobil Oil Corp		10605 Foothill Blvd Oakland, California				
Engineering, Inc. LOG OF SOIL BORING	G: SB19	DRILLING AND SAMPLING METHODS Cleared via air-knife and vacuum rig by Cascade Drilling to 4 feet bgs. Advanced using a truck mounted geoprobe with dual-tube direct-push technology Sampled with 4-foot-long acetate liners						
COORDINATES:		WATER LEVEL						
ELEVATION TOP OF		TIME	1618	START FINISH TIME TIME				
CASING BELOW SUR		DATE	05/02/06	1500 1700 DATE DATE				
LICENSE NUMBER: C	57-706568	REFERENCE	GS	5/2/06 5/2/06				
DRIVEN SI HH DE HH		SURFACE CONDITIONS	Top soil/Grass					
DRIVEN RECOVE BLOWS, SAMPLE	READIN (feet) AIR SAMP WATER SA SOIL SAMP RECOVERING GRAPH LOG	DESCRIPTION BY:	T. lob					
48 48 - 100 2 3 48 48 - 1	1— 2— 3— CCL 4— 4— ML ML — 12— ML — 13— 14— 15— X CCL	CLAYEY SILT. light olive brosand, moist to dry CLAYEY SILT. light olive brosand, moist to dry CLAYEY SILT, olive (5Y 5/4 SILTY CLAY, olive (5Y 4/4)	own (2 5Y 5/4), hard, dry wn (2 5Y 5/4). very stiff. low \$\$, hard, dry	plasticity, trace coarse				
	18— 19— SM.	SILTY SAND. olive (5Y 4/4)), dense, fine sand. moist					

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Engir	neering	6 , Inc.						Exxon Mobil Oil Corp.	7-4121	10605 Foothill Blvd Oakland, California
	HES				ш	П		LOG OF SOIL BORING	•	
DRIVEN	RECOVER	BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	WATER SAMPLE	RECOVERED	GRAPHIC LOG		SB19	
48	48	-	33.4	21		X	ML	SILT, olive (5Y 4/3), firm, trad	ce fine sand, moist	
		-		22			SM	SILTY SAND, olive gray (5Y	4/2), dense, fine to mediu	m sand, moist
				23-	H		بدانين	SAND, dark gray (5Y 4/1), lo	ose, fine to medium sand.	. moist
							SP	Fine to coarse sand, wet		
12	12			24		; -				
		-	1.1	25		X	. 11 11 1	Boring terminated at 25 feet	bgs	
				26						
				27—						
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ا اسي	ع التيرية	A	***************************************					CLIENT			SITE	NUMBER	LC	DCATION			
E		G						Exxon N	Mobil Oil C	orp.		7-4121	1	10605 Foo Oakland, 0			
Engine	eering	g, Inc.			SI	B2	20	DRILLING SAMPLIN	S AND IG METHODS	: Adv	anced u	air-knife and vac sing a truck mou Sampled with 4-	uum rig by Ca	scade Drilling to with dual-tube	o 4 feet bgs		
COOR	יANIחי	TFS:						WATE	WATER LEVEL ▼ 12.95								
ELEVA			OF CA	SING	} :			T	ME			1223		START FINE TIME			
CASING BELOW SURFACE:								D,	ATE			05/02/06		1015	1130		
DRILLING COMPANY: TEG LICENSE NUMBER: C57-706568								REFE	RENCE			GS		DATE 5/2/06	DATE 5/2/06		
INCH	ES						T	SURFACE CO	NDITIONS			II		1			
Ü.	RECOVER	BLOWS / 6" SAMPLER	OVA READING	I.	KIPLE R SAMP	AMPLE VERED	GRAPHIC LOG				7	Fop soil/Grass	i				
DRIVEN	Ž Ž	SAM	OVA	DEPTH (feet)	WATER WATER	SOIL S	GRA	DESCRIPTION	IBY:		*************	T. lob					
				0		-				brown	(2.5Y	3/3), soft, firm	. low plastic	city, some fine	e sand.		
				1				moist to dry	,								
				2													
				3													
	4-																
48	48	-		5													
		-		J		∇		Some fine	to medium sa	nd. ire	on stain	ing					
		-	19	6	-	Δ											
				7—													
								Color chan	Color change to very dark gray (2.5Y 3/1)								
48	48			8-	+												
		-		9													
		-		10-				Trace fine t	to medium sa	nd							
			133			X		CH TV C ::	ID week to t		EV 0141	ال -سيئلم محمد ا	na Guata	madira	maint		
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48	48	-		¥ ₁₃													
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				14-				Color chan	ge to dark oli	ve gra	y (5Y 3	1/2)					
				15	┦╞	\ \Y											
***************************************			92.4	16													
48	48			16													
		-		17	1												
		-]	18-				Some fire	to medium sa	ınd							
and the second s							////// SM	1			(5Y 3/2), dense, fine	to medium	sand, moist			
	19— 19— 19— 19— ML								SILTY SAND, dark olive gray (5Y 3/2), dense, fine to medium sand, moist CLAYEY SILT. olive gray (5Y 4/2), firm, very low plasticity. trace fine to medium sand, moist								
48				20	J F	X		Sand, IIIOS	•								

	إليها	IA					CLIENT	SITE NUMBER	LOCATION
Engin	neering	g, inc.					Exxon Mobil Oil Corp	7-4121	10605 Foothill Blvd Oakland, California
	RECOVER W	BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	WATER SAMPLE SOIL SAMPLE RECOVERED	GRAPHIC LOG	LOG OF SOIL BORING	SB20	
48	48		16 8	21		ML SM	SILTY SAND. dark olive gray	(5Y 3/2), medium dense.	fine to medium sand, wet
			65 3 <u></u>	23-		SP	SAND, dark olive gray (5Y 3/		
12	12			25— 26—		sw	SAND, same as above with s Boring terminated at 25 feet		0 5" diameter
				27—		active Library Accountation of the contract of			
				29— 30—		-			
				31-					
	**************************************	Tomasson		33					
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				38		· · · · · · · · · · · · · · · · · · ·			
				40-		**************************************			
			The state of the s	42					
				44-					Page 2 of

			**********					CLIENT		SITE NUMBER	LC	CATION		
E		G						Exxon Mobil Oil Co	orp.	7-4121		10605 Foo Oakland, C		
	eering							DRILLING AND Cleared with hand auger to 8 feet bgs. Advanced using a truck mounted sample in the company of th						
LOG	OF SO	IL BOF	RING:		SI	B	21	SAMPLING METHODS	4-fo	ot-long acetate liners		T		
COO	RDINA	TES:						WATER LEVEL	WATER LEVEL ▼ 21.0				FINISH	
		I TOP) :			TIME		1312		START TIME	TIME	
		LOW						DATE		05/02/06		1115 DATE	1400 DATE	
		OMPA UMBEI			568			REFERENCE		GS		5/2/06	5/2/06	
	HES HES	S/6" ER	NG		PLE	IPLE RFD	Ę	SURFACE CONDITIONS		Concrete				
DRIVEN	RECOVER	BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	MATER S	SOIL SAM	GRAPHIC LOG	DESCRIPTION BY:		T. lob		····		
				0			777777	CILTY CLAY dark olive	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	ı (2.5Y 3/3). soft, firm, lov	v nlastin	ity some fine	sand	
				1		_		moist to dry	J. 04411	e (2.0) or or oy. Josephani, sor	r piaono	,, 551115 11116	out to,	
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48	48		0.5	8—		X			SILTY CLAY, light olive brown (2.5Y 5/6), hard, very low plasticity, trace fine sand dry					
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		-		10										
				"										
				11										
	ļ			12-										
48	48	-		40										
8		-	3.2	13		X								
<u> </u>		-		14		***************************************								
<u> </u>				15				Color change to dark oli	/e gra	ıy (5YR 3/2)				
Σ AΩ	48			16	1									
77 27	17													
7		-		40				Color change to olive bro	own w	vith iron staining (2.5Y 4/3	3)			
BORIN			12	18		X								
SOIL		ļ		19	$\left \cdot \right $			SAND. olive brown (2 5Y 4/3), medium dense, fine sand, moist						
10G OF SOIL BORING 7-4121 LOGS.GPJ ETIC.GDT 7/31/08				20		X	SP							
۲ <u>ـــــ</u>		<u></u>	<u> </u>	1	$\perp \perp$	Ш		L	*********					

					************			CLIENT	SITE NUMBER	LOCATION
ngir	neering	g, Inc.						Exxon Mobil Oil Corp	7-4121	10605 Foothill Blvd Oakland, California
	HES				FIE	<u> </u>	ا ن	LOG OF SOIL BORING		
DRIVEN	RECOVER	BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	SAMPLE TER SAM	L SAMPI	GRAPHIC LOG		SB21	
R	뀚	AS AS	0.8 QM	E G	WAT	SE	6일			
48	48	-		₹ 21-	ļ			only the second	0) 1 8 1	was a surface and pulposureded
		-					SP	SAND, dark olive gray (5Y 3/3 sand, wet	2), loose. line to very coa	ise aliguial and subfounded
				22						
			09	23-		X		Color change to light olive bro SAND, same as above with s	own (2 5Y 5/4) ome subangular gravel to	0.5" diameter
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12	12	-	—1.4—	25	IE	X		Boring terminated at 25 feet t	ogs.	
				26					- 0	
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Appendix H

Field Protocols

PROTOCOLS FOR INSTALLATION, SAMPLING, AND ABANDONMENT OF DUAL TUBE DIRECT PUSH BORINGS

SUBSURFACE CLEARANCE SURVEY PROCEDURES

Prior to drilling, the proposed locations of borings will be marked with white paint. Underground Service Alert (USA) will be contacted prior to subsurface activities and a "ticket" will be issued for this investigation. USA members will mark underground utilities in the delineated areas using standard color code identifiers.

Once USA has marked the site, all proposed borehole locations will be investigated by subsurface clearance surveys to identify possible buried hazards (pipelines, drums, tanks). Subsurface clearance surveys use several geophysical methods to locate shallow buried man-made objects. The geophysical methods include electromagnetic induction (EMI) profiling, ground penetrating radar (GPR), and/or magnetic surveying. The choice of methods depends on the target object and potential interference from surrounding features.

Prior to drilling, all boreholes will be cleared of underground utilities to a depth of at least 4 feet below ground surface (bgs) in "non-critical zones" and to 8 feet bgs in "critical zones". Critical zones are defined as locations that are within 10 feet from the furthest edge of any underground storage tank (UST), within 10 feet of the product dispenser islands, the entire area between the UST field and the product dispenser islands, and within 10 feet of any suspected underground line. An 8-to 12-inch-diameter circle will be cut in the surface cover at each boring location.

SOIL CORING PROCEDURES

Soil and groundwater samples are collected for lithologic and chemical analysis using a direct driven dual tube soil coring system. A hydraulic hammer drives sampling rods into the ground to collect continuous soil cores. Two nested sampling rods are driven simultaneously: small-diameter inner sampling rods are used to obtain and retrieve the soil cores; the larger diameter (approximately 2-inch OD) outer rods serve as temporary drive casing.

As the rods are advanced, soil is driven into an approximately 1.5-inch-diameter sample barrel that is attached to the end of the inner rods. Soil samples are collected in sleeves inside the sample barrel as both rods are advanced. The use of outer rods prevents sloughing of the formation while the inner rods are withdrawn from the hole. This ensures that the drive sampler will always be sampling soil from the desired interval, rather than potentially contaminated soil that has sloughed in from higher up in the hole.

After being driven 3 feet, the inner rods are removed from the borehole. The sleeves containing the soil samples are removed from the inner sample barrel, and can then be preserved for chemical analyses or used for lithologic identification. The soil-filled liner is labeled with the bore number, sample depth, site location, date, and time. The samples are placed in bags and stored in a cooler containing ice. This process is repeated until the desired depth is reached.

When the sampler is retrieved, either the lowermost or middle sample liner is removed and the ends of the tube are covered with aluminum foil or a Teflon liner and sealed with plastic caps. Soil from

one of the liners is placed in a plastic bag. The soil is scanned with a flame ionization detector (FID) or a photo-ionization detector (PID).

All drive casing, inner sample barrels, inner rods, and tools are cleaned with Alconox or equivalent detergent and deionized water. All rinsate from the cleaning is contained in 55-gallon drums at the project site.

GROUNDWATER SAMPLING PROCEDURES

After the targeted water-bearing zone has been penetrated, the sample barrel and inner rods are removed from the borehole, and the drive casing is pulled up approximately 0.5 to 2 feet to allow groundwater to flow into the borehole. Small-diameter well casing with 0.010-inch slotted well screen or equivalent may be installed in the borehole to facilitate the collection of groundwater samples. Threaded sections of PVC are lowered into the borehole inside the drive casing. The drive casing is then pulled up to expose the slotted interval of the PVC. Groundwater samples may then be collected with a bailer, peristaltic pump, bladder pump or inertial pump until adequate sample volume is obtained.

Groundwater samples are preserved, stored in an ice-filled cooler, and are delivered, under chain-of-custody, to a laboratory certified by the California Department of Health Services (DHS) for hazardous materials analysis.

BOREHOLE GROUTING

On completion of soil and water sampling, boreholes will be abandoned with a neat cement grout. The grout is pumped through a grouting tube positioned at the bottom of the boreholes prior to withdrawing the outer rods.

SOIL VAPOR SURVEY METHODOLOGY DTSC Protocols

Active Soil Vapor Sampling System

TEG's low-dead volume soil vapor sampling system has been inspected, endorsed, and is favored by all regulatory agencies who have seen it, including the EPA and CA DTSC. The design eliminates the risk of air leakage down the soil vapor probe, ensures sample collection from the tip, and greatly facilitates decontamination procedures.

Probe Construction

TEG's soil vapor probes are constructed of 1 inch outer diameter chrom-moly steel, equipped with a steel drop off tip. The Strataprobe can use a larger diameter probe if needed. Nominal lengths are 4 feet and additional lengths may be added to one another to achieve the required sampling depth. An inert 1/8 inch tube runs through the center of the probe and is attached to the sampling port with a stainless steel post run fitting.

Probe Insertion

The probe is driven into the ground with an electric rotary hammer, or with the Strataprobe. After inserted to the desired depth, the probe is retracted slightly, which opens the tip and exposes the vapor sampling port. This design prevents clogging of the sampling port and cross-contamination from soils during insertion. Once the probe rod is placed, the sample can be collected after waiting twenty minutes for equilibration.

Soil Gas Sampling

Soil vapor is withdrawn from the inert tubing using a calibrated syringe connected via an on-off valve. A purge volume test is conducted by sampling at the first soil vapor location three times after sequentially collecting and discarding one, three, and seven dead volumes of soil vapor gas to flush the sample tubing and fill it with in-situ soil vapor. The purge volume used prior to the sample yielding the highest analytical value is used for all subsequent sampling. After purging, the next 20cc to 50cc of soil vapor are withdrawn in the syringe, plugged, and immediately transferred to the mobile lab for analysis within the required holding time. During sampling, a leak check gas is used to confirm that the sample train and probe rod is tight and leak free. Additional soil vapor may be collected and stored in gas-tight containers (e.g. Summa canisters) as desired.

Flushing & Decontamination Procedures

To minimize the potential for cross-contamination between sites, all external probe parts are cleaned of excess dirt and moisture prior to insertion. The internal inert tubing and sampling syringes are flushed with large volumes of ambient air between samples or discarded as required. If water, dirt, or any material is observed in the tubing, the tubing is discarded and replaced with fresh tubing.

DTSC Protocols

Analytical Methodology

Soil vapor samples collected from each probe will be transferred directly to the on-site mobile laboratory and analyzed immediately. There will be minimal lag time between sample collection and analysis, ensuring that the integrity of the sample is maintained.

Samples will be analyzed on a gas chromatograph equipped with capillary columns and a combination of mass spectrometer (GC/MS), TCD, and FID detectors as needed. This combination of columns and detectors ensures compound separation, recognition, and detection at the required levels.

These detectors enable on-site analysis for petroleum hydrocarbons, volatile aromatics (BTEX), and volatile organic compounds (e.g. DCE, TCE, PCE, vinyl chloride) using EPA approved analytical methodology outlined in methods 8260B and 8015m. Output signals from each detector are processed by computer chromatography software and the results entered into a laboratory computer for on-site processing.

Daily instrument Calibration

Daily continuing calibration is performed at the start of each day by injecting and analyzing a midrange calibration standard. Acceptable continuing calibration agreement: +/- 15% to 25% to the calibration curve, depending on the compound.

Blanks & Duplicates

Blanks are analyzed at the start of each day and more often as appropriate depending upon the measured concentrations. Typically, when high sample values are encountered, additional blanks may be analyzed. Duplicate samples are analyzed as needed or as requested by the client or regulatory agency.

Compound Confirmation

A MS (mass spectrometer) detector is used for absolute compound identification of VOCs. Also, a surrogate compound is added to each sample during analysis to confirm that the chromatographic retention times have not shifted during the course of the day and that surrogate recovery is adequate showing proper instrument operation and integrity.

Health and Safety - Training and Medical Monitoring Programs

In order to reduce potential employee exposure to hazardous materials and reduce the risk of injury incurred during the normal performance of work, TEG maintains active participation of personnel in a Injury and Illness Prevention Program (IIPP). Each TEG employee that performs work in a laboratory or in the field, is required to have completed a 40-hour training session in accordance with 29 CFR 1910.120. The Health and Safety Officer coordinates all aspects of training and maintaining the Injury and Illness Prevention program, including, but not limited to:

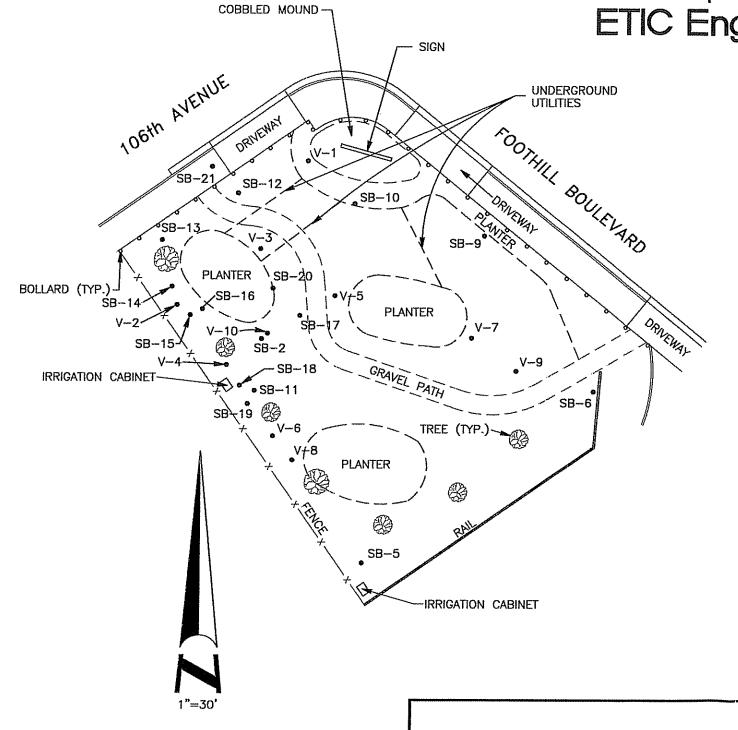
- -- annual physical examination of field personnel (including an initial baseline exam upon hiring)
- -- health, safety and hazardous material training
- -- first aid and Cardio-Pulmonary Resuscitation (CPR) training
- -- safety equipment inventory and purchasing
- -- review of health and safety procedures, exposure limits, and plans for each project.

Work procedures and required safety conditions are determined on the basis of anticipated work, environmental conditions and levels of toxic chemicals at a given site. Consultation with client safety personnel or representatives is undertaken to determine potential health hazards to workers at that site. Each TEG employee participates in all pre-job safety meetings at each job site.

Appendix I

Survey Data

Soil Boring Exhibit Prepared For: ETIC Engineering



DESCRIPTION	NORTHING	EASTING	LATITUDE	LONGITUDE	ELEV (GND)
SB-2 SB-5 SB-6 SB-9 SB-10 SB-11 SB-12 SB-13 SB-14 SB-15 SB-16 SB-17 SB-16 SB-17 SB-18 SB-19 SB-20 SB-21 V-2 V-3 V-4 V-5 V-6	2097689. 1 2097618. 9 2097672. 7 2097721. 3 2097731. 3 2097672. 9 2097734. 5 2097795. 4 2097696. 5 2097698. 4 2097696. 4 2097696. 7 209764. 7 2097704. 9 2097704. 9 2097744. 6 2097699. 7 2097717. 2 2097681. 0 2097702. 6 2097658. 7	6084715, 4 6084747, 2 6084818, 9 6084784, 7 6084744, 3 6084707, 8 6084693, 1 6084693, 1 6084693, 1 6084727, 4 6084711, 1 6084718, 9 6084714, 9 6084714, 9 6084704, 5 6084719, 1	37. 7443190 37. 7441278 37. 7442791 37. 7444109 37. 7444362 37. 7444433 37. 74444019 37. 7443624 37. 7443436 37. 7443436 37. 7442786 37. 7442629 37. 7444654 37. 7444654 37. 744368 37. 744368 37. 744368 37. 744368 37. 744368 37. 744368	-122. 1496322 -122. 1495180 -122. 1492733 -122. 1493945 -122. 1495348 -122. 1496387 -122. 1496611 -122. 1497420 -122. 1497299 -122. 1497097 -122. 1496967 -122. 1496967 -122. 1496548 -122. 1496548 -122. 1496540 -122. 1496899 -122. 1496899 -122. 1496899 -122. 1496899 -122. 14969564 -122. 1496356 -122. 1496356 -122. 1496359 -122. 14965399 -122. 14965399 -122. 14965399 -122. 14965399 -122. 14965399 -122. 14965399	83. 1 83. 7 85. 5 85. 3 84. 4 82. 0 81. 7 81. 5 81. 5 82. 5 82. 6 82. 6 82. 6 83. 2 84. 8 85. 8 86. 8 8 8 86. 8 86. 8 86. 8 86. 8 86. 8 86. 8 86. 8 86. 8 86. 8 86. 8 86
V-7 V-8 V-9 V-10	2097689, 4 2097651, 1 2097679, 1 2097690, 8	6084780. 9 6084725. 2 6084794. 8 6084717. 3	37, 7442331 37, 7442152 37, 7442954 37, 7443238	-122. 1494057 -122. 1495960 -122. 1493569 -122. 1496259	85, 1 83, 0 85, 4 83, 1

BASIS OF COORDINATES AND ELEVATIONS:

COORDINATES ARE CALIFORNIA STATE PLANE ZONE 3 COORDINATES FROM GPS OBSERVATIONS USING UNIVERSITY OF CALIFORNIA BAY AREA DEFORMATION CORS STATION OBSERVATION FILES AND BASED ON THE CALIFORNIA SPATIAL REFERENCE CENTER DATUM, REFERENCE EPOCH 2000.35.

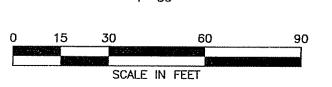
COORDINATE DATUM IS NAD 83(1986).

DATUM ELLIPSOID IS GRS80.

REFERENCE GEOID IS NGS99.

CORS STATIONS USED WERE DIAB AND PTRB.

VERTICAL DATUM IS NAVD 88 FROM GPS OBSERVATIONS.



10605 Foothill Boulevard Oakland Alameda County California



1450 Harbor Blvd. Ste. D West Sacramento California 95691 (916) 372-8124 jeff@morrowsurveying.com Date: 5-16-06
Scale: 1" = 30'
Sheet 1 of 1
Revised:
Field Book: MW-26

Dwg. No. 1893-056 CT

Appendix J Laboratory Analytical Reports

RECEIVED

17 May 2006

MAY 24 2006

Ms. Sherris Prall ETIC Engineering 2285 Morello Avenue Pleasant Hill. CA 94523 ETIC ENGINEERING

SUBJECT: DATA REPORT - ETIC Engineering Project # TM4121.3

Former Exxon RS 7-4121, Oakland, California

TEG Project # 60501D

Ms Prall:

Please find enclosed a data report for the samples analyzed from the above referenced project for ETIC Engineering. The samples were analyzed on site in TEG's mobile laboratory. TEG conducted a total of 18 analyses on 10 soil vapor samples.

- -- 10 analyses on soil vapors for BTEX, MTBE and TPH-gasoline range by EPA method 8260B.
- -- 8 analyses on soil vapors for oxygen by GC/TCD.

The results of the analyses are summarized in the enclosed tables. Applicable detection limits and calibration data are included in the tables.

1,1 difluoroethane was used as a leak check compound around the probe rods during the soil vapor sampling. No 1,1 difluoroethane was detected in any of the vapor samples reported at or above the DTSC recommended leak check compound reporting limit of 10 μ g/L of vapor.

TEG appreciates the opportunity to have provided analytical services to ETIC Engineering on this project
If you have any further questions relating to these data or report, please do not hesitate to contact us

Sincerely,

Mark Jerpbak

Director, TEG-Northern California

Mobile and Laboratory Analytical Services

Environmental Subconsulting

Geochemical R&D

SoilVaporSurveys

AirMonitoring

Phone: (916) 853-8010

Fax: (916) 853-8020



ETIC Engineering Inc. Project # TM4121.3 Former Exxon RS 7-4121 10605 Foothill Boulevard, Oakland, California

TEG Project #60501D

SAMPLE NUMBER:		Probe Blank	V1	V1	V1	V3	V6
SAMPLE DEPTH (feet):			5.5	5 5	5 5	5.5	70
PURGE VOLUME:			1	3	7	7	7
COLLECTION DATE:		5/01/06	5/01/06	5/01/06	5/01/06	5/01/06	5/01/06
COLLECTION TIME:		10:50	11:11	11:31	11:53	17.13	15:03
DILUTION FACTOR (VOCs)		1	1	1	1	1	1
D. C.	RL						<u></u>
3enzene	0.080	nd	0.19	0.19	0.20	0.12	0.17
Toluene	0.10	nd	0.11	0.11	nd	0.16	nd
Ethylbenzene	0.10	nd	nd	nd	nd	0 14	0.54
n,p-Xylene	0.10	nd	0.10	nd	nd	nd	0.41
o-Xylene	0 10	nd	nd	nd	nd	nd	nd
Methyl-t-butyl-ether (MTBE)	0 10	nd	nd	nd	nd	nd	nd
Oxygen	5%	21	_	-	9.4	19	9 1
TPH- gasoline range	5.0	nd	730	710	790	110	880
1.1 Diflouroethane (leak check)	10	nd	nd	nd	nd	nd	nd
Surrogate Recovery (DBFM) Surrogate Recovery (1,2-DCA-d4)		117% 118%	123% 128%	128% 131%	121% 126%	111% 127%	115% 127%
SAMPLE NUMBER:		V7	V7 dup	V9	V10	V10	
SAMPLE DEPTH (feet):		75	7	7.5	80	100	
PURGE VOLUME:		7	7	7	7	7	
COLLECTION DATE:		5/01/06	5/01/06	5/01/06	5/01/06	5/01/06	
COLLECTION TIME:		12:33	13:16	12:55	16:19	16:42	
DILUTION FACTOR (VOCs):	RL	1	1	1	1	10	
Benzene	0.080	0.084	nd	nd	1.1	1.9	
Toluene	0 10	0.14	0.11	nd	0.13	nd	
Ethylbenzene	0 10	nd	nd	nd	0.34	nd	
m,p-Xylene	0.10	0.11	nd	nd	0.18	nd	
o-Xylene	0.10	nd	nd	nd	nd	nd	
Methyl-t-butyl-ether (MTBE)	0.10	nd	nd	nd	nd	nd	
Oxygen	5%	21	20	19	11	9.0	
TPH- gasoline range	5.0	22	24	360	6600**	17000	
	10	nd	nd	nd	nd	nd	
1,1 Diflouroethane (leak check)							

Analyses performed in TEG-Northern California's lab Analyses performed by: Mr. John Henkelman

11350 Monier Park Place, Rancho Cordova, CA 95742 Phone: (916) 853-8010 Fax: (916) 853-8020



ETIC Engineering Inc. Project # TM4121.3 Former Exxon RS 7-4121 10605 Foothill Boulevard, Oakland, California

TEG Project #60501D

CALIBRATION STANDARDS - Initial Calibration / LCS

nstrument: Agilent 5973N MSD	INITIAL CA	LIBRATION	LO	cs
COMPOUND	RF	%RSD	RF	%DIFF
AC (ALL MATRIC)	0.350	14 4%	0.316	9.7%
Methyl-t-butyl-ether (MTBE)	1.201	19.3%	1.092	9.1%
Benzene	0.702	12.5%	0.601	14.4%
Toluene	0.584	11.6%	0.602	3.1%
Ethylbenzene	0.708	18.3%	0.666	5 9%
m,p-Xylene o-Xylene	0.716	16.0%	0.738	3 1%
ACCEPTABLE LIMITS:		20.0%		15.0%

11350 Monier Park Place, Rancho Cordova, CA 95742 Phone: (916) 853-

Phone: (916) 853-8010 Fax: (916) 853-8020



17 May, 2006

Sherris Prall ETIC Engineering Inc - Pleasant Hill (Exxon) 2285 Morello Avenue Pleasant Hill, CA 94523

RE: Exxon 7-4121 Work Order: MPE0255

Enclosed are the results of analyses for samples received by the laboratory on 05/03/06 19:15. The samples arrived at a temperature of 6° C. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christina Dell Project Manager

CA ELAP Certificate #1210





Project: Exxon 7-4121

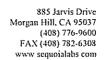
2285 Morello Avenue Pleasant Hill CA, 94523 Project Number: 7-4121

MPE0255 Reported: 05/17/06 12:17

Project Manager: Sherris Prall

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Drum 5	MPE0255-01	Soil	05/02/06 15:15	05/03/06 19:15





Project: Exxon 7-4121

2285 Morello Avenue

Project Number: 7-4121

MPE0255 Reported:

Pleasant Hill CA, 94523

Project Manager: Sherris Prall

05/17/06 12:17

Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Drum 5 (MPE0255-01) Soil S	ampled: 05/02/06 15:15	Received: 0	5/03/06 1	9:15					
Gasoline Range Organics (C4-C1	2) ND	100	ug/kg	ŧ	6E11001	05/11/06	05/11/06	EPA 8015B/8021B	
Benzene	ND	10	11	++	##	Ħ	a	n	
Toluene	ND	1.0	U	**	**	žI	#	u	
Ethylbenzene	ND	1.0	U	**	19	șŧ.	**	u	
Xylenes (total)	ND	1.0	0	b	Н	42	**	ď	
Surrogate a.a.a-Trifluorotoluene	2	102 %	75-	120	ų	H	n	n	
Surrogate 4-Bromofluorobenzen	e	97 %	4.5-	135	n	"	"	"	





ETIC Engineering Inc - Pleasant Hill (Exxon) 2285 Morello Avenue

- Pleasant Hill (Exxon) Project: Exxon 7-4121

Pleasant Hill CA, 94523

Project Number: 7-4121 Project Manager: Sherris Prall MPE0255 Reported: 05/17/06 12:17

Total Metals by EPA 6000/7000 Series Methods Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Drum 5 (MPE0255-01) Soil	Sampled: 05/02/06 15:15	Received: (5/03/06	19:15					
Lead	ND	5.0	mg/kg		6E10008	05/10/06	05/11/06	EPA 6010B	





2285 Morello Avenue

Pleasant Hill CA, 94523

ETIC Engineering Inc - Pleasant Hill (Exxon)

Project: E

Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0255 Reported: 05/17/06 12:17

Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control Sequoia Analytical - Morgan Hill

	· .	Evaluation	•••	Spike	Source	D/ D.C.C	%REC	DDD	RPD	Marur
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6E11001 - EPA 5035 heated prg										
Blank (6E11001-BLK1)				Prepared	& Analyze	ed: 05/11/	06			
Gasoline Range Organics (C4-C12)	ND	50	ug/kg							
Benzene	ND	0 5	**							
Toluene	ND	0 5	11							
Ethylbenzene	ND	0.5	11							
Xylenes (total)	ND	0 5	U							
Surrogate a.a.a-Trifluorotoluene	43 1		*	40.0		108	75-120			
Surrogate 4-Bromofluorobenzene	39 0		н	40 0		98	45-135			
LCS (6E11001-BS1)				Prepared	& Analyz	ed: 05/11/	06			
Gasoline Range Organics (C4-C12)	272	100	ug/kg	275		99	65-125			
Surrogate 4-Bromofluorobenzene	109		n	40 0		102	45-135			
LCS (6E11001-BS2)				Prepared	& Analyz	ed: 05/11/	06			
Benzene	9 27	10	ug/kg	10 0		93	55-150			
Toluene	10 0	10	U	10 0		100	80-125			
Ethylbenzene	108	10	U	100		108	65-120			
Xylenes (total)	32 0	10	**	30 0		107	80-130			
Surrogate a.a.a-Trifluorotoluene	43 0		n	40 0		108	7.5-120			
Matrix Spike (6E11001-MS1)	Sou	irce: MPE02	275-01	Prepared	& Analyz	ed: 05/11/	06			
Gasoline Range Organics (C4-C12)	239	100	ug/kg	275	15	81	65-125			
Benzene	4 15	10	4	2 65	ND	157	55-150			QM
Toluene	213	10	n	23 0	ND	93	80-125			
Ethylbenzene	4.42	10	n	4 60	ND	96	65-120			
Xylenes (total)	24 0	10	u	26.4	ND	91	80-130			
Surrogate a.a.a-Trifluorotoluene	42 0		1)	40.0	***************************************	105	75-120			
Surrogate 4-Bromofluorobenzene	399		**	40 0		100	45-135			





Project: Exxon 7-4121

MPE0255 Reported:

2285 Morello Avenue Pleasant Hill CA, 94523

Surrogate a.a.a-Trifluorotoluene

Surrogate 4-Bromofluorobenzene

Project Number: 7-4121 Project Manager: Sherris Prall

05/17/06 12:17

Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control Sequoia Analytical - Morgan Hill

		Evaluation		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6E11001 - EPA 5035 heated prg										
Matrix Spike Dup (6E11001-MSD1)	Sour	ce: MPE02	75-01	Prepared	& Analyze	ed: 05/11/	06			
Gasoline Range Organics (C4-C12)	249	100	ug/kg	275	15	85	65-125	4	40	
Benzene	4 42	10	#	2 65	ND	167	55-150	6	35	QM01
Toluene	22 7	10	**	23 0	ND	99	80-125	6	40	
Ethylbenzene	4 89	10	**	4.60	ND	106	65-120	10	40	
Xylenes (total)	25 9	10	"	26.4	ND	98	80-130	8	40	

42 4 40.1 40 0

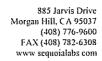
400

106

100

75-120

45-135





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0255 Reported: 05/17/06 12:17

Total Metals by EPA 6000/7000 Series Methods - Quality Control Sequoia Analytical - Morgan Hill

		Evaluation		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6E10008 - EPA 3050B										
Blank (6E10008-BLK1)				Prepared:	05/10/06	Analyzed	1: 05/11/06			
Lead	ND	2 5	mg/kg							
LCS (6E10008-BS1)				Prepared:	05/10/06	Analyzec	1: 05/11/06			
L ead	45 2	5 0	mg/kg	50 0		90	75-120			
Matrix Spike (6E10008-MS1)	Sou	rce: MPE0	176-01	Prepared:	05/10/06	Analyzec	1: 05/11/06			
L.ead	45 9	5 0	mg/kg	50 0	69	78	75-120			
Matrix Spike Dup (6E10008-MSD1)	Sou	rce: MPE0	176-01	Prepared:	05/10/06	Analyzec	1: 05/11/06			
Lead	38 1	5 0	mg/kg	50 0	69	62	75-120	19	25	QMO





ETIC Engineering Inc - Pleasant Hill (Exxon)
Project: Exxon 7-4121
MPE0255
2285 Morello Avenue
Project Number: 7-4121
Pleasant Hill CA, 94523
Project Manager: Sherris Prall
05/17/06 12:17

Notes and Definitions

QM02 The spike recovery was below control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery

QM01 The spike recovery was above control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference



Morgan Hill Division 885 Jarvis Drive Morgan Hill, CA 95037 Phone: 408-776-9600 Fax: 408-782-6308

ExonMobil.

3																															
Consultant Name:	ETIC EN	GINEER	ING															оип	*	***************************************											
Address:	2285 MC	RELLO	AVEN	JUE								·····							•						s othe			icate	3)		
City/State/Zlp:	PLEASA	NT HILL	, CA.	9452	3												Re	port	To:	etic	labı	epo	rts(@et	icenc	g.co	<u>m</u>				
ExxonMobil Territory Mgr:	JENNIFE	R SEDI	.ACH	EK														PO) #:	4506	877	7068									
Consultant Project Mgr:	SHERRI	S PRALI	L			Proje	ect i	#: <u>T</u>	W41	21	ras	КЗ					Fac	ility l	D#	7-41	21										
Consultant Telephone Number:	(925) 60	2-4710 E	EXT. 2	20		Fax	c Np	.: <u>(</u> 9	925)	602	-47	20		.,		_s	ite .	Addr	ess _.	1060)5 F	100	HIL	LBC	DULE	VAR	D				
Sampler Name: (Print)				,			,									Cit	y, S	tate,	Zip	OAK	LA	VD, (CA								
Sampler Signature:	1	7,1											F	kegu	ilato	ry i	Dist	rict (CA)	ACH	ICS	A						<u></u>			
Janipidi digitati	<u> </u>			·		1		P	rese	rval	ive		T		Mal	rlx		Т		,		Analy	ze l	For:				<u></u>			
MPEO255 ample ID or Field ID DRUM 5 - 01	Date Sampled	Time Sampled	No of Containers Shipped	Grab	Composite	Field Filtered	Methanol	Sodium Bisulfate	HG (Blue Label)	H ₂ SO ₄ Plastic (Yellow Label)	H ₂ SO ₄ Glass(Yellow Label)	HNO, (Red Label)	None (Black Laber)	Vastewater Wastewater	Drinking Water	Sindge	X Soil	Oater (Specify): TPH-Q/BTEX BY 8015/80218	TPH-D BY 80158	OXYGENATES BY 8260B	X 70121 LEAD	. ≥	Moisture ASTM D2216				HOLD	RUSH TAT (Pre-Schedule)	TAT request (in Bus. Days	Fax Results (yes or no)	Due Date of Report
Page Heatructions			I OB	AL ID	# T06	0012	038	<u> </u>			FD	FFI		REG	LITE	ED			<u>.l</u>	La	oora	atory	Co	mn	ents:	l		_ <u>_</u>		السلا ح	
Special Instructions: OXYGENATES INCLUDE MTE	3E, TBA				DIPE	E, E[OB,		DE	:DC		, 1 1		: % Sana % M	0.		······		m.a.d-/		Te Sa VC	mpe mple OCs i	ratui Co Free	re Up ntair of H	pon R vers li leads	lecei ntaci pace	? ??	Y	-	N	4/4
Relinquished by:	5/2	ale D/G	12	ime Si	Rece		_							رَ	r/.	<u></u>	/ E	140	пе <u>/</u> 5	Lev	vel 2 vel 3	! }	ibles	s (ple	ese c	<u>írcle</u>	one)				•
Relinguished by	5/3	la	1 '	infe 1/5	Rece	eived			4mer	ica:					5/2	ale b/b	6	T1 19	me /5	SIL		ecific			pleas allach			nstru	uclion	ns /	stAmerica
MDOCUME=MONLOCALS=ITEMPIT=	4171 1V CC	<i></i>																										ſ	` . /	- /	

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME:	ETIC			DATE REC'D AT LAB:					_	ory Purposes?
REC. BY (PRINT)	.GB.			TIME REC'D AT LAB:					DRINKING V	77 (3)
WORKORDER:	MPEO25T		-	DATE LOGGED IN:	<u>. K/ 6</u>	106		•	WASTE WA	TER YES NOT
5. 0111 (01 in m. 11	*		. (•					
CIRCLE THE APPRO	PRIATE RESPONSE	LAB	DASH	CLIENT ID		PRESERV	рН	SAMPLE	DATE	REMARKS: CONDITION (ETC.)
च्या प्रकारी व्यवस्था व्यवस्था । स्व		SAMPLE#	.#		DESCRIPTION	ATIVE		MATRIX	SAMPLED	GORDINON (E. O.)
1. Custody Seal(s)		7				-				mila! we
	Intact / Broken*		<u> </u>			 				nuw!
2, Chain-of-Custody.	Rresent / Absent*	I		,						
3. Traffic Reports or			-	-					·	
Packing List:	Present / Absent				Į					/
4. Airbill:	Airbill / Sticker		<u></u>	f .						
	Present / Absent				ļ	-		<u> - </u>		
5. Airbill #:			-		<u> </u>			sh/		
6. Sample Labels:	Present / Absent		-		<u> </u>		-	4		
7. Sample IDs:	Listed / Not Listed	ļ	-			-	<u> </u>	//	<u> </u>	
	on Chain-of-Custody						16/1	<u> </u>		
8. Sample Condition:	'Infact) Broken*/	<u> </u>	 		1	3	P/	 		
	Leaking*			:	1	+>		 		
9. Does information on			1.			6/		 		:1
traffic reports and s			-	4	1-00	4		 	 	
agree?	Ves No*	<u> </u>	 	-		1 , 	<u> </u>	-		
Sample received with	in				100	<u></u>	 	 	 	` '
hold time?	/ (Yes)/ No*		1		1					
11. Adequate sample vol	lume				/		 		1	C,
received?	Yes/ No*	 	+			 		1		
12. Proper preservatives	used? (as) No*	 			1	 	 	1	, .	
13. Trip Blank / Temp Bla	ank Heceived?	<u> </u>	4.5	 		1	 	<u> </u>	-	
(circie which; if-yes)	Yes / 102	1	+	+-/			 		r	
14. Read Temp:			 	 			1.		1	
Corrected Temp:	El a		1:/	1		. .	-		· ·	
is corrected temp 4		 	/-	4					-	
(Acceptance range for samples	s requiring thermal pres.)	-				1	1	-	-	
**Exception (if any): ME	TALS / DFF ON ICE		+		+		╁	-		
or Problem COC		Service Park	(Academia)		E NACES DE CARACTER DE LA CONTROL DE LA CONT	THE PROPERTY OF THE PARTY OF TH	A STATE OF THE PARTY OF THE PAR		EOI LITION	CHIPMEN CHE PROMINENCE MATERIAL PROMINENCE MATERIAL PROMINENCE PRO
Parameter Control of the Control of		+iF CIF	RCLED.	CONTACT PROJECT	MANAGER AN	D ATTACH	HECÓI	HU UF HE	POLO HOM.	1

SRL Revision 7 Replaces Rev 5 (07/13/04) Ellective 07/19/05



18 May, 2006

Sherris Prall ETIC Engineering Inc - Pleasant Hill (Exxon) 2285 Morello Avenue Pleasant Hill, CA 94523

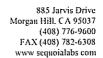
RE: Exxon 7-4121 Work Order: MPD0939

Enclosed are the results of analyses for samples received by the laboratory on 04/28/06 19:20. The samples arrived at a temperature of 4° C. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christina Dell Project Manager

CA ELAP Certificate #1210





ETIC Engineering Inc - Pleasant Hill (Exxon)
Project: Exxon 7-4121

Project Number: 7-4121

Pleasant Hill CA, 94523

Project Manager: Sherris Prall

MPD0939

Reported:

05/18/06 16:42

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Drum (1-4)	MPD0939-01	Soil	04/27/06 15:00	04/28/06 19:20





