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Tank Removal and Site Closure Report

Underground Storage Tanks 314A, 314B, and 314D
Marine Corps Air Station
El Toro, California

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Acronyms and Abbreviations

APCL	Applied P & Ch Laboratories
bgs	below ground surface
BRAC III	Base Closure and Realignment Act of 1993
BRAC	Base Realignment and Closure Act
BTEX	benzene, toluene, ethylbenzene, and total xylenes
CA LUFT	California Leaking Underground Fuel Tank
CDM	Camp, Dresser, & McKee, Inc.
DCN	Document Control Number
DO	Delivery Order
EPA	United States Environmental Protection Agency
ft/ft	feet per foot
IRP	Installation Restoration Program
JEG	Jacobs Engineering Group Inc.
MCAS	Marine Corps Air Station
mg/kg	milligrams per kilogram
MTBE	methyl tert-butyl ether
OCHCA	Orange County Health Care Agency
OHM	OHM Remediation Services Corp.
OWS	oil-water separator
PCBs	polychlorinated biphenyls
RFA	RCRA Facility Agreement
RI	Remedial Investigation
ROICC	Regional Officer in Charge of Contracts
SM	silty sand
SP	poorly graded sand
Station	Marine Corps Air Station, El Toro
SW	Stormwater Pollution Prevention Plan
SWDIV	Southwest Division Naval Facilities Engineering Command
SWMU	Solid Waste Management Unit
TCE	trichloroethylene
TPH	total petroleum hydrocarbons
TRPH	total recoverable petroleum hydrocarbons
UST	underground storage tank
VOC	volatile organic compound
yd3	cubic yards

Section 1
Introduction

This Tank Removal and Site Closure Report summarizes the results of the field activities and subsequent site verification activities conducted with the removal of three Underground Storage Tanks (USTs) 314A, 314B and 314D at the Marine Corps Air Station, El Toro, California (hereinafter referred to as the station).

Results of the confirmation soil sample analytical results during the UST removal activities indicated that an unauthorized release of petroleum hydrocarbons had occurred. This report also presents an evaluation of the leaching potential for residual petroleum hydrocarbons at Former UST Sites 314A, 314B, and 314D and a recommendation that closure of this unauthorized release case be requested.

This report is prepared by OHM Remediation Services Corp. (OHM) for Southwest Division Naval Facilities Engineering Command (SWDIV) under the Remedial Action Contract No. N68711-93-D-1459, Delivery Order (DO) No. 0070.

The station is located approximately 45 miles southeast of the city of Los Angeles in Orange County, California, 1 mile north of the intersection of Interstates 5 (Santa Ana Freeway) and 405 (San Diego Freeway), and covers approximately 4,700 acres. The location of the station is shown on Figure 1-1, Facility Location Map.

1.1 Site Background

Building 314, Supply Storage, is located in the southwestern quadrant of the station, west of the Agua Chinon Wash. USTs 314A and 314B were identified as 50,000-gallon-capacity concrete tanks, and UST 314D was identified as a 3,000-gallon-capacity concrete holding tank. The tanks were used to store diesel fuel according to the Base Realignment and Closure (BRAC) Cleanup Plan (Marine Corps Air Station El Toro, 1997). The USTs were located approximately 20 feet northeast of South Marine Way, adjacent to the southwest side of Building 314. The locations of the USTs are shown on Figure 1-2, Location Map. An inactive Oil Water Separator (OWS) 314C associated with Building 314 was removed by OHM in May 1997, and OWS 314C was closed by the Orange County Health Care Agency (OCHCA) in October 1997.

1.1.1 Resource Conservation and Recovery Act Facility Assessment

USTs 314A and 314B are identified as Solid Waste Management Units (SWMU) 91 and SWMU 92, respectively, in the Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) report (Jacobs Engineering Group Inc. [JEG], 1993). JEG advanced three soil borings at UST Site 314. Two 60-foot-long angle borings were drilled adjacent to each USTs 314A and 314B. One 25-foot-deep vertical boring was drilled adjacent to UST 314A.

The maximum concentration of total petroleum hydrocarbons (TPH) detected in the subsurface samples was 416 milligrams per kilogram (mg/kg) at 20 feet below ground surface (bgs). JEG recommended "No Further Action" for SWMU 