Project: Exxon 7-4121

2285 Morello Avenue Pleasant Hill CA, 94523 Project Number: 7-4121
Project Manager: Sherris Prall

MPD0939 Reported: 05/18/06 16:42

Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Drum (1-4) (MPD0939-01) Soil	Sampled: 04/27/06 15:00	Receive	d: 04/28/06	19:20					
Gasoline Range Organics (C4-C12) ND	100	ug/kg	l	6E08002	05/08/06	05/08/06	EPA 8015B/8021B	
Benzene	ND	10	II	h	**	19	11	II .	
Toluene	ND	1.0	II .	0	**	**	n	u	
Ethylbenzene	ND	0.1	II .	"	19	н	u	11	
Xylenes (total)	ND	1.0	ıı .	"))	n	ii .	t1	
Surrogate a,a,a-Trifluorotoluene		102 %	75-12	20	n	н	и	н	
Surrogate 4-Bromofluorobenzene		84 %	45-13	3.5	"	u	p	ti	





Project: Exxon 7-4121

2285 Morello Avenue Pleasant Hill CA, 94523 Project Number: 7-4121 Project Manager: Sherris Prall MPD0939 Reported: 05/18/06 16:42

Total Metals by EPA 6000/7000 Series Methods

Sequoia Analytical - Morgan Hill

		Reporting							
Analyte	Result	L imit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Drum (1-4) (MPD0939-01) Soil	Sampled: 04/27/06 15:00	Receive	d: 04/28/	06 19:20					
Lead	13	5.0	mg/kg	ı	6E04021	05/04/06	05/05/06	EPA 6010B	





2285 Morello Avenue

Project: Exxon 7-4121 Project Number: 7-4121

Project Manager: Sherris Prall

Evaluation

MPD0939 Reported: 05/18/06 16:42

RPD

%REC

Pleasant Hill CA, 94523

Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control

Spike

Source

Sequoia	Analytical	•	Morgan	Hill	

		Evamanon		эрікс	Source		ValCEC		KUD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6E08002 - EPA 5035 heated	prg									
Blank (6E08002-BLK1)				Prepared	& Analyz	ed: 05/08/	06			
Gasoline Range Organics (C4-C12)	ND	50	ug/kg							
Benzene	ND	0.5	U							
Toluene	ND	0 5	n							
Ethylbenzene	ND	0.5	Ħ							
Xylenes (total)	ND	0 5	**							
Surrogate a.a.a-Trifluorotoluene	42.5		Ħ	10 0		106	75-120	****		
Surrogate: 4-Bromofluorobenzene	37 7		"	40 0		94	45-135			
LCS (6E08002-BS1)				Prepared	& Analyz	ed: 05/08/	06			
Gasoline Range Organics (C4-C12)	272	100	ug/kg	275		99	65-125			
Surrogate 4-Bromofluorobenzene	40.3	······································	"	40 0		101	45-135			
LCS (6E08002-BS2)				Prepared	& Analyz	ed: 05/08/	06			·
Benzene	9.40	10	ug/kg	10 0		94	55-150			
Toluene	9 97	10	n	10.0		100	80-125			
Ethylbenzene	108	10	u	10 0		108	65-120			
Xylenes (total)	316	10	11	30 0		105	80-130			
Surrogate a.a.a-Trifluorotoluene	42 6	***************************************	n	40 0		106	75-120			***************************************
Matrix Spike (6E08002-MS1)	So	urce: MPD0	937-06	Prepared	& Analyz	ed: 05/08/	06			
Gasoline Range Organics (C4-C12)	216	100	ug/kg	275	13	74	65-125			
Benzene	3 97	10	r	2 65	ND	150	55-150			
Toluene	19.4	10	п	23 0	ND	84	80-125			
Ethylbenzene	3 91	10	71	4 60	ND	85	65-120			
Xylenes (total)	20 6	10	Ħ	26 4	0.36	77	80-130			QM(
Surrogate a.a.a-Trifluorotoluene	416		n	40 0		104	75-120			
Surrogate 4-Bromofluorobenzene	37 2		Ħ	40 0		93	45-135			





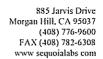
Project: Exxon 7-4121

2285 Morello Avenue Pleasant Hill CA, 94523 Project Number: 7-4121 Project Manager: Sherris Prall MPD0939 Reported: 05/18/06 16:42

Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control Sequoia Analytical - Morgan Hill

		Evaluation		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	L imits	RPD	Limit	Notes
D () (D00003 DD) (0251	······		7,				***************************************	·····	***************************************	7,117,77
Batch 6E08002 - EPA 5035 heated prg			······						·	
				n .			^-			

Matrix Spike Dup (6E08002-MSD1)	Sour	ce: MPD09	37-06	Prepared a	& Analyzo	ed: 05/08	/06			
Gasoline Range Organics (C4-C12)	182	100	ug/kg	275	13	61	65-125	17	40	QM02
Benzene	3 57	10	Ħ	2 65	ND	135	55-150	1	35	
Toluene	17 4	10	#1	23 0	ND	76	80-125	11	40	QM02
Ethylbenzene	3 53	10	11	4 60	ND	77	65-120	10	40	
Xylenes (total)	18 5	10	**	26.4	0 36	69	80-130	1 l	40	QM02
Surrogate a.a.a-Trifluorotoluene	41.5		,,	40 0		104	7.5-120			······································
Surrogate 4-Bromofluorobenzene	3.5 4		**	40.0		88	45-135			





Project: Exxon 7-4121

2285 Morello Avenue Pleasant Hill CA, 94523 Project Number: 7-4121
Project Manager: Sherris Prall

MPD0939 Reported: 05/18/06 16:42

Total Metals by EPA 6000/7000 Series Methods - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Evaluation I imit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6E04021 - EPA 3050B										
Blank (6E04021-BLK1)				Prepared:	05/04/06	Analyzed	1: 05/05/06			
Lead	ND	2.5	mg/kg							
LCS (6E04021-BS1)				Prepared:	05/04/06	Analyzed	1: 05/05/06			
Lead	48 4	5 0	mg/kg	50 0		97	75-120			
Matrix Spike (6E04021-MS1)	So	urce: MPD0	489-01	Prepared:	05/04/06	Analyzec	1: 05/05/06			
Lead	43 2	5 0	mg/kg	50.0	3 3	80	75-120			
Matrix Spike Dup (6E04021-MSD1)	So	urce: MPD0	489-01	Prepared:	05/04/06	Analyzed	1: 05/05/06			
Lead	39 3	5 0	mg/kg	50 0	3 3	72	75-120	9	25	QM0





ETIC Engineering Inc - Pleasant Hill (Exxon)

Project: Exxon 7-4121

Project Number: 7-4121

Pleasant Hill CA, 94523

Project Manager: Sherris Prall

MPD0939

Reported:

05/18/06 16:42

Notes and Definitions

QM02 The spike recovery was below control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference



Morgan Hill Division 885 Jarvis Drive Morgan Hill, CA 95037 Phone: 408-776-9600 Fax: 408-782-6308

ExonWobil.

Consultant Name:	ETIC EN	IGINEEF	RING													TA	Acc	coun	t#:_	1023	6									
Address:	2285 MC	RELLO	AVE	NUE													Inve	oice '	To:	(Exxo	nMobi	I PM	unle	ss oli	nerwi	se in	dica	te)		
City/State/Zip:	PLEASA	NT HILL	., CA.	9452	3												Re	port	To:	eticle	brer	orts	@e	ticer	ng.c	om				
ExxonMobil Territory Mgr:	JENNIF	ER SEDI	LACH	EK														PC) #: _	45068	7706	8								
Consultant Project Mgr:	SHERRI	S PRALI	L			Proj	ect	#: 1	ГМ4	121	TAS	sk a	3				Faci	llity I	D#	7-412	1						ļ	11	PD	6939
Consultant Telephone Number:	(925) 60	2-4710 E	EXT. 2	20		Fax	x No	-) (925	60:	2-47	20				S	Site A	Addre	988	10605	FOC	тні	LĽ B	OUL	EVAI	RD	_			
Sampler Name: (Print)	77/	RACI	1 =	Lot	3			•••								Cit	y, St	tate, i	Zip	OAKL	AND	, CA								
Sampler Signature:		1	en	1	1	$\sqrt{/}$	77	_			***************************************			Reg	ulate	ory I	Distr	rict (0	CA)	ACHO	SA									
			J		,	ا		ţ	rese	erva	live		T		Ma	trix		T			Ana	lyze	For:				7			
ample ID or Field ID DRUM I DRUM 23 DRUM 3 DRUM 4	1/21e/6 1/27/6 1/27/6 1/27/6	1315	No of Containers Shipped	Grab	Composite	Field Filtered	Methanoi	Sodium Bisulfate	HCI (Bitte Label)	H ₂ SO ₄ Plastic (Yellow Label)	H ₂ SO ₄ Glass(Yellow Label)	HNO ₃ (Red Label)	None (Black Label) /(2)	Groundwater	Drinking Water	Sludge	X X X Soil Other (specify):	XXX Трн-сувтех ву 8015/8021B	TPH-D BY 8015B	OXYGENATES BY 8260B	TIM D854	Moisture ASTM D2216				COL	RUSH TAT (Pre-Schedule)	6 6 6 TAT request (in Bus. Days)	Fax Results (yes or no)	Due Date of Report
pecial instructions: Composite all s exygenates include MTB	ampl	GI LS TAME	LOBA	L ID#	T060	0120 ED	383	 Δ ΝΙ	n E	<u> </u>	EDF	FI	LE F	₹EQ	UIR	ED		. 			rator empe	ratui	re Up	оп Б	Recei		(Ŷ	4 4 7 4	——— † N	
)											V	OCs	Free	of H	eads	pace	?	Ÿ	•	N(N/A)
elinquished by:	Da		Tir	ne	Recei	yed b	y: 	_							J da	ate/		Tim	e	QC D		ables	(ple	<u> </u>	ircle (one)				
Macy D. W/T	14/2=	+/ne	17	00	 - <u>//</u>									1	100	10r	1/4	1X		Level										ricelland
'inquished by:		ile	Tir	1	Réce			stA	meri	ca:	,			7		ite	T	Time	€	Level										
	4/12/	0	190	Ze	W	\mathbb{W}_{o}	w		МН	ŀ				1	128	104	۱ ۹	92	D	Site S Project	•									tAmerica
COME-TURBULOCALS=TITEMBI7-41	ZITA COC		ıc	1		-1}-																S			-1	., - 118				

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: REC. BY (PRINT) WORKORDER:	ETIC/EXXON PH MPDO93°			DATE REC'D AT LAB: TIME REC'D AT LAB: DATE LOGGED IN:	[920	06 3x-04		or I am an	For Regula DRINKING WASTE WA	
CIRCLE THE APPRO	OPRIATE RESPONSE	LAB SAMPLE#	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERV ATIVÉ	рН	SAMPLE MATRIX	DATE: SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s)	Present / (Absent) Intact / Broken*									
2. Chain-of-Custody	Present / Absent*									
3. Traffic Reports or Packing List;	Present Absent									
4. Airbill:	Airbill / Sticker Present / Absent						w.			
5. Airbill #:	<u> </u>			٠.			0/			
6. Sample Labels:	Present / Absent					7/30	-/			
7. Sample IDs:	Lusted / Not Listed					1/2				
	on Chain-of-Custody									
8. Sample Condition:	(Intact / Broken* / Leaking*									
9. Does information or	n chain-of-custody,				, fb					
traffic reports and s	sample labels				N/					
agree?	Yes)/ No*									
10. Sample received with				(A)	S					
hold time?	(Yes)/ No*			Now X						
11. Adequate sample vol				<u> </u>						
received?	Yes / No*									
12. Proper preservatives					·					[[
13. Trip Blank / Temp Bla										
(circle which, if yes)	Yes (No*)									
14. Read Temp:	4.400		/							
Corrected Temp:	4·4°C					<u> </u>				
ls corrected temp 4 +	The state of the s		_							
(Acceptance range for samples										
**Exception (if any): MET	TALS / DFF ON ICE									
or Problem COC			one-u-		02:00(42:)(03:0):3(3:3)(3:3)	Malang billinga Z	A CAN LABORED	JEIWHUMANUUM		ANNUAL TO STATE TO STATE THE PARTY OF THE PA

SRL Revision 7
**Peplaces Rev 5 (07/13/04)
****ctive 07/19/05

Page of ____



ETS

1343 Redwood Way Petaluma, CA 94954

(707) 795-9605 / FAX 795-9384

Environmental Technical Services

-Soil, Water & Air Testing & Monitoring

-Analytical Labs

-Technical Support

Serving people and the environment so that both benefit.

CLIENT: Test-America Sequoia, 885 Jarvis Drive, Morgan Hill, CA 95037

ATTN: Christina Dell

PROJECT ID: MPD0490

DATES DATE DATE of COLLECTED RECEIVED REPORT 4/26 & 4/27 5/2/06 5/10/06

					POROSITY	AND PERM	EABILITY TE	EST RESULT	S		
SAMPLE			DRY	PERCENT	SPECIFIC	TOTAL TEST	VOLUME	VOID VOLUI	ME PERCENTS	POROSITY	PERMEABILITY
	BORING	DEPTH	DENSITY	MOISTURE	GRAVITY	VOLUME	SOLIDS	AIR FILLED	WATER FILLED	(pore volume)	(average)
IDs			lbs/cuft	(on dry wt.)	gm/cc	СС	CC	%	%	PERCENT	cm/sec
01943-1 (MPD0940-01)	SB-14	@ 2.5'	100.8	23.91	2.63	103.0	63.3	19.27	19.30	38.57	*
01943-2 (MPD0940-02)	SB-15	@ 2.5'	95.1	22.08	2.63	228.4	132.4	23.95	18.09	42.04	-
01943-3 (MPD0940-03)	SB-16	@ 2.5'	85.3	20.18	2.57	270.3	143.7	30.03	16.79	46.82	-
01943-4 (MPD0940-04)	SB-17	@ 2.5'	97.1	20.32	2.56	283.1	172.2	22.31	16.89	39.20	-
01943-5 (MPD0940-05)	SB-18	@ 3.0'	92.1	23.88	2.61	260.6	147.4	24.17	19.28	43.45	-
01943-6 (MPD0940-06)	SB-19	@ 2.5'	94.4	23.54	2.58	225.2	132.1	22.30	19.05	41.35	-
01943-7 (MPD0940-07)	SB-20	@ 2.5'	90.3	21.83	2.54	254.2	144.8	25.12	17.92	43.04	-

Test Notes: a few of the samples, especially the second sample, were slightly loose in their tubes so they were pressed in order that they conform to their original position in the collection tube; the first sample (SB-14) had less than half the volume of the remaining sample tubes.

COMMENTS/NOTES:

All of these samples are in the typical range for most soil and sediment materials as concerns their dry bulk densities, i.e., most are in the range of 90-100 lbs/cuft with just one sample at about 85 lbs/cuft. Moisture content seems pretty typical under the circumstances, but specific gravities, while definitely within the typical range, are just slightly below the average (of 2.65-2.70 gm/cc). Nevertheless, pore volumes seem fairly typical for clayey sand to sandy clay materials with significant silt content, i.e., most are in the lower forties with two just below that (@ ≈39%) and one just above (@ ≈47%); the overall average is just over 42%.

NOTES: Testing follows methodology as per the Association of Testing Materials (ASTM) protocols as follows: ASTM D-2434 Test Method for Permability of Granular Soils (Constant Head); or ASTM D-5084 Standard Test Method for Measuring Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter. Density, dry bulk or native, atc.) - ASTM D-2937 Test Method for Density of Soil in Place by Drive-Cylinder: and Specific Gravity - ASTM D-854 Test Method for Sepcific Gravity of Soils.



Morgan Hill Division 885 Jarvis Drive Morgan Hill, CA 95037 Phone: 408-776-9600 Fax: 408-782-6308

EXonMobil.

		-																															
Consultant Name:	ETIC E	VGINEE	RING														T/	A Ac	cou	int	#:_	102	36										
Address:	2285 M	ORELLO	AVE	NUE														Inv	voic	e T	o: <u>(</u>	Еххо	nMo	bil P	M u	nless	other	WISE	ındi	cate	:)		
City/State/Zip:	PLEASA	ANT HILL	_, CA	9452	23													R	еро	rt T	o: <u>_</u>	eticl	abre	pol	rts@	etic	eng.	.coı	n				
ExxonMobil Territory Mgr:	JENNIF	ER SED	LACH	IEK															ı	PO	#:_4	1506	8770	68					_(e17	<u>20</u>	<u>6 950</u>
Consultant Project Mgr:	SHERR	IS PRAL	Ļ			Proj	ect	#:	TM	412	1 T/	\SK	(3					Fac	cilit	/ ID	# _	7-41:	21							_		<u></u>	
Consultant Telephone Number:	(925) 60	02-4710	EXT.	20		Fa	x N	0.:	(92	5) 6	02-	172	0					Site	Ado	ires	ss_	1060	5 FC	ОТІ	HILL	BOL	JLEV	'ARI)				
Sampler Name: (Print)					ろ,			_									Cit	ty, S	State	e, Z	ip (ЭАК	LANI	o, c	Α								
Sampler Signature:	1	alu	مر	6.	L	7 ₅ -								R	egı	ulate	огу	Dis	trict	(C	A) _/	ACH	CSA										
			5						>res	serv	/ativ	e		I		Ma	trix		Ι				Ar	alyz	ze F	or:							
ample ID or Field ID 5B-14, 2.5' 67 5B-15, 2.5' 02 5B-16, 2.5' 04 5B-17, 2.5' 04 5B-18, 3.0' 45 5B-19, 2.5' 04 5B-20, 2.5' 07	4/24/6 4/24/6 4/24/6 4/26/6 4/26/6 4/26/6	1330 1330 1300 1300 1440 1501	No. of Containers Shipped	Grab	Composite	Field Filtered	Methanol	Sodium Bisulfate	HCI (Blue Label)	NaOH (Orange Label)	Tr2O4 Plastic (Yellow Label)	HNO, (Red Label)	X X X X None (Black Label) 70. C	ì	Wastewater	Drinking Water	Sindge	Soil		BLZ08/C1/B IEX BY 8015/80Z1B	TPH-D BY 8015B	OXYGENATES BY 8260B		Forosity AST IM D854	Moisture ASTM D2216				HOLD		O O O O O O O O TAT request (in Bus. Days)		Due Date of Report
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pecial Instructions:	<u>1</u>	G.	LOBA	AL ID#	# T060	00120	383	3			E)F F	FILE	I E Ri	EQI	JIRI	ED				┪					ment			 	1.	40		
XYGENATES INCLUDE MTB	E, TBA	, TAME	, ET	BE, I	DIPE	, ED	В,	ΑN	D E	ΞD¢	c.											5	amp	le C	onta	iners	n Rec s Inta idspai	ct?	. (TY Y	4 N N		1/A-)
elinquished by:	Da Da	ate ,		me	Rece	iyed t	سبتين)						Da	ite /	7	I	me	- 1-	QC C		rable	es (p	lease	e circle	<u>e on</u>	<u>e)</u>				
TRACY JOB	4/2=	7/06	73	H				_	_	***************************************					2	10	8/R	61	149	Y_		_eve _eve											
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SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: ETIC/EXX. REC. BY (PRINT) PH WORKORDER: MPD.			DATE REC'D AT LAB: TIME REC'D AT LAB: DATE LOGGED IN:	[92	<u>ک</u>			DRINKING WASTE WA	Figure
CIRCLE THE APPROPRIATE RESPON	E LAB	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERV ATIVE	рН	SAMPLE MATRIX	DATE: SAMPLED	REMARKS: CONDITION (ETC.)
Custody Seal(s) Present / Absen Intact / Broken*	>								
2. Chain-of-Custody Present / Absen	*								
Traffic Reports or Packing List: Present Absert							304		
4. Airbill: Airbill / Sticker Present / Absen	>					\	\u00000		LIPAU-BU PA
5. Airbill #:					7.	—			
6. Sample Labels: Present / Absen 7. Sample IDs: Listed / Not Listed on Chain-of-Cus	d				2,10				NA PRI LIPST HONE
8. Sample Condition: (Intagt / Broken* Leaking*				-77.)					157 HADING
9. Does information on chain-of-custody,		<u> </u>							September
traffic reports and sample labels agree? Yes / No				No.					A PARTICULAR PROPERTY OF THE PARTICULAR PROPERTY
10. Sample received within hold time?) N						Through the second seco
11. Adequate sample volume received? Yes / No	THE PERSON OF TH								III SARAHI
12. Proper preservatives used? Yes/No								,	
13. Trip Blank / Temp Blank Received? (circle which, if yes) Yes (No									
(circle which, if yes) Yes (No. 4.4°C) 14. Read Temp:	<u> </u>								ed in the
Corrected Temp: 4 4 C						······································			Difference and the second
Is corrected temp 4 +/-2°C? Yes / No	*	/							
(Acceptance range for samples requiring thermal pres.) **Exception (if any): METALS / DFF ON IC	/	1		<u> </u>	[
or Problem COC					Aranoaskonii≓s	uksair eili septisakasii k	ighteren vivosia	COLUTION	

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

Page _ (__ of ____

SUBCONTRACT ORDER

Printed: 5/1/06 4:22:56PM

Sequoia Analytical - Morgan Hill MPD0940

SENDING LABORATORY	1	RECEIV	ING LABORATORY:	
Sequoia Analytical - Mo 885 Jarvis Drive Morgan Hill, CA 95037 Phone: 408-776-9600 Fax: 408-782-6308	organ Hill	Petalum Phone:	edwood Way na, CA 94954 (707) 795-9605 07) 795-9384	☐ Drinking Water ☐ Waste Water ☐ Other
Project Manager: Chris Sending lab received da				
Please use standard	FAT unless specific du	e date is reque	ested -> Due date:	Initials:
Analysis	SLD Date	Expires	Laboratory ID	Comments
C	(Call named at 04/26/06	12.20)		
Misc. Subcontract	(Soil sampled on 04/26/06 05/11/06 12:00	10/23/06 13:30		ETC Moieture ACTM D2216
Porosity	05/11/06 12:00	05/10/06 13:30		ETS,Moisture ASTM D2216 ETS, ASTM D854
Container's Supplied				210,100 1111 200 1
Metal Core (A)				
	! (Soil sampled on 04/27/06	10:30)		
Misc. Subcontract	05/11/06 12:00	10/24/06 10:30		ETS,Moisture ASTM D2216
Porosity	05/11/06 12:00	05/11/06 10:30		ETS, ASTM D854
Containers Supplied.				
Metal Core (A)				
Sample ID: MPD0940-03	3 (Soil sampled on 04/27/06	11:30)		
Misc. Subcontract	05/11/06 12:00	10/24/06 11:30		ETS,Moisture ASTM D2216
Porosity	05/11/06 12:00	05/11/06 11:30		ETS, ASTM D854
Containers Supplied:				
Metal Core (A)			Riveries receipe de monte receipe c	
Sample ID: MPD0940-04	4 (Soil sampled on 04/26/06	13:00)		
Misc Subcontract	05/11/06 12:00	10/23/06 13:00		ETS,Moisture ASTM D2216
Porosity	05/11/06 12:00	05/10/06 13:00		ETS, ASTM D854
Containers Supplied:				
Metal Core (A)				73
Sample ID: MPD0940-05	5 (Soil sampled on 04/26/06	14:40)		
Misc Subcontract	05/11/06 12:00	10/23/06 14:40	***************************************	ETS,Moisture ASTM D2216
Porosity	05/11/06 12:00	05/10/06 14:40		ETS, ASTM D854
Containers Supplied:				
Metal Core (A)				
13103	5-1-04	La	mit A. K	100/2 2000 9'00 1 10
Released By	Date	Time	Received By	Date Time
Released By	Date	Time	Received By	Date Time

SUBCONTRACT ORDER

Printed: 5/1/06 4:22:56PM

Sequoia Analytical - Morgan Hill **MPD0940**

Analysis	SLD Date	Expires	Laboratory ID	Comments
Sample ID: MPD0940-0	6 (Soil sampled on 04/26/	06 15:01)		
Misc. Subcontract	05/11/06 12:00	10/23/06 15:01	-	ETS,Moisture ASIM D2216
Porosity	05/11/06 12:00	05/10/06 15:01		ETS, ASTM D854
Containers Supplied:				
Metal Core (A)				
Sample ID: MPD0940-0	7 (Soil sampled on 04/26/	06 11:50)		
Misc. Subcontract	05/11/06 12:00	10/23/06 11:50		ETS,Moisture ASTM D2216
Porosity	05/11/06 12:00	05/10/06 11:50		ETS, ASTM D854
Containers Supplied:				
Metal Core (A)				

la 145 Released By 5-1-06

Date Time

land R. farther MAY 1, 2006 9:00A.M. sived By Date Time

Released By

Date

Time

Received By

Date

Time



ETS

1343 Redwood Way Petaluma, CA 94954 (707) 795-9605 / FAX 795-9384

Environmental Technical Services

-Soil, Water & Air Testing & Monitoring

-Analytical Labs

-Technical Support

Serving people and the environment so that both benefit.

CLIENT: Test-America Sequoia, 885 Jarvis Drive, Morgan Hill, CA 95037

ATTN: Christina Dell

PROJECT ID: MPE0188

DATE DATE of COLLECTED RECEIVED REPORT
5/2/06 5/11/06 5/19/06

Transmission of the Control of the C				POROSITY AND PERMEABILITY TEST RESULTS								
SAMPLE	1		DRY	PERCENT	SPECIFIC	TOTAL TEST	VOLUME		ME PERCENTS	POROSITY	PERMEABILITY	
	BORING	DEPTH	DENSITY	MOISTURE	GRAVITY	VOLUME	SOLIDS	AIR FILLED	WATER FILLED	(pore volume)	(average)	
IDs			lbs/cuft	(on dry wt.)	gm/cc	CC	CC	%	%	PERCENT	cm/sec	
01963-1 (MPE0188-39)	SB21	@ 2.5-3.0'	101.2	20.89	2.65	189.9	116.2	21.53	17.28	38.81		

Test Notes: this samples was somewhat loose in its tubes so it was re-compacted in order that it conform to its original position in the collection tube.

COMMENTS/NOTES:

This sample is in a fairly typical range for most soil and sediment materials as concerns its dry bulk density, i.e., at around 100 lbs/cuft. Moisture content seems quite typical under the circumstances, and specific gravity is within the typical range. However, while pore volume is close to 40%, it may or may not be a little lower than expected or typical for a sandy, silty clay material such as this depending on site conditions.

NOTES: Testing follows methodology as per the Association of Testing Materials (ASTM) protocols as follows: ASTM D-2434 Test Method for Permability of Granular Soils (Constant Head); or ASTM D-5084 Standard Test Method for Measuring Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter. Density, dry bulk or native, etc.) - ASTM D-2937 Test Method for Density of Soil in Place by Drive-Cylinder; and Specific Gravity - ASTM D-854 Test Method for Sepcific Gravity of Soils.

SUBCONTRACT ORDER

Printed: 5/9/06 4:14:45PM

Sequoia Analytical - Morgan Hill MPE0188

ţ

SENDING LABORATORY	<u>/:</u>	RECEIVI	NG LABORATORY:					
Sequoia Analytical - Mo	organ Hill	ETS		☐ Drinking Water				
885 Jarvis Drive		1343 Re	dwood Way	☐ Waste Water				
Morgan Hill, CA 95037	Petaluma	n, CA 94954	☐ Other					
Phone: 408-776-9600			707) 795-9605					
Fax: 408-782-6308		Fax: (70	7) 795-9384					
Project Manager: Chri	stina Dell							
Sending lab received da	ite: 05/03/06 19:15							
Please use standard ' Analysis	TAT unless specific of SLD Date	due date is reques Expires	ted -> Due date: Laboratory ID	Initials:Comments				
/								
Sample ID: MPE0188-39	(Soil sampled on 05/02/	06 11:30)		5B2/- 2,5-3.0/				
Misc. Subcontract	05/16/06 12:00	10/29/06 11:30		Moisture ASTM D2216 - SUB to ETS				
Porosity	05/16/06 12:00	05/16/06 11:30		SUB to ETS				
Containers Supplied:								
Metal Core (A)								
	~~~							

Released By

Date

Time

Received By

Date

Time

Received By

Date

Time

Received By

Date

Time



24 May, 2006

Sherris Prall ETIC Engineering Inc - Pleasant Hill (Exxon) 2285 Morello Avenue Pleasant Hill, CA 94523

RE: Exxon 7-4121 Work Order: MPE0195

Enclosed are the results of analyses for samples received by the laboratory on 05/03/06 19:15. The samples arrived at a temperature of 6° C. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christina Dell Project Manager

CA ELAP Certificate #1210





2285 Morello Avenue Pleasant Hill CA, 94523 Project Exxon 7-4121
Project Number: 7-4121
Project Manager: Sherris Prall

MPE0195 Reported: 05/24/06 07:43

#### ANALYTICAL REPORT FOR SAMPLES

Sample 1D	Laboratory ID	Matrix	Date Sampled	Date Received
SB14	MPE0195-01	Water	05/02/06 09:50	05/03/06 19:15
SB15	MPE0195-02	Water	05/02/06 11:45	05/03/06 19:15
SB16	MPE0195-03	Water	05/02/06 13:10	05/03/06 19:15
SB17	MPE0195-04	Water	05/02/06 09:30	05/03/06 19:15
SB19	MPE0195-05	Water	05/02/06 16:30	05/03/06 19:15
SB20	MPE0195-06	Water	05/02/06 10:55	05/03/06 19:15
SB21	MPE0195-07	Water	05/02/06 13:30	05/03/06 19:15
SB18	MPE0195-08	Water	05/03/06 09:30	05/03/06 19:15





Project: Exxon 7-4121

Project Number: 7-4121

MPE0195 Reported: 05/24/06 07:43

2285 Morello Avenue Pleasant Hill CA, 94523

Project Manager: Sherris Prall

### Extractable Hydrocarbons by EPA 8015B Sequoia Analytical - Morgan Hill

Analyte Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB14 (MPE0195-01) Water Sampled: 05/02/06 09:5	0 Received:	05/03/06	19:15					
Diesel Range Organics (C10-C28) 820	55	ug/l	ı	6E09047	05/09/06	05/17/06	EPA 8015B-SVOA	HC-12
Surrogate: n-Octacosane	88 %	30	-115	ø	rr	H	п	
SB15 (MPE0195-02) Water Sampled: 05/02/06 11:4	5 Received:	05/03/06	19:15					
Diesel Range Organics (C10-C28) 440	55	ug/l	1	6E09047	05/09/06	05/17/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane	83 %	30	-115	#	#	и	st	
SB16 (MPE0195-03) Water Sampled: 05/02/06 13:1	0 Received:	05/03/06	19:15					
Diesel Range Organics (C10-C28) 1700	62	ug/l	l	6E09047	05/09/06	05/17/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane	86 %	30	-115	n	"	"	,,	
SB17 (MPE0195-04) Water Sampled: 05/02/06 09:3	0 Received:	05/03/06	19:15					
Diesel Range Organics (C10-C28) 7500	530	ug/l	10	6E09047	05/09/06	05/17/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane	101 %	30	-115	"	#	n	tt	
SB19 (MPE0195-05) Water Sampled: 05/02/06 16:3	0 Received:	05/03/06	19:15					
Diesel Range Organics (C10-C28) 720	62	ug/l	Į.	6E09047	05/09/06	05/17/06	EPA 8015B-SVOA	HC-12
Surrogate. n-Octacosane	80 %	30	-115	H	u	4	n	
SB20 (MPE0195-06) Water Sampled: 05/02/06 10:5	5 Received:	05/03/06	19:15					
Diesel Range Organics (C10-C28) 4300	500	ug/l	10	6E09047	05/09/06	05/17/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane	103 %	30	-115	n	"	#	#	
SB21 (MPE0195-07) Water Sampled: 05/02/06 13:3	0 Received:	05/03/06	19:15					
Diesel Range Organics (C10-C28) 440	54	ug/l	1	6E09047	05/09/06	05/17/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane	80 %	.30	-115	н	**	"	*	





Project: Exxon 7-4121

2285 Morello Avenue Pleasant Hill CA, 94523 Project Number: 7-4121
Project Manager: Sherris Prall

MPE0195 Reported: 05/24/06 07:43

# Extractable Hydrocarbons by EPA 8015B Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB18 (MPE0195-08) Water Sample	d: 05/03/06 09:30	Received: 0	5/03/06	19:15					
Diesel Range Organics (C10-C28)	1700	200	ug/l	2	6E09047	05/09/06	05/18/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane		80 %	30-	-115	н	ři.	**	ĸ	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0195 Reported: 05/24/06 07:43

## Volatile Organic Compounds by EPA Method 8260B TestAmerica Analytical - Nashville

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB14 (MPE0195-01) Water	Sampled: 05/02/06 09:50	Received: 0	teceived: 05/03/06 19:15						
Benzene	1.89	0.500	ug/L.	1	6053244	05/16/06	05/16/06	SW846 8260B	
Ethylbenzene	102	0.500	n	**	Ħ	Ħ	**	11	
Toluene	ND	0 500	ij	0	Ħ	**	15	н	
Xylenes, total	5.56	0.500		11	**	#	l†	Ħ	
Surrogate 1.2-Dichloroethane-d4		94 %	70-	130	"	**	"	n	
Surrogate Dibromofluorometh	94 %	79-	122	n	ıı	Ħ	n		
Surrogate Toluene-d8		108 %	78-	121	"	tr	**	v	
Surrogate 4-Bromofluorobenz	ene	115%	78-	126	#	Ħ	#	п	
Tert-Amyl Methyl Ether	ND	0.500	"	R	v	u	11	a	
1,2-Dibromoethane (EDB)	ND	0 500	11	n	и	ŧı	**	u	
1,2-Dichloroethane	ND	0.500	11	0	u u	**	**	şı.	
Ethyl tert-Butyl Ether	ND	0.500	n	u	11	74	**	Ħ	
Diisopropyl Ether	ND	0.500	0	a	ft	++	H	\$1	
Methyl tert-Butyl Ether	ND	0.500	u	tt	ŧr	**	n	11	
Tertiary Butyl Alcohol	ND	100	a	#1	**	19	n	"	
SB15 (MPE0195-02) Water	Sampled: 05/02/06 11:45	Received: 0	5/03/06	19:15					
Benzene	18.4	0.500	ug/L.	ı	6053244	05/16/06	05/16/06	SW846 8260B	
Ethylbenzene	42.6	0 500	*1	#1	Ħ	ıı	n	u	
Toluene	ND	0.500	**	n	Ü	u	Ħ	a	
Xylenes, total	4.16	0.500	**	++	н	a a	Ħ	а	
Surrogate 1,2-Dichloroethane	z-d4	91 %	70-	130	n	"	"	**	
Surrogate Dibromofluorometh		92 %	79-	122	"	n	n	н	
Surrogate Toluene-d8		107 %	78-	121	"	"	"	**	
Surrogate 4-Bromofluorobenz	ene	118%	78-	126	17	n	**	n	
Tert-Amyl Methyl Ether	ND	0 500	α	Ħ	tt	н	v	ń	
1,2-Dibromoethane (EDB)	ND	0 500	0	Ħ	"	"	u	U	
1.2-Dichloroethane	ND	0.500	71	**	11	U	r	U	
Ethyl tert-Butyl Ether	ND	0.500	21	**	11	U	11	0	
Diisopropyl Ether	ND	0.500	**	"	11	a	41	u	
Methyl tert-Butyl Ether	ND	0 500	**	n	U	u	#1	11	
Tertiary Butyl Alcohol	ND	100	**	n	U	"	<b>†1</b>	4	





Project: Exxon 7-4121 Project Number: 7-4121 2285 Morello Avenue Project Manager: Sherris Prall Pleasant Hill CA, 94523

MPE0195 Reported: 05/24/06 07:43

### Volatile Organic Compounds by EPA Method 8260B TestAmerica Analytical - Nashville

		Reporting	** **	15.11	D . I	n		N - 1 - 1	<b>%</b> Ja
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Not
SB16 (MPE0195-03) Water Sampled:	05/02/06 13:10	Received: 0	5/03/06 1	9:15					
Benzene	30.3	0.500	ug/L	i	6053244	05/16/06	05/16/06	SW846 8260B	
Toluene	0.820	0 500	şŧ	**	n	Ħ	u u	<b>1</b> 9	
Xylenes, total	11.3	0.500	\$ <del>1</del>	**	n .	Ħ	U	11	
Surrogate: 1.2-Dichloroethane-d4		88 %	70-	130	u	"	"	W	
Surrogate: Dibromofluoromethane		90 %	79-	1.2.2	p	n	n	"	
Surrogate Toluene-d8		108 %	78-	121	rr -	**	**	п	
Surrogate: 4-Bromofluorobenzene		118 %	78-	126	"	H	"	"	
Tert-Amyl Methyl Ether	ND	0.500	er	11	+=	d	U	łŧ	
1,2-Dibromoethane (EDB)	ND	0.500	**	n	**	Ħ	u	19	
1,2-Dichloroethane	ND	0 500	**	r	15	#	11	n	
Ethyl tert-Butyl Ether	ND	0 500	11	"	n	\$1	H	n	
Diisopropyl Ether	ND	0.500	0	a	U	11	**	II.	
Methyl tert-Butyl Ether	ND	0.500	U	14	α	U	Ħ	u	
Tertiary Butyl Alcohol	ND	100	ū	șt șt	11	IJ	"	и	
SB16 (MPE0195-03RE1) Water Sam	pled: 05/02/06 13	3:10 Receive	ed: 05/03	/06 19:15					
Ethylbenzene	410	5.00	ug/L	10	6053384	05/16/06	05/16/06	SW846 8260B	
Surrogate: 1,2-Dichloroethane-d4		102 %	70-	130	u	ti	Ħ	**	
Surrogate Dibromofluoromethane		108 %	79-	122	н	rr r	n	и	
Surrogate Toluene-d8		103 %	<i>78</i> -	1.21	1)	"	"	p	
Surrogate 4-Bromofluorobenzene		100 %	78-	126	n	tr	n	n	
SB17 (MPE0195-04) Water Sampled	: 05/02/06 09:30	Received: 0	5/03/06 1	19:15					
Benzene	2140	25.0	ug/L	50	6053244	05/16/06	05/16/06	SW846 8260B	
Ethylbenzene	4690	25.0	#1	**	17	a	U	tr	
Toluene	1400	25 0	<b>\$</b> 7	#1	0	u	u	b	
Xylenes, total	11100	25.0	17	#	0	*	11	ly	
Surrogate 1,2-Dichloroethane-d4		88 %	70-	130	n	rr	p	и	
Surrogate Dibromofluoromethane		91 %	79-	12.2	н	**	n	и	
Surrogate Toluene-d8		107 %	78-	121	"	*	"	n	
Surrogate 4-Bromofluorobenzene		116%	78-	126	•	#	**	"	
Tert-Amyl Methyl Ether	ND	25 0	a	50	a	U	P	Ħ	
1,2-Dibromoethane (EDB)	ND	25 0	0	#	Ħ	U	u	**	
1,2-Dichloroethane	ND	25 0	+1	**	Ħ	u	n	15	
								ь	
Ethyl tert-Butyl Ether	ND	25.0	48	12	#f	"			
Ethyl tert-Butyl Ether Diisopropyl Ether	ND ND	25.0 25.0	**	17	**	и.		n	
Ethyl tert-Butyl Ether Diisopropyl Ether Methyl tert-Butyl Ether							11	n	

Sequoia Analytical - Morgan Hill

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0195 Reported: 05/24/06 07:43

### Volatile Organic Compounds by EPA Method 8260B TestAmerica Analytical - Nashville

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB19 (MPE0195-05) Water	Sampled: 05/02/06 16:30	Received: 0	5/03/06	19:15				,	
Benzene	4.19	0.500	ug/L	1	6053244	05/16/06	05/16/06	SW846 8260B	
Ethylbenzene	5.78	0.500	<b>\$</b> 1	u	0	ŧı	#1	u	
Toluene	ND	0 500	#1	**	H	Ħ	ží	Ħ	
Xylenes, total	6.29	0.500	"	Ħ	U	Ħ	#	Ħ	
Surrogate: 1.2-Dichloroethand	2-d4	85 %	70-	130	u	"	"	"	
Surrogate Dibromofluoromete	hane	87 %	79-	1.2.2	n	Ħ	tt	<i>t</i>	
Surrogate. Toluene-d8		109 %	78-	121	"	**	**	н	
Surrogate 4-Bromofluoroben:	zene	116%	<i>78</i> -	126	n	11	н	n	
Tert-Amyl Methyl Ether	ND	0.500	u	11	**	а	н	u	
1,2-Dibromoethane (EDB)	ND	0.500	#	**	11:	н	Ħ	11	
1,2-Dichloroethane	ND	0 500	**	**	н	**	**	**	
Ethyl tert-Butyl Ether	ND	0 500	**	11	u	**	**	\$4	
Diisopropyl Ether	ND	0 500	н	н	u	17	li	59	
Methyl tert-Butyl Ether	ND	0.500	п	n	ii.	Ħ	11	15	
Tertiary Butyl Alcohol	ND	100	n	11	ш	**	11	tt	
SB20 (MPE0195-06) Water	Sampled: 05/02/06 10:55	Received: (	5/03/06	19:15					
Benzene	3240	25 0	ug/L	50	6053244	05/16/06	05/16/06	SW846 8260B	
Ethylbenzene	3670	25 0	11	n	n	11	Ħ	u	
Toluene	53.2	0 500	Ħ	1	n	Ħ	05/16/06	11	
Xylenes, total	4170	25.0	++	50	II .	11	05/16/06	#1	
Surrogate 1.2-Dichloroethand	e-d4	85 %	70-	-130	**	п	05/16/06	"	
Surrogate Dibromofluoromet	hane	86 %	79.	-122	n	n	Ħ	н	
Surrogate Toluene-d8		111 %	78-	-121	"	#	n	"	
Surrogate: 4-Bromofluoroben:	zene	114%	78-	-126	n	#	n	11	
Tert-Amyl Methyl Ether	ND	0.500	0	U	H	n	11	u	
1,2-Dibromoethane (EDB)	ND	0 500	u	11	#1	u	**	a	
1,2-Dichloroethane	ND	0.500	11	11	**	u	#1	Ħ	
Ethyl tert-Butyl Ether	ND	0.500	#1	**	**	41	Ħ	ŧ1	
Diisopropyl Ether	ND	0.500	11	#f	17	Ħ	**	**	
Methyl tert-Butyl Ether	ND	0 500	##	**	11	11	13	11	
Tertiary Butyl Alcohol	ND	10.0	**	**	n	†ŧ	**	n	





Pleasant Hill CA, 94523

ETIC Engineering Inc - Pleasant Hill (Exxon) 2285 Morello Avenue

Project: Exxon 7-4121
Project Number: 7-4121
Project Manager: Sherris Prall

MPE0195 Reported: 05/24/06 07:43

#### Volatile Organic Compounds by EPA Method 8260B TestAmerica Analytical - Nashville

Analyte	J Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note:
SB21 (MPE0195-07RE1) Water	Sampled: 05/02/06 13:30	Receiv	ed: 05/03	/06 19:15					
Benzene	ND	0 500	ug/L	l	6053384	05/16/06	05/16/06	SW846 8260B	
Ethylbenzene	ND	0.500	u	n	11	н	u	n	
Toluene	ND	0.500	a	U	11	Ħ	Ħ	u	
Xylenes, total	ND	0.500	*1	U	H	#	#	и	
Surrogate 1.2-Dichloroethane-d4		100 %	70-	130	"	"	n	11	
Surrogate. Dibromofluoromethane		108 %	79-	122	n	#	7	t†	
Surrogate Toluene-d8		103 %	<i>78</i> -	121	"	u	"	**	
Surrogate 4-Bromofluorobenzene		101 %	78-	126	n	н	#	n	
Tert-Amyl Methyl Ether	ND	0 500	n	"	Ħ	u	a	U	
1,2-Dibromoethane (EDB)	ND	0 500	u	U	**	11	n	U	
1,2-Dichloroethane	ND	0.500	0	u	**	**	H	u	
Ethyl tert-Butyl Ether	ND	0.500	tt	n	H	**	Ħ	ti.	
Diisopropyl Ether	ND	0.500	#1	#1	P	19	**	11	
Methyl tert-Butyl Ether	83.3	0.500	++	n	a	11	ty	H	
Tertiary Butyl Alcohol	ND	100	**	**	0	n	h	ê#	
SB18 (MPE0195-08) Water Sai	npled: 05/03/06 09:30 Re	ccived: (	5/03/06	19:15					
Benzene	ND	25.0	ug/L	50	6053244	05/16/06	05/16/06	SW846 8260B	RL.1
Ethylbenzene	159	25 0	U	#1	19	a	u	r.	
Toluene	ND	25.0	0	Ü	#	łŧ	Ħ	u	RL1
Xylenes, total	ND	25.0	U		<b>\$</b> \$	łs	Ħ	(I	RLI
Surrogate 1.2-Dichloroethane-d4		88 %	70-	·130	11	"	q	n	
Surrogate Dibromofluoromethane		91%	79-	-122	**	**	"	Ħ	
Surrogate Toluene-d8		109 %	78-	-121	u	"	**	"	
Surrogate: 4-Bromofluorobenzene		116%	<i>78</i> -	-126	u	#	н	Ð	
Tert-Amyl Methyl Ether	ND	25 0	19	50	n	U	ır	н	RL.1
1,2-Dibromoethane (EDB)	ND	25 0	n	"	n	a	U	"	RL1
1,2-Dichloroethane	ND	25.0	n	n	n	"	a	"	RL1
Ethyl tert-Butyl Ether	ND	25.0	n	n	Ħ	16	Ħ	11	RL I
Diisopropyl Ether	ND	25 0	U	n	**	**	31	a	RLI
Methyl tert-Butyl Ether	ND	25 0	n	n	to	**	Ħ	H	RLI
Tertiary Butyl Alcohol	ND	500	**	"	**	**	Ħ	н	RLI





ETIC Engineering Inc - Pleasant Hill (Exxon) 2285 Morello Avenue

Pleasant Hill CA, 94523

Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0195 Reported: 05/24/06 07:43

#### Purgeable Petroleum Hydrocarbons TestAmerica Analytical - Nashville

	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Analyte					Daten	richarca	Anaryzou	Memod	11016.
SB14 (MPE0195-01) Water	Sampled: 05/02/06 09:50	Received: 0	5/03/06 1	9:15					
GRO as Gasoline	2340	50.0	ug/L	1	6052623	05/12/06	05/13/06	SW846 8015B	
Surrogate. a.a.a-Trifluorotolu	ene	108 %	63-	134	н	n	и	и	
SB15 (MPE0195-02) Water	Sampled: 05/02/06 11:45	Received: 0	5/03/06 1	9:15					
GRO as Gasoline	831	50.0	ug/L	l	6052623	05/12/06	05/13/06	SW846 8015B	
Surrogate a.a.a-Trifluorotolu	ene	109 %	63-	134	"	N	11	×	
SB16 (MPE0195-03RE1) Wa	iter Sampled: 05/02/06 13	:10 Receive	ed: 05/03	/06 19:15					
GRO as Gasoline	5940	250	ug/L	5	6052711	05/12/06	05/13/06	SW846 8015B	
Surrogate a.a.a-Trifluorotolu	ene	104 %	63-	134	"	"	ti	"	
SB17 (MPE0195-04) Water	Sampled: 05/02/06 09:30	Received: 0	5/03/06 1	9:15					
GRO as Gasoline	60800	2500	ug/L	50	6052623	05/12/06	05/13/06	SW846 8015B	
Surrogate a.a.a-Trifluorotolu	ene	102 %	63-	134	n	u	r	*	
SB19 (MPE0195-05) Water	Sampled: 05/02/06 16:30	Received: 0	5/03/06 1	9:15					
GRO as Gasoline	3100	50.0	ug/L	1	6052623	05/12/06	05/13/06	SW846 8015B	
Surrogate a.a.a-Trifluorotolu	ene	105 %	63-	134	"	rı	"	r	
SB20 (MPE0195-06RE1) Wa	nter Sampled: 05/02/06 10	:55 Receiv	ed: 05/03	/06 19:15					
GRO as Gasoline	41800	1250	ug/L	25	6052711	05/12/06	05/13/06	SW846 8015B	
Surrogate: a.a.a-Trifluorotolu	ene	109 %	63-	134	"	"	11	"	
SB21 (MPE0195-07) Water	Sampled: 05/02/06 13:30	Received: 0	5/03/06	19:15					
GRO as Gasoline	1390	50.0	ug/L	1	6052623	05/12/06	05/13/06	SW846 8015B	
Surrogate a.a.a-Trifluorotolu	ene	105 %	63-	134	n	ρ	н	r	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0195 Reported: 05/24/06 07:43

#### Purgeable Petroleum Hydrocarbons TestAmerica Analytical - Nashville

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB18 (MPE0195-08) Water	Sampled: 05/03/06 09:30	Received: 0	5/03/06	19:15					
GRO as Gasoline	10100	2500	ug/L.	50	6052623	05/12/06	05/13/06	SW846 8015B	
Surrogate: a.a.a-Trifluorotolu	iene	99 %	63-	134	p	11	u	н	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0195 Reported: 05/24/06 07:43

## Extractable Hydrocarbons by EPA 8015B - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6E09047 - EPA 3510C										
Blank (6E09047-BLK1)				Prepared:	05/09/06	Analyzed	l: 05/17/06			
Diesel Range Organics (C10-C28)	40 1	25	ug/l							
Surrogate n-Octacosane	38 3	,	B	50 0		77	30-115			
LCS (6E09047-BS1)				Prepared:	05/09/06	Analyzed	1: 05/17/06			
Diesel Range Organics (C10-C28)	239	50	ug/l	500		48	40-140			
Surrogate n-Octacosane	34 2		"	50 0		68	30-115	***************************************		
LCS Dup (6E09047-BSD1)				Prepared:	05/09/06	Analyzed	l: 05/17/06			
Diesel Range Organics (C10-C28)	310	50	ug/l	500		62	40-140	26	35	
Surrogate n-Octacosane	37.9		11	50 0		76	30-115			





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0195 Reported: 05/24/06 07:43

### Volatile Organic Compounds by EPA Method 8260B - Quality Control TestAmerica Analytical - Nashville

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6053244 - EPA 5030B										
Blank (6053244-BLK1)				Prepared	& Analyzo	ed: 05/16/	D6			
Tert-Amyl Methyl Ether	ND	0.25	ug/L							
1.2-Dibromoethane (EDB)	ND	0 250	**							
Benzene	ND	0 25	11							
Ethylbenzene	ND	0 25	n							
1.2-Dichloroethane	ND	0 390	ĮI.							
Toluene	ND	0 25	Ħ							
Ethyl tert-Butyl Ether	ND	0 25	**							
Diisopropyl Ether	ND	0.25	"							
Methyl tert-Butyl Ether	ND	0 25	n							
Xylenes, total	ND	0 350	U							
Tertiary Butyl Alcohol	ND	5 06	n							
Surrogate 1.2-Dichloroethane-d4	478		11	50 0	***************************************	96	70-130	***************************************		
Surrogate 1.2-Dichloroethane-d4	478		n	50 0		96	70-130			
Surrogate Dibromofluoromethane	47.5		n	<i>50 0</i>		9.5	79-122			
Surrogate Dibromofluoromethane	47.5		"	50 O		95	79-122			
Surrogate Toluene-d8	53 6		#	50.0		107	78-121			
Surrogate Toluene-d8	53 6		H	50.0		107	78-121			
Surrogate 4-Bromofluorobenzene	628			50.0		126	78-126			
Surrogate 4-Bromofluorobenzene	62 8		,,	50 O		126	78-126			
LCS (6053244-BS1)				Prepared	& Analyz	ed: 05/16/	06			
Tert-Amyl Methyl Ether	44 7		ug/L	50.0		89	56-145			
Benzene	50 1		by	50 0		100	79-123			
1,2-Dibromoethane (EDB)	47 2		ч	50 0		94	75-128			
Ethylbenzene	46 7		o	50 0		93	79-125			
1,2-Dichloroethane	41.0		**	50.0		82	74-131			
Toluene	44 5		11	50.0		89	78-122			
Ethyl tert-Butyl Ether	49 7		#1	50 0		99	64-141			
Diisopropyl Ether	51 8		**	50 0		104	73-135			
Methyl tert-Butyl Ether	43 3		**	50 0		87	66-142			
Xylenes, total	134		σ	150		89	79-130			
ray control seems										

Sequoia Analytical - Morgan Hill

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.





Project: Exxon 7-4121 Project Number: 7-4121 2285 Morello Avenue

Project Manager: Sherris Prall Pleasant Hill CA, 94523

MPE0195 Reported: 05/24/06 07:43

#### Volatile Organic Compounds by EPA Method 8260B - Quality Control TestAmerica Analytical - Nashville

		Evaluation		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
	······································		······································	***************************************			***************************************			
Batch 6053244 - EPA 5030B										

LCS (6053244-BS1)			Prepared a	& Analyze	d: 05/16/	06
Tertiary Butyl Alcohol	412	ug/L	500		82	42-154
Surrogate 1,2-Dichloroethane-d4	46 8	"	50 0		94	70-130
Surrogate 1.2-Dichloroethane-d4	468	н	50.0		94	70-130
Surrogate Dibromofluoromethane	473	**	50 O		95	79-122
Surrogate Dibromofluoromethane	47.3	,,	50 0		95	79-122
Surrogate: Toluene-d8	52 4	μ	50 0		105	78-121
Surrogate Toluene-d8	52 4	н	50 0		105	78-121
Surrogate: 4-Bromofluorobenzene	548	n	50.0		110	78-126
Surrogate 4-Bromofluorobenzene	548	"	<i>50 0</i>		110	78-126
Matrix Spike (6053244-MS1)		MPE0195-01	Prepared	& Analyze	d: 05/16/	/06
Tert-Amyl Methyl Ether	49 5	ug/L	50 0	ND	99	45-155
1,2-Dibromoethane (EDB)	50.1	я	50.0	ND	100	71-138
Benzene	59 6	II.	50 0	1 89	115	71-137
Ethylbenzene	155	"	50 0	102	106	72-139
1,2-Dichloroethane	45 I	14	50 0	ND	90	70-140
Foluene	51 0	H	50 0	0 480	101	73-133
Ethyl tert-Butyl Ether	57 1	11	50 0	ND	114	57-148
Diisopropyl Ether	60 0	H	50 0	ND	120	67-143
Methyl tert-Butyl Ether	50.4	**	50 0	ND	101	55-152
Xylenes, total	149	n	150	5 56	96	70-143
Tertiary Butyl Alcohol	575	0	500	ND	115	19-183
Surrogate 1.2-Dichloroethane-d4	48 8	11	50 0		98	70-130
Surrogate 1.2-Dichloroethane-d4	488	"	50 O		98	70-130
Surrogate Dibromofluoromethane	<i>47 0</i>	н	50 O		94	79-122
urrogate Dibromofluoromethane	470	n	50 0		94	79-122
nurrogate Toluene-d8	51 6	n	50 O		103	78-121
urrogate: Toluene-d8	516	n	50 0		103	78-121
Surrogate 4-Bromofluorobenzene	55 6	n	50 0		111	78-126
Surrogate 4-Bromofluorobenzene	55 6	n	50 O		111	78-126





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121
Project Manager: Sherris Prall

MPE0195 Reported: 05/24/06 07:43

#### Volatile Organic Compounds by EPA Method 8260B - Quality Control TestAmerica Analytical - Nashville

Soi						******		Limit	Notes
Sor									
4701	irce: MPE01	95-01	Prepared	& Analyze	ed: 05/16/0	06	,,		
50 3		ug/L	50 0	ND	101	45-155	2	24	
50.3		**	50 0	ND	101	71-138	0.4	27	
57 5		15	50 0	1 89	111	71-137	4	23	
139		n	50 0	102	74	72-139	11	23	
43 2		u	50 0	ND	86	70-140	4	21	
49 4		ď	50.0	0 480	98	73-133	3	25	
59 3		#1	50 0	ND	119	57-148	4	22	
60 8		**	50 0	ND	122	67-143	1	22	
143		n	150	5 56	92	70-143	4	27	
		n							
		n							
	······································						***************************************		
		n							
		π	50 0		104	78-121			
<i>57 1</i>		"	50 0		114	78-126			
57 1		"	50 0		114	78-126			
	· · · · · · · · · · · · · · · · · · ·			77					
			Prepared	& Analyz	ed: 05/16/	06			
ND	0 25	ug/L							
ND	0 250	Ħ							
ND	0 25	**							
ND	0 390	**							
ND	0 25	11							
ND	0 25	ir							
ND	0 25	v							
ND	0 25	n							
ND	0.350								
	57 5 139 43 2 49 4 59 3 60 8 143 52 1 601 47 2 47 2 46 5 52 1 57 1 57 1 ND	57 5 139 43 2 49 4 59 3 60 8 143 52 1 601 47 2 46.5 46.5 46.5 52 1 57 1 57 1  ND 0 25	57 5  139  43 2  49 4  59 3  60 8  143  52 1  601  47 2  46.5  46.5  52 1  57 1  57 1  ND  0 25  ND  0 390  ND  0 25  ND  0 25	57 5	57 5 " 50 0 189  139 " 50 0 102  43 2 " 50 0 ND  49 4 " 50 0 0 480  59 3 " 50 0 ND  60 8 " 50 0 ND  143 " 150 5 56  52 1 " 50 0 ND  601 " 500 ND  47 2 " 50 0 ND  46.5 " 50 0  46.5 " 50 0  52 1 " 50 0  52 1 " 50 0  52 1 " 50 0  57 1 " 50 0  57 1 " 50 0  57 1 " 50 0  Prepared & Analyze  ND 0 25 "  ND 0 390 "  ND 0 25 "	57 5	57 5 " 50 0 189 111 71-137  139 " 50 0 102 74 72-139  43 2 " 50 0 ND 86 70-140  49 4 " 50 0 0 480 98 73-133  59 3 " 50 0 ND 119 57-148  60 8 " 50 0 ND 122 67-143  143 " 150 5 56 92 70-143  52 1 " 50 0 ND 104 55-152  601 " 500 ND 120 19-183  47 2 " 50 0 ND 120 19-183  47 2 " 50 0 ND 120 19-183  47 2 " 50 0 94 70-130  46.5 " 50 0 94 70-130  46.5 " 50 0 93 79-122  52 1 " 50 0 93 79-122  52 1 " 50 0 104 78-121  52 1 " 50 0 104 78-121  52 1 " 50 0 104 78-121  52 1 " 50 0 114 78-126  Prepared & Analyzed: 05/16/06  ND 0 25 "  ND 0 25 "  ND 0 390 "  ND 0 25 "	57.5 " 50.0 1.89 111 71-137 4 139 " 50.0 102 74 72-139 11 43.2 " 50.0 ND 86 70-140 4 49.4 " 50.0 0.480 98 73-133 3 59.3 " 50.0 ND 119 57-148 4 60.8 " 50.0 ND 122 67-143 1 143 " 150 5.56 92 70-143 4 52.1 " 50.0 ND 104 55-152 3 601 " 500 ND 120 19-183 4 47.2 " 50.0 ND 120 19-183 4 47.2 " 50.0 ND 120 19-183 4 47.2 " 50.0 94 70-130 46.5 " 50.0 94 70-130 46.5 " 50.0 93 79-122 46.5 " 50.0 93 79-122 52.1 " 50.0 93 79-122 52.1 " 50.0 104 78-121 52.1 " 50.0 114 78-121 52.1 " 50.0 114 78-126 57.1 " 50.0 114 78-126  Prepared & Analyzed: 05/16/06  ND 0.25 " ND 0.390 " ND 0.25 "	575

Sequoia Analytical - Morgan Hill

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2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall

MPE0195 Reported: 05/24/06 07:43

### Volatile Organic Compounds by EPA Method 8260B - Quality Control TestAmerica Analytical - Nashville

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6053384 - EPA 5030B							***************************************			
Blank (6053384-BLK1)				Prepared a	& Analyze	:d: 05/16/0	76			
Methyl tert-Butyl Ether	ND	0 25	ug/L							***************************************
Iertiary Butyl Alcohol	ND	5 06	u							
Surrogate 1.2-Dichloroethane-d4	51 1		n	50.0		102	70-130			· · · · · · · · · · · · · · · · · · ·
Surrogate: 1,2-Dichloroethane-d4	51 1		TI .	50 0		102	70-130			
Surrogate Dibromofluoromethane	55 O		rr r	50 0		110	79-122			
Surrogate Dibromofluoromethane	55 O		n	50 0		110	79-122			
Surrogate. Toluene-d8	51.3		**	50 0		103	78-121			
Surrogate Toluene-d8	51 3		"	50 0		103	78-121			
Surrogate 4-Bromofluorobenzene	50.0		"	50 0		100	78-126			
Surrogate 4-Bromofluorobenzene	50.0		Ħ	50 0		100	78-126			
LCS (6053384-BS1)			***************************************	Prepared a	& Analyze	ed: 05/16/0				
Tert-Amyl Methyl Ether	50 6		ug/L	50 0		101	56-145			
Benzene	52 6		u	50 0		105	79-123			
1,2-Dibromoethane (EDB)	41.7		##	50 0		83	75-128			
Ethylbenzene	46 1		Ħ	50 0		92	79-125			
1,2-Dichloroethane	51 0		11	50 0		102	74-131			
Toluene	49 3		***	50.0		99	78-122			
Ethyl tert-Butyl Ether	50 5		11	50 0		101	64-141			
Diisopropyl Ether	52 3		11	50 0		105	73-135			
Methyl tert-Butyl Ether	49 8		n	50 0		100	66-142			
Xylenes, total	138		u	150		92	79-130			
Tertiary Butyl Alcohol	417		***	500		83	42-154			
Surrogate 1.2-Dichloroethane-d4	48 8		Ħ	500	***************************************	98	70-130			
Surrogate 1.2-Dichloroethane-d4	488		"	50 O		98	70-130			
Surrogate Dibromofluoromethane	54 4		"	50 O		109	79-122			
Surrogate Dibromofluoromethane	54.4		"	50.0		109	79-122			
Surrogate Toluene-d8	54 1		u	50.0		108	78-121			
Surrogate Toluene-d8	54 1		н	50 0		108	78-121			
Surrogate 4-Bromofluorobenzene	50 0		n	50 0		100	78-126			
Surrogate 4-Bromofluorobenzene	50 0		n	50 0		100	78-126			





2285 Morello Avenue

Pleasant Hill CA, 94523

ETIC Engineering Inc - Pleasant Hill (Exxon)

Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall

MPE0195 Reported: 05/24/06 07:43

#### Volatile Organic Compounds by EPA Method 8260B - Quality Control TestAmerica Analytical - Nashville

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6053393 - EPA 5030B										
Blank (6053393-BLK1)				Prepared .	& Analyzo	ed: 05/17/	06			
Tert-Amyl Methyl Ether	ND	0.25	ug/L		***************************************					
Benzene	ND	0.25	u							
1,2-Dibromoethane (EDB)	ND	0 250	u							
Ethylbenzene	ND	0 25	н							
1.2-Dichloroethane	ND	0 390	**							
I oluene	ND	0 25	#1							
Ethyl tert-Butyl Ether	ND	0 25	++							
Diisopropyl Ether	ND	0 25	**							
Xylenes, total	ND	0 350	11							
	ND	0 25	17							
Methyl tert-Butyl Ether	ND	5 06	n							
Tertiary Butyl Alcohol						····			***************************************	
Surrogate 1.2-Dichloroethane-d4	55 2		n n	50 0		110	70-130			
Surrogate 1.2-Dichloroethane-d4	55 2 50 7		" "	50 0 50 0		110 101	70-130 79-122			
Surrogate: Dibromofluoromethane Surrogate: Dibromofluoromethane	50 7		,,	50 0		101	79-122			
Surrogate Dibromojatoromeinane Surrogate Toluene-d8	54 2		n	50 O		108	78-121			
Surrogate: Toluene-d8	54 2		и	50 O		108	78-121			
Surrogate 4-Bromofluorobenzene	60.6		,,	50 O		121	78-126			
Surrogate 4-Bromofluorobenzene	60.6			50 O		121	78-126			
LCS (6053393-BS1)	00.0				& Analyze					
Tert-Amyl Methyl Ether	49 5		ug/L	50 0	<del></del>	99	56-145			
Benzene	56 1		**	50 0		112	79-123			
1.2-Dibromoethane (EDB)	51 8		n	50 0		104	75-128			
Ethylbenzene	53 7		11	50 0		107	79-125			
1.2-Dichloroethane	52 2		n	50 0		104	74-131			
I oluene	50 3		n	50 0		101	78-122			
Ethyl tert-Butyl Ether	56.4		19	50.0		113	64-141			
	58.8		19				73-135			
Diisopropyl Ether	51.1		"	50 0		118				
Methyl tert-Butyl Ether				50 0		102	66-142			
Xylenes, total	155		ĮI.	150		103	79-130			

Sequoia Analytical - Morgan Hill

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Project: Exxon 7-4121

2285 Morello Avenue Pleasant Hill CA, 94523 Project Number: 7-4121 Project Manager: Sherris Prall MPE0195 Reported: 05/24/06 07:43

#### Volatile Organic Compounds by EPA Method 8260B - Quality Control TestAmerica Analytical - Nashville

		Evaluation		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	L imit	Notes

Ratch 605 (44 C. EPA 50 (0)	ch 6053393 - EPA 50	10R
-----------------------------	---------------------	-----

LCS (6053393-BS1)			Prepared & An	alyzed: 05/17/	'06
Tertiary Butyl Alcohol	466	ug/L	500	93	42-154
Surrogate 1.2-Dichloroethane-d4	53 2	11	50 0	106	70-130
Surrogate 1.2-Dichloroethane-d4	53 2	и	50 0	106	70-130
Surrogate Dibromofluoromethane	49 4	u	50 O	99	79-122
Surrogate. Dibromofluoromethane	19 <del>1</del>	n	50 0	99	79-122
Surrogate Toluene-d8	52 0	11	50 0	104	78-121
Surrogate Toluene-d8	52 0	rr -	50 0	104	78-121
Surrogate 4-Bromofluorobenzene	55 6	n	500	111	78-126
Surrogate 4-Bromofluorobenzene	55 6	"	50.0	111	78-126





Project: Exxon 7-4121

2285 Morello Avenue Pleasant Hill CA, 94523 Project Number: 7-4121 Project Manager: Sherris Prall MPE0195 Reported: 05/24/06 07:43

### Purgeable Petroleum Hydrocarbons - Quality Control TestAmerica Analytical - Nashville

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6052623 - EPA 5030B (GC)				,						
Blank (6052623-BLK1)				Prepared	& Analyz	ed: 05/12/	06			
GRO as Gasoline	ND	39 0	ug/L							
Surrogate a.a.a-Trifluorotoluene	30 5	***************************************	11	30 0	***************************************	102	63-134			
LCS (6052623-BS2)				Prepared:	05/12/06	Analyzed	l: 05/13/06			
GRO as Gasoline	998		ug/L	1000		100	68-128			MNR
Surrogate a.a.a-Trifluorotoluene	32 4		N	30 0	****	108	63-134			
Batch 6052711 - EPA 5030B (GC)										
Blank (6052711-BLK1)				Prepared:	05/12/06	Analyzed	1: 05/13/06			
GRO as Gasoline	ND	39 0	ug/L							
Surrogate a a a-Trifluorotoluene	30 6		**	30 0		102	63-134			
LCS (6052711-BS2)				Prepared:	05/12/06	Analyzed	1: 05/13/06			
GRO as Gasoline	1060		ug/L	1000		106	68-128			MNR
Surrogate a.a.a-Trifluorotoluene	31 9		11	30 0		106	63-134			





ETIC Engineering Inc - Pleasant Hill (Exxon)

Project Suxon 7-4121

Project Number: 7-4121

Pleasant Hill CA, 94523

Project Manager: Sherris Prall

MPE0195

Reported:

05/24/06 07:43

#### **Notes and Definitions**

RL1 Reporting limit raised due to sample matrix effects

MNR1 There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike

HC-12 Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel

DEI Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference



Morgan Hill Division 885 Jarvis Drive Morgan Hill, CA 95037 Phone: 408-776-9600 Fax: 408-782-6308

## ExonWobil.

Consultant Name:	ETIC EN	VGINEEF	RING													TA	A Acc	cour	ıt #:	102	236										
Address:	2285 M	ORELLO	AVEI	<b>NNE</b>													Inv	oice	To:	(Ex	копМ	obil	РМ (	unies	s othe	rwise	ındi	cate	<u>}</u>		
City/State/Zip:	PLEASA	ANT HILL	., CA.	9452	3												Re	port	To:	etic	labi	герс	orts	@et	icenc	ı.cor	<u>n</u>				
ExxonMobil Territory Mgr:	JENNIF	ER SEDI	_ACH	EK														P	0 #:	450	6877	7068	}								
Consultant Project Mgr:	SHERR	IS PRAL	L			Proj	ect	#: <u>T</u>	M4 [.]	121	TAS	sк 3	}				Fac	ility	ID#	7-4	121			<b></b>							
Consultant Telephone Number:	(925) 60	)2-4710 E	EXT. 2	20		Fax	ς Νο	).: <u>(</u> 9	325)	602	2-47	20				5	Site /	Addı	ess	106	05 F	00	THIL	L BC	OULE	VARI	)				
Sampler Name: (Print)	TRI.	2cy/0	B		1		/									Cit	ty, S	tate,	Zip	OA	KLAI	VD,	CA								
Sampler Signature:		-1	4	- //									F	₹eg	ulat	огу	Dist	rict (	CA)	ACI	HCS.	A									
								Р	rese	erva	live				Ma	trix		I			į	Analy	yze	For:							
MPEO195  ample ID or Field ID $B14 \leftarrow -01$ $B15 \leftarrow 02$ $B16 \leftarrow 03$ $B17 \leftarrow 05$ $B19 \leftarrow 05$		0950 1145 1310 0930 1630	フ フ	Grab	Composite	Field Filtered	Methanol		7	T	H ₂ SO ₄ Glass(Yellow Label)	HNO3 (Red Label)	None (Black Label)	Metauriar	ler		Sail Other (specify):	XXXXXTPH-G/BTEX BY 8015/8021B	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXQENATES BY 8260B		Porosity ASTM D854	Moisture ASTM D2216				HOLD	RUSH TAT (Pre-Schedule)	G IAT request (in Bus. Days Fax Results (ves or no)		Due Date of Report
5B21 × 67 5B18 × 68	5/1/	1330					H	-	-	-			+	}	+		+	€	$\bigotimes$	$\Diamond$					+	-			╫	-	
71710	77/06	0900		<u> </u>			Н	$\dashv$	-	+			⊀	+	+	H	-	+	4	<u>Y )</u>		$\dashv$	-	<del>-  </del>	-	-			V.	+	
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pecial Instructions:	<u> </u>	G	LOB/	\L ID/	# T060	00120	<u>   </u>				EDF	FI	LE F	REC	UIR	ED		<u> </u>	Т_	Lal				mme							
XYGENATES INCLUDE MTB	E, TBA	, TAME	E, ET		٠. ٠	~/	,	_	DE	DC	<b>"</b>										San	nple	Cor	ntaine	on Re ers Int eadsp	act?	<	5.4 Y			/p
elinquished by:	1 ^	ale 36	١.,	me 50-	Rece			<u>~</u>	_						1/2/	<i>F</i> 4	6/	Tin	T	Le\	/el 2 /el 3	veral	bles	<u>(plea</u>	ise circ	cle on	<u>ie)</u>			•	
elinquished by:	5/3	ate 8/04	١	me _	Rece	ived t			nen	ca:					5/3	ale /b4		Tin 14		Site					olease Itach s					Test	America
осоми-тивысосись-татепри-4	IZT TA CO	r <del>C</del>	<del>, , , , , , , , , , , , , , , , , , , </del>				-			···		•			**********		•										10	.7	/		

# SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME:  REC. BY (PRINT)  WORKORDER:	CB. MPEDI95		2	DATE REC'D AT LAB: TIME REC'D AT LAB: DATE LOGGED IN:	5-3-1 1915	64				1
CIRCLE THE APPROPE	RIATE RESPONSE	LAB SAMPLE#	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERV ATIVE	pH .	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s)	Present / Absent Intact / Broken*					,				buon Her
2. Chain-or-Custody.	Present / Absent*	<del></del>	ļ .	. :			- <del></del>			
Traffic Reports or     Packing List:	Present / Absent	·	,			-	•			
4. Airbill:	Airbill / Sticker Present / Absent									
5. Alrbill #:			<u> </u>	***		<u> </u>		M		i.i.
6. Sample Labels:	Present / Absent	:				:		F		
7. Sample IDs:	Listed / Not Listed on Chain-of-Custody			* .			ide		1	170
8. Sample Condition:	Intact Broken* / Leaking*		:			3				
Does information on c traffic reports and sale	mple labels					2	,			
agree?	No*		-		1					
10. Sample received within hold time?	Yes// No*				1					1
11. Adequate sample volut	me √ee/ No*									
12. Proper preservatives u	sed? (06) No*						_	_	·	
13. Trip Blank / Temp Blar (circle which, II-yes)	nk Received? Yes / ২০০০					-				
14. Read Temp:	5.5 C.	·	_		÷ <b>-</b>		<u> </u>	-	+	
Corrected Temp: Is corrected temp 4 +			1/				1-	•	*	
MAccentance renge for samples I	requiring thermal pres.)		1:			,				
**Exception (if any): MET	ALD / DEF ON IOE				THE ROOM STREET, SHOWERVER	Newsylva (Control	STREET, STREET,		GELAXE SIAILES	Entral Principal State S
SRL Revision 7	ukooneen araan ka	*IF CI	RCLE	O, CONTACT PROJECT	MANAGER A	ND ATTAC	H RECC	ORD OF R	ESOLUTION	Page _ C of _ 7

SRL Revision 7 Replaces Rev 5 (07/13/04) Effective 07/19/05



25 May, 2006

Sherris Prall ETIC Engineering Inc - Pleasant Hill (Exxon) 2285 Morello Avenue Pleasant Hill, CA 94523

RE: Exxon 7-4121 Work Order: MPE0188

Enclosed are the results of analyses for samples received by the laboratory on 05/03/06 19:15. The samples arrived at a temperature of 6° C. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christina Dell Project Manager

CA ELAP Certificate #1210





ETIC Engineering Inc - Pleasant Hill (Exxon) 2285 Morello Avenue

Pleasant Hill CA, 94523

Project Number: 7-4121
Project Manager: Sherris Prall

MPE0188 Reported: 05/25/06 14:00

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB16, 5-5.5'	MPE0188-01	Soil	05/02/06 12:20	05/03/06 19:15
SB16, 10-10 5'	MPE0188-02	Soil	05/02/06 12:30	05/03/06 19:15
SB16, 20-20.5'	MPE0188-03	Soil	05/02/06 12:50	05/03/06 19:15
SB16, 24.5-25'	MPE0188-04	Soil	05/02/06 12:55	05/03/06 19:15
SB17, 5.5-6'	MPE0188-05	Soil	05/02/06 08:55	05/03/06 19:15
SB17, 10-10.5'	MPE0188-06	Soil	05/02/06 09:00	05/03/06 19:15
SB17, 15-15-5'	MPE0188-07	Soil	05/02/06 09:05	05/03/06 19:15
SB17, 19 5-20'	MPE0188-08	Soil	05/02/06 09:15	05/03/06 19:15
SB17, 24 5-25'	MPE0188-09	Soil	05/02/06 09:30	05/03/06 19:15
SB16, 15-15.5'	MPE0188-10	Soil	05/02/06 12:40	05/03/06 19:15
SB19, 5-5 5'	MPE0188-11	Soil	05/02/06 15:05	05/03/06 19:15
SB19, 10-10 5'	MPE0188-12	Soil	05/02/06 15:20	05/03/06 19:15
SB19, 15-15-5	MPE0188-13	Soil	05/02/06 15:40	05/03/06 19:15
SB19, 20-20 5	MPE0188-14	Soil	05/02/06 15:50	05/03/06 19:15
SB19, 24 5-25'	MPE0188-15	Soil	05/02/06 16:15	05/03/06 19:15
SB20, 5 5-6'	MPE0188-16	Soil	05/02/06 10:20	05/03/06 19:15
SB20, 10-10.5'	MPE0188-17	Soil	05/02/06 10:25	05/03/06 19:15
SB20, 15-15 5	MPE0188-18	Soil	05/02/06 10:40	05/03/06 19:15
SB20, 19.5-20'	MPE0188-19	Soil	05/02/06 10:45	05/03/06 19:15
SB20, 23.5-24'	MPE0188-20	Soil	05/02/06 10:50	05/03/06 19:15
SB21, 8-8 5'	MPE0188-21	Soil	05/02/06 12:45	05/03/06 19:15
SB21, 13-13 5'	MPE0188-22	Soil	05/02/06 12:55	05/03/06 19:15
SB21, 18-18.5'	MPE0188-23	Soil	05/02/06 13:00	05/03/06 19:15
SB21, 19.5-20'	MPE0188-24	Soil	05/02/06 13:10	05/03/06 19:15
SB21, 23-23.5'	MPE0188-25	Soil	05/02/06 13:13	05/03/06 19:15
SB21, 24 5-25'	MPE0188-26	Soil	05/02/06 13:30	05/03/06 19:15
SB18, 5-5 5'	MPE0188-27	Soil	05/03/06 08:05	05/03/06 19:15
SB18, 10-10 5'	MPE0188-28	Soil	05/03/06 08:10	05/03/06 19:15
SB18, 15-15.5'	MPE0188-29	Soil	05/03/06 08:15	05/03/06 19:15

Sequoia Analytical - Morgan Hill

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121 Project Number: 7-4121 MPE0188 Reported: 05/25/06 14:00

#### ANALYTICAL REPORT FOR SAMPLES

Project Manager: Sherris Prall

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB18, 19.5-20'	MPE0188-30	Soil	05/03/06 08:25	05/03/06 19:15
SB18, 24 5-25'	MPE0188-31	Soil	05/03/06 08:40	05/03/06 19:15
V3, 9.5-10'	MPE0188-32	Soil	05/03/06 09:45	05/03/06 19:15
V5, 5-5.5'	MPE0188-33	Soil	05/03/06 10:05	05/03/06 19:15
V5, 7 5-8'	MPE0188-34	Soil	05/03/06 10:10	05/03/06 19:15
V4, 5-5 5'	MPE0188-35	Soil	05/03/06 10:50	05/03/06 19:15
V4,7 5-8'	MPE0188-36	Soil	05/03/06 10:45	05/03/06 19:15
V8, 5-5 5'	MPE0188-37	Soil	05/03/06 10:40	05/03/06 19:15
V8, 7 5-8'	MPE0188-38	Soil	05/03/06 10:35	05/03/06 19:15
SB21, 2 5-3'	MPE0188-39	Soil	05/02/06 11:30	05/03/06 19:15
SB14, 5-5 5'	MPE0188-40	Soil	05/02/06 09:00	05/03/06 19:15
SB14, 10-10.5'	MPE0188-41	Soil	05/02/06 09:05	05/03/06 19:15
SB14, 15-15.5'	MPE0188-42	Soil	05/02/06 09:15	05/03/06 19:15
SB14, 20-20.5'	MPE0188-43	Soil	05/02/06 09:20	05/03/06 19:15
SB14, 24 5-25'	MPE0188-44	Soil	05/02/06 09:25	05/03/06 19:15
SB15, 5-5 5'	MPE0188-45	Soil	05/02/06 10:25	05/03/06 19:15
SB15, 15-15.5'	MPE0188-46	Soil	05/02/06 11:20	05/03/06 19:15
SB15, 20-20 5'	MPE0188-47	Soil	05/02/06 11:25	05/03/06 19:15
SB15, 24.5-25'	MPE0188-48	Soil	05/02/06 11:30	05/03/06 19:15





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

Analyte	Result	eporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB16, 5-5.5' (MPE0188-01) Soil S	Sampled: 05/02/06 12:20	Receive	ed: 05/03/0	6 19:15					
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	l	6E11001	05/11/06	05/11/06	EPA 8015B/8021B	
Benzene	ND	10	Ħ	#1	n	u	81	II .	
Toluene	ND	10	#1	**	11	a	\$\$	U	
Ethylbenzene	ND	10	**	<b>f</b> ‡	u	a	<b>\$</b> \$	U	
Xylenes (total)	ND	1.0	<b>t</b> \$	**	u	*1	11	11	
Surrogate: a.a.a-Trifluorotoluene		106 %	75-1	20	"	n	#	n	
Surrogate. 4-Bromofluorobenzene		94 %	45-1	35	n	u	tt .	n	
SB16, 10-10.5' (MPE0188-02) Soil	Sampled: 05/02/06 12:3	0 Rece	ived: 05/0	3/06 19:1	5				
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	1	6E11001	05/11/06	05/11/06	EPA 8015B/8021B	
Benzene	ND	10	u	u	15	n	a	1+	
Toluene	ND	10	u	u	11	n	8	n	
Ethylbenzene	ND	1.0	u u	a	"	U	łı	ii	
Xylenes (total)	ND	1.0	f1	+1	11	II .	*1	ti .	
Surrogate: a.a.a-Trifluorotoluene		106 %	7.5-1	20	и	"		u	
Surrogate 4-Bromofluorobenzene		91%	45-1	3.5	n	n	"	ų	
SB16, 20-20.5' (MPE0188-03) Soil	Sampled: 05/02/06 12:5	0 Rece	ived: 05/0	3/06 19:1	5				
Benzene	120	5.0	ug/kg	5	6E11001	05/11/06	05/12/06	EPA 8015B/8021B	CFI
Toluene	52	5 0	11	**	H	**	n	н	CF1
Ethylbenzene	43	50	1†	\$0	n	**	U	†4	
Xylenes (total)	60	5.0	l†	**	н	**	U	tr .	CFI
Surrogate: a.a.a-Trifluorotoluene		105 %	75-1	20	"	n	"	u	
Gasoline Range Organics (C4-C12	) 14	5.0	mg/kg	D	6E15008	05/15/06	05/15/06	ły	
Surrogate: 4-Bromofluorobenzene	***************************************	134 %	45-1	3.5	*	"	и	u	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB16, 24.5-25' (MPE0188-04RE1) Soil	Sampled: 05/02	2/06 12:55	Received	: 05/03/06	19:15				
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	ŧ	6E13007	05/13/06	05/13/06	EPA 8015B/8021B	
Benzene	ND	10	u	17	u	a	11	u	
Toluene	ND	1.0	ш	ij	11	Ħ	n	a	
Ethylbenzene	1.8	10	a	**	11	#	n	u	
Xylenes (total)	ND	1.0	**	ıı	ff	#	11	#1	
Surrogate a.a.a-Trifluorotoluene		110 %	7.5-	120	11	n	"	"	
Surrogate 4-Bromofluorobenzene		62 %	45-	135	H	n	n	n	
•	pled: 05/02/06 08:	:55 Receiv	ed: 05/03	/06 19:15					
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	1	6E11001	05/11/06	05/12/06	EPA 8015B/8021B	
Benzene	ND	0.1	n	**	U	u	**	n	
Toluene	ND	10	U	4	u	a	n	U	
Ethylbenzene	ND	0 1	u	ij	ų.	11	D	a	
Xylenes (total)	ND	1.0	U	n	Ħ	Ħ	U	u	
Surrogate a.a.a-Trifluorotoluene		101 %	75-	120	11	п	H	н	
Surrogate 4-Bromofluorobenzene		94 %	45-	135	н	"	**	н	
SB17, 10-10.5' (MPE0188-06) Soil Sa	impled: 05/02/06 (	09:00 Rec	eived: 05/	03/06 19:1	5				
Benzene	ND	10	ug/kg	10	6E16003	05/16/06	05/16/06	EPA 8015B/8021B	
Toluene	30	10	11	0	u	U	11	n	
Ethylbenzene	310	10	0	u	a	U	++		CF1
Xylenes (total)	ND	10	17	\$2	D	U	**	P	
Surrogate a.a.a-Trifluorotoluene		44 %	75-	120	n	ρ	71	#	505
Gasoline Range Organics (C4-C12)	38	5.0	mg/kg	**	6E15008	05/15/06	05/15/06	n	
Surrogate 4-Bromofluorobenzene		122 %	45-	135	ri	11	B	n	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

## Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B

#### Sequoia Analytical - Morgan Hill

		Reporting	** ***	53.4	<b>23</b> l.		A1 1	N.C. daniel	N
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB17, 15-15-5' (MPE0188-07) Soil S	Sampled: 05/02/06 09:	)5 Rece	ived: 05/03	3/06 19:1	5				
Gasoline Range Organics (C4-C12)	700	100	ug/kg	1	6E16003	05/16/06	05/16/06	EPA 8015B/8021B	
Benzene	18	1.0	41	**	**	U	ď	ď	
Toluene	2.8	1.0	**	**	H	(I	**	a	CFI
Ethylbenzene	17	10	**	19	ly .	ų.	а	u	
Xylenes (total)	4.0	1.0	##	11	11	†I	Ħ	Ħ	CF1
Surrogate a,a.a-Trifluorotoluene		96 %	75-12	20	"	n	"	"	
Surrogate 4-Bromofluorobenzene		176%	45-13	3 <i>5</i>	**	n	#	tt	504
SB17, 19-5-20' (MPE0188-08) Soil S	Sampled: 05/02/06 09:	15 Reco	ived: 05/03	3/06 19:1	5				
Xylenes (total)	31	10	mg/kg	100	6E11022	05/11/06	05/11/06	EPA 8015B/8021B	
Surrogate a.a.a-Trifluorotoluene		99 %	75-12	20	и	"	**	n	
SB17, 19.5-20' (MPE0188-08RE1) So	il Sampled: 05/02/06	09:15	Received: (	05/03/06	19:15				
Gasoline Range Organics (C4-C12)	320	50	mg/kg	10	6E11022	05/11/06	05/15/06	EPA 8015B/8021B	
Benzene	3.2	1.0	a	#1	+1	11	u	ıı	CFI
Toluene	2.0	1.0	Ħ	#1	**	"	ш	u	CFI
Ethylbenzene	8.8	0.1	łł	+1	**	U .	ti		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Surrogate a.a.a-Trifluorotoluene		92 %	75-13	20	ir	H	ıì	н	
Surrogate 4-Bromofluorobenzene		102 %	45-13	3.5	#	"	"	n	
SB17, 24.5-25' (MPE0188-09) Soil S	Sampled: 05/02/06 09:	30 Rece	eived: 05/03	3/06 19:1	5				
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	1	6E12017	05/12/06	05/12/06	EPA 8015B/8021B	·
Benzene	ND	1.0	**	11	tł	\$1	**	**	
Toluene	ND	1.0	n	11	ly	ħ	#	12	
Ethylbenzene	ND	1.0	n	Ħ	**	##	**	11	
Xylenes (total)	1.1	1.0	n	11	U	**	***	11	
Surrogate a.a.a-Trifluorotoluene		100 %	75-13	20	#	n	n	и	
Surrogate 4-Bromofluorobenzene		95 %	45-1:	3.5	n	n	#	r	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

Analyte	Result	eporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note:
SB16, 15-15-5' (MPE0188-10) Soil	Sampled: 05/02/06 12:4	0 Rece	ived: 05/03	/06 19:1	5				
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	1	6E12017	05/12/06	05/12/06	EPA 8015B/8021B	
Benzene	ND	1.0	**	U	*	17	Ħ	et .	
Toluene	ND	1.0	11	u	n	1)	17	\$1	
Ethylbenzene	ND	1.0	n	U	n	U	11	15	
Xylenes (total)	ND	1.0	11	U		н	n	'4	
Surrogate a.a.a-Trifluorotoluene		102 %	75-12	0	n	p	n	и	
Surrogate 4-Bromofluorobenzene		94 %	45-13	5	n	n	**	n	
SB19, 5-5.5' (MPE0188-11) Soil S	Sampled: 05/02/06 15:05	Receive	ed: 05/03/06	5 19:15					
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	1	6E12017	05/12/06	05/12/06	EPA 8015B/8021B	
Benzene	ND	1.0	**	u u	н	n	**	11	
Toluene	ND	1.0	17	0	n	H	11	\$1	
Ethylbenzene	ND	1.0	n	o o	U	Ü	14	14	
Xylenes (total)	ND	1.0		U	ij	n	);	11	
Surrogate a.a.a-Trifluorotoluene		102 %	75-12	0	n	"	"	u	
Surrogate 4-Bromofluorobenzene		93 %	45-13	5	rr	n	#	ti.	
SB19, 10-10.5' (MPE0188-12) Soil	Sampled: 05/02/06 15:2	0 Rece	ived: 05/03	/06 19:1	5				
Gasoline Range Organics (C4-C12)	) 230	100	ug/kg	1	6E12017	05/12/06	05/12/06	EPA 8015B/8021B	
Benzene	ND	10	**	"	11	n	++	fl	
Toluene	ND	10	**	0	11	n	11	#1	
Ethylbenzene	ND	1.0	##	U	4	n	11	#	
Xylenes (total)	1.5	1.0	11	11	п	li .	11	15	
Surrogate a.a.a-Trifluorotoluene		101 %	75-12	0	u	"	**	"	
Surrogate 4-Bromofluorobenzene		118%	45-13	5	и	μ	и	12	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
SB19, 15-15.5 (MPE0188-13) Soil	Sampled: 05/02/06 15:4	10 Recei	ived: 05/03/	06 19:15	5				
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	ı	6E12017	05/12/06	05/12/06	EPA 8015B/8021B	
Benzene	ND	1.0	n	\$\$	n	U	**	74	
Toluene	ND	1.0	n	**	u	u	Ħ	†1	
Ethylbenzene	ND	10	u	19	o o	a	**	11	
Xylenes (total)	ND	1.0	Ħ	H	u	n	**	11	
Surrogate a.a.a-Trifluorotoluene		102 %	75-12	0	"	11	**	"	
Surrogate: 4-Bromofluorobenzene		99 %	45-13	5	n	n	tt	a	
SB19, 20-20-5 (MPE0188-14) Soil	Sampled: 05/02/06 15:5	50 Recei	ived: 05/03/	06 19:15	5				
Gasoline Range Organics (C4-C12)	) 19	5 0	mg/kg	1	6E11022	05/11/06	05/15/06	EPA 8015B/8021B	
Benzene	ND	0.10	n	*1	19	0	n	tt	
Toluene	ND	0.10	n	#1	n	U	*1	76	
Ethylbenzene	ND	0 10	ïi	*1	n	U	#1	**	
Xylenes (total)	0.15	0.10	11	Ħ	†I	II.	**	#	
Surrogate a.a.a-Trifluorotoluene		100 %	75-12	0	n	#	H	#	
Surrogate 4-Bromofluorobenzene		128 %	45-13	.5	ří.	ρ	#	Ħ	
SB19, 24.5-25' (MPE0188-15) Soil	Sampled: 05/02/06 16:	15 Rece	eived: 05/03	/06 19:1	5				
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	1	6E12017	05/12/06	05/12/06	EPA 8015B/8021B	
Benzene	ND	1.0	"		71	н	0	U	
Toluene	ND	10	n	u	**	17	a	a	
Ethylbenzene	ND	10	11	н	**	17	u	a	
Xylenes (total)	ND	1.0	n	H	11	n	+1	11	
Surrogate a.a.a-Trifluorotoluene		96%	75-12	0	#	27	n	11	
Surrogate 4-Bromofluorobenzene		95 %	45-13	5	u	**	o	#	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB20, 5.5-6' (MPE0188-16) Soil S	ampled: 05/02/06 10:20	Receiv	ed: 05/03/	06 19:15					
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	1	6E12017	05/12/06	05/12/06	EPA 8015B/8021B	
Benzene	ND	10	n	U	U	•	P.	44	
Toluene	ND	10	a	U	U	19	п	Ħ	
Ethylbenzene	ND	1.0	r	u	Œ	n	ш	4	
Xylenes (total)	ND	1.0	11	11	n	U		*	
Surrogate: a.a.a-Trifluorotoluene		100 %	75-	120	"	Ħ	n	n	
Surrogate: 4-Bromofluorobenzene		82 %	45~	135	#	22	Ħ	н	
SB20, 10-10.5' (MPE0188-17) Soil	Sampled: 05/02/06 10:	25 Rece	ived: 05/	03/06 19:1	5				
Gasoline Range Organics (C4-C12)	76	5.0	mg/kg	1	6E11022	05/11/06	05/15/06	EPA 8015B/8021B	
Benzene	0.58	0.10	**	41	a	**	n	а	CFI
Toluene	0.60	0 10	D	**	ii.	17	n	ŧ	CF1
Ethylbenzene	0.80	0.10	n	**	tt	#	п	Ħ	
Xylenes (total)	0.72	0.10	"	11	11	н		łł .	
Surrogate a.a.a-Trifluorotoluene		114%	75-	120	n	**	"	<b>*</b>	
Surrogate 4-Bromofluorobenzene		145 %	45-	135	н	ŧ	n	H	S04
SB20, 15-15.5 (MPE0188-18) Soil	Sampled: 05/02/06 10:4	0 Rece	ived: 05/0	3/06 19:1	5				
Benzene	26	10	mg/kg	10	6E15008	05/15/06	05/15/06	EPA 8015B/8021B	CF1
Toluene	39	1.0	+t	11	D	"	18	U	CF1
Surrogate a,a,a-Trifluorotoluene		125 %	75-	120	17	ņ	**	n	504
SB20, 15-15-5 (MPE0188-18REI) S	oil Sampled: 05/02/06	10:40 I	Received:	05/03/06	19:15				
Gasoline Range Organics (C4-C12)	1300	500	mg/kg	100	6E15008	05/15/06	05/16/06	EPA 8015B/8021B	
Ethylbenzene	24	10	ti.	**	a	**	ш	++	
Xylenes (total)	12	10	II .	*		11	11	1)	
Surrogate a.a.a-Trifluorotoluene	**************************************	94 %	75-	120	"	7†	į į	t	
Surrogate. 4-Bromofluorobenzene		105 %	45-	135	n	n	"	P	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB20, 19.5-20' (MPE0188-19) Soil Sa	mpled: 05/02/06 1	0:45 Rece	ived: 05/0	3/06 19:1	5				
Gasoline Range Organics (C4-C12)	2700	200	mg/kg	40	6E15008	05/15/06	05/16/06	EPA 8015B/8021B	
Benzene	20	4.0	et .	n	O	n	u	n	CF1
Toluene	18	4.0	*1	n	a	Ħ	n	n	CF1
Ethylbenzene	66	4 0	88	U	**	Ħ	+1	u	
Xylenes (total)	280	4.0	t#	U	fl	tt	**	#	
Surrogate. a.a.a-Trifluorotoluene		89 %	75-	120	n	**	n	#	
Surrogate. 4-Bromofluorobenzene		116%	45-,	135	n	Ħ	ti	n	
	impled: 05/02/06 1	0:50 Rece	ived: 05/0	3/06 19:1	5				
Ethylbenzene	23	10	ug/kg	10	6E16003	05/16/06	05/16/06	EPA 8015B/8021B	
Surrogate a.a.a-Trifluorotoluene		98 %	75-	120	Ħ	и	r	n	
Surrogate 4-Bromofluorobenzene		98 %	45-	135	ρ	13	o	"	
SB20, 23.5-24' (MPE0188-20RE1) Soil	Sampled: 05/02	/06 10:50	Received:	05/03/06	19:15				
Gasoline Range Organics (C4-C12)	610	100	ug/kg	I	6E16003	05/16/06	05/16/06	EPA 8015B/8021B	7710
Benzene	13	1.0	n	*1	**	1)	11	**	
Toluene	4.7	10	n	**	n	U	n	B	CF1
Xylenes (total)	8.2	1.0	U	Ħ	n	D	U	þ	CF1
Surrogate a.a.a-Trifluorotoluene		100 %	75-	120	u	H	**	n	
SB21, 8-8.5' (MPE0188-21) Soil Sam	pled: 05/02/06 12:	45 Receiv	ed: 05/03/	06 19:15					
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	ı	6E12017	05/12/06	05/12/06	EPA 8015B/8021B	
Benzene	ND	1.0	**	Ħ	n	¥t .	+t	ù	
Toluene	ND	10	11	#1	íi .	**	**	٦	
Ethylbenzene	ND	10	**	**	u	'4	1+	#	
Xylenes (total)	ND	1.0	1)	11	п	11	15	**	
Surrogate a.a.a-Trifluorotoluene		104 %	75-	120	**	*	н	Ħ	
Surrogate 4-Bromofluorobenzene		88 %	4.5-	135	**	n	tr	n	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121
Project Manager: Sherris Prall

MPE0188 Reported: 05/25/06 14:00

	Re	porting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB21, 13-13-5' (MPE0188-22) Soil	Sampled: 05/02/06 12:55	Rec	eived: 05/0	3/06 19:1	5				
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	ı	6E12017	05/12/06	05/13/06	EPA 8015B/8021B	
Benzene	ND	1.0	"	11	U	U	**	n	
Toluene	ND	10	o o	n	α	u	19	н	
Ethylbenzene	ND	10	u	H	0	a	U	U	
Xylenes (total)	ND	1.0	11	1)	*1	t1	U	U	
Surrogate a.a.a-Trifluorotoluene		99 %	7.5-	120	#	"	H	n	
Surrogate 4-Bromofluorobenzene		90 %	45-	135	n	n	*	n	
SB21, 18-18.5' (MPE0188-23) Soil	Sampled: 05/02/06 13:00	Rec	eived: 05/0	03/06 19:1	5				
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	ļ	6E13007	05/13/06	05/13/06	EPA 8015B/8021B	
Вепzепе	ND	1.0	"	11	n	n	11	**	
Toluene	ND	1.0	n n	11	U	U	17	11	
Ethylbenzene	ND	1.0	u	н	U	U	u	li	
Xylenes (total)	ND	1.0	a a	n	11	n	1)	n	
Surrogate a.a.a-Trifluorotoluene		79 %	7.5-	120	"	n	"	n	
Surrogate 4-Bromofluorobenzene		89 %	45-	135	n	u	**	"	
SB21, 19.5-20' (MPE0188-24) Soil	Sampled: 05/02/06 13:10	) Rec	eived: 05/	03/06 19:1	5				
Gasoline Range Organics (C4-C12)	ND	1000	ug/kg	10	6E16003	05/16/06	05/16/06	EPA 8015B/8021B	
Surrogate 4-Bromofluorobenzene		103 %	45-	135	<b>3</b> )	n	ri	n	
SB21, 19.5-20' (MPE0188-24RE1)	Soil Sampled: 05/02/06	13:10	Received	05/03/06	19:15				
Benzene	ND	1.0	ug/kg	i	6E16003	05/16/06	05/16/06	EPA 8015B/8021B	
Toluene	ND	1.0	I.	**	U	U	n	Ŋ	
Ethylbenzene	ND	10	U	11	n	a	11	n	
Xylenes (total)	14	1.0	11	11	<b>#2</b>	(1	11	11	CF1
Surrogate a.a.a-Trifluorotoluene		93 %	75-	120	11	**	#	D	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

Analyte	Result	eporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB21, 23-23.5' (MPE0188-25) Soil	Sampled: 05/02/06 13:1	3 Rece	ived: 05/03	/06 19:1	5				
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	***	6E12017	05/12/06	05/13/06	EPA 8015B/8021B	
Benzene	ND	10	n	**	a	1+	**	H	
Toluene	ND	10	19	**	Ħ	**	**	#1	
Ethylbenzene	ND	10	0	**	FR .	н	н	**	
Xylenes (total)	ND	1.0	U	1)	<b>F</b> †	н	11	**	
Surrogate a,a,a-Trifluorotoluene		100 %	75-12	20	u u	ıı	11	11	
Surrogate 4-Bromofluorobenzene		99 %	45-13	1.5	Ħ	Ħ	н	#	
SB21, 24.5-25' (MPE0188-26) Soil	Sampled: 05/02/06 13:3	0 Reco	ived: 05/03	/06 19:1	5				
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	1	6E13007	05/13/06	05/13/06	EPA 8015B/8021B	
Benzene	ND	10	41	"	P	н	**	a	
Toluene	ND	1.0	71	a	u	**	**	u	
Ethylbenzene	ND	1.0	**	H	n	81	Ħ	tl	
Xylenes (total)	ND	1.0	**	n n	U	Ħ	Ħ	ı	
Surrogate. a.a.a-Trifluorotoluene		101 %	75-13	20	n	"	"	**	
Surrogate 4-Bromofluorobenzene		92%	45-13	5	Ħ	ď	n	n	
SB18, 5-5-5' (MPE0188-27) Soil S	Sampled: 05/03/06 08:05	Receiv	ed: 05/03/0	6 19:15					
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	ı	6E12017	05/12/06	05/13/06	EPA 8015B/8021B	
Benzene	ND	10	U	n	+1	"	n	D	
Toluene	ND	1.0	U	n	**	1)	"	n	
Ethylbenzene	ND	1.0	0	n	19	u	ıi	n	
Xylenes (total)	ND	1.0	ti.	ii	19	D	U	U	
Surrogate a.a.a-Trifluorotoluene		104 %	75-12	20	**	,	,,	n	
Surrogate 4-Bromofluorobenzene		74 %	45-13	35	"	**	μ	,,	





Project: Exxon 7-4121

2285 Morello Avenue Pleasant Hill CA, 94523

Project Number: 7-4121 Project Manager: Sherris Prall

MPE0188 Reported: 05/25/06 14:00

Analyte	Result	porting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB18, 10-10.5' (MPE0188-28) Soil	Sampled: 05/03/06 08:10	) Rece	ived: 05/03/	06 19:1	5			Section of the sectio	
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	1	6E12017	05/12/06	05/13/06	EPA 8015B/8021B	
Benzene	ND	10	tt	#1	#1	н	u	16	
Toluene	ND	10	n	##	**	#	Ħ	n	
Ethylbenzene	ND	1.0	н	**	**	**	##	n .	
Xylenes (total)	ND	1.0	U	19	11	<b>t</b> #	14		
Surrogate a.a.a-Trifluorotoluene		103 %	75-12	0	11	Ħ	н	n	
Surrogate 4-Bromofluorobenzene		88 %	45-13	5	"	**	**	"	
SB18, 15-15.5' (MPE0188-29) Soil	Sampled: 05/03/06 08:1:	5 Rece	eived: 05/03/	/06 19:1	5				
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	l	6E12017	05/12/06	05/13/06	EPA 8015B/8021B	
Benzene	ND	10	11	Ħ	71	#1	Ħ	17	
Toluene	ND	10	n	#4	Ħ	Ħ	**	11	
Ethylbenzene	ND	1.0	н	<b>\$</b> {	**	#?	++	q	
Xylenes (total)	ND	1.0		**	**	17	**	u	
Surrogate a,a.a-Trifluorotoluene		111%	75-12	0	tt	#	Ħ	n	
Surrogate 4-Bromofluorobenzene		88 %	45-13	5	#	"	ŧŧ	и	
SB18, 19.5-20' (MPE0188-30) Soil	Sampled: 05/03/06 08:2	5 Reco	eived: 05/03	/06 19:1	5				
Gasoline Range Organics (C4-C12)	29	5 0	mg/kg	1	6E11022	05/11/06	05/15/06	EPA 8015B/8021B	
Benzene	ND	010	**	(1	u	u	#	"	
Toluene	ND	010	в	Ħ	(1	11	**	U	
Ethylbenzene	ND	0.10	n	#t	Ħ	#	<b>\$</b> \$	u	
Xylenes (total)	ND	0.10	17	#1	#	#	74	n	
Surrogate a.a.a-Trifluorotoluene		99 %	75-12	0	ť	11	n	n	
Surrogate 4-Bromofluorobenzene		122%	45-13	5	n	н	H	"	





Project: Exxon 7-4121
Project Number: 7-4121

2285 Morello Avenue Pleasant Hill CA, 94523

Project Manager: Sherris Prall

MPE0188 Reported: 05/25/06 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB18, 24.5-25' (MPE0188-31) Soil	Sampled: 05/03/06 08:4	10 Rece	ived: 05/0	3/06 19:1	5				
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	1	6E12017	05/12/06	05/13/06	EPA 8015B/8021B	
Benzene	ND	1.0	<b>9</b> ‡	#1	u	f1	0	ti .	
Toluene	ND	1.0	**	#1	U	Ħ	11	n	
Ethylbenzene	ND	1.0	11	**	Ħ	#1	Ħ	<b>†1</b>	
Xylenes (total)	ND	1.0	U	**	n	**	*1	#1	
Surrogate a,a,a-Trifluorotoluene		98 %	7.5-,	120	n	п	и	Ħ	
Surrogate 4-Bromofluorobenzene		97 %	4.5-	135	"	u	"	*	
V3, 9.5-10' (MPE0188-32) Soil Sa	mpled: 05/03/06 09:45	Receive	1: 05/03/0	6 19:15					
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	1	6E12017	05/12/06	05/13/06	EPA 8015B/8021B	
Benzene	ND	10	स		H	U	U	U	
Toluene	ND	10	Ħ	a	to .	"	II .	0	
Ethylbenzene	ND	10	#	tt	n	ш	U	u	
Xylenes (total)	ND	1.0	**	*1	11	a	ıı	a	
Surrogate a.a.a-Trifluorotoluene		100 %	75	120	Ħ	n	"	Ħ	
Surrogate 4-Bromofluorobenzene		94 %	45-	135	ο	n	и	**	
V5, 5-5-5' (MPE0188-33) Soil San	mpled: 05/03/06 10:05   I	Received	: 05/03/06	19:15					
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	I	6E12017	05/12/06	05/13/06	EPA 8015B/8021B	
Benzene	ND	10	U	n	*1	**	**	n	
Toluene	ND	1.0	U	17	Ŧ1	15	н	U	
Ethylbenzene	ND	10	ш	11	*11	n	н	U	
Xylenes (total)	ND	1.0	0	II .	#1	н	U		
Surrogate a.a.a-Trifluorotoluene		102 %	75-	120	rr	**	H	"	
Surrogate 4-Bromofluorobenzene		92 %	45-	135	tt	n	n	n	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
V5, 7.5-8' (MPE0188-34) Soil S	ampled: 05/03/06 10:10	Received	05/03/06	19:15					J
Gasoline Range Organics (C4-C1	2) 240	100	ug/kg		6E12017	05/12/06	05/13/06	EPA 8015B/8021B	
Benzene	ND	1.0	n	**	o o	n	<b>\$\$</b>	*1	
Toluene	ND	10	n	11	O	0	**	41	
Ethylbenzene	ND	10	U	**	п	II.	++	*1	
Xylenes (total)	ND	1.0	U	n	**	U	+1	đ	
Surrogate a.a.a-Trifluorotoluene		104 %	75-1	20	"	"	77	ı	
Surrogate. 4-Bromofluorobenzene		95 %	45-1	3.5	**	н	n	tt	
V4, 5-5.5' (MPE0188-35) Soil S	ampled: 05/03/06 10:50	Received:	05/03/06	19:15					
Gasoline Range Organics (C4-C12	) ND	100	ug/kg	1	6E13007	05/13/06	05/13/06	EPA 8015B/8021B	
Benzene	ND	10	ŧI	U	**	**	U	"	
Toluene	ND	10	÷i.	11	**	ėl .	0	n	
Ethylbenzene	ND	1.0	Ħ	ш	17	31	n	n	
Xylenes (total)	ND	1.0	я	11	**	er	U	н	
Surrogate: a,a.a-Trifluorotoluene		103 %	7.5-1	20	H	n	ı	D	
Surrogate: 4-Bromofluorobenzene		93 %	45-1	3.5	H	п	н	μ	
V4,7-5-8' (MPE0188-36) Soil Sa	mpled: 05/03/06 10:45	Received:	05/03/06 1	19:15					
Gasoline Range Organics (C4-C12	) ND	100	ug/kg	1	6E13007	05/13/06	05/13/06	EPA 8015B/8021B	
Benzene	ND	10	**	41	U	11	**	u	
Toluene	ND	10	**	Ħ	U	**	*1	Ħ	
Ethylbenzene	ND	10	**	#1	u	В	**	tt	
Xylenes (total)	ND	1.0	**	ŦŦ	11	H	şŧ	п	
Surrogate a.a.a-Trifluorotoluene		103 %	75-1	20	"	11	n	11	
Surrogate 4-Bromofluorobenzene		90 %	45-1	35	н	tt	n	н	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
V8, 5-5.5' (MPE0188-37) Soil Sa	impled: 05/03/06 10:40	Received:	05/03/06	19:15					
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	1	6E13007	05/13/06	05/13/06	EPA 8015B/8021B	
Benzene	ND	1.0	U	u	0	11		11	
Toluene	ND	1.0	u	u	0	n	u	n	
Ethylbenzene	ND	1.0	u	u	u	U	Ħ	n	
Xylenes (total)	ND	1.0	u	u	u	U	H	"	
Surrogate a.a.a-Trifluorotoluene		104 %	7.5- ,	120	"	H	п	н	
Surrogate 4-Bromofluorobenzene		91%	4.5-1	35	rt	H	n	"	
V8, 7.5-8' (MPE0188-38) Soil Sa	impled: 05/03/06 10:35	Received:	: 05/03/06	19:15					
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	1	6E13007	05/13/06	05/13/06	EPA 8015B/8021B	
Benzene	ND	10	Ħ	**	tt	a	**	**	
Toluene	ND	1.0	11	41	11	n	**	**	
Ethylbenzene	ND	1.0	н	*1	<b>?</b> 1	tt	++	11	
Xylenes (total)	ND	1.0	*1	11	#	п	**	ŧ+	
Surrogate a.a.a-Trifluorotoluene		102 %	75-1	20	n	"	n	H	
Surrogate 4-Bromofluorobenzene		96 %	45-1	135	**	n	"	o	
SB14, 5-5.5' (MPE0188-40) Soil	Sampled: 05/02/06 09:0	0 Receive	ed: 05/03/	06 19:15					
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	l	6E13007	05/13/06	05/13/06	EPA 8015B/8021B	
Benzene	ND	1.0	**	+1	**	**	**	**	
Toluene	ND	1.0	##	**	SY	81	11	н	
Ethylbenzene	ND	1.0	**	++	ŧr	**	**	1)	
Xylenes (total)	ND	1.0	<del>}</del> †	н	**	"	11	Ħ	
Surrogate a.a.a-Trifluorotoluene		104 %	7.5-1	120	**	"	11	**	, , , , , , , , , , , , , , , , , , , ,
Surrogate 4-Bromofluorobenzene		89 %	4.5-4	3.5	n	n	'n	н	





Project: Exxon 7-4121

2285 Morello Avenue Pleasant Hill CA, 94523 Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

Analyte	Result	porting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB14, 10-10.5' (MPE0188-41) Soil	Sampled: 05/02/06 09:05			03/06 19:1	5				
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	ļ	6E13007	05/13/06	05/14/06	EPA 8015B/8021B	
Benzene	ND	1.0	u	19	н	u	11	Ħ	
Toluene	ND	1.0	Ħ	n	Ħ	u	11	14	
Ethylbenzene	ND	10	**	17	#1	#	n	I†	
Xylenes (total)	ND	1.0	59	t.	**	**	U	U	
Surrogate a.a.a-Trifluorotoluene		104 %	75-	1.20	11	n	н	n	
Surrogate: 4-Bromofluorobenzene		88 %	4.5-	135	"	н	n	n	
SB14, 15-15.5' (MPE0188-42) Soil	Sampled: 05/02/06 09:15	Rec	eived: 05/	03/06 19:1	5				
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	anno	6E13007	05/13/06	05/14/06	EPA 8015B/8021B	
Benzene	ND	1.0	**	11	**	a	n	"	
Toluene	ND	1.0	Ħ	n	##	11	19	n	
Ethylbenzene	ND	10	11	n	32	41	Tr.	a	
Xylenes (total)	ND	1.0	19	"	11	Ħ	a a	U	
Surrogate: a.a.a-Trifluorotoluene		102 %	75-	120	Ħ	"	11	u	
Surrogate 4-Bromofluorobenzene		93 %	45-	135	12	#	n	и	
SB14, 20-20.5' (MPE0188-43) Soil	Sampled: 05/02/06 09:20	Rec	eived: 05/	03/06 19:1	5				
Gasoline Range Organics (C4-C12)	1300	1000	ug/kg	10	6E13007	05/13/06	05/14/06	EPA 8015B/8021B	
Surrogate 4-Bromofluorobenzene		112%	45-	135	11	Þ	tt	н	
SB14, 20-20.5' (MPE0188-43RE1)	Soil Sampled: 05/02/06 (	09:20	Received	: 05/03/06	19:15				
Benzene	ND	1.0	ug/kg	1	6E15010	05/15/06	05/15/06	EPA 8015B/8021B	
Toluene	ND	10	0	11	n	**	ķi.	Ħ	
Ethylbenzene	ND	10	u	tt	u	17	Ħ	**	
Xylenes (total)	8.8	1.0	a	D	#1	11	#1	**	CFI
Surrogate a.a.a-Trifluorotoluene	Manufacture and the second sec	102 %	75-	120	"	"	0	>>	

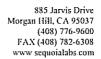




2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

Analyte	Re Result	porting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB14, 24.5-25' (MPE0188-44) Soil	Sampled: 05/02/06 09:25	Rece	ived: 05/03/	06 19:1	5				
Gasoline Range Organics (C4-C12)	ND	100	ug/kg		6E13007	05/13/06	05/14/06	EPA 8015B/8021B	
Benzene	ND	1.0	11	**	U	n	#1	n	
Toluene	ND	1.0	n	n	u	t)	\$>	II .	
Ethylbenzene	ND	1.0	II	11	ŧŧ	ŧŧ	12	n	
Xylenes (total)	ND	1.0	U	n .	Ħ	Ħ	11	П	
Surrogate a.a.a-Trifluorotoluene		112%	75-12	0	11	n	n	"	
Surrogate 4-Bromofluorobenzene		95 %	45-13	5	H	н	#	H .	
SB15, 5-5.5' (MPE0188-45) Soil S	Sampled: 05/02/06 10:25	Receive	ed: 05/03/00	19:15					
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	and the same of th	6E13007	05/13/06	05/13/06	EPA 8015B/8021B	
Benzene	ND	1.0	n	**	n	U	#1	**	
Toluene	ND	10	H	**	u	"	#1	n	
Ethylbenzene	ND	1.0	n	R	u	ш	Ħ	n	
Xylenes (total)	ND	1.0	II	11	Ŋ	(1	1+	н	
Surrogate a.a.a-Trifluorotoluene		103 %	75-12	0	"	n	11	n	
Surrogate 4-Bromofluorobenzene		92 %	45-13	5	èr	u	#	"	
SB15, 15-15.5' (MPE0188-46) Soil	Sampled: 05/02/06 11:20	Rece	ived: 05/03	/06 19:1	5				
Gasoline Range Organics (C4-C12)	ND	100	ug/kg	1	6E13007	05/13/06	05/14/06	EPA 8015B/8021B	
Benzene	ND	1.0	<b>ft</b>	**	19	n	U	**	
Toluene	ND	1.0	**	*1	l7	n	ű	**	
Ethylbenzene	ND	1.0	11	#1	11	n	Ħ	#	
Xylenes (total)	ND	1.0	11	Ħ	11	u	f1	19	
Surrogate a.a.a-Trifluorotoluene		96%	75-12	0	p	**	0	"	
Surrogate 4-Bromofluorobenzene		84 %	45-13	5	μ	Ħ	n	u	





Project: Exxon 7-4121

2285 Morello Avenue Pleasant Hill CA, 94523 Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

Analyte	Result	porting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB15, 20-20-5' (MPE0188-47) Soil	Sampled: 05/02/06 11:25	Rece	ived: 05/0	3/06 19:1:	5				
Gasoline Range Organics (C4-C12)	160	100	ug/kg	1	6E15010	05/15/06	05/15/06	EPA 8015B/8021B	
Benzene	ND	1.0	41	U	n	n	11	**	
Toluene	ND	10	**	0	0	n	U	H	
Ethylbenzene	1.6	10	#f	"	+1*	u	n	Ħ	
Xylenes (total)	ND	1.0	49	n	u	u	u	Ħ	
Surrogate a.a.a-Trifluorotoluene	I	14%	7.5-	120	н	Ð	n	**	
Surrogate. 4-Bromofluorobenzene	i	08 %	45-	135	ir	n	и	"	
SB15, 24.5-25' (MPE0188-48) Soil	Sampled: 05/02/06 11:30	Rece	ived: 05/(	3/06 19:1	5				
Gasoline Range Organics (C4-C12)	270	100	ug/kg	1	6E15010	05/15/06	05/15/06	EPA 8015B/8021B	
Benzene	ND	10	n	**	17	**	**	u	
Toluene	ND	10	U	н	l <del>y</del>	ŧξ	H	0	
Ethylbenzene	6.9	1.0	u	#1	U	*#	n	q	
Xylenes (total)	ND	1.0	u	n	19	н	н	ft	
Surrogate: a.a.a-Trifluorotoluene		02 %	75-	1.20	и	7	fr.	r	·
Surrogate 4-Bromofluorobenzene	i i	16%	45-	135	u	"	"	tt	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

#### Extractable Hydrocarbons by EPA 8015B Sequoia Analytical - Morgan Hill

	1	Reporting							
Analyte	Result	I. imit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB16, 5-5.5' (MPE0188-01) Soil	Sampled: 05/02/06 12:20	Receiv	ed: 05/03/0	06 19:15					
Diesel Range Organics (C10-C28)	14	1.0	mg/kg	1	6E12023	05/12/06	05/18/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane		73 %	40-1	20	n	v	*	n	
SB16, 10-10.5' (MPE0188-02) Soil	Sampled: 05/02/06 12:3	30 Rece	ived: 05/0	3/06 19:1	5				
Diesel Range Organics (C10-C28)	5.2	10	mg/kg	]	6E12023	05/12/06	05/18/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane		63 %	40-1	20	"	и	n	"	
SB16, 20-20.5' (MPE0188-03) Soil	Sampled: 05/02/06 12:5	50 Rece	ived: 05/0	3/06 19:1	5				
Diesel Range Organics (C10-C28)	9.3	1.0	mg/kg	1	6E12023	05/12/06	05/18/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane		66 %	40-1	.20	"	"	n	"	
SB16, 24.5-25' (MPE0188-04) Soil	Sampled: 05/02/06 12:5	55 Rece	ived: 05/0	3/06 19:1	5				_
Diesel Range Organics (C10-C28)	ND	1.0	mg/kg	1	6E12023	05/12/06	05/18/06	EPA 8015B-SVOA	
Surrogate n-Octacosane		52 %	40-I	20	и	H	-1	н	
SB17, 5.5-6' (MPE0188-05) Soil	Sampled: 05/02/06 08:55	Receive	ed: 05/03/0	06 19:15					
Diesel Range Organics (C10-C28)	18	10	mg/kg	<u>l</u>	6E12023	05/12/06	05/18/06	EPA 8015B-SVOA	HC-12
Surrogate. n-Octacosane		117%	40-1	20	11	n	n	r	
SB17, 10-10-5' (MPE0188-06) Soil	Sampled: 05/02/06 09:0	00 Rece	eived: 05/0	3/06 19:1	5				
Diesel Range Organics (C10-C28)	260	10	mg/kg	10	6E12023	05/12/06	05/18/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane		213 %	40-1	20	11	n	**	n	504
SB17, 15-15.5' (MPE0188-07) Soil	Sampled: 05/02/06 09:0	05 Rece	eived: 05/0	3/06 19:1	5				
Diesel Range Organics (C10-C28)	3.5	10	mg/kg	l	6E12023	05/12/06	05/18/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane		63 %	40-1	20	n	0	"	"	





Project: Exxon 7-4121

2285 Morello Avenue Pleasant Hill CA, 94523 Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

	Re	porting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB17, 19.5-20' (MPE0188-08) Soil	Sampled: 05/02/06 09:15	Rece	eived: 05/(	3/06 19:1	15				
Diesel Range Organics (C10-C28)	18	0.1	mg/kg	1	6E12023	05/12/06	05/18/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane		60 %	40-	120	n	7	#	rt	
SB17, 24.5-25' (MPE0188-09) Soil	Sampled: 05/02/06 09:30	) Reco	ived: 05/0	3/06 19:1	15				
Diesel Range Organics (C10-C28)	1.1	10	mg/kg	1	6E12023	05/12/06	05/18/06	EPA 8015B-SVOA	HC-12
Surrogate: n-Octacosane		60 %	40-	120	#	"	ri	**	
SB16, 15-15-5' (MPE0188-10) Soil	Sampled: 05/02/06 12:40	Reco	eived: 05/0	03/06 19:1	15				
Diesel Range Organics (C10-C28)	4.2	1.0	mg/kg	ı	6E12023	05/12/06	05/18/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane		60 %	40-	120	и	"	#	"	
SB19, 5-5-5' (MPE0188-11) Soil S	Sampled: 05/02/06 15:05	Receiv	ed: 05/03/	06 19:15					
Diesel Range Organics (C10-C28)	1.4	1.0	mg/kg	1	6E12023	05/12/06	05/18/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane		46 %	40-	120	n	tt	**	4	
SB19, 10-10.5' (MPE0188-12) Soil	Sampled: 05/02/06 15:20	) Rec	eived: 05/0	3/06 19:1	15				
Diesel Range Organics (C10-C28)	4.8	10	mg/kg	t	6E12023	05/12/06	05/18/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane		51%	40-	120	#	и	n	n	
SB19, 15-15-5 (MPE0188-13) Soil	Sampled: 05/02/06 15:40	Rece	ived: 05/0	3/06 19:1	5				
Diesel Range Organics (C10-C28)	1.2	1.0	mg/kg	ı	6E12023	05/12/06	05/18/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane		51%	40-	120	n	"	"	n	
SB19, 20-20.5 (MPE0188-14) Soil	Sampled: 05/02/06 15:50	Rece	ived: 05/0	3/06 19:1	5				
Diesel Range Organics (C10-C28)	5.8	10	mg/kg	1	6E12023	05/12/06	05/18/06	EPA 8015B-SVOA	HC-13
Surrogate n-Octacosane		56 %	40-	120	,,	"	u	t†	





Project: Exxon 7-4121

2285 Morello Avenue

Project Number: 7-4121

MPE0188 Reported: 05/25/06 14:00

Pleasant Hill CA, 94523

Project Manager: Sherris Prall

Diesel Range Organics (C10-C28)   1.7   1.0   mg/kg   1   6E12023   05/12/06   05/19/06   EPA   He 8015B-SVOA		F	Reporting							
Diesel Range Organics (C10-C28)   1.7   1.0 mg/kg   1 6E12023 05/12/06 05/19/06   EPA 8015B-SVOA   He 8015B-SVOA   He 8015B-SVOA   EPA 8015B-SVOA   He 8015B-SVOA   He 8015B-SVOA   EPA 8015B-SVOA   He 8015	Analyte	Result	L imit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate n-Octacosane   52 %   40-120   " " " " " "   "   "   "   "   "	SB19, 24.5-25' (MPE0188-15) Soil	Sampled: 05/02/06 16:1	5 Reco	eived: 05/0	3/06 19:1	5				
SB20, 5-5-6' (MPE0188-16) Soil Sampled: 05/02/06 10:20 Received: 05/03/06 19:15  Diesel Range Organics (C10-C28) 14 1 0 mg/kg 1 6E12023 05/12/06 05/19/06 EPA 8015B-SVOA  Surrogate n-Octacosane 94 % 40-120 " " " " " " " SB20, 10-10.5' (MPE0188-17) Soil Sampled: 05/02/06 10:25 Received: 05/03/06 19:15  Diesel Range Organics (C10-C28) 98 3 0 mg/kg 3 6E12023 05/12/06 05/19/06 EPA 8015B-SVOA  Surrogate n-Octacosane 80 % 40-120 " " " " " " " " " " " " " " " " " " "	Diesel Range Organics (C10-C28)	1.7	1.0	mg/kg	ı	6E12023	05/12/06	05/19/06		HC-12
Diesel Range Organics (C10-C28)   14   1 0 mg/kg   1 6E12023 05/12/06 05/19/06   EPA 8015B-SVOA   He 8015B-SVOA	Surrogate n-Octacosane		52 %	40-1	20	11	p	ŗi.	#	
Surrogate n-Octacosane	SB20, 5.5-6' (MPE0188-16) Soil	Sampled: 05/02/06 10:20	Receiv	ed: 05/03/0	06 19:15			~		
SB20, 10-10.5' (MPE0188-17) Soil Sampled: 05/02/06 10:25 Received: 05/03/06 19:15  Diesel Range Organics (C10-C28) 98 3 0 mg/kg 3 6E12023 05/12/06 05/19/06 EPA 8015B-SVOA  Surrogate n-Octacosane 80 % 40-120 " " " " " " " " " " " " " " " " " " "	Diesel Range Organics (C10-C28)	14	1.0	mg/kg	1	6E12023	05/12/06	05/19/06		HC-12
Diesel Range Organics (C10-C28)   98   3 0 mg/kg   3 6E12023 05/12/06 05/19/06   EPA 8015B-SVOA   He 8015B-SVOA	Surrogate: n-Octacosane		94 %	40-1	20	H	"	n	n	
Surrogate n-Octacosane   Su %   40-120   " " " " "   "   "   "   "   "	SB20, 10-10.5' (MPE0188-17) Soil	Sampled: 05/02/06 10:2	25 Reco	eived: 05/0	3/06 19:1	5				
SB20, 15-15.5 (MPE0188-18) Soil Sampled: 05/02/06 10:40 Received: 05/03/06 19:15  Diesel Range Organics (C10-C28) 270 20 mg/kg 20 6E12023 05/12/06 05/19/06 EPA 8015B-SVOA  Surrogate n-Octacosane 66 % 40-120 " " " " "  SB20, 19.5-20' (MPE0188-19) Soil Sampled: 05/02/06 10:45 Received: 05/03/06 19:15  Diesel Range Organics (C10-C28) 250 20 mg/kg 20 6E12023 05/12/06 05/19/06 EPA 8015B-SVOA  Surrogate n-Octacosane 66 % 40-120 " " " " "  SB20, 23.5-24' (MPE0188-20) Soil Sampled: 05/02/06 10:50 Received: 05/03/06 19:15  Diesel Range Organics (C10-C28) 7.0 1 0 mg/kg 1 6E12023 05/12/06 05/19/06 EPA 8015B-SVOA  Surrogate n-Octacosane 62 % 40-120 " " " " "  SB21, 8-8.5' (MPE0188-21) Soil Sampled: 05/02/06 12:45 Received: 05/03/06 19:15  Diesel Range Organics (C10-C28) 1.4 1.0 mg/kg 1 6E15007 05/15/06 05/19/06 EPA 8015B-SVOA	Diesel Range Organics (C10-C28)	98	3 0	mg/kg	3	6E12023	05/12/06	05/19/06		HC-12
Diesel Range Organics (C10-C28)         270         20 mg/kg         20 6E12023         05/12/06         05/19/06         EPA 8015B-SVOA         He 8015B-SVOA           Surrogate: n-Octacosane         66 % 40-120 " " " " " "         " " " " "         " " " "           SB20, 19.5-20' (MPE0188-19) Soil         Sampled: 05/02/06 10:45         Received: 05/03/06 19:15         EPA 8015B-SVOA         He 8015B-SVOA           Surrogate: n-Octacosane         66 % 40-120 " " " " " "         " " " "         " " " "           SB20, 23.5-24' (MPE0188-20) Soil         Sampled: 05/02/06 10:50         Received: 05/03/06 19:15         EPA 8015B-SVOA         He 8015B-SVOA           Surrogate: n-Octacosane         62 % 40-120 " " " " " " " "         " " " " " "         " " " " "           Surrogate: n-Octacosane         62 % 40-120 " " " " " " " " " "         " " " " " " "           SB21, 8-8.5' (MPE0188-21) Soil         Sampled: 05/02/06 12:45         Received: 05/03/06 19:15           Diesel Range Organics (C10-C28)         1.4         1.0 mg/kg         1 6E15007 05/15/06 05/15/06 05/19/06 EPA 8015B-SVOA         He 8015B-SVOA	Surrogate n-Octacosane		80 %	40-1	20	"	"	**	#	
Surrogate n-Octacosane   66 % 40-120   " " " " "   "   "   "   "   "   "	SB20, 15-15-5 (MPE0188-18) Soil	Sampled: 05/02/06 10:4	0 Rece	ived: 05/03	3/06 19:1	5				
SB20, 19.5-20' (MPE0188-19) Soil Sampled: 05/02/06 10:45 Received: 05/03/06 19:15  Diesel Range Organics (C10-C28) 250 20 mg/kg 20 6E12023 05/12/06 05/19/06 EPA 8015B-SVOA  Surrogate: n-Octacosane 66 % 40-120 " " " " "  SB20, 23.5-24' (MPE0188-20) Soil Sampled: 05/02/06 10:50 Received: 05/03/06 19:15  Diesel Range Organics (C10-C28) 7.0 1 0 mg/kg 1 6E12023 05/12/06 05/19/06 EPA 8015B-SVOA  Surrogate: n-Octacosane 62 % 40-120 " " " " "  SB21, 8-8.5' (MPE0188-21) Soil Sampled: 05/02/06 12:45 Received: 05/03/06 19:15  Diesel Range Organics (C10-C28) 1.4 1.0 mg/kg 1 6E15007 05/15/06 05/19/06 EPA 8015B-SVOA	Diesel Range Organics (C10-C28)	270	20	mg/kg	20	6E12023	05/12/06	05/19/06		HC-12
Diesel Range Organics (C10-C28)         250         20         mg/kg         20         6E12023         05/12/06         05/19/06         EPA 8015B-SVOA         He 8015B-SVOA           Surrogate: n-Octacosane         66 % 40-120         " " " " "         " " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "         " "	Surrogate n-Octacosane		66 %	40-1	20	и	n	n	4	
Surrogate: n-Octacosane         66 %         40-120         "         "         "         "         "           SB20, 23.5-24' (MPE0188-20) Soil         Sampled: 05/02/06 10:50         Received: 05/03/06 19:15           Diesel Range Organics (C10-C28)         7.0         1 0 mg/kg         1 6E12023 05/12/06 05/19/06 8015B-SVOA         EPA 8015B-SVOA         Howard and the solid service of the	SB20, 19.5-20' (MPE0188-19) Soil	Sampled: 05/02/06 10:4	15 Reco	eived: 05/0	3/06 19:1	15				
SB20, 23.5-24' (MPE0188-20) Soil Sampled: 05/02/06 10:50 Received: 05/03/06 19:15  Diesel Range Organics (C10-C28) 7.0 1 0 mg/kg 1 6E12023 05/12/06 05/19/06 EPA 8015B-SVOA  Surrogate n-Octacosane 62 % 40-120 " " " " " " SB21, 8-8.5' (MPE0188-21) Soil Sampled: 05/02/06 12:45 Received: 05/03/06 19:15  Diesel Range Organics (C10-C28) 1.4 1 0 mg/kg 1 6E15007 05/15/06 05/19/06 EPA 8015B-SVOA	Diesel Range Organics (C10-C28)	250	20	mg/kg	20	6E12023	05/12/06	05/19/06		HC-12
Diesel Range Organics (C10-C28)         7.0         1 0 mg/kg         1 6E12023 05/12/06 05/19/06 EPA 8015B-SVOA         Homographics (C10-C28)         40-120         " " " " " "           Surrogate n-Octacosane         62 % 40-120         " " " " " " "         " " "           SB21, 8-8.5' (MPE0188-21) Soil Sampled: 05/02/06 12:45 Received: 05/03/06 19:15         Received: 05/03/06 19:15           Diesel Range Organics (C10-C28)         1.4         1 0 mg/kg         1 6E15007 05/15/06 05/19/06 EPA 8015B-SVOA         Homographics (C10-C28)	Surrogate: n-Octacosane		66 %	40-1	20	н	H	H	μ	
Surrogate n-Octacosane 62 % 40-120 " " " " " " SB21, 8-8.5' (MPE0188-21) Soil Sampled: 05/02/06 12:45 Received: 05/03/06 19:15  Diesel Range Organics (C10-C28) 1.4 1.0 mg/kg 1 6E15007 05/15/06 05/19/06 EPA 8015B-SVOA	SB20, 23.5-24' (MPE0188-20) Soil	Sampled: 05/02/06 10:5	50 Rece	eived: 05/0	3/06 19:1	15				
SB21, 8-8.5' (MPE0188-21) Soil Sampled: 05/02/06 12:45 Received: 05/03/06 19:15  Diesel Range Organics (C10-C28)  1.4  1.0 mg/kg  1 6E15007 05/15/06 05/19/06 EPA HOME NOTE: 10 Medical Received: 05/03/06 19:15	Diesel Range Organics (C10-C28)	7.0	10	mg/kg	1	6E12023	05/12/06	05/19/06		HC-12
Diesel Range Organics (C10-C28)  1.4  1.0 mg/kg  1 6E15007 05/15/06 05/19/06 EPA Homeonic Representation	Surrogate n-Octacosane		62 %	40-1	20	"	#	"	n	
8015B-SVOA	SB21, 8-8.5' (MPE0188-21) Soil	Sampled: 05/02/06 12:45	Receiv	ed: 05/03/	06 19:15					
Surrogate n-Octacosane 51 % 40-120 " " " "	Diesel Range Organics (C10-C28)	1.4	1.0	mg/kg	ı	6E15007	05/15/06	05/19/06		HC-12
	Surrogate n-Octacosane		51 %	40-1	20	"	v	n	#	

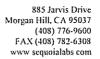




2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB21, 13-13.5' (MPE0188-22) Soil	Sampled: 05/02/06 12	:55 Rece	ived: 05/03/	06 19:1	5				
Diesel Range Organics (C10-C28)	ND	1 0	mg/kg	l	6E15007	05/15/06	05/19/06	EPA 8015B-SVOA	
Surrogate n-Octacosane		59 %	40-12	9	**	11	n	ŧ	
SB21, 18-18-5' (MPE0188-23) Soil	Sampled: 05/02/06 13	:00 Rece	ived: 05/03/	06 19:1	5				
Diesel Range Organics (C10-C28)	1.7	1.0	mg/kg	1	6E15007	05/15/06	05/19/06	EPA 8015B-SVOA	HC-12
Surrogate. n-Octacosane		66 %	40-12	9	n	"	"	μ	
SB21, 19-5-20' (MPE0188-24) Soil	Sampled: 05/02/06 13	:10 Rece	eived: 05/03/	06 19:1	5				
Diesel Range Organics (C10-C28)	2.4	10	mg/kg	1	6E15007	05/15/06	05/20/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane		57%	40-12	0	"	n	"	"	
SB21, 23-23.5' (MPE0188-25) Soil	Sampled: 05/02/06 13	:13 Rece	eived: 05/03/	06 19:1	5				
Diesel Range Organics (C10-C28)	ND	10	mg/kg	l	6E15007	05/15/06	05/20/06	EPA 8015B-SVOA	
Surrogate n-Octacosane		57 %	40-12	0	и	n	12	#	
SB21, 24.5-25' (MPE0188-26) Soil	Sampled: 05/02/06 13	:30 Rece	ived: 05/03/	06 19:1	5				
Diesel Range Organics (C10-C28)	ND	1.0	mg/kg	1	6E15007	05/15/06	05/20/06	EPA 8015B-SVOA	
Surrogate n-Octacosane		68 %	40-12	0	#	"	н	P	
SB18, 5-5-5' (MPE0188-27) Soil S	Sampled: 05/03/06 08:0	5 Receiv	ed: 05/03/06	19:15					
Diesel Range Organics (C10-C28)	ND	10	mg/kg	i	6E17033	05/17/06	05/23/06	EPA 8015B-SVOA	
Surrogate n-Octacosane		84 %	40-12	0	**	"	"	r	
SB18, 10-10.5' (MPE0188-28) Soil	Sampled: 05/03/06 08	:10 Rece	eived: 05/03/	06 19:1	5				
Diesel Range Organics (C10-C28)	ND	10	mg/kg	1	6E17033	05/17/06	05/23/06	EPA 8015B-SVOA	
Surrogate n-Octacosane		85 %	40-12	0	,,	"	"	n	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB18, 15-15.5' (MPE0188-29) Soil	Sampled: 05/03/06 08	3:15 Rece	ived: 05/0	3/06 19:1	 5	·····			
Diesel Range Organics (C10-C28)	ND	10	mg/kg	1	6E17033	05/17/06	05/23/06	EPA 8015B-SVOA	
Surrogate n-Octacosane		87 %	40-1	1.20	n	11	11	Ħ	
SB18, 19.5-20' (MPE0188-30) Soil	Sampled: 05/03/06 08	8:25 Rece	eived: 05/0	3/06 19:1	5				
Diesel Range Organics (C10-C28)	14	10	mg/kg	l	6E17033	05/17/06	05/23/06	EPA 8015B-SVOA	HC-12
Surrogate: n-Octacosane		77 %	40-1	1.20	v	n	"	"	
SB18, 24.5-25' (MPE0188-31) Soil	Sampled: 05/03/06 0	8:40 Rece	eived: 05/0	3/06 19:1	5				
Diesel Range Organics (C10-C28)	ND	10	mg/kg	1	6E17033	05/17/06	05/23/06	EPA 8015B-SVOA	
Surrogate n-Octacosane		83 %	40-1	120	n	H	,,	"	
V3, 9.5-10' (MPE0188-32) Soil Sa	mpled: 05/03/06 09:45	Receive	d: 05/03/0	6 19:15					
Diesel Range Organics (C10-C28)	ND	1.0	mg/kg	1	6E17033	05/17/06	05/23/06	EPA 8015B-SVOA	
Surrogate n-Octacosane		85 %	40-1	120	11	,,	ti	**	
V5, 5-5.5' (MPE0188-33) Soil Sar	npled: 05/03/06 10:05	Received	: 05/03/06	19:15					
Diesel Range Organics (C10-C28)	ND	1 0	mg/kg	1	6E17033	05/17/06	05/23/06	EPA 8015B-SVOA	
Surrogate n-Octacosane		74 %	40-	120	"	"	n	u	
V5, 7.5-8' (MPE0188-34) Soil Sar	npled: 05/03/06 10:10	Received	: 05/03/06	19:15					
Diesel Range Organics (C10-C28)	ND	1.0	mg/kg	l	6E17033	05/17/06	05/23/06	EPA 8015B-SVOA	
Surrogate n-Octacosane		79 %	40-	120	"	"	"	n	
V4, 5-5.5' (MPE0188-35) Soil Sar	mpled: 05/03/06 10:50	Received	: 05/03/06	19:15					
Diesel Range Organics (C10-C28)	ND	1.0	mg/kg	I	6E17033	05/17/06	05/19/06	EPA 8015B-SVOA	
Surrogate n-Octacosane		78 %	40-	1.20	ŧ	77	t f	***	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
V4.7.5-8' (MPE0188-36) Soil Sam						- 1	. ,		
Diesel Range Organics (C10-C28)	ND	1.0	mg/kg	I	6E17033	05/17/06	05/23/06	EPA 8015B-SVOA	
Surrogate n-Octacosane		62 %	40-1	20	Ħ	11	n	t)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
V8, 5-5.5' (MPE0188-37) Soil San	npled: 05/03/06 10:40	Received	: 05/03/06	19:15					
Diesel Range Organics (C10-C28)	ND	1.0	mg/kg	1	6E17033	05/17/06	05/23/06	EPA 8015B-SVOA	
Surrogate n-Octacosane		62 %	40-1	20	n	,,	n	n	
V8, 7.5-8' (MPE0188-38) Soil Sam	ipled: 05/03/06 10:35	Received	: 05/03/06	19:15					
Diesel Range Organics (C10-C28)	1.0	1.0	mg/kg	ı	6E17033	05/17/06	05/23/06	EPA 8015B-SVOA	
Surrogate n-Octacosane		83 %	40-1	20	"	п	"	"	
SB14, 5-5.5' (MPE0188-40) Soil S	ampled: 05/02/06 09:0	00 Receive	ed: 05/03/0	06 19:15					
Diesel Range Organics (C10-C28)	3.2	10	mg/kg	1	6E15007	05/15/06	05/20/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane		61 %	40-1	20	IJ	**	N	29	
SB14, 10-10.5' (MPE0188-41) Soil	Sampled: 05/02/06 0	9:05 Rece	ived: 05/0	3/06 19:1	5				
Diesel Range Organics (C10-C28)	6.5	10	mg/kg	1	6E15007	05/15/06	05/20/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane		65 %	40-1	20	Ŋ	11	**	n	
SB14, 15-15.5' (MPE0188-42) Soil	Sampled: 05/02/06 0	9:15 Rece	ived: 05/0	3/06 19:1	5				
Diesel Range Organics (C10-C28)	2.1	1.0	mg/kg	l	6E15007	05/15/06	05/20/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane		60 %	40-1	20	ri	0	"	"	
SB14, 20-20.5' (MPE0188-43) Soil	Sampled: 05/02/06 0	9:20 Rece	eived: 05/0	3/06 19:1	5				
Diesel Range Organics (C10-C28)	2.8	10	mg/kg	ı	6E15007	05/15/06	05/20/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane		64 %	40-1	20	**	rı	#	,,	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121
Project Manager: Sherris Prall

MPE0188 Reported: 05/25/06 14:00

	R	eporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB14, 24.5-25' (MPE0188-44) Soil	Sampled: 05/02/06 09:2	5 Rece	ived: 05/0	3/06 19:1	5				
Diesel Range Organics (C10-C28)	2.2	10	mg/kg	ļ	6E15007	05/15/06	05/20/06	EPA 8015B-SVOA	HC-12
Surrogate: n-Octacosane		66 %	40-	1.20	Ħ	n	n	и	
SB15, 5-5.5' (MPE0188-45) Soil S	Sampled: 05/02/06 10:25	Receiv	ed: 05/03/	06 19:15					
Diesel Range Organics (C10-C28)	3,1	1.0	mg/kg	ı	6E15007	05/15/06	05/20/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane		61%	40-	120	**	*	,,	n	
SB15, 15-15-5' (MPE0188-46) Soil	Sampled: 05/02/06 11:2	0 Rece	ived: 05/0	3/06 19:1	5				
Diesel Range Organics (C10-C28)	8.7	10	mg/kg	ı	6E15007	05/15/06	05/20/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane		68 %	40-	1.20	"	и	n	"	
SB15, 20-20.5' (MPE0188-47) Soil	Sampled: 05/02/06 11:2	5 Rece	ived: 05/(	03/06 19:1	5				
Diesel Range Organics (C10-C28)	2.5	1.0	mg/kg	1	6E15007	05/15/06	05/20/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane		60 %	40-	120	n	**	**	Ħ	
SB15, 24.5-25' (MPE0188-48) Soil	Sampled: 05/02/06 11:3	0 Reco	ived: 05/(	3/06 19:1	5				
Diesel Range Organics (C10-C28)	1.3	1.0	mg/kg	1	6E15007	05/15/06	05/20/06	EPA 8015B-SVOA	HC-12
Surrogate n-Octacosane		66 %	40-	120	n	н	#	н	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

		eporting	F3 '	D.1	D . 1	77		N( d 1	<b>.</b>
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB16, 5-5-5' (MPE0188-01) Soil	Sampled: 05/02/06 12:20	Receive	ed: 05/03/	06 19:15					
tert-Amyl methyl ether	ND	5 0	ug/kg	1	6E09026	05/09/06	05/10/06	EPA 8260B	·
tert-Butyl alcohol	ND	20	ш	Ħ	11	н	şt	в	
Di-isopropyl ether	ND	5 0	#1	#1	11	**	*1	H	
1,2-Dibromoethane (EDB)	ND	5 0	#1	#1	n	**	#1	н	
1,2-Dichloroethane	ND	5.0	**	H	n	**	**	17	
Ethyl tert-butyl ether	ND	5.0	#1	H	n	**	**	U	
Methyl tert-butyl ether	ND	5.0	Ħ	ŧŧ	11	11	t#	U	
Surrogate 1.2-Dichloroethane-d4		86 %	55-	135	It	7	"	p	
SB16, 10-10.5' (MPE0188-02) So	il Sampled: 05/02/06 12:3	0 Rece	ived: 05/0	03/06 19:1	5				
tert-Amyl methyl ether	ND	5 0	ug/kg	1	6E09026	05/09/06	05/10/06	EPA 8260B	
tert-Butyl alcohol	ND	20	11	11	n	II	P	e e	
Di-isopropyl ether	ND	5 0	11	11	Ħ	u	P	şī.	
1,2-Dibromoethane (EDB)	ND	5 0	19	n	##	a	U	#1	
1,2-Dichloroethane	ND	5.0	17	19	11	a	0	и	
Ethyl tert-butyl ether	ND	5 0	n	U	H	u	u	**	
Methyl tert-butyl ether	ND	5.0	H	ii	#1	ü	U	Ħ	
Surrogate 1,2-Dichloroethane-d4		84 %	55-	135	"		,,	"	
SB16, 20-20.5' (MPE0188-03) So	il Sampled: 05/02/06 12:5	0 Rece	ived: 05/0	03/06 19:1	5				
tert-Amyl methyl ether	ND	5.0	ug/kg	l	6E10003	05/10/06	05/10/06	EPA 8260B	
tert-Butyl alcohol	ND	20	P	u	#	<b>\$1</b>	н	H	
Di-isopropyl ether	ND	5.0	U	u	**	++	*1	n	
1,2-Dibromoethane (EDB)	ND	5.0	U	u	"	++	++	17	
1,2-Dichloroethane	ND	5 0	n	a	n	**	**	u	
Ethyl tert-butyl ether	ND	5 0		u	11	**	**	n	
Methyl tert-butyl ether	ND	5.0	п	u	ŋ	t+	<b>t</b> †	n	
Surrogate 1,2-Dichloroethane-d4		85 %	.55-	135	,,	"	n	11	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

Analyte	Rej Result	oorting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
						. ropared	7111017200	Mediod	11010.
SB16, 24.5-25' (MPE0188-04) Soil			ivea: 05/0	73/00 19:1	<u> </u>				
tert-Amyl methyl ether	ND	5 0	ug/kg	1	6E10003	05/10/06	05/10/06	EPA 8260B	
tert-Butyl alcohol	ND	20	U	U	u	0	Ħ	u	
Di-isopropyl ether	ND	5.0	a	U	n	ti	**	n	
I,2-Dibromoethane (EDB)	ND	5.0	0	D	п	н	19	u	
1,2-Dichloroethane	ND	50	0	u	#1	#1	19	u	
Ethyl tert-butyl ether	ND	50	*1	0	**	**	15	ď	
Methyl tert-butyl ether	ND	5.0	H	Ħ	Ŧŧ	te .	n	ti	
Surrogate 1.2-Dichloroethane-d4		91%	5.5-	135	**	n	н	н	
SB17, 5.5-6' (MPE0188-05) Soil	Sampled: 05/02/06 08:55	Receiv	ed: 05/03/	06 19:15					
tert-Amyl methyl ether	ND	5.0	ug/kg		6E10003	05/10/06	05/10/06	EPA 8260B	
tert-Butyl alcohol	ND	20	11	**	н	ij	11	ty	
Di-isopropyl ether	ND	50	n	**	II.	tt	11	7	
1,2-Dibromoethane (EDB)	ND	50	11	H	n	n	\$1	н	
1,2-Dichloroethane	ND	5.0	n	**	0	1)	**	•	
Ethyl tert-butyl ether	ND	5 0	n	n	U	U	+1	n	
Methyl tert-butyl ether	ND	5.0	P	н	11	q	**	II	
Surrogate 1.2-Dichloroethane-d4		89 %	55-	135	"	"	n	•	
SB17, 10-10-5' (MPE0188-06) Soil	Sampled: 05/02/06 09:00	Rece	ived: 05/0	03/06 19:1	5				
tert-Amyl methyl ether	ND	0 12	mg/kg	5	6E12009	05/12/06	05/12/06	EPA 8260B	
tert-Butyl alcohol	ND	25	u	u	a	<b>†1</b>	D	Ħ	
Di-isopropyl ether	ND	0.12	e	U	41	#1	0	H	
1,2-Dibromoethane (EDB)	ND	0 12	Ħ	0	Ħ	#1	U	Ħ	
1,2-Dichloroethane	ND	0.12	**	11	**	+r	u	н	
Ethyl tert-butyl ether	ND	0.12	#1	11	**	<b>†</b> *	o o	**	
Methyl tert-butyl ether	ND	0.12	#1		**	łł	n	**	
Surrogate. 1.2-Dichloroethane-d4		91%	.5.5-	135	"	"	"	n	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121
Project Manager: Sherris Prall

MPE0188 Reported: 05/25/06 14:00

	Rep	orting							
Analyte	Resuit	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
SB17, 15-15.5' (MPE0188-07) Soil	Sampled: 05/02/06 09:05	Rece	ived: 05/6	3/06 19:1	5				
tert-Amyl methyl ether	ND	5.0	ug/kg	l	6E10003	05/10/06	05/10/06	EPA 8260B	
tert-Butyl alcohol	ND	20	н	"	n	a	tl	n	
Di-isopropyl ether	ND	5 0	н	łı	l <del>y</del>	it	a	n	
1,2-Dibromoethane (EDB)	ND	50	**	#1	11	Ħ	71	n	
1,2-Dichloroethane	ND	5.0	**	#	u u	**	Ħ	n	
Ethyl tert-butyl ether	ND	5.0	#	**	U	**	11	u	
Methyl tert-butyl ether	ND	5.0	**	ŧŧ	U	**	\$1	u	
Surrogate 1.2-Dichloroethane-d4		92 %	.5.5-	135	F1	H	н	rr	
SB17, 19.5-20' (MPE0188-08) Soil	Sampled: 05/02/06 09:15	Reco	ived: 05/0	03/06 19:1	5				
tert-Amyl methyl ether	ND	12	mg/kg	50	6E12009	05/12/06	05/12/06	EPA 8260B	
tert-Butyl alcohol	ND	250	U	11	71	n	U	12	
Di-isopropyl ether	ND	1.2	U	U	**	n	o o	11	
1,2-Dibromoethane (EDB)	ND	1.2	11	n	#1	U	u	15	
1,2-Dichloroethane	ND	12	u	"	11	U	o	17	
Ethyl tert-butyl ether	ND	1.2	a	u	Ħ	u	**	n	
Methyl tert-butyl ether	ND	1.2	н	11	ti	u	п	P	
Surrogate: 1,2-Dichloroethane-d4		90 %	5.5-	135	,,	D	0	n	
SB17, 24.5-25' (MPE0188-09) Soil	Sampled: 05/02/06 09:30	Rece	ived: 05/	03/06 19:1	5				
tert-Amyl methyl ether	ND	5.0	ug/kg	l	6E10003	05/10/06	05/10/06	EPA 8260B	
tert-Butyl alcohol	ND	20	**	<b>31</b>	11	\$#	14	п	
Di-isopropyl ether	ND	5.0	11	**	P	n	19	n	
1,2-Dibromoethane (EDB)	ND	5.0	***	**	II.	*	ıt	44	
1,2-Dichloroethane	ND	5 0	17	**	0	**		**	
Ethyl tert-butyl ether	ND	5.0	1)	12	0	n	n	##	
Methyl tert-butyl ether	ND	5.0	P	17	n	h	U	**	
Surrogate 1,2-Dichloroethane-d4	1	12 %	55-	135	n	11	,,	v	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

	•	orting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB16, 15-15.5' (MPE0188-10) Soil	Sampled: 05/02/06 12:40	Rece	ived: 05/0	3/06 19:1	5				
tert-Amyl methyl ether	ND	5 0	ug/kg	ı	6E10003	05/10/06	05/10/06	EPA 8260B	
tert-Butyl alcohol	ND	20	ŧ	**	**	a	n	**	
Di-isopropyl ether	ND	5.0	er er	Ħ	**	ŧì	n	by	
1,2-Dibromoethane (EDB)	ND	5.0	₹I	**	n	Ħ	n	H	
1,2-Dichloroethane	ND	50	H	**	11	á	n	*	
Ethyl tert-butyl ether	ND	5.0	41	**	"	**	U	"	
Methyl tert-butyl ether	ND	5.0	81	**	10	41	U	11	
Surrogate 1,2-Dichloroethane-d4		90 %	55-	135	n	n	Ħ	H	•
SB19, 5-5.5' (MPE0188-11) Soil S	Sampled: 05/02/06 15:05   I	Receive	ed: 05/03/	06 19:15					
tert-Amyl methyl ether	ND	5 0	ug/kg	1	6E10003	05/10/06	05/10/06	EPA 8260B	
tert-Butyl alcohol	ND	20	tt	н	n	**	a	O	
Di-isopropyl ether	ND	5.0	11	ŋ	n	Ħ	u	ú	
1,2-Dibromoethane (EDB)	ND	5.0	11	"	U	11	tt	U	
1,2-Dichloroethane	ND	5.0	10	"	U	**	я	U	
Ethyl tert-butyl ether	ND	5.0	**	P	n	**	H		
Methyl tert-butyl ether	ND	5.0	#	11	u	11	ŧŧ	U	
Surrogate 1,2-Dichloroethane-d4		88 %	5.5-	135	11	it	1)	11	
SB19, 10-10.5' (MPE0188-12) Soil	Sampled: 05/02/06 15:20	Rece	ived: 05/0	3/06 19:1	5				
tert-Amyl methyl ether	ND	5.0	ug/kg	1	6E10003	05/10/06	05/10/06	EPA 8260B	
tert-Butyl alcohol	ND	20	н	U	a	n	<b>#</b>	a	
Di-isopropyl ether	ND	5.0	H	ii	u	p	#	u	
1,2-Dibromoethane (EDB)	ND	5.0	11	"	u	H	++	u	
1,2-Dichloroethane	ND	50	n	и	u	n	**	tt	
Ethyl tert-butyl ether	ND	5.0	**	u	n	n	**	a	
Methyl tert-butyl ether	ND	5.0	n	U	tt .	D	**	ti	
Surrogate 1,2-Dichloroethane-d4		86 %	55-	135	n	11	n	"	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

	Re	porting			7				
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB19, 15-15.5 (MPE0188-13) Soil	Sampled: 05/02/06 15:40	Recei	ived: 05/03/0	)6 19:15	5				
tert-Amyl methyl ether	ND	5.0	ug/kg	1	6E10024	05/10/06	05/10/06	EPA 8260B	
tert-Butyl alcohol	ND	20	#1	11	##	+1	U	n	
Di-isopropyl ether	ND	5.0	**	**	11	÷.	0	n	
1,2-Dibromoethane (EDB)	ND	50	14	##	11	++	u	u	
1,2-Dichloroethane	ND	50	11	++	11	19	н	0	
Ethyl tert-butyl ether	ND	5.0	17	tt	11	n	**	u u	
Methyl tert-butyl ether	ND	5.0	11	11	11	n	#1	<b>}1</b>	
Surrogate 1,2-Dichloroethane-d4		89 %	55-13	5	"	Ħ	н	**	
Surrogate: 4-Bromofluorobenzene		92 %	70-11.	5	"	"	7	tł	
Surrogate Dibromofluoromethane		91%	70-12	0	ir.	n	Ħ	br .	
Surrogate: Toluene-d8		93 %	75-11.	5	#	"	**	"	
SB19, 20-20.5 (MPE0188-14) Soil	Sampled: 05/02/06 15:50	Recei	ived: 05/03/	06 19:15	5				
tert-Amyl methyl ether	ND	5.0	ug/kg	1	6E10024	05/10/06	05/10/06	EPA 8260B	
tert-Butyl alcohol	ND	20	Ħ	Ħ	Ħ	**	H	u	
Di-isopropyl ether	ND	5.0	**	**	n	н	Ħ	Ü	
1,2-Dibromoethane (EDB)	ND	5.0	14	**	n	n	#1	a	
1,2-Dichloroethane	ND	5.0	**	13	n	n	**	t1	
Ethyl tert-butyl ether	ND	5 0	n	11	Ü	n	÷t ·	<b>\$1</b>	
Methyl tert-butyl ether	ND	5.0	n	n	U	ц	17	Ħ	
Surrogate: 1.2-Dichloroethane-d4		91 %	55-13	5	"	n	"	"	
Surrogate 4-Bromofluorobenzene		104%	70-11	5	a	n	**	и	
Surrogate Dibromofluoromethane		88 %	70-12	0	**	p	**	H	
Surrogate Toluene-d8		83 %	75-11	5	"	"	**	n	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

Analyte	R Result	eporting Limit	Units	Dilution	Bateh	Prepared	Analyzed	Method	Notes
SB19, 24.5-25' (MPE0188-15) Soil			ived: 05/03	3/06 19:1	5	•			
tert-Amyl methyl ether	ND	5 0	ug/kg	į.	6E10024	05/10/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	u u	Ħ	**	a	a	*1	
Di-isopropyl ether	ND	5 0	Ħ	**	#	i.	11	<b>34</b>	
1,2-Dibromoethane (EDB)	ND	5.0	н	11	11	Ü	u	**	
1,2-Dichloroethane	ND	5.0	Ħ	11	P#	"	**	*1	
Ethyl tert-butyl ether	ND	5.0	Ħ	11	n	**	Ħ	\$*	
Methyl tert-butyl ether	ND	5.0	\$2	n	н	#1	+1	**	
Surrogate 1.2-Dichloroethane-d4		87 %	.5.5-1.	3.5	12	"	tr	H	
Surrogate 4-Bromofluorobenzene		92 %	70-1	15	n	n	n	r	
Surrogate Dibromofluoromethane		87 %	70-1.	20	n	n	n	μ	
Surrogate Toluene-d8		93 %	75-1	1.5	n	n	n	н	
SB20, 5.5-6' (MPE0188-16) Soil	Sampled: 05/02/06 10:20	Receiv	ed: 05/03/0	6 19:15					
tert-Amyl methyl ether	ND	5.0	ug/kg	1	6E10024	05/10/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	t)	Ħ	Ħ	n	U	a	
Di-isopropyl ether	ND	5.0	0	#1	Ħ	U	U	u	
1,2-Dibromoethane (EDB)	ND	5.0	o o	Ħ	**	II .	u	н	
1,2-Dichloroethane	ND	5 0	u	++	Ħ	n	a a	*1	
Ethyl tert-butyl ether	ND	5.0	n	++	++	n	u u	Ħ	
Methyl tert-butyl ether	ND	5.0	н	57	11	u	tt.	HF .	
Surrogate 1.2-Dichloroethane-d4		90 %	55-1	3.5	**	n	n	tt	
Surrogate. 4-Bromofluorobenzene		91 %	70-1	15	Ħ	n	n	tt	
Surrogate Dibromofluoromethane		88 %	70-1	20	"	r	ħ	et	
Surrogate Toluene-d8		93 %	75-1	15	"	"	n	**	



MPE0188



ETIC Engineering Inc - Pleasant Hill (Exxon)

Project: Exxon 7-4121 2285 Morello Avenue Project Number: 7-4121 Pleasant Hill CA, 94523 Project Manager: Sherris Prall

Reported: 05/25/06 14:00

Analyte	Re Result	porting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note:
SB20, 10-10.5' (MPE0188-17) Soil	Sampled: 05/02/06 10:25	Rece	ived: 05/0	03/06 19:1	5				
tert-Amyl methyl ether	ND	51	ug/kg	10 2	6E10024	05/10/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	200	#1	19	u	11	**	11	
Di-isopropyl ether	ND	51	<del>11</del>	"	Ħ	ш	**	11	
1,2-Dibromoethane (EDB)	ND	51	**	n	п	a	**	н	
1,2-Dichloroethane	ND	51	**	n	tt	a	**	41	
Ethyl tert-butyl ether	ND	51	17	n	Ħ	0	11	**	
Methyl tert-butyl ether	ND	51	+1	n	ti	a	t†	ti	
Surrogate: 1,2-Dichloroethane-d4		90 %	.5.5-	135	n	ıı	tt	#	
Surrogate 4-Bromofluorobenzene		90 %	70-	115	n	u	**	u	
Surrogate Dibromofluoromethane		86 %	70-	120	n	u	**	v	
Surrogate Toluene-d8		94 %	75-	115	"	"	#	"	
SB20, 15-15.5 (MPE0188-18) Soil	Sampled: 05/02/06 10:40	Recei	ved: 05/0	3/06 19:15	5				
tert-Amyl methyl ether	ND	0 12	mg/kg	5	6E12009	05/12/06	05/12/06	EPA 8260B	
tert-Butyl alcohol	ND	25	U	11	17	Ħ	11	n	
Di-isopropyl ether	ND	0 12	0	ŧI	19	**	0	tt	
1,2-Dibromoethane (EDB)	ND	0.12	11	#	16	39	0	11	
1,2-Dichloroethane	ND	0.12	11	H	19	39	u	n	
Ethyl tert-butyl ether	ND	0.12	U	*1	19	19	u	U	
Methyl tert-butyl ether	ND	0.12	11	#	n	n	(1	U	
Surrogate 1.2-Dichloroethane-d4		90 %	5.5-	135	**	Ħ	**	n	
SB20, 19-5-20' (MPE0188-19) Soil	Sampled: 05/02/06 10:45	Rece	ived: 05/	03/06 19:1	5				
tert-Amyl methyl ether	ND	25	mg/kg	100	6E12009	05/12/06	05/12/06	EPA 8260B	
tert-Butyl alcohol	ND	500	11	13	n	n	#1	a	
Di-isopropyl ether	ND	25	**	**	0	n	#1	u	
1,2-Dibromoethane (EDB)	ND	2.5	**	**	n	n	\$1	u	
1,2-Dichloroethane	ND	2.5	#1	**	U	u	#1	Ħ	
Ethyl tert-butyl ether	ND	2.5	#1	11	U	u	##	n	
Methyl tert-butyl ether	ND	2.5	##	**	D	"	##	**	
Surrogate 1.2-Dichloroethane-d4		95 %	.55-	135	n	"	n	"	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

Analyte	R Result	eporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB20, 23.5-24' (MPE0188-20) Soil						, , - <b>,</b>			
tert-Amyl methyl ether	ND	5.0	ug/kg	1	6E10024	05/10/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	#		a	α	a	a	
Di-isopropyl ether	ND	5.0	**	Ħ	Ü	ü	O.	a	
1,2-Dibromoethane (EDB)	ND	5 0	15	Ħ	Ħ	Ħ	u.	Ħ	
1,2-Dichloroethane	ND	50	**	+1	Ħ	**	Ħ	<b>FF</b>	
Ethyl tert-butyl ether	ND	5 0	11	**	**	**	H	**	
Methyl tert-butyl ether	ND	5.0	n	Ħ	ŧ	**	48	**	
Surrogate 1.2-Dichloroethane-d4		89 %	<b>55-1</b> 3	35	11	r	n	v	***************************************
Surrogate 4-Bromofluorobenzene		108 %	70-11	15	"	**	"	4	
Surrogate Dibromofluoromethane		90 %	70-12	20	*	**	#	**	
Surrogate Toluene-d8		90 %	75-11	15	n	**	"	"	
".	Sampled: 05/02/06 12:45	Receiv	ed: 05/03/0	6 19:15					
tert-Amyl methyl ether	ND	5.0	ug/kg	1	6E10024	05/10/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	Ħ	U	a	a	a	u	
Di-isopropyl ether	ND	5.0	±t	o o	u	11		"	
I,2-Dibromoethane (EDB)	ND	5.0	#	**	a	n	n	"	
1,2-Dichloroethane	ND	5 0	11	**	n	n	**	11	
Ethyl tert-butyl ether	ND	5 0	**	н	n	11	Ħ	(1	
Methyl tert-butyl ether	ND	5.0	11	Ħ	H .	#1	Ħ	H	
Surrogate 1,2-Dichloroethane-d4		86 %	5 <b>5-1</b> 3	35	71	"	"	**	
Surrogate: 4-Bromofluorobenzene		90 %	70-11	15	n	"	н	#	
Surrogate Dibromofluoromethane		87%	70-12	20	"	"	"	#	
Surrogate Toluene-d8		92 %	75-11	15	ti.	"	"	#	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
SB21, 13-13.5' (MPE0188-22) Soil	Sampled: 05/02/06 12:		ived: 05/03	/06 19:1	5			<u></u>	,
tert-Amyl methyl ether	ND	5.0	ug/kg	1	6E10024	05/10/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	4	н	n	n	24	n	
Di-isopropyl ether	ND	5 0	н	u	n	n	<b>f</b> f	n	
1,2-Dibromoethane (EDB)	ND	5.0	II .	u	n	n	**	··	
1,2-Dichloroethane	ND	5 0	U	u	a	a	**	u	
Ethyl tert-butyl ether	ND	5 0	ti	tt	ü	11	11	"	
Methyl tert-butyl ether	ND	5.0	ti.	**	н .	п	n	#1	
Surrogate 1.2-Dichloroethane-d4		91 %	55-13	ì <i>5</i>	tt	"	"	н	
Surrogate: 4-Bromofluorobenzene		93 %	70-11	15	"	"	п	н	
Surrogate Dibromofluoromethane		89 %	70-13	20	"	и	a	n	
Surrogate Toluene-d8		94 %	75-11	15	,,	n	n	n	
SB21, 18-18.5' (MPE0188-23) Soil	Sampled: 05/02/06 13	:00 Reco	eived: 05/03	/06 19:1	5				
tert-Amyl methyl ether	ND	5 0	ug/kg	1	6E10024	05/10/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	ęı .	Ħ	a	tl	0	Ħ	
Di-isopropyl ether	ND	5 0	Ħ	#1	H	żŧ	0	Ħ	
1,2-Dibromoethane (EDB)	ND	5 0	77	++	#1	*	o o	**	
1,2-Dichloroethane	ND	5 0	łł.	**	++	**	u	"	
Ethyl tert-butyl ether	ND	5.0	11	lţ	#	11	а	n	
Methyl tert-butyl ether	8.8	5.0	15	<b>8</b> 1	n	n	\$1	P	
Surrogate 1.2-Dichloroethane-d4		86 %	55-1.	3 <i>5</i>	и	"	n	"	
Surrogate: 4-Bromofluorobenzene		89 %	70-1	15	n	**	H	11	
Surrogate Dibromofluoromethane		89 %	70-13	20	ri	n	#	7	
Surrogate Toluene-d8		91 %	75-1	15	If	n	"	"	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB21, 19.5-20' (MPE0188-24) Soil	Sampled: 05/02/06 1:		ived: 05/0	3/06 19:1	5	<del></del>	·		
tert-Amyl methyl ether	ND	5.0	ug/kg	1	6E10024	05/10/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	n	a	a	#	+1	U	
Di-isopropyl ether	ND	5.0	U	и	16	Ħ	\$7	0	
1,2-Dibromoethane (EDB)	ND	5 0	U	#1	<b>&gt;</b> #	**	**	σ	
1,2-Dichloroethane	ND	5.0	U	H	**	**	**	0	
Ethyl tert-butyl ether	ND	5.0	a a	**	**	**	h	"	
Methyl tert-butyl ether	12	5.0	n	п	11	11	н	11	
Surrogate: 1.2-Dichloroethane-d4		90 %	.55-1	35	37	*	t	11	
Surrogate: 4-Bromofluorobenzene		129 %	70-1	15	"	n	"	"	S01
Surrogate: Dibromofluoromethane		88 %	70-1	20	n	ŧŧ	#	tt	
Surrogate. Toluene-d8		93 %	75-1	15	n	Ħ	u	н	
SB21, 23-23.5' (MPE0188-25) Soil	Sampled: 05/02/06 13	3:13 Rece	ived: 05/0	3/06 19:1	5				
tert-Amyl methyl ether	ND	5 0	ug/kg	1	6E10024	05/10/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	1†	a	u	a	н	U	
Di-isopropyl ether	ND	5.0	**	U	u	ч	H	n	
1,2-Dibromoethane (EDB)	ND	5.0	H	ø	u	#1	*1	1)	
1,2-Dichloroethane	ND	5 0	n	a	a	41	"	U	
Ethyl tert-butyl ether	ND	5.0	U	"	U	Ħ	#	0	
Methyl tert-butyl ether	ND	5.0	U	ti .	ш	n	Ħ	a .	
Surrogate: 1.2-Dichloroethane-d4		88 %	55-1	3.5	"	n	"	n	
Surrogate: 4-Bromofluorobenzene		92 %	70-1	15	n	rt	n	"	
Surrogate Dibromofluoromethane		90 %	70-1	20	#	"	tt	n	
Surrogate Toluene-d8		92 %	75-1	15	"	"	"	"	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

Analyte	Result	eporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note:
SB21, 24.5-25' (MPE0188-26) Soil									
tert-Amyl methyl ether	ND	5 0	ug/kg	1	6E10024	05/10/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	11	11	U	++	lt.	**	
Di-isopropyl ether	ND	5 0	ŧı	n	U	**	n	#f	
1,2-Dibromoethane (EDB)	ND	50	#1	v	u	n	11	+7	
1,2-Dichloroethane	ND	50	\$1	n	U	n	U	**	
Ethyl tert-butyl ether	ND	5.0	**	n	u	n	n	**	
Methyl tert-butyl ether	ND	5.0	¥t.	t)	0	n	n	tŧ	
Surrogate 1,2-Dichloroethane-d4		89 %	55-13	35	ır	ŧ	ii.	<b>?</b> ?	
Surrogate 4-Bromofluorobenzene		91%	70-11	15	n	n	и	H	
Surrogate Dibromofluoromethane		82 %	70-12	20	n	n	u	a	
Surrogate Toluene-d8		92 %	75-11	15	**	"	ρ	ρ	
SB18, 5-5.5' (MPE0188-27) Soil	Sampled: 05/03/06 08:05	Receive	ed: 05/03/0	6 19:15					
tert-Amyl methyl ether	ND	5.0	ug/kg	l	6E10024	05/10/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	n	Ħ	÷*	ü	Ħ	II	
Di-isopropyl ether	ND	5.0	n	Ħ	**	a	#1	a	
1,2-Dibromoethane (EDB)	ND	5.0	11	*1	±†	u	ŧr	a	
1,2-Dichloroethane	ND	5.0	"	11	**	**	11	u	
Ethyl tert-butyl ether	ND	5.0	n	##	11	#1	++	tl	
Methyl tert-butyl ether	ND	5.0	0	##	t;	\$I	<b>†</b>	Ħ	
Surrogate 1.2-Dichloroethane-d4		91%	55-1.	3.5	"	п	n	11	
Surrogate 4-Bromofluorobenzene		89 %	70-11	15	n	п	Ħ	11	
Surrogate Dibromofluoromethane		88 %	70-13	20	H	n	**	и	
Surrogate Toluene-d8		93 %	75-1	15	"	"	"	**	



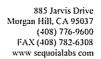


2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121
Project Manager: Sherris Prall

MPE0188 Reported: 05/25/06 14:00

	Re	porting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
SB18, 10-10.5' (MPE0188-28) Soil	Sampled: 05/03/06 08:10	Rece	ived: 05/03	/06 19:1	5				
tert-Amyl methyl ether	ND	5.0	ug/kg	1	6E10024	05/10/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	<b>31</b>	11	u	\$1	#1	**	
Di-isopropyl ether	ND	5.0	11	19	n	##	t?	18	
1,2-Dibromoethane (EDB)	ND	50	11	u	#1	**	Ħ	)\$	
1,2-Dichloroethane	ND	5.0	11	n	#1	**	h	**	
Ethyl tert-butyl ether	ND	50	U	"	**	n	U	17	
Methyl tert-butyl ether	ND	5.0		()	11	ii		1)	
Surrogate 1,2-Dichloroethane-d4		88 %	55-13	5	"	H	н	n	
Surrogate: 4-Bromofluorobenzene		91%	70-11	5	"	"	r	rt .	
Surrogate Dibromofluoromethane		83 %	70-12	0	n	n	и	и	
Surrogate Toluene-d8		90 %	75-11	5	"	n	n	7	
SB18, 15-15-5' (MPE0188-29) Soil	Sampled: 05/03/06 08:15	Reco	eived: 05/03	/06 19:1	5				
tert-Amyl methyl ether	ND	5 0	ug/kg	1	6E11014	05/11/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	**	U	Ħ	n	n	н	
Di-isopropyl ether	ND	50	11	a	**	tt	19	n	
1,2-Dibromoethane (EDB)	ND	5.0	U	u	11	U	U	n	
1,2-Dichloroethane	ND	50	v	"	**	ч	н	II .	
Ethyl tert-butyl ether	ND	5.0	n	Ħ	lt.	"	0	0	
Methyl tert-butyl ether	ND	5.0	0	n	n		11	đ	
Surrogate 1.2-Dichloroethane-d4		86 %	55-13	15	11	n	n	"	
Surrogate 4-Bromofluorobenzene		87 %	70-11	5	11	n	n	n	
Surrogate Dibromofluoromethane		86 %	70-12	20	n	"	4	tt	
Surrogate Toluene-d8		87 %	75-11	5	0	"	"	tt	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

	Re	porting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note:
SB18, 19.5-20' (MPE0188-30) Soil	Sampled: 05/03/06 08:25	Rece	ived: 05/03/	06 19:1	5				
tert-Amyl methyl ether	ND	5 0	ug/kg	1	6E11014	05/11/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	12	**	<b>†1</b>	**	**	Ħ	
Di-isopropyl ether	ND	50	Ħ	**	#1	#1	**	н	
1,2-Dibromoethane (EDB)	ND	5 0	Ħ	Ħ	*1	Ħ	**	u	
1,2-Dichloroethane	ND	5.0	Ħ	**	*1	#1	48	u	
Ethyl tert-butyl ether	ND	50	IT	н	#1	н	**	u	
Methyl tert-butyl ether	ND	5.0	Hr .	#1	tt	Ħ	#1	н	
Surrogate 1.2-Dichloroethane-d4		91%	55-13:	5	11	"	11	ri	
Surrogate: 4-Bromofluorobenzene	1	15%	70-11:	,	"	"	n	"	
Surrogate Dibromofluoromethane		92 %	70-120	)	#	u	n	n	
Surrogate Toluene-d8		88 %	75-11:	<u>,</u>	rr .	p	п	"	
SB18, 24.5-25' (MPE0188-31) Soil	Sampled: 05/03/06 08:40	Rece	ived: 05/03/	06 19:1	5				
tert-Amyl methyl ether	ND	5.0	ug/kg	101	6E11014	05/11/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	អ	u	u	0	#I	u	
Di-isopropyl ether	ND	5.0	н	u	u	a	Ħ	r	
1,2-Dibromoethane (EDB)	ND	5.0	tt	a	u	o o	<b>f1</b>	II .	
1,2-Dichloroethane	ND	5.0	ti	0	n	11	Ħ	U	
Ethyl tert-butyl ether	ND	5.0	11	P	ıı	u	ŧI	0	
Methyl tert-butyl ether	ND	5.0	u	u	n .	U	21	n	
Surrogate 1.2-Dichloroethane-d4		90 %	55-13:	5	1)	"	"	п	
Surrogate 4-Bromofluorobenzene		92 %	70-11:	3	u	Ħ	н	н	
Surrogate Dibromofluoromethane		88 %	70-126	)	n	H	н	n	
Surrogate: Toluene-d8		90 %	75-113	ĵ	"	"	"	"	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121
Project Manager: Sherris Prall

MPE0188 Reported: 05/25/06 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
V3, 9.5-10' (MPE0188-32) Soil	Sampled: 05/03/06 09:45	Received	1: 05/03/0	6 19:15					
tert-Amyl methyl ether	ND	5 0	ug/kg	101	6E11014	05/11/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	a	#1	0	**	Ħ	"	
Di-isopropyl ether	ND	5.0	Ħ	<b>†1</b>	U	11	Ħ	U	
1,2-Dibromoethane (EDB)	ND	5.0	FP	**	п	19	#	a	
1,2-Dichloroethane	ND	5 0	**	**	*1		tt	H	
Ethyl tert-butyl ether	ND	5.0	**	17	er .	u	11	**	
Methyl tert-butyl ether	ND	5.0	"	11	¥f	a	11	Ħ	
Surrogate: 1.2-Dichloroethane-d-	1	91%	5.5-	135	11	Į,	H	t	
Surrogate: 4-Bromofluorobenzene	2	92 %	70-	115	**	n	r	"	
Surrogate Dibromofluoromethan		86 %	70-	120	u	H	и	и	
Surrogate Toluene-d8		89 %	7.5-	115	p	"	n	11	
V5, 5-5.5' (MPE0188-33) Soil	Sampled: 05/03/06 10:05	Received	: 05/03/00	5 19:15					
tert-Amyl methyl ether	ND	5.0	ug/kg	0 99	6E11014	05/11/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	**	11	H	a	n	**	
Di-isopropyl ether	ND	5 0	11	n	**	н	0	13	
1,2-Dibromoethane (EDB)	ND	5.0	11	n	**	41	U	н	
1,2-Dichloroethane	ND	5.0	U	U	**	**	u	4	
Ethyl tert-butyl ether	ND	5 0	n	a	n	**	u	U	
Methyl tert-butyl ether	ND	5.0	Ü	d	U	<b>39</b>	1f	n	
Surrogate 1.2-Dichloroethane-de	1	87 %	5.5-	135	D	**	"	n	
Surrogate 4-Bromofluorobenzene		89 %	70-	115	n	"	"	"	
Surrogate Dibromofluoromethan		90 %	70-	120	**	it.	'n	**	
Surrogate Toluene-d8		88 %	<i>75</i> ~	115	"	"	"	n	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
V5, 7.5-8' (MPE0188-34) Soil	Sampled: 05/03/06 10:10	Received:	05/03/06	19:15					
tert-Amyl methyl ether	ND	5.0	ug/kg	l	6E11014	05/11/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	u	Ħ	n	U	u	u	
Di-isopropyl ether	ND	5 0	#1	#1	n	0	a	11	
1,2-Dibromoethane (EDB)	ND	5 0	#1	++	и	o o	a	н	
1,2-Dichloroethane	ND	5.0	**	**	и	u	tt	**	
Ethyl tert-butyl ether	ND	5 0	**	**	н	ži	74	85	
Methyl tert-butyl ether	ND	5.0	18	н	er	n	FF	ħ	
Surrogate. 1.2-Dichloroethane-d	14	91%	55-1	3.5	*	11	#	tt	
Surrogate. 4-Bromofluorobenzen	ie	89 %	70-1	15	"	rr .	"	н	
Surrogate Dibromofluorometha	ne	90 %	70-1	20	n	"	u	R	
Surrogate Toluene-d8		90 %	7.5~1	15	"	"	"	ρ	
V4, 5-5.5' (MPE0188-35) Soil	Sampled: 05/03/06 10:50	Received	: 05/03/06	19:15					
tert-Amyl methyl ether	ND	5 0	ug/kg	1	6E11014	05/11/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	.0	#1	n	U	u	u .	
Di-isopropyl ether	ND	5 0	a	#1	U	n	u	Ħ	
1,2-Dibromoethane (EDB)	ND	5 0	Ħ	#1	u	u	şe.	Ħ	
1,2-Dichloroethane	ND	5.0	11	**	u	u	н	4	
Ethyl tert-butyl ether	ND	5 0	ff	#	n	u	**	##	
Methyl tert-butyl ether	ND	5.0	**	**	u	Ħ	\$9	#	
Surrogate 1.2-Dichloroethane-d	14	93 %	55-1	3.5	**	n	rr	n	
Surrogate 4-Bromofluorobenzen		90 %	70-1	15	н	n	#	r	
Surrogate Dibromofluorometha		86 %	70-1	20	#	ıt	n	n	
Surrogate Toluene-d8		90 %	75-1	115	"	"	**	"	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121
Project Manager: Sherris Prall

MPE0188 Reported: 05/25/06 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
V4,7.5-8' (MPE0188-36) Soil	Sampled: 05/03/06 10:45	Received:	05/03/06	19:15					
tert-Amyl methyl ether	ND	5 0	ug/kg	1	6E11014	05/11/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	n	17	u	"	n	#	
Di-isopropyl ether	ND	50	ш	n	a	n	u	н	
1,2-Dibromoethane (EDB)	ND	5.0	u	Ü	0	n	Ħ	11	
1,2-Dichloroethane	ND	5.0	и	ņ	Ħ	u	Ħ	+1	
Ethyl tert-butyl ether	ND	5 0	#1	#1	**	n	#1	**	
Methyl tert-butyl ether	ND	5.0	**	81	**	u	#1	"	
Surrogate 1,2-Dichloroethane-c	14	91 %	55-	135	"	и	n	ļ2	
Surrogate 4-Bromofluorobenze	ne	90 %	70-	115	"	n	n	n	
Surrogate: Dibromofluorometha	ine	88 %	70-	120	u	"	**	n	
Surrogate. Toluene-d8		89 %	75-	115	IF	п	Ħ	n	
V8, 5-5.5' (MPE0188-37) Soil	Sampled: 05/03/06 10:40	Received	: 05/03/00	19:15					
tert-Amyl methyl ether	ND	5 0	ug/kg	1	6E11014	05/11/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	11	a	н	U	ų.	¥	
Di-isopropyl ether	ND	5.0	u	u	Ħ	υ	ti	**	
1,2-Dibromoethane (EDB)	ND	5.0	a	a	**	11	स	**	
1,2-Dichloroethane	ND	5 0	11	tt	**	11	++	11	
Ethyl tert-butyl ether	ND	5 0	#1	*1	**	Ħ	**	n	
Methyl tert-butyl ether	ND	5.0	#1	Ħ	17	ti	**	n .	
Surrogate 1.2-Dichloroethane-	d4	89 %	5.5-	135	и	n	"	N	
Surrogate 4-Bromofluorobenze		90 %	70-	115	"	n	7	ri .	
Surrogate Dibromofluorometha	me	85 %	70-	120	u	"	**	n	
Surrogate Toluene-d8		88 %	75-	115	,,	**	**	n	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121
Project Manager: Sherris Prall

MPE0188 Reported: 05/25/06 14:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
V8, 7.5-8' (MPE0188-38) Soil	Sampled: 05/03/06 10:35	Received	: 05/03/06 1	19:15					
tert-Amyl methyl ether	ND	5.0	ug/kg	101	6E11014	05/11/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	u	u	17	a	¥r	58	
Di-isopropyl ether	ND	5 0	a	н	**	U	**	94	
1,2-Dibromoethane (EDB)	ND	5 0	Ħ	н	н	u	11	D <del>i</del>	
1,2-Dichloroethane	ND	5.0	**	41	n	н	11	n	
Ethyl tert-butyl ether	ND	5 0	**	**	n	#	n	"	
Methyl tert-butyl ether	ND	5.0	¥1	ŧŧ	11	ŧŧ	n	H	
Surrogate: 1.2-Dichloroethane-de	1	91 %	5.5-7.3	3.5	H	n	**	ħ	
Surrogate: 4-Bromofluorobenzen	e	91%	70-1	15	n	"	"	"	
Surrogate Dibromofluoromethan	ie.	88 %	70-13	20	11	H	н	n	
Surrogate Toluene-d8		88 %	75-1	1.5	"	tt	n	"	
SB14, 5-5.5' (MPE0188-40) Soil	Sampled: 05/02/06 09:0	0 Receiv	ed: 05/03/0	6 19:15					
tert-Amyl methyl ether	ND	5.0	ug/kg	1	6E11014	05/11/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	u	u	#	ij	<b>\$1</b>	**	
Di-isopropyl ether	ND	5.0	0	o o	**	u	17	**	
1,2-Dibromoethane (EDB)	ND	5 0	u u	u	11	a	19	14	
1,2-Dichloroethane	ND	5.0	**	**	17	u	**	19	
Ethyl tert-butyl ether	ND	5 0	Ħ	#1	n	Ħ	19	n	
Methyl tert-butyl ether	ND	5.0	Ħ	<b>\$1</b>		n	н	11	
Surrogate 1,2-Dichloroethane-d	4	88 %	55-1.	3.5	r <del>)</del>	rı	**	н	
Surrogate. 4-Bromofluorobenzen	e	88 %	70-1	1.5	13	o	n	n	
Surrogate. Dibromofluoromethan		86 %	70-11	20	n	"	n	п	
Surrogate Toluene-d8		89 %	75-1	15	n	"	"	7	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121
Project Manager: Sherris Prall

MPE0188 Reported: 05/25/06 14:00

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB14, 10-10.5' (MPE0188-41) Soil	Sampled: 05/02/06 09	9:05 Rece	ived: 05/03	/06 19:1	5				
tert-Amyl methyl ether	ND	5.0	ug/kg	1	6E11014	05/11/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	**	11	0	is	a	11	
Di-isopropyl ether	ND	5.0	**	u	ii.	n	u	U	
1,2-Dibromoethane (EDB)	ND	5 0	**	Ħ	н	n	#1	U	
1,2-Dichloroethane	ND	5 0	n	#1	#1	n	<b>†1</b>	и	
Ethyl tert-butyl ether	ND	5 0	11	78	**	"	**	"	
Methyl tert-butyl ether	ND	5.0	U	**	**	n n	**	71	
Surrogate 1.2-Dichloroethane-d4		89 %	55-13	3.5	n	n	n	n	
Surrogate 4-Bromofluorobenzene		89 %	70-11	15	n	n	**	u	
Surrogate Dibromofluoromethane		87 %	70-12	20	n	n	н	H	
Surrogate Toluene-d8		87 %	75-11	15	n	#	11	н	
SB14, 15-15.5' (MPE0188-42) Soil	Sampled: 05/02/06 0	9:15 Rece	ived: 05/03	/06 19:1	5				
tert-Amyl methyl ether	ND	5.0	ug/kg	ι	6E11014	05/11/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	11	н	Ħ	σ	Ħ	u	
Di-isopropyl ether	ND	5 0	n	Ħ	H	11	71	a	
1,2-Dibromoethane (EDB)	ND	5 0	11	++	**	u	++	i1	
1,2-Dichloroethane	ND	5 0	11	17	**	11	**	٦	
Ethyl tert-butyl ether	ND	5.0	u	19	**	11	19	Ħ	
Methyl tert-butyl ether	ND	5.0	0	IS		Ħ	H	**	
Surrogate: 1.2-Dichloroethane-d4		104 %	55-13	3.5	*	"	"	*	
Surrogate 4-Bromofluorobenzene		93 %	70-11	15	13	n	**	P	
Surrogate Dibromofluoromethane		93 %	70-12	20	n	"	"	н	
Surrogate. Toluene-d8		94 %	75-11	1.5	"	**	"	"	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121
Project Manager: Sherris Prall

MPE0188 Reported: 05/25/06 14:00

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB14, 20-20.5' (MPE0188-43) Soil	Sampled: 05/02/06 09:	20 Rece	ived: 05/0	03/06 19:1	5				
tert-Amyl methyl ether	ND	5.0	ug/kg	0 99	6E11014	05/11/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	a	U	15	"	11	U	
Di-isopropyl ether	ND	5 0	11	n	n	a	Ħ	U	
1,2-Dibromoethane (EDB)	ND	5 0	Ħ	11	It	Ħ	<b>\$</b> ‡	U	
1,2-Dichloroethane	ND	5.0	*1	"	n	Ħ	**	ď	
Ethyl tert-butyl ether	ND	5 0	**	u	U	Ħ	TF.	u	
Methyl tert-butyl ether	ND	5.0	**	tl .	11	**	++	11	
Surrogate 1.2-Dichloroethane-d4		89 %	5.5-	135	0	"	#	Ħ	
Surrogate 4-Bromofluorobenzene		88 %	70-	115	"	n	"	"	
Surrogate Dibromofluoromethane		84 %	70-	1.20	n	"	tt	tt .	
Surrogate Toluene-d8		89 %	7.5-	115	n	#	"	#	
SB14, 24.5-25' (MPE0188-44) Soil	Sampled: 05/02/06 09:	25 Rece	ived: 05/	03/06 19:1	5				
tert-Amyl methyl ether	ND	5.0	ug/kg	0 99	6E11014	05/11/06	05/11/06	EPA 8260B	
tert-Butyl alcohol	ND	20	n	13	##	U	a	I)	
Di-isopropyl ether	ND	5.0	U	H	ŧŧ	n	ti	н	
1,2-Dibromoethane (EDB)	ND	5.0	U	11	11	u	•	n	
1,2-Dichloroethane	ND	5.0	0	n	**	ц	"	P	
Ethyl tert-butyl ether	ND	5.0	u	n	17	a	**	u	
Methyl tert-butyl ether	ND	5.0	u	0	n	a	Ħ	D	
Surrogate 1.2-Dichloroethane-d4		89 %	55-	135	11	n	n	n	
Surrogate 4-Bromofluorobenzene		91%	70-	115	n	n	n	"	
Surrogate Dibromofluoromethane		86 %	70-	120		ņ	н	н	
Surrogate Toluene-d8		89 %	75-	115		11	77	"	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

Analyte	Result	teporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note:
					Dillett	7 repared	7 thai yaca	manou	
SB15, 5-5-5' (MPE0188-45) Soil	Sampled: 05/02/06 10:25	Keceivi	20: 05/05/0	0 19:15			7/2-7		
tert-Amyl methyl ether	ND	5 0	ug/kg	i	6E11026	05/11/06	05/12/06	EPA 8260B	
tert-Butyl alcohol	ND	20	n	11	**	0	U	u	
Di-isopropyl ether	ND	5 0	U	11	4	11	O	u	
1,2-Dibromoethane (EDB)	ND	5 0	U	н	**	0	n	u	
1,2-Dichloroethane	ND	5 0	U	0	n	0	o o	a	
Ethyl tert-butyl ether	ND	5 0	o o	U	n	**	"	II.	
Methyl tert-butyl ether	ND	5.0	0			41	"		
Surrogate 1.2-Dichloroethane-d4		93 %	<b>55-1</b> 3	3.5	n	"	n	"	
Surrogate. 4-Bromofluorobenzene		89 %	70-11	1.5	"	rr .		"	
Surrogate. Dibromofluoromethane		89 %	70-12	20	n	Ħ	п	H	
Surrogate Toluene-d8		88 %	75-11	5	n	#	"	7	
SB15, 15-15.5' (MPE0188-46) Soi	l Sampled: 05/02/06 11:2	20 Rece	ived: 05/03	/06 19:1	5				
tert-Amyl methyl ether	ND	5 0	ug/kg	l	6E11026	05/11/06	05/12/06	EPA 8260B	
tert-Butyl alcohol	ND	20	11	¥‡	##	n	11	11	
Di-isopropyl ether	ND	5.0	**	##	н	H	H	þį	
1,2-Dibromoethane (EDB)	ND	5.0	11	**	**	U	11	17	
1,2-Dichloroethane	ND	5 0	11	++	++	U	n	*	
Ethyl tert-butyl ether	ND	5 0	H	++	**	n	n	н	
Methyl tert-butyl ether	ND	5.0	n	#	77	11	11	n	
Surrogate. 1.2-Dichloroethane-d4		93 %	55-13	3.5	"	н	n.	п	
Surrogate. 4-Bromofluorobenzene		87 %	70-11	15	**	*	**	n	
Surrogate Dibromofluoromethane		89 %	70-12	20	"	u	n	n	
Surrogate Toluene-d8		87 %	75-11	15	"	μ	**	-1	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

	Result	porting Limit	Units	Dilution	Batch	Danagad	Analyzad	Method	Notes
Analyte	Result	LHIII	Onis	DIRECTOR	Batti	Prepared	Analyzed	Meniod	Notes
SB15, 20-20-5' (MPE0188-47) Soil	Sampled: 05/02/06 11:25	Rece	eived: 05/03/	06 19:1	5				
tert-Amyl methyl ether	ND	5 0	ug/kg	0 99	6E11026	05/11/06	05/12/06	EPA 8260B	
tert-Butyl alcohol	ND	20	łı	U	u	н	11	i)	
Di-isopropyl ether	ND	5 0	*	n	U	*1	U	н	
1,2-Dibromoethane (EDB)	ND	50	#	u	u	#4	U	U	
1,2-Dichloroethane	ND	5.0	**	U	a	#	ti	U	
Ethyl tert-butyl ether	ND	5.0	11	u	a	91	u	u	
Methyl tert-butyl ether	ND	5.0	**	ш	0	ħ	**	n	
Surrogate 1.2-Dichloroethane-d4		90 %	55-13	5	11	п	n	п	
Surrogate 4-Bromofluorobenzene		94 %	70-11	5	"	"	n	n	
Surrogate Dibromofluoromethane		87 %	70-12	0	u	H	u	n	
Surrogate Toluene-d8		87 %	75-11	5	"	'n	H	n	
SB15, 24.5-25' (MPE0188-48) Soil	Sampled: 05/02/06 11:30	) Rece	eived: 05/03/	06 19:1	5				
tert-Amyl methyl ether	ND	5.0	ug/kg		6E11026	05/11/06	05/12/06	EPA 8260B	
tert-Butyl alcohol	ND	20	Ü	*1	**	H	H	н	
Di-isopropyl ether	ND	50	n	**	**	н	**	**	
1,2-Dibromoethane (EDB)	ND	50	P	**	+*	n	n	**	
1,2-Dichloroethane	ND	5.0		**	Ħ	n	n	**	
Ethyl tert-butyl ether	ND	5.0	a	**	**	u	n	**	
Methyl tert-butyl ether	ND	5.0	n	**	ŧ\$	IJ	n	11	
Surrogate: 1.2-Dichloroethane-d4		91%	55-13	5	**	n	"	,,	
Surrogate 4-Bromofluorobenzene		96 %	70-11	5	#	**	n	"	
Surrogate Dibromofluoromethane		88 %	70-12	0	#	n	#	u	
Surrogate Toluene-d8		88 %	75-11	5	"	"	"	"	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

### Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Evaluation Limit	Units	Spike Level	Source , Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6E11001 - EPA 5035 heated prg	www.hitelinke.workentisskontinskot/www.www.	broken de de mente de	<del>^~~~</del>	***************************************	***************************************	***************************************	***************************************	······································	***************************************	***************************************
Blank (6E11001-BLK1)			<del>~~~~~~~~~</del>	Prepared	& Analyze	ed: 05/11/0	06	***********		
Gasoline Range Organics (C4-C12)	ND	50	ug/kg							***************************************
Benzene	ND	0.5	"							
Toluene	ND	0.5	a							
Ethylbenzene	ND	0 5	u							
Xylenes (total)	ND	0 5	и							
Surrogate a.a.a-Trifluorotoluene	43 1		n	40.0	***************************************	108	75-120		<del></del>	***************************************
Surrogate 4-Bromofluorobenzene	39 0		n	40 0		98	45-135			
LCS (6E11001-BS1)				Prepared	& Analyze	<u>:d: 05/1</u> 1/	06	-		
Gasoline Range Organics (C4-C12)	272	100	ug/kg	275		99	65-125			
Surrogate 4-Bromofluorobenzene	40.9	***************************************	и	40 0		102	45-135			
LCS (6E11001-BS2)				Prepared	& Analyze	<u>:d: 05/11/</u>	06			
Benzene	9 27	10	ug/kg	100		93	55-150			,
Toluene	10 0	10	\$6	10.0		100	80-125			
Ethylbenzene	108	10	**	10 0		108	65-120			
Xylenes (total)	32.0	10	11	30.0		107	80-130			
Surrogate a.a.a-Trifluorotoluene	43 0		п	40 0		108	75-120			
Matrix Spike (6E11001-MS1)	Sou	urce: MPE02	75-01	Prepared	& Analyze	<u>:d: 05/11/</u>	06			-
Gasoline Range Organics (C4-C12)	239	100	ug/kg	275	15	81	65-125			
Benzene	4 15	10	77	2 65	ND	157	55-150			QM0
Toluene	21 3	10	<b>59</b>	23.0	ND	93	80-125			
Ethylbenzene	4.42	10	**	4 60	ND	96	65-120			
Xylenes (total)	24 0	10	##	26.4	ND	91	80-130			
Surrogate a.a.a-Trifluorotoluene	42 0	**************************************	н	40 0		10.5	75-120	λ		
Surrogate 4-Bromofluorobenzene	399		n	40 0		100	45-135			





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121
Project Manager: Sherris Prall

MPE0188 Reported: 05/25/06 14:00

# Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6E11001 - EPA 5035 heated pr										······································
Matrix Spike Dup (6E11001-MSD1)	**************************************	urce: MPE02	275-01	Prepared	& Analyz	ed: 05/11/	06		***************************************	
Gasoline Range Organics (C4-C12)	249	100	ug/kg	275	15	85	65-125	4	40	
Benzene	4 42	10	n	2 65	ND	167	55-150	6	35	QM0
Toluene	22 7	10	u	23 0	ND	99	80-125	6	40	
Ethylbenzene	4 89	10	**	4 60	ND	106	65-120	10	40	
Xylenes (total)	25 9	1.0	11	26 4	ND	98	80-130	8	40	
Surrogate: a.a.a-Trifluorotoluene	42.4	***************************************	tt .	40 0	·	106	75-120		· · · · · · · · · · · · · · · · · · ·	
Surrogate 4-Bromofluorobenzene	40 1		"	40 0		100	45-135			
Batch 6E11022 - EPA 5035A/5030B	МеОН				<del></del>					
Blank (6E11022-BLK1)				Prepared	& Analyz	ed: 05/11/	06			
Gasoline Range Organics (C4-C12)	ND	2 5	mg/kg							
Benzene	ND	0 05	u							
Toluene	ND	0.05	ŧŧ							
Ethylbenzene	ND	0 05	**							
Xylenes (total)	ND	0 05	**							
Surrogate a.a.a-Trifluorotoluene	3 82		**	4 00		96	75-120			
Surrogate 4-Bromofluorobenzene	3 91		Ħ	4 00		98	45-135			
LCS (6E11022-BS1)				Prepared	& Analyz	ed: 05/11/	06			
Gasoline Range Organics (C4-C12)	23 7	50	mg/kg	27 5		86	65-125			
Surrogate 4-Bromofluorobenzene	4 07		H	4 00		102	45-135	-A-A-A-		
LCS (6E11022-BS2)				Prepared	& Analyz	ed: 05/11/	/06			
Benzene	0 909	0 10	mg/kg	1 00		91	55-150			
Toluene	0 956	0 10	Ŧŧ	1 00		96	80-125			
Ethylbenzene	0 919	0 10	59	1 00		92	65-120			
Xylenes (total)	2 82	0 10	n	3 00		94	80-130			
Surrogate a.a.a-Trifluorotoluene	3 90		,,	4 00		98	75-120			





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

## Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6E11022 - EPA 5035A/5030B Mo	eOH									
LCS Dup (6E11022-BSD1)		V		Prepared	& Analyzo	ed: 05/11/	)6			
Gasoline Range Organics (C4-C12)	23 3	5 0	mg/kg	27 5		85	65-125	2	40	
Surrogate 4-Bromofluorobenzene	3 94	<del></del>	11	4 00		98	45-135			
LCS Dup (6E11022-BSD2)				Prepared	& Analyz	ed: 05/11/	06			
Benzene	1 00	0 10	mg/kg	1 00		100	55-150	10	35	
Toluene	1 05	0 10	u	1 00		105	80-125	9	40	
Ethylbenzene	101	0 10	Ħ	1 00		101	65-120	9	40	
Xylenes (total)	3 10	0 10	**	3 00		103	80-130	9	40	
Surrogate a.a.a-Trifluorotoluene	3 96	····	**	4.00		99	75-120			
Batch 6E12017 - EPA 5035 heated prg								A11 W-		
Blank (6E12017-BLK1)				Prepared	& Analyz	ed: 05/12/	06			
Gasoline Range Organics (C4-C12)	ND	50	ug/kg							
Benzene	ND	0.5	şt							
Toluene	ND	0 5	+1							
Ethylbenzene	ND	0 5	**							
Xylenes (total)	ND	0 5	H							
Surrogate a.a.a-Trifluorotoluene	419		11	40 0		105	75-120			***************************************
Surrogate 4-Bromofluorobenzene	379		**	40 0		9.5	45-135			
LCS (6E12017-BS1)		***************************************	************************************	Prepared	& Analyz	ed: 05/12/	06			
Gasoline Range Organics (C4-C12)	275	100	ug/kg	275		100	65-125			
Benzene	3 86	10	Ħ	2 65		146	55-150			
Toluene	20 3	10	tŦ	23 0		88	80-125			
Ethylbenzene	4 42	10	11	4 60		96	65-120			
Xylenes (total)	23 7	10	1)	26.4		90	80-130			
Surrogate a.a.a-Trifluorotoluene	410		ı	40 0	***************************************	102	75-120		amilian e de mariante e de metro de la desta de la	
Surrogate 4-Bromofluorobenzene	40.2		#	<i>40 0</i>		100	45-135			





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

# Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control Sequoia Analytical - Morgan Hill

		Evaluation		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6E12017 - EPA 5035 heated prg					~					
Matrix Spike (6E12017-MS1)	Son	urce: MPE01	88-04	Prepared	& Analyz	ed: 05/12/	06			
Gasoline Range Organics (C4-C12)	303	100	ug/kg	275	ND	110	65-125			
Benzene	4 32	10	**	2 65	ND	163	55-150			QM01
Ioluene	21.7	10	n	23 0	ND	94	80-125			
Ethylbenzene	5 18	10	n	4 60	3 t	45	65-120			QM02
Xylenes (total)	24 8	10	U	26 4	ND	94	80-130			
Surrogate a.a.a-Trifluorotoluene Surrogate 4-Bromofluorobenzene	41 5 40 9		"	40.0 40.0		104 102	75-120 45-135			
Matrix Spike Dup (6E12017-MSD1)	Soi	urce: MPE01	88-04	Prepared	& Analyz	ed: 05/12/	06			
Gasoline Range Organics (C4-C12)	304	100	ug/kg	275	ND	111	65-125	0 3	40	
Benzene	4 13	10	0	2 65	ND	156	55-150	4	35	QM01
Toluene	20 1	10	u	23 0	ND	87	80-125	8	40	
Ethylbenzene	4 89	10	а	4 60	3 1	39	65-120	6	40	QM02
Xylenes (total)	22 1	10	n	26 4	ND	84	80-130	12	40	
Surrogate a.a.a-Trifluorotoluene	413	<del></del>	и	40 0		103	7.5-120			
Surrogate 4-Bromofluorobenzene	40.5		п	40 0		101	45-135			
Batch 6E13007 - EPA 5035 heated prg										
Blank (6E13007-BLK1)				Prepared	& Analyz	ed: 05/13/	06			
Gasoline Range Organics (C4-C12)	ND	50	ug/kg							
Benzene	ND	0 5	**							
Toluene	ND	0 5	11							
Ethylbenzene	ND	0 5	H							
Xylenes (total)	ND	0 5	11							
Surrogate a.a.a-Trifluorotoluene	416		77	40 0	***************************************	104	75-120			
Surrogate 4-Bromofluorobenzene	378		"	40 0		94	45-135			





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall

MPE0188 Reported: 05/25/06 14:00

## Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6E13007 - EPA 5035 heated prg										
LCS (6E13007-BS1)				Prepared	& Analyze	ed: 05/13/	06			
Gasoline Range Organics (C4-C12)	275	100	ug/kg	275		100	65-125			
Benzene	3 89	10	**	2 65		147	55-150			
Toluene	20 0	10	++	23 0		87	80-125			
Ethylbenzene	4 25	10	**	4 60		92	65-120			
Xylenes (total)	23 3	1.0	H	26 4		88	80-130			
Surrogate a.a.a-Trifluorotoluene	40 7	****	***************************************	40 0		102	75-120	***************************************		
Surrogate 1-Bromofluorobenzene	398		**	40.0		100	45-135			
Matrix Spike (6E13007-MS1)	So	urce: MPE01	88-45	Prepared	& Analyz	ed: 05/13/	06			
Gasoline Range Organics (C4-C12)	199	100	ug/kg	275	16	67	65-125			
Benzene	3 50	10	n	2 65	ND	132	55-150			
Toluene	183	10	**	23.0	ND	80	80-125			
Ethylbenzene	3 77	10	ŧŧ	4 60	ND	82	65-120			
Xylenes (total)	20 2	1.0	**	26.4	ND	77	80-130			QM0:
Surrogate a.a.a-Trifluorotoluene	40.4		r	40 0		101	75-120			
Surrogate 4-Bromofluorobenzene	37 I		и	40 0		93	45-135			
Matrix Spike Dup (6E13007-MSD1)		urce: MPE01	88-45	Prepared	& Analyz	ed: 05/13/				
Gasoline Range Organics (C4-C12)	241	100	ug/kg	275	16	82	65-125	19	40	
Benzene	3 99	10	n	2 65	ND	151	55-150	13	35	QM0
Toluene	210	10	U	23 0	ND	91	80-125	14	40	
Ethylbenzene	4 45	10	0	4 60	ND	97	65-120	17	40	
Xylenes (total)	23 8	10	**	26 4	ND	90	80-130	16	40	
Surrogate a.a.a-Trifluorotoluene	40 7		Ŋ	40 0		102	7.5-120	***************************************	······································	
Surrogate 4-Bromofluorobenzene	378		0	40 0		94	45-135			
Batch 6E15008 - EPA 5035A/5030B M	еОН									
Blank (6E15008-BLK1)				Prepared	& Analyz	ed: 05/15/	06		······································	w
Gasoline Range Organics (C4-C12)	ND	2 5	mg/kg							
Benzene	ND	0.05	**							
Toluene	ND	0 05	**							
Ethylbenzene	ND	0 05	**							

Sequoia Analytical - Morgan Hill

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

## Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6E15008 - EPA 5035A/5030E	МеОН									
Blank (6E15008-BLK1)				Prepared	& Analyzo	ed: 05/15/	06			***************************************
Xylenes (total)	ND	0 05	mg/kg							
Surrogate: a.a.a-Trifluorotoluene	3 97		н	4 00		99	75-120	·····		
Surrogate 4-Bromofluorobenzene	3.88		н	4 00		97	45-135			
LCS (6E15008-BS1)				Prepared .	& Analyzo	ed: 05/15/				
Gasoline Range Organics (C4-C12)	24.1	5 0	mg/kg	27 5		88	65-125			
Surrogate: 4-Bromofluorobenzene	3 92		u,	4 00		98	45-135			
LCS (6E15008-BS2)				Prepared	& Analyze	ed: 05/15/	06			
Benzene	0 943	0 10	mg/kg	1 00		94	55-150			
Ioluene	1 01	010	U	1.00		101	80-125			
Ethylbenzene	0 953	0 10	n	1 00		95	65-120			
Xylenes (total)	2 95	0 10	ti.	3 00		98	80-130			
Surrogate a.a.a-Trifluorotoluene	4.11		n	4 00		103	75-120	***************************************		
LCS Dup (6E15008-BSD1)				Prepared	& Analyz	ed: 05/15/	06			
Gasoline Range Organics (C4-C12)	23 6	5 0	mg/kg	27 5		86	65-125	2	40	
Surrogate 4-Bromofluorobenzene	3 66		n	4 00	***************************************	92	45-135	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
LCS Dup (6E15008-BSD2)				Prepared	& Analyz	ed: 05/15/	06			
Benzene	0.942	0 10	mg/kg	1 00		94	55-150	01	35	
Tolucne	0 996	0 10	0	1 00		100	80-125	1	40	
Ethylbenzene	0 962	0 10	U	1 00		96	65-120	09	40	
Xylenes (total)	2 95	0.10	u	3 00		98	80-130	0	40	
Surrogate a.a.a-Trifluorotoluene	3 73	***************************************	ff	1 00		93	75-120	,		
Batch 6E15010 - EPA 5035 heated	prg									
Blank (6E15010-BLK1)				Prepared	& Analyz	ed: 05/15/	06	<b>,,,,,</b> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Gasoline Range Organics (C4-C12)	ND	50	ug/kg							
Benzene	ND	0.5	0							
Ioluene	ND	0 5	***							
Ethylbenzene	ND	0 5	#1							
Xylenes (total)	ND	0.5	**							

Sequoia Analytical - Morgan Hill

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2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Spike

Source

%REC

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

RPD

# Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control Sequoia Analytical - Morgan Hill

Evaluation

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6E15010 - EPA 5035 heated prg	Arthdod a tha chidde thick de thin						***************************************			
Blank (6E15010-BLK1)				Prepared	& Analyzo	ed: 05/15/0	06			***************************************
Surrogate a.a.a-Trifluorotoluene	418		ug/kg	40 0		104	75-120		***************************************	***************************************
Surrogate 4-Bromofluorobenzene	37.5			40 0		94	45-135			
LCS (6E15010-BS1)				Prepared	& Analyze	ed: 05/15/0	06		***************************************	
Gasoline Range Organics (C4-C12)	258	100	ug/kg	275		94	65-125			
Benzene	3.92	10	11	2.65		148	55-150			
Toluene	20 0	10	11	23 0		87	80-125			
Ethylbenzene	4 29	10	Ü	4 60		93	65-120			
Xylenes (total)	23 1	10	п	26.4		88	80-130			
Surrogate a.a.a-Trifluorotoluene	41.2		"	10 0		103	75-120			
Surrogate 4-Bromofluorobenzene	40.1		u	40 0		100	45-135			
Matrix Spike (6E15010-MS1)	Son	irce: MPE01	88-47	Prepared	& Analyz	ed: 05/15/	06			
Gasoline Range Organics (C4-C12)	208	100	ug/kg	275	160	17	65-125			QM02
Benzene	3.77	10	**	2.65	0 39	128	55-150			
Toluene	18 4	10	**	23 0	ND	80	80-125			
Ethylbenzene	4 93	10	**	4 60	16	72	65-120			
Xylenes (total)	22.0	10	"	26.4	ND	83	80-130			
Surrogate a.a.a-Trifluorotoluene	40 4		н	40 0	***************************************	101	75-120			***************************************
Surrogate 4-Bromofluorobenzene	28 7		"	40 0		7.2	45-135			
Matrix Spike Dup (6E15010-MSD1)	Sou	rce: MPE01	88-47	Prepared	& Analyz	ed: 05/15/	06	·	****	
Gasoline Range Organics (C4-C12)	356	100	ug/kg	275	160	71	65-125	52	40	QC20
Benzene	4 15	10	Ħ	2 65	0 39	142	55-150	10	35	
Ioluene	20 3	10	**	23 0	ND	88	80-125	10	40	
Ethylbenzene	5 27	10	77	4.60	16	80	65-120	7	40	
Xylenes (total)	23 8	10	11	26 4	ND	90	80-130	8	40	
Surrogate a.a.a-Trifluorotoluene	40.8		n	40.0		102	75-120			
Surrogate 4-Bromofluorobenzene	48 8		n	40.0		122	45-135			





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Spike

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

RPD

%REC

# Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control Sequoia Analytical - Morgan Hill

Evaluation

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6E16003 - EPA 5035 heated pr	g		····							
Blank (6E16003-BLK1)				Prepared	& Analyz	ed: 05/16/0	)6			
Gasoline Range Organics (C4-C12)	ND	50	ug/kg							
Benzene	ND	0 5	**							
Toluene	ND	0 5	4							
Ethylbenzene	ND	0 5	u							
Xylenes (total)	ND	0 5	a							
Surrogate : a.a.a-Trifluorotoluene	42 6	***************************************	11	40 0	***********	106	75-120			
Surrogate 4-Bromofluorobenzene	37 7		"	40 0		94	45-135			
LCS (6E16003-BS1)				Prepared	& Analyz	ed: 05/16/	06			
Gasoline Range Organics (C4-C12)	295	100	ug/kg	275		107	65-125			
Surrogate: 4-Bromofluorobenzene	40.4		"	40.0		101	45-135			
LCS (6E16003-BS2)				Prepared	& Analyz	ed: 05/16/	06			
Benzene	8 90	10	ug/kg	10 0		89	55-150			
Foluene	9 97	10	#	0.01		100	80-125			
Ethylbenzene	10 8	10	**	10 0		108	65-120			
Xylenes (total)	32 6	10	u	30 0		109	80-130			
Surrogate a.a.a-Trifluorotoluene	416		11	40.0		104	75-120	***************************************		
Matrix Spike (6E16003-MS1)	Sour	ce: MPE01	115-23	Prepared	& Analyz	ed: 05/16/	06			
Gasoline Range Organics (C4-C12)	221	100	ug/kg	275	ND	80	65-125			
Benzene	3 70	10	**	2 65	ND	140	55-150			
Toluene	19 3	1.0	n	23.0	ND	84	80-125			
Ethylbenzene	3 99	10	ly.	4 60	ND	87	65-120			
Xylenes (total)	214	10	U	26 4	ND	81	80-130			
Surrogate a.a.a-Trifluorotoluene	41 0		,,	40 0		102	75-120			***************************************
Surrogate 4-Bromofluorobenzene	38 9		**	40.0		97	45-135			





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

#### Purgeable Hydrocarbons and BTEX by EPA 8015B/8021B - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6E16003 - EPA 5035 heated prg						·····				
Matrix Spike Dup (6E16003-MSD1)	Soi	irce: MPE01	15-23	Prepared	& Analyz	ed: 05/16/	06			
Gasoline Range Organics (C4-C12)	212	100	ug/kg	275	ND	77	65-125	4	40	
Benzene	3 70	10	11	2 65	ND	140	55-150	0	35	
I oluene	193	10	11	23 0	ND	84	80-125	0	40	
Ethylbenzene	3 87	10	n	4 60	ND	84	65-120	3	40	
Xylenes (total)	210	10	If	26 4	ND	80	80-130	2	40	
Surrogate: a.a.a-Trifluorotoluene	40.7	***************************************	>1	40 0		102	75-120			
Surrogate 4-Bromofluorobenzene	38 4		"	40 0		96	45-135			





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall

MPE0188 Reported: 05/25/06 14:00

### Extractable Hydrocarbons by EPA 8015B - Quality Control Sequoia Analytical - Morgan Hill

		Evaluation		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6E12023 - LUFT-DHS										
Blank (6E12023-BLK1)				Prepared:	05/12/06	Analyzec	1: 05/18/06			
Diesel Range Organics (C10-C28)	ND	0 84	mg/kg							
Surrogate n-Octacosane	0 904		ſſ	1 67		54	40-120			
LCS (6E12023-BS1)				Prepared:	05/12/06	Analyzed	1: 05/18/06			
Diesel Range Organics (C10-C28)	154	10	mg/kg	167		92	60-115			
Surrogate n-Octacosane	1 24		'1	1 67		74	40-120			****
Matrix Spike (6E12023-MS1)	Sou	irce: MPE01	188-09	Prepared:	05/12/06	Analyzed	1: 05/18/06			
Diesel Range Organics (C10-C28)	13 6	10	mg/kg	16.7	1.1	75	60-115			
Surrogate: n-Octacosane	1 03		H	1 67		62	40-120			X
Matrix Spike Dup (6E12023-MSD1)	Sou	rce: MPE0	188-09	Prepared:	05/12/06	Analyzee	1: 05/18/06			
Diesel Range Organics (C10-C28)	14.1	10	mg/kg	167	1 1	78	60-115	4	40	
Surrogate n-Octacosane	1 24	***************************************	It	1 67		74	40-120	***************************************		
Batch 6E15007 - LUFT-DHS										
Blank (6E15007-BLK1)				Prepared:	05/15/06	Analyzed	1: 05/20/06			
Diesel Range Organics (C10-C28)	ND	0 84	mg/kg							
Surrogate n-Octacosane	1 01		##	1 67		60	40-120	***************************************		
LCS (6E15007-BS1)				Prepared:	05/15/06	Analyzed	1: 05/19/06			
Diesel Range Organics (C10-C28)	119	10	mg/kg	16.7		71	60-115			
Surrogate n-Octacosane	1 26		н	1 67		7.5	40-120			
Matrix Spike (6E15007-MS1)	Sou	irce: MPE0	188-24	Prepared:	05/15/06	Analyze	1: 05/19/06			
Diesel Range Organics (C10-C28)	115	10	mg/kg	167	2 4	54	60-115			QM
Surrogate n-Octacosane	1 01		п	1 67		60	40-120		***************************************	





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

# Extractable Hydrocarbons by EPA 8015B - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6E15007 - LUFT-DHS										
Matrix Spike Dup (6E15007-MSD1)	Sour	ce: MPE01	88-24	Prepared:	05/15/06	Analyzed	1: 05/19/06			
Diesel Range Organics (C10-C28)	12 9	10	mg/kg	167	2.4	63	60-115	11	40	
Surrogate n-Octacosane	1 09		71	1 67		6.5	40-120			
Batch 6E17033 - LUFT-DHS								v/v-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-		
Blank (6E17033-BLK1)				Prepared:	05/17/06	Analyzed	1: 05/18/06			
Diesel Range Organics (C10-C28)	ND	0 84	mg/kg							
Surrogate n-Octacosane	1 26		11	1 67		75	40-120	***************************************		
LCS (6E17033-BS1)				Prepared:	05/17/06	Analyzed	1: 05/19/06			
Diesel Range Organics (C10-C28)	14.4	10	mg/kg	16.7		86	60-115			
Surrogate n-Octacosane	1 49		7	1 67		89	40-120	***************************************		
Matrix Spike (6E17033-MS1)	Sour	ce: MPE01	188-35	Prepared:	05/17/06	Analyzed	1: 05/19/06			
Diesel Range Organics (C10-C28)	26 8	10	mg/kg	16.7	ND	160	60-115			QM0
Surrogate n-Octacosane	1 39		u	1 67		8.3	10-120			
Matrix Spike Dup (6E17033-MSD1)	Sour	ce: MPE01	188-35	Prepared:	05/17/06	Analyzec	1: 05/19/06			
Diesel Range Organics (C10-C28)	27 6	10	mg/kg	16 7	ND	165	60-115	3	40	QM0
Surrogate. n-Octacosane	1 41		t1	1 67		84	40-120	***********		





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall

MPE0188 Reported: 05/25/06 14:00

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

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC 1 imits	RPD	RPD Limit	Notes
Batch 6E09026 - EPA 5035										
Blank (6E09026-BLK1)				Prepared	& Analyz	ed: 05/09/	06			
tert-Amyl methyl ether	ND	2 5	ug/kg							
tert-Butyl alcohol	ND	10	U							
Di-isopropyl ether	ND	2 5	u							
1,2-Dibromoethane (EDB)	ND	2 5	н							
1,2-Dichloroethane	ND	2 5	**							
Ethanol	ND	50	*							
Ethyl tert-butyl ether	ND	2 5	"							
Methyl tert-butyl ether	ND	2 5	n							
Surrogate 1.2-Dichloroethane-d4	4 42		В	5 00		88	55-135		***************************************	
LCS (6E09026-BS1)				Prepared	& Analyz	ed: 05/09/	06	***		
tert-Amyl methyl ether	10 9	5.0	ug/kg	100		109	70-130			
tert-Butyl alcohol	199	20	n	200		100	70-120			
Di-isopropyl ether	10 6	50	11	100		106	65-135			
1,2-Dibromoethane (EDB)	112	5 0	u	10 0		112	85-135			
1,2-Dichloroethane	112	5 0	"	10 0		112	65-145			
Ethanol	168	100	0	200		84	15-150			
Ethyl tert-butyl ether	10.4	5 0	O	10 0		104	70-130			
Methyl tert-butyl ether	11 0	5 0	11	100		110	70-135			
Surrogate 1.2-Dichloroethane-d4	4 42		#	5 00		88	55-135			
Matrix Spike (6E09026-MS1)	So	urce: MPE01	94-01	Prepared	& Analyz	ed: 05/09/	06			
tert-Amyl methyl ether	10 3	5 0	ug/kg	10 0	0 16	101	70-130			
tert-Butyl alcohol	182	20	В	200	ND	91	70-120			
Di-isopropyl ether	10 2	5 0	n	10 0	ND	102	65-135			
1,2-Dibromoethane (EDB)	10 1	5 0	а	10 0	ND	101	85-135			
1.2-Dichloroethane	10 3	5 0	71	10 0	ND	103	65-145			
Ethanol	146	100	u	200	ND	73	15-150			
Ethyl tert-butyl ether	10 0	5 0	n	10 0	ND	100	70-130			
Methyl tert-butyl ether	10 3	5 0	11	100	ND	103	70-135			

Sequoia Analytical - Morgan Hill





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

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

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6E09026 - EPA 5035										
Matrix Spike (6E09026-MS1)	Soı	ırce: MPE01	94-01	Prepared	& Analyzo	ed: 05/09/	06		****	
Surrogate: 1,2-Dichloroethane-d4	4.55		ug/kg	5 00	***************************************	91	55-135	· · · · · · · · · · · · · · · · · · ·		
Matrix Spike Dup (6E09026-MSD1)	Sou	irce: MPE01	94-01	Prepared	& Analyzo	ed: 05/09/	06	*********************************	***************************************	
tert-Amyl methyl ether	100	5 0	ug/kg	100	0.16	98	70-130	3	25	
tert-Butyl alcohol	183	20	u	200	ND	92	70-120	0.5	15	
Di-isopropyl ether	9 94	5.0	u	100	ND	99	65-135	3	15	
1,2-Dibromoethane (EDB)	9 79	5 0	п	10.0	ND	98	85-135	3	20	
1,2-Dichloroethane	10.3	5 0	**	10.0	ND	103	65-145	0	25	
Ethanol	145	100	<b>†?</b>	200	ND	72	15-150	0 7	40	
Ethyl tert-butyl ether	9 75	5 0	**	10 0	ND	98	70-130	3	15	
Methyl tert-butyl ether	100	5 0	**	100	ND	100	70-135	3	15	
Surrogate 1.2-Dichloroethane-d4	4 45	***************************************	#	5 00	***************************************	89	55-135			
Batch 6E10003 - EPA 5035						····				
Blank (6E10003-BLK1)				Prepared	& Analyz	ed: 05/10/	06			
tert-Arnyl methyl ether	ND	2.5	ug/kg							
tert-Butyl alcohol	ND	10	a							
Di-isopropyl ether	ND	2 5	*1							
1,2-Dibromoethane (EDB)	ND	2 5	**							
1,2-Dichloroethane	ND	2 5	**							
Ethanol	ND	50	**							
Ethyl tert-butyl ether	ND	2 5	**							
Methyl tert-butyl ether	ND	2.5	11							
Surrogate: 1.2-Dichloroethane-d4	4 43		"	5 00		89	55-135			
LCS (6E10003-BS1)				Prepared	& Analyz	ed: 05/10/	06		· · · · · · · · · · · · · · · · · · ·	
tert-Amyl methyl ether	10.5	5 0	ug/kg	10 0		105	70-130			
tert-Butyl alcohol	195	20	#1	200		98	70-120			
Di-isopropyl ether	10.4	5 0	u	100		104	65-135			
1.2-Dibromoethane (EDB)	116	5 0	**	10 0		116	85-135			
1,2-Dichloroethane	10.9	5 0	+>	10 0		109	65-145			

Sequoia Analytical - Morgan Hill





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

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

	T1	Evaluation		Spike	Source	0/DEC	%REC	RPD	RPD Limit	Notes
Analyte	Result	Limit	Units	Level	Result	%REC	I. imits	KPD	LIBIL	Notes
Batch 6E10003 - EPA 5035						······································				
LCS (6E10003-BS1)				Prepared	& Analyze	2d: 05/10/	06			
Ethanol	167	100	ug/kg	200		84	15-150			
Ethyl tert-butyl ether	10 2	5 0	U	10.0		102	70-130			
Methyl tert-butyl ether	10 6	50	\$1	10 0		106	70-135			
Surrogate 1.2-Dichloroethane-d4	4 39		13	5 00		88	5.5-135			
Matrix Spike (6E10003-MS1)		ırce: MPE01	88-03	Prepared	& Analyz	ed: 05/10/	06			
tert-Amyl methyl ether	9 88	5.0	ug/kg	100	0 12	98	70-130			
tert-Butyl alcohol	214	20	**	200	ND	107	70-120			
Di-isopropyl ether	9 35	5 0	**	100	ND	94	65-135			
1,2-Dibromoethane (EDB)	111	50	u	100	ND	111	85-135			
1,2-Dichloroethane	9 94	5 0	0	10 0	ND	99	65-145			
Ethanol	182	100	n	200	ND	91	15-150			
Ethyl tert-butyl ether	9 56	5 0	O	10 0	ND	96	70-130			
Methyl tert-butyl ether	9.84	5 0	u	10 0	ND	98	70-135			
Surrogate 1.2-Dichloroethane-d4	<i>4 27</i>		n	5 00		85	55-135			
Matrix Spike Dup (6E10003-MSD1)		urce: MPE01	88-03	Prepared	& Analyz	ed: 05/10/	06			
tert-Amyl methyl ether	103	5 0	ug/kg	10 0	0 12	102	70-130	4	25	
tert-Butyl alcohol	186	20	**	200	ND	93	70-120	14	15	
Di-isopropyl ether	10 0	5 0	11	10 0	ND	100	65-135	7	15	
1,2-Dibromoethane (EDB)	10 9	5 0	n	10.0	ND	109	85-135	2	20	
1,2-Dichloroethane	10 8	5 0	11	10 0	ND	108	65-145	8	25	
Ethanol	158	100	U	200	ND	79	15-150	14	40	
Ethyl tert-butyl ether	100	5 0	0	10 0	ND	100	70-130	4	15	
Methyl tert-butyl ether	10 3	5 0	u	10 0	ND	103	70-135	5	15	
Surrogate 1.2-Dichloroethane-d4	4 54		μ	5 00	· • • • • • • • • • • • • • • • • • • •	91	55-135			





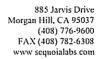
2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

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

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6E10024 - EPA 5035										
Blank (6E10024-BLK1)				Prepared of	& Analyz	ed: 05/10/	06			
tert-Amyl methyl ether	ND	2 5	ug/kg							
tert-Butyl alcohol	ND	10	**							
Di-isopropyl ether	ND	2 5	n							
1,2-Dibromoethane (EDB)	ND	2 5	n							
1,2-Dichloroethane	ND	2 5	u							
Ethanol	ND	50	#1							
Ethyl tert-butyl ether	ND	2 5	14							
Methyl tert-butyl ether	ND	2 5	11							
Surrogate 1.2-Dichloroethane-d4 Surrogate 4-Bromofluorobenzene Surrogate Dibromofluoromethane	4 40 4 56 4 60		# # #	5 00 5 00 5 00		88 91 92	55-135 70-115 70-120	A A A A A A A A A A A A A A A A A A A		
Surrogate Toluene-d8	4 69		n	5 00		94	75-115			
LCS (6E10024-BS1)					& Analyz					
tert-Amyl methyl ether	110	5.0	ug/kg	10 0		110	70-130			
tert-Butyl alcohol	198	20	11	200		99	70-120			
Di-isopropyl ether	9 86	50	U	10 0		99	65-135			
1,2-Dibromoethane (EDB)	116	50	**	10 0		116	85-135			
1,2-Dichloroethane	112	5 0	li	10.0		112	65-145			
Ethanol	160	100	**	200		80	15-150			
Ethyl tert-butyl ether	10 3	5 0	н	10 0		103	70-130			
Methyl tert-butyl ether	10 8	5 0	n	10 0		108	70-135			
Surrogate 1.2-Dichloroethane-d4	4 44		11	5 00		89	55-135			
Surrogate 4-Bromofluorobenzene	4 64		13	.5 00		93	70-115			
Surrogate Dibromofluoromethane	4 59		"	5 00		92	70-120			
Surrogate Toluene-d8	4 60		"	5 00		92	75-115			
Matrix Spike (6E10024-MS1)	,	urce: MPE01			·····		1: 05/11/06	,		
tert-Amyl methyl ether	10 3	5 0	ug/kg	100	ND	103	70-130			
tert-Butyl alcohol	186	20	n	200	ND	93	70-120			
Di-isopropyl ether	9 88	5 0	r	10 0	ND	99	65-135			
1,2-Dibromoethane (EDB)	9 77	5 0	11	10 0	ND	98	85-135			

Sequoia Analytical - Morgan Hill





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

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

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6E10024 - EPA 5035										
Matrix Spike (6E10024-MS1)	So	urce: MPE01	88-16	Prepared:	05/10/06	Analyzed	l: 05/11/06			
1.2-Dichloroethane	10 2	5 0	ug/kg	10 0	ND	102	65-145			
Ethanol	ND	100	n	200	ND		15-150			QM02
Ethyl tert-butyl ether	10 0	5.0	H	10 0	ND	100	70-130			
Methyl tert-butyl ether	10 2	5 0	*1	10 0	ND	102	70-135			
Surrogate 1.2-Dichloroethane-d4	4 42		#	5 00		88	55-135			
Surrogate 4-Bromofluorobenzene	4 46		**	5 00		89	70-115			
Surrogate Dibromofluoromethane	4 59		а	5 00		92	70-120			
Surrogate Toluene-d8	4 66		n	5 00		93	75-115			
Matrix Spike Dup (6E10024-MSD1)		urce: MPE01	*****				l: 05/11/06		······································	
tert-Amyl methyl ether	10 1	5 0	ug/kg	10 0	ND	101	70-130	2	25	
tert-Butyl alcohol	179	20	**	200	ND	90	70-120	4	15	
Di-isopropyl ether	9 80	50	11	10 0	ND	98	65-135	0 8	15	
1.2-Dibromoethane (EDB)	9 17	5 0	n	100	ND	92	85-135	6	20	
1,2-Dichloroethane	10 0	5 0	11	10 0	ND	100	65-145	2	25	
Ethanol	ND	100	n	200	ND		15-150		40	QM02
Ethyl tert-butyl ether	9 83	5 0	ш	10 0	ND	98	70-130	2	15	
Methyl tert-butyl ether	10 0	5.0	a	10 0	ND	100	70-135	2	15	
Surrogate: 1,2-Dichloroethane-d4	4 45		1)	5.00		89	55-135			
Surrogate 4-Bromofluorobenzene	4 60		,,	5 00		92	70-115			
Surrogate Dibromofluoromethane	461		n	5 00		92	70-120			
Surrogate Toluene-d8	4 55		"	5 00		91	75-115			
Batch 6E11014 - EPA 5035			······································							
Blank (6E11014-BLK1)		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Prepared	& Analyz	ed: 05/11/	06			
tert-Amyl methyl ether	ND	2 5	ug/kg							
tert-Butyl alcohol	ND	10	n							
Di-isopropyl ether	ND	2 5	17							
1.2-Dibromoethane (EDB)	ND	2 5	n							
1.2-Dichloroethane	ND	2 5	n							
Ethanol	ND	50	U							
Ethyl tert-butyl ether	ND	2 5	n							

Sequoia Analytical - Morgan Hill





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121
Project Manager: Sherris Prall

MPE0188 Reported: 05/25/06 14:00

RPD

%REC

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

Spike

Source

Evaluation

		evaiuation		Sjirke	Source		VOIVEC		KID	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	L imit	Notes
Batch 6E11014 - EPA 5035										
Blank (6E11014-BLK1)				Prepared	& Analyze	ed: 05/11/0	06			
Methyl tert-butyl ether	ND	2 5	ug/kg							
Surrogate 1.2-Dichloroethane-d4	<i>4 56</i>		r	5 00		91	55-135			
Surrogate 4-Bromofluorobenzene	4 46		n	5 00		89	70-115			
Surrogate: Dibromofluoromethane	4 39		u	5 00		88	70-120			
Surrogate Toluene-d8	4.51		"	5 00		90	7.5-115			
LCS (6E11014-BS1)				Prepared	& Analyz	ed: 05/11/	06			
tert-Amyl methyl ether	10 2	5 0	ug/kg	100		102	70-130			
tert-Butyl alcohol	192	20	\$	200		96	70-120			
Di-isopropyl ether	10 2	5 0	Ħ	100		102	65-135			
1.2-Dibromoethane (EDB)	10 5	5 0	n	10 0		105	85-135			
1,2-Dichloroethane	10 4	5 0	n	100		104	65-145			
Ethanol	176	100	11	200		88	15-150			
Ethyl tert-butyl ether	9 98	5 0	H	100		100	70-130			
Methyl tert-butyl ether	10 2	5 0	U	100		102	70-135			
Surrogate 1.2-Dichloroethane-d4	4 43		"	5 00		89	55-135			
Surrogate 4-Bromofluorobenzene	4 30		#	5 00		86	70-115			
Surrogate Dibromofluoromethane	1 49		"	5 00		90	70-120			
Surrogate Toluene-d8	4 44		#	5 00		89	75-115			
Matrix Spike (6E11014-MS1)	Sot	rce: MPE01	88-29	Prepared	& Analyz	ed: 05/11/	06	*****************************		
tert-Amyl methyl ether	10 2	5 0	ug/kg	100	ND	102	70-130			
tert-Butyl alcohol	205	20	н	200	ND	102	70-120			
Di-isopropyl ether	10 5	5 0	#1	100	ND	105	65-135			
1,2-Dibromoethane (EDB)	10 6	5 0	n	100	ND	106	85-135			
1,2-Dichloroethane	10 6	5 0	н	10 0	ND	106	65-145			
Ethanol	199	100	**	200	ND	100	15-150			
Ethyl tert-butyl ether	10 0	5 0	11	10 0	ND	100	70-130			
Methyl tert-butyl ether	10 3	5 0	n	100	ND	103	70-135			
Surrogate 1.2-Dichloroethane-d4	4 36	***************************************	11	5 00		87	55-135	······································		
Surrogate 4-Bromofluorobenzene	4 44		"	5 00		89	70-115			
Surrogate Dibromofluoromethane	4 19		#	5 00		90	70-120			
Surrogate Toluene-d8	4 40		31	5 00		88	75-115			

Sequoia Analytical - Morgan Hill





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

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

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
	ксаш	Lillat	Omis	Lover	Nesun	/01CLC	EHHAS			710103
Batch 6E11014 - EPA 5035						**************************************				
Matrix Spike Dup (6E11014-MSD1)		rce: MPE01	88-29	Prepared	& Analyze	ed: 05/11/	06			
tert-Amyl methyl ether	10.3	5.0	ug/kg	10 0	ND	103	70-130	1	25	
tert-Butyl alcohol	197	20	41	200	ND	98	70-120	4	15	
Di-isopropyl ether	10 6	5 0	Ħ	100	ND	106	65-135	09	15	
1.2-Dibromoethane (EDB)	10 7	5 0	11	100	ND	107	85-135	09	20	
1,2-Dichloroethane	10 6	5 0	0	10.0	ND	106	65-145	0	25	
Ethanol	195	100	u	200	ND	98	15-150	2	40	
Ethyl tert-butyl ether	10 2	5 0	U	10 0	ND	102	70-130	2	15	
Methyl tert-butyl ether	10.4	5 0	n	10 0	ND	104	70-135	1	15	
Surrogate: 1.2-Dichloroethane-d4	4 39		11	5 00	//	88	55-135	***************************************		·····
Surrogate: 4-Bromofluorobenzene	4 52		и	5 00		90	70-115			
Surrogate Dibromofluoromethane	1 19		"	5 00		90	70-120			
Surrogate Toluene-d8	4 49		"	5 00		90	75-115			
Batch 6E11026 - EPA 5035					7,77					
Blank (6E11026-BLK1)				Prepared	& Analyz	ed: 05/11/	06			~~~
tert-Amyl methyl ether	ND	2 5	ug/kg							
tert-Butyl alcohol	ND	10	n							
Di-isopropyl ether	ND	2 5	н							
1,2-Dibromoethane (EDB)	ND	2 5	U							
1,2-Dichloroethane	ND	2 5	0							
Ethanol	ND	50	rı							
Ethyl tert-butyl ether	ND	2 5	н							
Methyl tert-butyl ether	ND	2 5	н							
Surrogate 1.2-Dichloroethane-d4	4 52		n	5 00	***************************************	90	55-135			
Surrogate: 4-Bromofluorobenzene	4 47			5 00		89	70-115			
Surrogate Dibromofluoromethane	1.14		rt	5 00		89	70-120			
Surrogate Toluene-d8	4 35		"	5 00		87	75-115			





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

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

Prepared: 05/11/06   Analyzed: 05/12/06   Cert-Amyl methyl ether   10 4   \$0   ug/kg   10 0   104   70-130   Cert-Amyl methyl ether   11 2   \$0 0   "   100 0   104   70-120   Cert-Amyl methyl ether   11 2   \$0 0   "   10 0   104   70-120   Cert-Amyl methyl ether   11 2   \$0 0   "   10 0   10 0   102   65-135   Cert-Amyl methyl ether   10 7   \$0 0   "   10 0   10 0   107   65-145   Cert-Amyl methyl ether   10 1	Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
ert-Amyl methyl ether 10 4 50 ug/kg 10 0 104 70-130 ert-Butyl alcohol 208 20 " 200 104 70-120 5-1-isopropyl ether 11 2 50 " 10 0 112 65-135 5-1-isopropyl ether 11 2 50 " 10 0 108 85-135 5-1-isopropyl ether 11 2 50 " 10 0 108 85-135 5-1-isopropyl ether 10 10 8 50 " 10 0 0 108 85-135 5-1-isopropyl ether 10 10 8 50 " 10 0 0 107 65-145 5-1-isopropyl ether 10 10 8 50 " 10 0 0 107 65-145 5-1-isopropyl ether 10 10 8 50 " 10 0 0 107 65-145 5-1-isopropyl ether 10 10 8 50 " 10 0 0 103 70-1-isopropyl ether 10 10 8 50 " 10 0 0 103 70-1-isopropyl ether 10 10 8 50 " 10 0 0 103 70-1-isopropyl ether 10 8 50 " 10 0 0 103 70-1-isopropyl ether 10 8 50 " 10 0 0 103 70-1-isopropyl ether 10 8 50 " 10 0 0 103 70-1-isopropyl ether 10 8 50 " 10 0 0 103 70-1-isopropyl ether 10 8 50 " 10 0 0 103 70-1-isopropyl ether 10 8 50 " 10 0 0 103 70-1-isopropyl ether 10 8 50 " 10 0 0 103 70-1-isopropyl ether 10 8 50 " 10 0 0 103 70-1-isopropyl ether 10 8 50 " 10 0 0 103 70-1-isopropyl ether 10 8 50 " 10 0 0 103 70-1-isopropyl ether 10 8 50 " 10 0 0 10 3 70-1-isopropyl ether 10 8 50 0 90 75-1-isopropyl ether 10 90 0 10 10 90 65-1-isopropyl ether 10 90 0 10 90 0 1-isopropyl ether 10 90 0 10 90 0 10 90 0 1-isopropyl ether 10 90 0 10 90 0 10 90 0 10 90 0 10 90 0 10 90 0 10 90 0 10 90 0 10 90 0 10 90 0 10 90 0 10 90 0 10 90 0 10 90 0 10 90 0 10 90 0 10 90 0 10 90 0 10 90 0 10 90 0 10 90 0 10 90 0 10 90 0 10 90 0 10 90 0 10 90 0 10 90 0 10 9	Batch 6E11026 - EPA 5035										
208   20	LCS (6E11026-BS1)				Prepared:	05/11/06	Analyzed	l: 05/12/06			
1	tert-Amyl methyl ether	104	5 0	ug/kg	10 0		104	70-130			
10   10   10   10   10   10   10   10	tert-Butyl alcohol	208	20	**	200		104	70-120			
10   10   10   10   10   10   10   10	Di-isopropyl ether	112	5 0	*1	100		112	65-135			
State   12-10   100   200   110   15-150   104   104   104   104   104   104   104   104   104   104   104   104   104   104   105   104   104   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105	1,2-Dibromoethane (EDB)	10 8	50	11	100		108	85-135			
Adaptive the butyl ether 10 4 5 0 " 10 0 10 4 70 -130 10 10 10 10 10 10 10 10 10 10 10 10 10	1,2-Dichloroethane	10 7	5 0	n	10 0		107	65-145			
Methyl terributyl ether 10 3 5 0 " 10 0 10 3 70-135	Ethanol	219	100	п	200		110	15-150			
Surrogate 1.2-Dichloroethane-d4	Ethyl tert-butyl ether	10 4	5 0	n	10.0		104	70-130			
Source   1.2-Dichloroethane-d4	Methyl tert-butyl ether	10.3	5 0	Ħ	10 0		103	70-135			
Source   4-Bromofluorobenzene   4-61   "   5-00   92   70-115   500   94   70-120   500   75-115   500   94   70-120   500   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90   75-115   500   90	Surrogate 1.2-Dichloroethane-d4	4 55		и	5 00	<u></u>	91	55-135			***************************************
Source   Matrix Spike   6E11026-MS1	Surrogate 4-Bromofluorobenzene	161		μ	5 00		92	70-115			
Matrix Spike (6E11026-MS1)  Source: MPE0188-48 Prepared: 05/11/06 Analyzed: 05/12/06  ert-Amyl methyl ether  8 42 5 0 ug/kg 10 0 0 13 83 70-130  Di-isopropyl ether  8 95 5 0 " 10 0 ND 96 70-120  Di-isopropyl ether  8 95 5 0 " 10 0 ND 88 85-135  1,2-Dichloroethane (EDB)  8 78 5 0 " 10 0 ND 89 65-145  Ethanol  37 1 100 " 200 ND 19 15-150  Ethyl tert-butyl ether  8 23 5 0 " 10 0 ND 82 70-130  Methyl tert-butyl ether  8 42 5 0 " 10 0 ND 84 70-135  Surrogate 1.2-Dichloroethane-d4 5 47 5 00 89 55-135  Surrogate 4-Bromofluorobenzene 4 84 7 5 00 97 70-115  Surrogate Dibromofluoromethane 4 54 4 0 " 5 00 91 70-120  Surrogate Toluene-d8 4 140 8 70 100 ND 88 75-115  Matrix Spike Dup (6E11026-MSD1)  Source: MPE0188-48 Prepared: 05/11/06 Analyzed: 05/12/06	Surrogate Dibromofluoromethane	4.68		"	5 00		94	70-120			
ert-Amyl methyl ether 8 42 5 0 ug/kg 10 0 0 13 83 70-130  ert-Butyl alcohol 193 20 " 200 ND 96 70-120  Di-isopropyl ether 8 95 5 0 " 10 0 ND 96 65-135  1.2-Dibromoethane (EDB) 8 78 5 0 " 10 0 ND 88 85-135  1.2-Dichloroethane 8 92 5 0 " 10 0 ND 89 65-145  Ethanol 37 1 100 " 200 ND 19 15-150  Ethyl tert-butyl ether 8 23 5 0 " 10 0 ND 82 70-130  Methyl tert-butyl ether 8 42 5 0 " 10 0 ND 84 70-135  Surrogate 1.2-Dichloroethane-44 447 " 5 00 89 55-135  Surrogate 4-Bromofluorobenzene 4 84 " 5 00 97 70-115  Surrogate Dibromofluoromethane 4 4 40 " 5 00 97 70-120  Surrogate Toluene-48 4 40 " 5 00 91 70-120  Matrix Spike Dup (6E11026-MSD1) Source: MPE0188-48 Prepared: 05/11/06 Analyzed: 05/12/06  tert-Amyl methyl ether 8 72 5 0 ug/kg 10 0 0 13 86 70-130 4 25  tert-Butyl alcohol 193 20 " 200 ND 96 70-120 0 15  Di-isopropyl ether 9 30 5 0 " 10 0 ND 93 65-135 4 15	Surrogate Toluene-d8	4 52		"	5 00		90	75-115			
193   20      200   ND   96   70-120	Matrix Spike (6E11026-MS1)	Sou	ırce: MPE01	88-48	Prepared:	05/11/06	Analyzed	1: 05/12/06			
Di-isopropyl ether 8 95 5 0 " 10 0 ND 90 65-135   1.2-Dibromoethane (EDB) 8 78 5 0 " 10 0 ND 88 85-135   1.2-Dibromoethane (EDB) 8 78 5 0 " 10 0 ND 89 65-145   1.2-Dibromoethane 8 92 5 0 " 10 0 ND 89 65-145   1.2-Dibromoethane 8 92 5 0 " 10 0 ND 89 65-145   1.2-Dibromoethane 8 23 5 0 " 10 0 ND 82 70-130   1.2-Dibromoethane 8 23 5 0 " 10 0 ND 82 70-130   1.2-Dibromoethane 8 42 5 0 " 10 0 ND 84 70-135   1.2-Dibromoethane 8 42 5 0 " 10 0 ND 84 70-135   1.2-Dibromoethane 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	tert-Amyl methyl ether	8.42	5 0	ug/kg	10 0	0 13	83	70-130			
1.2-Dibromoethane (EDB) 1.2-Dibromoethane (EDB) 1.2-Dibromoethane	tert-Butyl alcohol	193	20	u u	200	ND	96	70-120			
1,2-Dichloroethane	Di-isopropyl ether	8 95	5 0	α	10 0	ND	90	65-135			
Ethanol 37 l 100 " 200 ND 19 15-150  Ethyl tert-butyl ether 8 23 5 0 " 10 0 ND 82 70-130  Methyl tert-butyl ether 8 42 5 0 " 10 0 ND 84 70-135  Surrogate 1.2-Dichloroethane-d4 4 47 " 5 00 89 55-135  Surrogate 4-Bromofluorobenzene 4 84 " 5 00 97 70-115  Surrogate Dibromofluoromethane 4 5 4 " 5 00 91 70-120  Surrogate Toluene-d8 4 40 " 5 00 91 70-120  Surrogate Toluene-d8 1 40 " 5 00 88 75-115  Matrix Spike Dup (6E11026-MSD1) Source: MPE0188-48 Prepared: 05/11/06 Analyzed: 05/12/06  tert-Amyl methyl ether 8 72 5 0 ug/kg 10 0 0 13 86 70-130 4 25  tert-Butyl alcohol 193 20 " 200 ND 96 70-120 0 15  Di-isopropyl ether 9 30 5 0 " 10 0 ND 93 65-135 4 15	1.2-Dibromoethane (EDB)	8 78	50	**	100	ND	88	85-135			
Ethyl tert-butyl ether 8 23 5 0 " 10 0 ND 82 70-130  Methyl tert-butyl ether 8 42 5 0 " 10 0 ND 84 70-135  Surrogate 1.2-Dichloroethane-d4 4 447 " 5 00 89 55-135  Surrogate 4-Bromofluorobenzene 4 844 " 5 00 97 70-115  Surrogate Dibromofluoromethane 4 54 " 5 00 91 70-120  Surrogate Toluene-d8 4 40 " 5 00 88 75-115  Matrix Spike Dup (6E11026-MSD1) Source: MPE0188-48 Prepared: 05/11/06 Analyzed: 05/12/06  tert-Amyl methyl ether 8 72 5 0 ug/kg 10 0 0 13 86 70-130 4 25  tert-Butyl alcohol 193 20 " 200 ND 96 70-120 0 15  Di-isopropyl ether 9 30 5 0 " 10 0 ND 93 65-135 4 15	1,2-Dichloroethane	8 92	5 0	ij	100	ND	89	65-145			
Methyl tert-butyl ether 8.42 50 " 10 0 ND 84 70-135  Surrogate 1.2-Dichloroethane-d4 447 " 500 97 70-115  Surrogate 4-Bromofluoromethane 484 " 500 97 70-115  Surrogate Dibromofluoromethane 454 " 500 91 70-120  Surrogate Toluene-d8 440 " 500 88 75-115  Matrix Spike Dup (6E11026-MSD1) Source: MPE0188-48 Prepared: 05/11/06 Analyzed: 05/12/06  tert-Amyl methyl ether 872 50 ug/kg 10 0 0 13 86 70-130 4 25  tert-Butyl alcohol 193 20 " 200 ND 96 70-120 0 15  Di-isopropyl ether 9 30 50 " 10 0 ND 93 65-135 4 15	Ethanol	37 1	100	**	200	ND	19	15-150			
Surrogate 1.2-Dichloroethane-d4	Ethyl tert-butyl ether	8 23	5 0	**	100	ND	82	70-130			
Surrogate   1.2-Dichlorobentule=44	Methyl tert-butyl ether	8.42	50	H	10 0	ND	84	70-135			
Surrogate Dibromofluoromethane         4 54         " 5 00         91 70-120           Surrogate Toluene-d8         4 40         " 5 00         88 75-115           Matrix Spike Dup (6E11026-MSD1)         Source: MPE0188-48         Prepared: 05/11/06 Analyzed: 05/12/06           tert-Amyl methyl ether         8 72         5 0 ug/kg         10 0 0 13         86 70-130         4 25           tert-Butyl alcohol         193         20 " 200 ND 96 70-120         0 15           Di-isopropyl ether         9 30         5 0 " 10 0 ND 93 65-135         4 15	Surrogate 1.2-Dichloroethane-d4	4 47		17	.5 00		89	55-135			, , ,
Surrogate Toluene-d8 4 40 " 5 00 88 75-115  Matrix Spike Dup (6E11026-MSD1) Source: MPE0188-48 Prepared: 05/11/06 Analyzed: 05/12/06  tert-Amyl methyl ether 8 72 5 0 ug/kg 10 0 0 13 86 70-130 4 25  tert-Butyl alcohol 193 20 " 200 ND 96 70-120 0 15  Di-isopropyl ether 9 30 5 0 " 10 0 ND 93 65-135 4 15	Surrogate 4-Bromofluorobenzene	4 84		tt	5 00		97	70-115			
Matrix Spike Dup (6E11026-MSD1)         Source: MPE0188-48         Prepared: 05/11/06 Analyzed: 05/12/06           tert-Amyl methyl ether         8 72         5 0 ug/kg         10 0 0 13 86 70-130 4 25           tert-Butyl alcohol         193         20 " 200 ND 96 70-120 0 15           Di-isopropyl ether         9 30 5 0 " 10 0 ND 93 65-135 4 15	Surrogate Dibromofluoromethane	4.54		"	5 00		91	70-120			
tert-Amyl methyl ether 8 72 5 0 ug/kg 10 0 0 13 86 70-130 4 25 tert-Butyl alcohol 193 20 " 200 ND 96 70-120 0 15 Di-isopropyl ether 9 30 5 0 " 10 0 ND 93 65-135 4 15	Surrogate Toluene-d8	4 40		n	5 <b>00</b>		88	75-115			
tert-Amyl methyl ether 8 72 5 0 ug/kg 10 0 0 13 86 70-130 4 25 tert-Butyl alcohol 193 20 " 200 ND 96 70-120 0 15 Di-isopropyl ether 9 30 5 0 " 10 0 ND 93 65-135 4 15	Matrix Spike Dup (6E11026-MSD1)	So	urce: MPE01	188-48	Prepared:	05/11/06	Analyzed	1: 05/12/06			
Di-isopropyl ether 9.30 50 100 ND 93 65-135 4 15	tert-Amyl methyl ether	8 72	5 0	ug/kg	100	0 13	86	70-130	4	25	
	tert-Butyl alcohol	193	20	##	200	ND	96	70-120	0	15	
1.2-Dibromoethane (EDB) 8 90 5 0 " 10 0 ND 89 85-135 1 20	Di-isopropyl ether	9.30	5 0	**	100	ND	93	65-135	4	15	
	1.2-Dibromoethane (EDB)	8 90	5 0	n	10.0	ND	89	85-135	ı	20	

Sequoia Analytical - Morgan Hill





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

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

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6E11026 - EPA 5035					,					
Matrix Spike Dup (6E11026-MSD1)	Soi	irce: MPE01	88-48	Prepared:	05/11/06	Analyzed	1: 05/12/06	······		
1,2-Dichloroethane	9 13	5 0	ug/kg	100	ND	91	65-145	2	25	
Ethanol	69 0	100	11	200	ND	34	15-150	60	40	QC2
Ethyl tert-butyl ether	8 56	5 0	U	10 0	ND	86	70-130	4	15	
Methyl tert-butyl ether	8 75	5 0	a	100	ND	88	70-135	4	15	
Surrogate 1.2-Dichloroethane-d4	4 62		11	5 00		92	55-135			
Surrogate 4-Bromofluorobenzene	4 75		н	5 00		95	70-115			
Surrogate Dibromofluoromethane	4 67		# #	5 00		93	70-120			
Surrogate Toluene-d8	4 48		"	5 00		90	75-115			
Batch 6E12009 - EPA 5030B/5035A N	MeOH			, <del></del>						
Blank (6E12009-BLK1)	VD	0.0125		Prepared	& Analyz	ed: 05/12/	06			· · · · · · · · · · · · · · · · · · ·
tert-Amyl methyl ether	ND	0 0125	mg/kg							
tert-Butyl alcohol	ND	2 5	11							
Di-isopropyl ether	ND	0 0125	"							
1,2-Dibromoethane (EDB)	ND	0 0125	<b>1</b> (							
1.2-Dichloroethane	ND	0 0125	**							
Ethanol	ND	5	n							
Ethyl tert-butyl ether	ND	0 0125	u							
Methyl tert-butyl ether	ND	0 0125	n							
Surrogate 1.2-Dichloroethane-d4	0.00233		п	0.00250		93	55-135			
LCS (6E12009-BS1)				Prepared:	: 05/12/06	Analyzed	1: 05/17/06			
tert-Amyl methyl ether	0 535	0 025	mg/kg	0 500		107	70-130			
tert-Butyl alcohol	10 7	5 0	#1	10 0		107	70-120			
Di-isopropyl ether	0 542	0 025	n	0 500		108	65-135			
1,2-Dibromoethane (EDB)	0 588	0 025	n	0 500		118	85-135			
1,2-Dichloroethane	0 563	0 025	u	0.500		113	65-145			
Ethanol	113	10	n	10 0		113	15-150			
Ethyl tert-butyl ether	0 540	0 025	#	0 500		801	70-130			
Methyl tert-butyl ether	0 524	0 025	**	0 500		105	70-135			
Surrogate 1,2-Dichloroethane-d4	0.00228		p	0.00250		91	55-135			······

Sequoia Analytical - Morgan Hill





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

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

		Evaluation		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6E12009 - EPA 5030B/5035	А МеОН							///		

LCS (6E12009-BS1)		***************************************		Prepared: 05/1	2/06 Analyzed	: 05/17/06			
Surrogate 4-Bromofluorobenzene Surrogate Dibromofluoromethane Surrogate Toluene-d8	0.00248 0.00228 0.00222		mg/kg "	0 00250 0 00250 0 00250	99 91 89	70-115 70-120 75-115			
LCS (6E12009-BS2)				Prepared & An	alyzed: 05/12/	06			
tert-Amyl methyl ether	0 643	0 025	mg/kg	0 612	105	70-130			
ert-Butyl alcohol	6 15	5 0	**	6 33	97	70-120			
Di-isopropyl ether	0.503	0.025	n	0 609	83	65-135			
1,2-Dibromoethane (EDB)	0 620	0 025	H	0 624	99	85-135			
1,2-Dichloroethane	0 526	0 025	11	0 582	90	65-145			
Ethanol	5.53	10	<b>†</b> †	6 18	89	15-150			
Ethyl tert-butyl ether	0 624	0 025	U	0 615	101	70-130			
Methyl tert-butyl ether	0 295	0 025	tt	0 294	100	70-135			
Surrogate 1.2-Dichloroethane-d4	0 00229		**	0.00250	92	55-135			
Surrogate 4-Bromofluorobenzene	0 00248		a	0.00250	99	70-115			
Surrogate Dibromofluoromethane	0.00243		н	0.00250	97	70-120			
Surrogate Toluene-d8	0.00253		"	0.00250	101	75-115			
LCS Dup (6E12009-BSD1)				Prepared: 05/1	2/06 Analyzec	1: 05/17/06			
tert-Amyl methyl ether	0 535	0 025	mg/kg	0 500	107	70-130	0	25	
tert-Butyl alcohol	116	5 0	н	10.0	116	70-120	8	15	
Di-isopropyl ether	0 530	0 025	*1	0 500	106	65-135	2	15	
1.2-Dibromoethane (EDB)	0 574	0 025	u	0 500	115	85-135	2	20	
1,2-Dichloroethane	0 541	0 025	u	0.500	108	65-145	4	25	
Ethanol	118	10	U	100	118	15-150	4	40	
Ethyl tert-butyl ether	0 532	0.025	ü	0 500	106	70-130	1	15	
Methyl tert-butyl ether	0 541	0 025	н	0 500	108	70-135	3	15	
Surrogate 1,2-Dichloroethane-d4	0 00231		'n	0.00250	92	55-135			
Surrogate 4-Bromofluorobenzene	0.00245		**	0 00250	98	70-115			
Surrogate. Dibromofluoromethane	0.00225		n	0 00250	90	70-120			
Surrogate Toluene-d8	0.00219		"	0 00250	88	75-115			





2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon 7-4121

Project Number: 7-4121 Project Manager: Sherris Prall MPE0188 Reported: 05/25/06 14:00

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

Analyte	Result	Evaluation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6E12009 - EPA 5030B/5035	А МеОН		· · · · · · · · · · · · · · · · · · ·		***************************************					
LCS Dup (6E12009-BSD2)				Prepared &	& Analyzo	rd: 05/12/0	06			
tert-Amyl methyl ether	0 641	0 025	mg/kg	0 612		105	70-130	0.3	25	
tert-Butyl alcohol	6 13	5 0	19	6 33		97	70-120	0 3	15	
Di-isopropyl ether	0.495	0 025	n	0 609		81	65-135	2	15	
1,2-Dibromoethane (EDB)	0 620	0 025	#	0 624		99	85-135	0	20	
1,2-Dichloroethane	0 523	0 025	**	0 582		90	65-145	0 6	25	
Ethanol	5 66	10	ij	6 18		92	15-150	2	40	
Ethyl tert-butyl ether	0 614	0 025	17	0 615		100	70-130	2	15	
Methyl tert-butyl ether	0 294	0 025	u	0 294		100	70-135	0 3	15	
Surrogate 1.2-Dichloroethane-d4	0.00229	***************************************	it .	0.002.50		93	55-135			
Surrogate: 4-Bromofluorobenzene	0 00257		"	0.00250		103	70-115			
Surrogate Dibromofluoromethane	0.00240		"	0.00250		96	70-120			
Surrogate Toluene-d8	0.00252		"	0.00250		101	75-115			





ETIC Engineering Inc - Pleasant Hill (Exxon)

Project: Exxon 7-4121

Project Number: 7-4121

Pleasant Hill CA, 94523

Project Manager: Sherris Prall

MPE0188

Reported:

O5/25/06 14:00

### **Notes and Definitions**

S05	The surrogate recovery for this sample is below control limits due to interference from the sample matrix.
S04	The surrogate recovery for this sample is above control limits due to interference from the sample matrix
S01	The surrogate recovery was above control limits
QM02	The spike recovery was below control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery
QM01	The spike recovery was above control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery
QC21	The RPD result exceeded the control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QC20	The RPD was outside control limits
HC-12	Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel
CFI	Primary and confirmation results varied by greater than 40% RPD
DEI	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



Morgan Hill Division 885 Jarvis Drive Morgan Hill, CA 95037 Phone: 408-776-9600 Fax: 408-782-6308

## ExonWob'il.

	Consultant Name:	ETIC EN	IGINEER	ING													TA	Acc	oui	nt#	: <u>1</u>	023	6											
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	Consultant Project Mgr:	SHERRI	IS PRALI	-			Proj	ect	#: <u>T</u>	M41	21 7	ras:	К 3				1	Faci	lity	ID:	# 7	412	1											
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11 2 3 6 4 7 0 6 - 0 7 0 8 0 9 7 0 9 0 9 7 0 9 0 9 7 0 9 0 9 7 0 9 0 9	MPEO188  Sample ID or Field ID  5B16, 5-5,5' 5B16, 20-20.5' 5B16, 20-20.5' 5B17, 5.5-6' 3B17, 10-10.5' 3B17, 15-15.5' 5B17, 19.5-20' 5B17, 24.5-25' 5B17, 15-15.5	Date Sampled	1230 1250 1255 0855 0905 0915 0930 1240	1	Grab	Composite Composite	Field Filtered	Methan	Sodium Bisulfate	Label)	H ₂ SO, Plastic (Yellow Label)	H ₂ SO, Glass(Yellow Label)	Ti HNO ₂ (Red Label)	Time (according to the control of th	Wastewater	Drinking Water	aSpn(S	X X X X X X X X X X X X X X X X X X X	ALCONIERON BY ACTEMICANETY BY ACTEMICAN		RELIGIOR AND CHARLES AND CONTROL OF THE CONTROL OF		y and relative	Long the Color of	Moisture ASIM UZZIO	men			HOLD		7 (In Bus, Days)		Due Date of Report	
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Morgan Hill Division 885 Jarvis Drive Morgan Hill, CA 95037 Phone: 408-776-9600 Fax: 408-782-6308

## ExonWobil.

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Morgan Hill Division 885 Jarvis Drive Morgan Hill, CA 9503 Phone: 408-776-9600 Fax: 408-782-6308

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Morgan HIII Division 885 Jarvis Drive Morgan HIII, CA 95037 Phone: 408-776-9600 Fax: 408-782-6308

## ExonMobil.

	Consultant Name:	ETIC EN	IGINEER	ING													-	<u>Γ</u> Α /	Acco	ount	#:	102	36											,
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Morgan Hill Division 885 Jarvis Drive Morgan Hill, CA 95037 Phone: 408-776-9600 Fax: 408-782-6308

## ExonWob'il

Consultant Name:	ETIC EN	IGINEER	ING	- **		··•								·			<u>T</u> A				-	102													,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Address:	2285 M	ORELLO	AVE	<b>NUE</b>				<b></b>									_											herwi			ate)				
City/State/Zip:	PLEASA	NT HILL	, CA.	9452	3												_	R	epo		•					<u>@e</u>	tice	ng.c	mos						
ExxonMobil Territory Mgr:	JENNIF	ER SEDL	ACH	EK							······						_			PO	#:	450	6877	068	}										
Consultant Project Mgr:	SHERR	IS PRALL	-			Proj	ect	#: _]	ΓM4	121	ΤA	SK	3				_	Fa	cili	ty II	) # _.	7-41	21												
Consultant Telephone Number:	(925) 60	2-4710 E	XT.	20		Fax	c Nç	).: <u>{</u>	925	) 60	2-4	720	)				5	Site	Ac	dre	ss	106	05 F	00	THII	LL B	OUL	EVA	\RD						
Sampler Name: (Print)	أسيسما	RAL	/با	Ţ	OP	2_											CII	ty,	Sta	te,	Zip	OAI	(LAI	۷D,	CA					·····					
Sampler Signature:		-7	<u>#</u>	<u>//</u>										R	egu	iato	ory	Dis	tri	ct (C	CA)	ACI	ICS.	Δ								<u>-</u>			
		<u>.</u>		•				F	res	erv	ativ	е				Mal	rix		$\Box$				/	\nai	yze	For:		$\overline{}$		1	<b>25</b> 17	<del></del>			
MPE0188	Date Sampled	Тіте Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Methanol	Sodium Bisulfate	HCI (Blue Label)	NaOn ( Orange Label)	H.SO. Glass(Yellow Label)	HNO ₃ (Red Label)	None (Black Label)	Groundwater	Wastewater	Drinking Water	Siudge	Sail	Other (specify):	TPH-G/BTEX BY 8015/8021B	TPH-D 8Y 8015B	OXYGENATES BY 8260B	A ( )	Porosity ASTM D854	Moisture ASTM D2216			:			RUSH TAT (Pre-Schedule)	TAT request (in Bus. Days)		Due Date of Report	
15B21, 2.5-3'	05/2/6	1130	1						1	T	T			Γ				χ						X	X				***************************************			lc			
5814,5-5.5'	1	0900	1			<b></b>			1	$\dagger$	╁		T	T	Τ			X		X	V	X													
SB14, 10-10.5'		0905							1	1	1	$\top$		T	T			$\langle \chi  $	_	Ź	X	X							$\sqcap$			1	1		
15B14, 15-15.5'		0915	Ì						1	T	1	1	$\top$	T	T			Ϋ́		X	X	X					П					1			
SB14, 20-20,5'		0920	T	<del> </del>	<del>                                     </del>				1	1	1		╁	T	T			Ż		X	X	X													
5B14, 24, 5-25'		0925	Т						T	1			1	T	T			攵		X	X	X						П			П	$\mathbb{I}$			
5B15, 5-5,5'		1025	T			<b>-</b>	Γ		1	1	1	1	T	T				Ί		X	X	X									П				
3B15, 15 - 15.5		1120	Ι	-					T	1	T	+	1	T	1			Ώ	<u> </u>	X	X	ÏX	1		T										
15B15, 20-20,5		1125	$\sqcap$			T	┪			1	十	1		T	$\top$	1	7.	X		X	X	X									П	$\prod$		<u> </u>	
5015, 24.5-25		1130			1	<del> </del>	T			T	1	┪	$\top$	T	十			X	-	X	X	TX			T						T ⁱ			••	
Special Instructions:			LOB	AL ID	# T06	0012	038	3			E	DF	FILE	E R	EQ	UIR	ED	1	4	<b></b>	11	La					ients					4 4	2		**********
OXYGENATES INCLUDE MTB	SE, TB/	A, TAME						A۱	ID I	ED:	с. 	***					<b>.</b>		_				Sai VO	nple Cs I	e Co Free	onlai e of l	iners Head	Rece Intac dspac	ct? ce?	(	D	'n	Į.	P	红
Relinquished by:	8/7	Date Delta	19	ime 157		eived										<u> </u>	te	() E	1	Tin //	5	Le	vel 2 vel 3		<u>able</u>	s (ple	<u> </u>	<u>Circle</u>	a on	<u>1</u>					
Relinquished by:		Date 8 / 04	19	ime 7/5	Eec	eived			4me	rica	:					0    5	ate 3/6			Tin		. SIt						ase a ch spe						tAme	ecirca
*QOCUME=1/1100/LOCALS=1/Temp//-4	121 TA C	OC.														1																	~		~

CLIENT NAME:	ETI.			DATE REC'D AT LAB:						WATER YES NO
REC. BY (PRINT)	CB.			TIME REC'D AT LAB:	1915	1			WASTE WA	
WORKORDER:	MPE018	8		DATE LOGGED IN:	<u> </u>	06			MY21E MY	HER (LO) (CO)
,, 0,,,,(0,1,2,1,1)			*							
OPOLE THE APPRO	PRIATE RESPONSE	LAB	DASH .	CLIENT ID		PRESERV	pН	SAMPLE	DATE	REMARKS: CONDITION (ETC.)
CINOLE THE ACT OF	7,11,11,11	SAMPLE#	# .	GLIGIALIO	DESCRIPTION	; ATIVE		MATRIX	SAMPLED	
1. Custody Seal(s)	Present / Absent			./						plante our
;	Intact / Broken*		-							The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s
2. Chain-of-Custody	Rresent / Absent*									
3. Traffic Reports or			<u> </u>	f						
Packing List:	Present / Absent							<u> </u>		
4. Airbill:	Airbill / Sticker					<u> </u>				
	Present / Absent			*				<del> </del>	/	
5, Airbill #:		<u> </u>			<del> </del>			M		
6. Sample Labels:	Rresept / Absent	<u> </u>		-	<u> </u>			P		
7. Sample IDs:	Cisted / Not Listed					-				· .
	on Chain-of-Custody	<u> </u>			·		16/	1		
8. Sample Condition:	Intact / Broken*/				-	8		<del> </del>		
	Leaking*					+	<u> </u>			
9. Does information o	n chain-of-custody,	ļ	1			6/				
traffic reports and	sample labels	<b> </b>				2		1		
agree?	VQ⊊ No*		-			4	<del>                                     </del>			1
10. Sample received wit	thin	<b></b>			10			-		ŧ
hold time?	Yes) No*		<del>- </del>		-					
11. Adequate sample vo	olume Yes/ No*									į.
received?			+							( )
12. Proper preservative				<del>                                     </del>						
13. Trìp Blank / Temp B	Mank Heceiveur		,						-	
(circle which, if-yes)	Yes/802		<del></del>	1			<u> </u>			1
14. Read Temp:	510	<u> </u>	-				<u> </u>		1	
Corrected Temp:		<b></b>	1	·		. ,	<u>. </u>	<u> </u>	<u> </u>	
Is corrected temp 4	, ,, ,, , , , , , , , , , , , , , , , ,		1				_			4
(Acceptance range for sampl	es requiring inermal pres.)		<del> </del>							
**Exception (it any): M	ETALS / DFF ON ICE			1			SAURI PRINCE	EN PHARMANA	TO THE PROPERTY.	ure in parameter and the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contraction of the contrac
or Problem COC		#15.01		CONTACT PROJECT	MANAGER A	ND ATTACI	I RECC	RD OF R	SOLUTION	-
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SRL Revision 7
Replaces Rev 6 (07/13/04)
Elfective 07/19/05

## Appendix K

USEPA Soil Gas Advanced Model Version 2004 Input-Output Data Sheets RESIDENTIAL LAND USE INPUT-OUTPUT DATA SHEETS

SG-ADV
Version 3.1; 02/04

Reset to	
Defaults	

الت		Sci	Gas Concentra	lion Data						
	ENTER Chemical CAS No. (numbers only, no dashes)	ENTER  Soil gas conc., C ₄ (µg/m*)	CR	ENTER Soil gas conc., C, (ppmv)	Chemicai	ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C, (µg/m²)	OR	ENTER Sof gas conc., C, (ppmv)	Chemical
	71432	1.10E+03			2 and a second				(9)31117	
					Benzene				1	CAS No. not found

ENTER Depth below grade	ENTER Soi gas	ENTER	ENTER Totals m	ENTER ust add up to value of L		ENTER Soll		ENTER
to bollom of enclosed space floor, L _p	camping depth below grade, L (cm)	Average scil temperature, T _a (*C)	Thickness of sot stratum A, th, (cm)	Thickness of soil stratum B. (Enter value or 0) h _d	Thickness of soil stratum C, (Enter value or 0)	stratum A SCS soil type (used to estimato soil vapor	OR	User-defined stratum A soil vapor permaability, k,
15	244	10	244	(cn) 0	(cm)	permeablifity)		(cm²)

MORE

ENTER Stratum A SCS 30-l typo Leokup Ser Poremeters	ENTER Stratum A soë dry bolk density, p. ^ (g/cm²)	ENTER Stratum A soil total perosity, n* (unitless)	ENTER Stratum A scil water-filed porosity, 0," (cm*/cm*)	ENTER Stratum B SCS SOII typo Lookep Soil Parameters	ENTER Stratum B soil dry bulk density, p, ⁸ (g/cm*)	ENTER Stratum B soil total porosity, n ⁰ (unilless)	ENTER Stratum B soil water-filled porosity, 0_6 tom*/cm*)	ENTER Stratum C SCS SOI type Looker Sci Parameters	ENTER Stratum C soil dry bulk density, Pa ^C (g/cm*)	ENTER Stratum C soil total porosity, n ^c (unitiess)	ENTER Stratum C soil water-filled poresity, 0_c (cm'/cm')
С	1.43	0,459	0.215		1.43	0.459	0.215	C	1.43	0.459	0.215
ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER			

MORE Ψ

ENTER Enclosed	ENTER	ENTER Enclosed	ENTER Enclosed	ENTER	ENTER	ENTER	ENTER Average vapor
Space Noor Inickness,	Soil-bidg, pressure differential, AP	spaco floor length, La	space floor width, We	Enclosed space height, H _a	Ficor-wall seam crack width,	Indoor air exchange rale, ER	flow rate into bidg. OR Leave blank to calculate
(cm)	(g/cm-s*)	(CIT)	(cm)	(cm)	(cm)	(1/h)	Q _{cal} (Um)
10	40	1000	1000	244	0.1	0.25	5
ENTER Averaging	ENTER Averaging	ENTER	ENTER				

ENTER Averaging	ENTER Averaging	ENTER	ENTER
time for cardinogens,	time for noncarcinopens,	Exposuro duration.	Exposure frequency,
AT _C	ATHE	ED `	EF
(угв)	(УГа)	(Asi	(days/y-)
70	30	30	350

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INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk trom	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unilless)	(unitiess)
3.0E-06	3.0E-02

MESSAGE AND ERROR SUMMARY BELOW; (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

SCROLL DOWN TO "END"

END

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SG-ADV-Feb04

Γ	SG-ADV
Ver	sion 3.1; 02/04

Reset to	
Detaults	

	Sail	Gas Concentral	on Dala						
ENTER	ENTER		ENTER		ENTER	ENTER		ENTER	
İ	5off		Soil			Soti		Scil	
Chemical	gas		gas		Chemical	gas		gas	
CAS No.	conc.,	OR	conc.		CAS No.	conc.,	OR.	conc.,	Į.
(numbers only,	C.		C,		tnumbers only,	C.		C,	
no dushes)	(µg/m²)	70.0	(գրուս)	Chemical	no dashes	(j:g/m²)		(opmy)	Chemical
i									
108883	1.60E+02			Toluene					CAS No. not found

ſ	MORE
ĺ	4
_	

ENTER Depth	ENTER	ENTER	ENTER Totals mus	ENTER st add up to value of 1	ENTER s (cell F24)	ENTER Soil		ENTER
below grade to boltom of enclosed space floor, L _F	Soil gas samping depth below grade, L,	Average sos lemperature, T _s	Thickness of soil stratum A, h _A	Thickness of soil stratum B, (Enter value or 0) h _n	Thickness of soil stratum C, (Enter value or 0) hc	stratum A SCS soil type (used to astimate soil vapor	OR	User-defined stratum A so£ vapor permeabi∃ty, k _v
(cm)	(cm)	(°C)	(cm)	(cm)	(csn)	permeability)		(cm²)
15	168	10	168	0	0	С		

0.000000
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1 15+
•
Ψ.

ENTER Stratem A SCS scil type Locks Scr Foransias	ENTER Stratum A soll dry bulk density, p.* (g/cm*)	ENTER Stratum A soil total porosity, n^ (unkless)	ENTER Stratum A soil water-filled porosity, Q_^ (cm'/cm')	ENTER Stratum B SCS Soli type Limiting Sol Perameters	ENTER Stratum B soil dry bulk density, \$\rho_{2}^{B}\$ (g/cm*)	ENTER Stratum B so'l total parcetty, n ^b (unitless)	ENTER Stratum B soi water-filed porosily. 6.,8 (cm*/cm*)	Stratum C SCS SOII type Lockup Soil Persmeters	ENTER Stratum C soil dry bulk density, p. ^C (p/cm*)	ENTER Stratum C soil total porosity. nc (unitless)	ENTER Stratum C soil water-filled porosity, 0, ^c (cm*/cm*)
C C	1.43	0.459	0.215	С	1.43	0,459	0.215	С	1,43	0.459	0.215

MORE V

ENTER Encicsed	ENTER	ENTER Enclosed	ENTER Enclosed	ENTER	ENTER	enter	ENTER Averago vapor
space floor	Soll-bidg. pressure	space Noor	Space Space	Enclosed space	Floor-wall seam crack	Indoor alr exchange	flow rate into bidg. OR
thickness, Lunc	differential, AP	lengih, L _a	wldth, ₩ _s	ncight, Ha	width, W	rate, ER	Leave blank to calculate Q _{ref}
(cm)	(g/cm-s ⁴ 1	(cm)	(Cm)	(cm)	(cm)	(1/h)	(L/m)
10	40	1000	1000	244	0.1	0.25	5

ENTER Averaging	ENTER Averaging	ENTER	ENTER
time for carcinogens, AT _c (yra)	time for noncarcinogens, AT _{NO} (yes)	Exposure duration, ED (vrs)	Exposure frequency, EF (days/v:)
70	30 1	30	150

:1 :

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk trom	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	Indoor air.
carcinogen	noncarcinogen
(unitless)	(unitless)
NA.	4.5F-04

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

1 of 1

SCROLL DOWN TO "END"

END

SG-ADV-Feb04

5G-ADV
Version 3.1; 02/04

Reset to Defaults

-	500	u Gas Concentr	tton Data						
ENTER	ENTER		ENTER		ENTER	ENTER		ENTER	
1	\$ell		Sçü			Soil		Spil	
Chemical	āss		gas		Chemical	gas .		925	
CAS No.	conc.,	QR	cone.,		CAS No.	conc.,	OR	conc.,	
(numbers only,	C ₄		C _*		(numbers only,	C.		C.	
no dashos)	(µg/m*)	·	(ymqq)	Chemical	no doshes)	(hth/m,)		(vmag)	Chemical
							SHOOT SHOW THE WAY THE		
100414	5.40E+02			Ethylbenzane					CAS No. not found

MORE +

ENTER Depth	ENTER	ENTER	ENTER Totals mu	ENTER est add up to value of t	ENTER .s (cell F24)	ENTER Soil		ENTER
below grade to bottom of enclosed space floor, La (cm)	Scil gas sampung depili below grade, L, (cm)	Average sos temperaturo, T _e (°C)	Thickness of soil straium A, h _A (cm)	Thickness of soil stratum B, (Enter value or 0) h ₈ (cm)	Thickness of soil stratum C, (Enter value or 0) h _a (cm)	stratum A SCS soil type (used to estimate soil vapor permeability)	OR	User-defined stratum A soil vapor permosbility, k _v (cm*)
15	213	10	213	0	0	С		

MORE

ENTER Stratum A SCS Soil type Lockup SSI Pareneters	ENTER Stratum A scil dry bulk density,  p.^^ (g/cm*)	ENTER Stratum A soil total porceity, n^ (unitless)	ENTER Stratum A soil water-filled porosity, e_^ (cm*/cm*)	ENTER Stratum B SCS SOB type Lockup Sol Paremeters	ENTER Stratum B soil dry bulk density, P, * (g/cm*)	ENTER Stratum B soil total porosity, n ^d (unilless)	ENTER Stratum B soil water-filled porosity, 6,0 (cm*/cm*)	ENTER Stratum C SCS soli type Lockup Soz Pareneless	ENTER Stratum C soil dry buik density, p _a C (g/cm*)	ENTER Stratum C soil total porceity, of (unitless)	ENTER Stratum C soft water-filled pcrosity, 0,0 (cm*/cm*1
CCI	1.43	0.459	0.215	С	1.43	0,459	0.215	c	1.43	0.450	0.215

MORE 4

ENTER Endosed	ENTER	ENTER Enclosed	ENTER Enclosed	ENTER	ENTER	ENTER	ENTER Average vapor
space floor thickness, L _{east}	Scil-bidg. prossure differential, AP	space floor length, l.s	space floor width, We	Enclosed space height, Ha	Floor-wall seam crack width, w	indoor alr exchange rato, ER	flow rate into bidg. OR Leave blank to calculate
(cm)	(g/cm-a*)	(cm)	(cm)	(cm)	(cm)	(1/h)	Q _{**} ; (L/m)
10	40	1000 [	1000	244	0.1	0.25	5

	10 1	1000	1000
ENTER	ENTER	ENTER	ENTER
Averaging	Averaging		
time for	time for	Exposure	Exposura
cardinogens,	noncardnogens,	duration,	frequency.
AT _C	AT _{rec}	ED	EF
(yrs)	(yra)	(918)	(days/yr)
70	70		41.774

** *

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk trom	quolient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitiess)	(unitless)
NA	4.4E-04

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

SCROLL DOWN TO "END"

END

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SG-ADV-Feb04

SG-ADV Version 3.1; 02/04
Version 3.1: 02/04

Reset to Defaults

	So	al Gas Concentra	tion Oata						
ENTER	EITER		ENTER		ENTER	ENTER		ENTER	
1	Soit		Soil			Sou		Soil	
Chemical	gas		gas		Chemical	688		QBS	
CAS No.	conc.,	OR	conc.,		CAS No.	conc.,	OR	conc.,	
(numbers only,	C,		ር"		(numbers only,	C.		C.	
no dashes)	(s:g/m²)		(אחמס)	Chemical	no dashes)	(L:g/m²)		(ppmv)	Chemical
	ļ	-							
106423	4.10E+02			p-Xylene					CAS No. not found

MORE Ψ

ENTER Depth	ENTER	ENTER	ENTER Totals m	ENTER ust acd up to value of L	ENTER s (cell F24)	ENTER Soil		ENTER
below grade to bottom of enclosed space floor, L, (cm)	Soil gas sampling depth below grade, L _a (cm)	Average soil temperature, Ts (°C)	Thickness of soil stratum A, h _A (cm)	Thickness of soil stratum 8, (Enter value or 0) h _a (cm)	Thickness of soil stratum C, (Enter value or 0) h _c (cm)	stratum A SCS soil type (used to estimate soil vapor permeability)	OR	User-defined straium A soil vaper permeability, k, (cm*)
15	213	10	213	0	0	c		

MORE

ENTER Stratum A SCS Soll type Locker Soll Paramaters	ENTER Stratum A soil dry bulk density, ps^ (g/cm²)	ENTER Stratum A soil total porosity, n ^A (unitless)	ENTER Stratum A scit water-filled porosity, 0,* (cm*/cm*)	ENTER Stratum B SCS sol type Lockup Sci Parameters	ENTER Stratum B soil dry bulk density,  p. 3 (g/cm*)	ENTER Stratum B soil total porosity, of (unidess)	ENTER Stratum B soil water-filled porosity, 0,* (cm*/cm*)	Stratum C SCS Soil type Lockey Soil Parameters	ENTER Siralum C soil drv bulk density,  Psc (g/cm*)	ENTER Stratum C soil total porosity, n ^c (unitless)	ENTER Stratum C soil water-filled pomsity, 0,c (cm*/cm*)
C	1.43	0.459	0.215	<u>, , , , , , , , , , , , , , , , , , , </u>	1.43	0.459	0.215		1.43	0.459	0.215

MORE

ENTER Enclased space floor thickness, Lucus (Cm)	ENTER Soil-bidg, pressure differential,	ENTER Enclosed space foor length, Ls (cm)	ENTER Enclosed space floor width, Wa (cm)	ENTER Enclosed space height, H _a (cm)	ENTER Floor-wall seam crack width, w tem)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rote into bidg. OR Leave blank to calculate (
10	40 [	1000	1000	244	0.1	0.25	5

10	1 40	1000	1000
ENTER Averaging	ENTER Averaging	ENTER	ENTER
time for cardnegens,	time for noncarcinogens.	Exposure duration,	Exposure frequency,
AT _o (yrs)	АТ _{НС} (утв)	ED (yrs)	EF (days/yr)
70	30	30	150

.. .

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk trom	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	ındoor atr,
carcinogen	noncarcinogen
(unilless)	(unitless)
NΔ	3 4E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

SCROLL DOWN TO "END"

END

SG-ADV-Feb04 I of 1

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SG-ADV
Version 3.1: 02/04

Reset to	
Defoulle	

	Son	Gas Concentra	ion Data						
ENTER	ENTER		ENTER		ENTER	ENTER		ENTER	
	Soil		Şeil			Soil		Scil	
Chemical	gas		ដូវន		Chemical	gas		ពួងទ	
CAS No.	conc.,	OR	conc.,		CAS No.	conc.,	OR	conc.,	į
(numbers only,	( '		C _a		inumbers only,	C,		C.	
no dashes)	(µg/m*)		(ppmv)	Chemical	no dashee)	(FD/CH)		(vmaq)	Chemical
ļ	ļ <u>.</u>								
129000	6.60E+06			Pvrene	***************************************				CAS No, not found

MORE ¥

to bollom sampling Average of soil of soil of soil SCS stribum A of enclosed depth soil of soil stratum B, stratum C, soil type soil vapor permeability to the table of the table of the table of the table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of table of tab	ENTER Depth	ENTER	ENTER	ENTER Totals mu	ENTER st add up to value of t	ENTER s (cell F24)	ENTER Soil		ENTER
	of enclosed space floor, L _F	depth below grade, L,	soi Icmperature, T _s	of soil stratum A, h,	of soil straium B, (Enter volue or 0) h _a	of soil stratum C, (Enter value or 0) he	SCS soil type (used to estimate soil vapor	OR	soil vapor permaability, k,
15 244 10 244 0 0 6	40						Treatment of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the		

MORE +

ENTER Stratum A SCS Soil type Lockup Soil Parameters	ENTER Stratum A sod dry bulk density, p. 4 (9/cm')	ENTER Stratum A soil total porosity, n* (unitiess)	ENTER Stratum A soil water-filled porosity, 0,* (cm*/cm*)	Stratum B SCS SOI type Lookup Soi Parameters	ENTER Stratum B soil dry bulk density, p _b ⁰ (g/cm*)	ENTER Stratum B soft total porosity. n° (unitless)	ENTER Stratum B soil water-filled perosity, G_B (cm*/em*)	ENTER Stratum C SCS SCS Type Lookup Sot Perameters	ENTER Stratum C soil dry bulk density, p _s ^c (g/cm*)	ENTER Stratum C soil total perosity, n ² (unitiess)	ENTER Stratum C soit water-filled porosity, 0_5 (cm*/cm*)
C	1.43	0.459	0.215	С	1,43	0.459	0.215	С	1,43	0.459	0.215

MORE V

Enclosed	ENIER	ENTER Enclosed	ENTER Enclosed	ENTER	ENTER	ENTER	ENTER
space floor thickness,	Soil-bidg. pressure differential, AP	space floor length, L _s	space floor width, Wa	Enclosed apace height, H _e	Ploor-wall seam crack width, W	indoor air exclange rale, ER	Average vapor flow rate into bidg. OR Leave blank to calculate Q,,,,
(cm)	(g/cm-s*)	(cm)	(cm)	(cm)	(cm)	(1/h)	(L/m)
10	40	1000	1000	244	0.1	0.25	5

ENTER Aver⊋ging	ENTER Averaging	ENTER	ENTER
time for carcinogens,	time for noncarcinogens.	Exposure duration.	Exposure
AT _C	AT _{nt}	ED	frequency, EF
(EsA)	(yrs)	(YES)	(days/yr)
70	30	30	350

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### INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk trom	quotient
vapor	from vapor
intrusion to	intrusion to
ındoor aır,	ındoor aır,
carcinogen	попсагстодел
(unltiess)	(unitless)
NA	53F+01

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

MESSAGE: Risk/HQ or risk-based soil concentration is based on a route-to-route extrapolation.

1 of 1

SCROLL DOWN TO "END"

END

SG-ADV-Feb04

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COMMERCIAL/INDUS	TRIAL LAND U	JSE INPUT-OUT	PUT DATA SHE	ETS

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SG-ADV Version 3.1; 02/04
Version 3.1: 02/04

Reset to Defaults

	Sol	l Gas Concentra	tion Data						
ENTER	ENTER		ENTER		ENTER	ENTER		ENTER	
	Scil		\$oH		ĺ	Soil		Scil	
Chemical	CSe		gas		Chemical	gas		gas .	
CAS No.	canc.	QR	conc.,		CAS No.	conc.,	OR	conc.,	
(numbers only,	C.		C.,		(numbers only,	C.,		С.	
no dashes)	(μQ/m²)	····	(ppmv)	Chamical	no dashes)	(µg/m²)		(ppmv)	Chemical
74470		1							
71432	1.10E+03	L		Benzene	<u> </u>				CAS No. not found

MORE	7
₩	j

ENTER Depin	ENTER	ENTER	ENTER Totals an	ENTER ust add up to value of L	ENTER .s (cell F24)	ENTER Soil		ENTER
bolow grade to bollom of enclosed space floor, Ly (cm)	Soil gas sampling depth below grade, i., (cm)	Average soli lemperature, T _E (°C)	Thickness of scil stratum A, h _a (cm)	Thickness of soil stratum B, (Enter value or 0) h _e (cm)	Thickness of soll stratum C, (Enter value or 0) he (cm)	stratum A SCS soil type (used to eatimate soil vapor penneability)	OR	User-defined stratum A sod vaper permeability, k _e (cm²)
15	244	10	244	ū	0	С		

MORE

ENTER Stratum A SCS soil type Lookup Sci Premeters	ENTER Stratum A soil dry bulk density, Pa (g/cm*)	ENTER Stratum A soil total porosity, n* (unitless)	ENTER Stratum A soil water-filled porosity. 0_A (cm*/cm*)	Stratum 8 SCS SCI type Looker Scil Parameters	ENTER Stratum B soil dry bulk density.  p. " (g/cm*)	ENTER Stratum 8 soit total porosity, n ^a (unlifess)	ENTER Stratum B sod water-filled perosity, 0," (cm*/cm*)	ENTER Stratum C SCS SOIL type Lookup Sod Parameters	ENTER Stratum C soil dry bulk density, p, c (g/cm*)	ENTER Stratum C soil total perosity, n ^c (unitless)	ENTER Stratum C soil water-filled porosity, 6,5 (cm*/cm*)	
C	1.43	0.469	0.215	<u> </u>	1.43	0.459	0.215	C	1,43	0.459	0.215	

MORE

Enclosed	ENIEK	Enclosed	ENTER Enclosed	ENTER	ENTER	ENTER	ENTER
Space floor	Sol-blog, pressure	space floor	Space Floor	Enclosed space	Floor-wall seam crack	indoor air exchange	Average vaper flow rate into bidg. OR
thickness, L _{ures}	differential, AP	length, La	width, Wa	height, He	width, W	rale, ER	Leave blank to calculate Q _{est}
(cm)	(g/cm-s*)	(cm)	(cm)	(cm)	(cm)	(1/n)	(L/m)
10	40 [	1000	1000	244	0.1	0.25	5

ENTER Averaging	ENTER	ENTER	ENTER
lime for carcinogens,	Averaging time for noncarcinogens,	Exposure duration.	Exposure
AT _C	AT _{NC}	ED	frequency, EF
(yrs)	(314)	(Yrs)	(days/yr)
70	<u> </u>	25	250

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quolient
vapor	trom vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitless)
1.8F-06	2.2F-02

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

1 of 1

SCROLL DOWN TO "END"

END

SG-ADV-Feb04

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						DATA ENTR	Y SHEET						
SG-ADV													
Version 3.1; 02/04													
Reset to	ENTER	So ENTER	Il Gas Concentration	n Data ENTER	- <del></del>			ENTER	ENTER		***		
Defaults		Scil		Soil				ENIEN	Soil		ENTER Soil		
	Chemical CAS No.	gas	00	gas	1			Chemical	gas		gan		
	(numbers only,	conc.,	OR	conc., C _r				CAS No. (numbers only,	contc., C ₂	OR	conc.		
	no dashee)	(n8/u1,)		(apmv)		Chemical		no deshes)	(ug/m²)		(ppmv)		Chemical
						· · · · · · · · · · · · · · · · · · ·		Wall was the second way		######################################			
	108883	1.60E+02	<u> </u>			Toluane			<u></u>			CA	S No. not found
	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER				
MORE U	Depth below grade	Soil gas		Totals mu	st add up to value of t Thickness	.s (coil F24) Thickness	Sci) stratum A		User-defined				
\	to bottom	sampling	Averaga	Thickness	ct sos	of soil	SCS		stratum A				
	of enclosed	depth	sod	of soil	stratum B,	stratum C,	soll type		so∦ vapor				
	spaco floor, Le	below grade. L	temperature. T _s	stratum A, h _A	(Enter value or 0) h _a	(Entervalue or 0) h _e	(used to estimate soil vapor	OR	permeability, k,				
	(cm)	(cm)	(°C)	(cm)	(cm)	(cm)	pameability)		(cm²)				
							I	: !					
	15	168	} 10	168	0	0	Ċ						
	ENTER												
MORE	Stratum A	ENTER Stratum A	ENTER Stratum A	ENTER Stratum A	ENTER Strotum 8	ENTER Statum B	ENTER Stratum B	ENTER Stratum B	ENTER Stratum C	ENTER Stratum C	ENTER Stratum C	ENTER Stratum C	
<u> </u>	SC5	soil dry	soil total	scii waler-filled	SCS	soil dry	aoil total	soff water-filled	SCS	soli dry	soll total	soli water-filled	
	603 type Lookup Spl	bulk density,	porasity, n^	porosity.	soil type	bulk densily,	porosity.	perosity.	og type	bulk density,	porosity,	porosity,	
	Peremoters	(g/cm²)	(unitless)	ຄູ [*] (cm²/cm²)	( Licokup Scal ) Parameters	9ء ⁰ (g/cm²)	n ⁿ	O_E	Ecokup Sci Parameters	δ* _C	n [€]	0 <u>.</u> c	
		(great)	(DIRIUDS)	(Girzair)		(great)	(unitless)	(cm'/cm')		(g/cm²)	(urilless)	(cm²/cm²)	
	c	1.43	0.459	0.215	_ c _ l	1.43	0.459	0.215	C	1.43	0,459	0.215	
	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER		ENTER				
(	Enclosed		Endosed	Enclosed					Average vapor				
MORE	space floor	Soil-bldg. prossure	space floor	space Noor	Enclosed epace	Ficor-wall seam crack	Indoor air exchange		Now rate Into bidg. OR				
L	thickness.	differential,	tength,	width,	teight,	width,	rate,	L	oave blank to calcul.	ate			
	Luck	۵Þ	L _n	W ₀	H	w	ER		Q _{eot}				
	{Cm1	(g/cm-s*)	(CIT)	(cm)	(cm)	(cm)	(1/h)		(L/m)	,			
	10	40	1000	1000	244	0.1	0.25	ſ	5				
	ENTER	ENTER	ENTER	ENTER						•			
	Averaging	Averaging	CHICK	ENIER									
	time for	time for	Exposure	Exposure									
	carcinogens, AT _c	noncarcinogens, AT _{tic}	duration, ED	fréquêncy, EF									
	(ута)	(yrs)	(Y75)	(days/yr)	_								
					-								

END

70

25

25

...

250

INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
rísk trom	quotient
vapor	trom vapor
intrusion to	intrusion to
ındoor air,	ındoor aır,
carcinogen	noncarcinogen
(unitless)	(unitless)
NA	3.2E-04

MESSAGE AND ERROR SUMMARY BELOW; (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

SCROLL DOWN TO "END"

END

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SG-ADV-Feb04

SG-ADV Version 3.1; 02/04
Version 3.1; 02/04

Reset to	
Defaults	

	Soil	Gas Concentrati	on Data						
ENTER	ENTER		ENTER		ENTER	ENTER		ENTER	
	Soil		Sell			Soil		Sol	
Chemical	gas		g25		Chemical	Q25		gas	
CAS No.	conc.,	OR	conc.,		CAS No.	conc.,	OR	conc.,	
(numbers only,			C ₄		(numbers only,	C _u		C,	
no dashes)	(µg/m²)		(ppmv)	Chemical	no dashes)	(µg/m²)		(ррту)	Chemical
<u> </u>	ļ							***************************************	
100414	5.40E+02			Ethylbenzene					CAS No. not found

Γ	MORE	
L	Ţ	

ENTER Depth	ENTER	ENTER	ENTER Totals mu	ENTER at add up to value of t	ENTER s (cell F24)	ENTER Seil		ENTER
below grade to bottom of enclosed space floor, L, (cm)	Soil gas sampling depth below grade, i (cm)	Averaga soll lemperatura, T _s (°C)	Thickness of soil stratum A, h _A (cm)	Thickness of soll skalum B, (Enter value or 0) h _u (cm)	Thickness of soil stratum C, (Enter value or 0) he (cm)	strotum A SCS soil type (used to eatimate soil vapor permasbility)	o <del>a</del>	User-defined stratum A soil vaper permeability, k, (cm²)
15	213	10	213	0	0	С		

MORE

ENTER Stratum A SCS 608 type Lockup 601 Paremeters	ENTER Stratum A soil drv bulk density.  p.^ (g/cm*)	ENTER Stratum A soil total porosty, n ^A (unitiess)	ENTER Stratum A sod wafer-filled porosity, 0_^ tem*/em*)	ENTER Stratum B SCS Soil type Lockup Soil Personeters	ENTER Statum B soil drv bulk density, p _s " (g/cm")	EIFTER Stratum B soil total porosity, n ^a (unitless)	ENTER Stratum B soil water-filed poresity, 6," (cm*/cm*)	ENTER Stratum C SCS SCII type Linckup Sol Peramotors	ENTER Stratum C soli dry bulk density, pa C (g/cm*)	ENTER Stratum C soil total porceity. n ^c (unitless)	ENTER Stratum C soil water-filled porosity, 0_C (cm*/cm*)
С	1.43	0,459	0.215	l c	1.43	0,459	0.215	i c	1,43	0.459	0.215

MORE Ψ

	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER	ENTER
	Enclosed		Enclosed	Enclosed				Average vapor
	space	Soil-bidg.	space	space	Enclosed	Floor-wall	Indoor	flow rate into bide.
	floor	pressure	floor	floor	space	aeam crack	air exchange	QR
	tluckness,	cifferential,	length,	width.	height,	width,	rate.	Leave blank to calculate
	Legan	ΔP	Lo	₩ø	He	w	ER	O _{red}
	(cm)	(g/cm-a ⁴ )	(cm)	(cm)	(cm)	(cm)	(1/h)	(Um)
ſ	10	40	1000	1000	244	0.1	0.25	
		· · · · · · · · · · · · · · · · · · ·			- I	~ (.\	1	<u> </u>

ENTER Averaging	ENTER Averaging	ENTER	ENTER
time for carcinogens,	time for noncarcinopens,	Exposure duration.	Exposure frequency,
AT _C	AT _{#C}	ED	EF
1915)	(утв)	(yrs)	(daya/yr)
70	25	25	250

#### INCREMENTAL RISK CALCULATIONS:

incremental	Hazard
risk from	quotient
vapor	trom vapor
intrusion to	intrusion to
indoor air,	ındoor aır,
carcinogen	noncarcinogen
(unitless)	(uniliess)
NA	3.1E-04

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

SCROLL DOWN TO "END"

END

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SG-ADV-Feb04

SG-ADV						
Version 3.1; 02/0-	ļ					

Reset to Defaults

	Soil 6	Sas Concentratio	m Data						
ENTER	ENTER		ENTER		ENTER	ENTER		ENTER	
	Soil		Soil		1	5ol		Soil	
Chomical	G25		gos		Chemical	gas		gaa	
CAS No.	conc.	OR	conc.		CAS No.	ceac.,	OR	conc.,	
(numbers only,	C,		C,		inumbers only,	C*		C _±	
no dashes)	(µg/m²)		(ppmv)	Chemical	no dashes)	(µg/m²)		(ppmv)	Chemical
106-123	4.10E+02			p-Xylene					CAS No. not found

MORE	٦
Ų.	ł

ENTER Depth	ENTER	ENTER	ENTER Totals m	ENTER ust add up to value of L		ENTER Sall		ENTER
below grade to bottom of enclosed space floor, L.	Soil gas sampling depth below grade, L,	Average soil temperature, To	Thickness of scil stratum A,	Thickness of soil stratum B, (Enter value or 0) ha	Trickness of soil stratum C, (Enter value or 0)	stratum A SCS soil type (used to estimate sci) vapor	OR	User-defined stratum A soil vapor permeability, k.
(cm)	(cm) 213	/°C)	(cm)	(GII)	(cm)	permeability)		(cm*)

MORE ¥

ENTER Stratum A SCS soil type Leokup Soil Parameters	ENTER Stratum A soil dry bulk density, P3^ ((x/cm*)	ENTER Stratum A soil total perosity, n^ (unitiess)	ENTER Stratum A sos water-filled perosity, 0,* (cm*/cm*)	ENTER Stratum B SCS SOI type Lipokup Sci Perameters	ENTER Stratum B soil dry bulk donsity, Ps ^a (g/cm²)	EIVTER Stratum B soit total porceity, n ^b (unitless)	ENTER Stratum B son water-filled porosity, 8,8 tem*/em*)	ENTER Stratum C SCS Soil type Lookup Soil Perentatere	ENTER Stratum C soil dry bulk denoity, psc (g/cm²)	ENTER Stratum C soil total porosity, n ^c (unitless)	ENTER Stratum C sou water-filled porosity, 0,0 (cm²/cm²)
С	1.43	0.459	0.215	1 c	1.43	0.459	0.215	С.	1.43	0.459	0.215

MORE ¥

ENTER Enclosed	ENTER	ENTER Enclosed	ENTER Enclosed	ENTER	ENTER	ENTER	ENTER Average vapor
space Scor	Sci⊩blog. pressure	space floor	apaca floor	Enclosed space	Floor-wall seam crack	indoor air exchange	flow rate into bidg. OR
thickness,	differential, AP	lengih. La	width, Wa	height, H _a	width, W	rate, ER	Leave blank to calculate Q
(cm)	(g/cm-s*)	[cm]	(cn)	(cm)	(cm)	(1/h)	(L/m)
10	40	1000	1000	244	0,1	0.25	5

ENTER	ENTER	ENTER	ENTER
Averaging	Averaging		
time for	time for	Exposure	Exposure
carcinogone,	noncarcinogens,	duration,	frequency,
AT _C	AT _{NC}	ED	£F
(yra)	(ਮੁਤ)	(any)	(days/yr)
70	25	25	250

#### INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	trom vapor
intrusion to	intrusion to
ındoor aır,	indoor air,
cardnogen	noncarcinogen
(unitiess)	(unitiess)
	· · · · · · · · · · · · · · · · · · ·
NA	2.4E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

SCROLL DOWN TO "END"

END

SG-ADV-Feb04

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1 of 1

SG-ADV Version 3.1; 02/04
Version 3.1; 02/04

Reset to Detaults

	Seil	Gas Concentral	on Data						
ENTER	ENTER		ENTER		ENTER	ENTER		ENTER	
1	Scil		Scil	}		Scil		Soil	[
Chemical	gas		gas		Chemical	gas		gas	
CAS No.	conc.,	OR	conc.		CAS No.	conc.,	QR	conc.,	
(Rumbers only,	C.		C _e		inumbers only,	C.		C _s	
no deshes)	(របស់កា )		(ppmv)	Chemical	no dashes)	(hth/m_)		(ppmv)	Chemical
129000	6.60E+06			Pyrene					CAS No. not found

Г	MORE	
L	<u> </u>	

ENTER Depth	ENTER	ENTER	. ENTER Totals mu	ENTER ast add up to value of L	ENTER s (cell F24)	ENTER Sol		ENTER
below grade to bottom of enclosed space floor, L, (cm)	Soil gas sampling depth below grade, L, (cm)	Average soil temperature, T _a (°C)	Thickness of soil stratum A, h _A (cm)	Thickness of soil stratum B, (Enter value or 0) h ₀	Thickness of soil straium C, (Enter value or 0) hs (cm)	stratum A SCS soil type (used to estimate soil vapor permoability)	OR	User-defined stratum A soil vapor permeability, k, (cm*1)
15	244	10	244	1 0 1	0	C		

ŗ	MORE	
Ĺ	Ψ.	
_		

ENTER Stratum A SCS Solitype Lockup Sol Parameters	ENTER Stratum A soli drv bulk density, P.** (g/cm*)	ENTER Stratum A soil total porosity, n* (unitless)	ENTER Stratum A soil water-liked porosity, e_^ (cm*/cm*)	ENTER Stratum B SCS soil type Lockup Soil Paramatas	ENTER Stratum B soil dry bulk density, ps ⁵ (g/cm*)	ENTER Stratum B aoil total porosity, n ^a tunilloss)	ENTER Stratum B soll water-filled porosity, 0, ⁶ (cm*/cm*)	ENTER Stratum C SCS SC# type Lockup ScI Parameters	ENTER Stratum C soil div bulk density, p, c (g/cm*)	ENTER Stratum C soil total porosity, n ^c (unitess)	ENTER Stratum C soil water-filled porosity, 0_0 ccm*/cm*)
	1,43	0.459	0.215	C	1.43	0.459	0.215	С	1.43	0.459	0.215

MORE _

ENTER Enclosed	ENTER	ENTER Encosed	ENTER Enclosed	ENTER	ENTER	ENTER	ENTER Averago vapor
space floor	Soil-bidg. pressure	Space	space floor	Enclosed	Floor-wall	Indoor	flow rate into bldg.
thickness.	diferential,	length,	width,	space height,	seem crack width,	air exchange rale,	OR Leavo blank to calculate
الميد (CIII)	ΔP (g/cm-s²)	L ₀	W _G	H ₀	w (cm)	ER (1/h)	Q _{stel}
	(grantes) 1	(cm)	(61)	(cm)	(61)	(101)	(Um)
10	40	1000	1000	244	0.1	0.25	5
ENTER	ENTER	ENTER	ENTER				

					_
	ENTER	ENTER	ENTER	ENTER	
	Averaging timo for	Averaging time for	Exposure	Exposure	
	carcinogens,	noncarcinogens,	duration,	frequency,	
	AT _C	AT _{ec}	ED	EF	
	(угв)	(975)	(513)	(days/yr)	_
ì					
ı	70	25	25	250	

#### INCREMENTAL RISK CALCULATIONS:

Incremental	Hazard
risk from	quotient
vapor	from vapor
intrusion to	intrusion to
indoor air,	indoor air,
carcinogen	noncarcinogen
(unitless)	(unitiess)
NA	3.8E+01

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

MESSAGE: Risk/HQ or risk-based soil concentration is based on a route-to-route extrapolation.

SCROLL DOWN TO "END"

END

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SG-ADV-Feb04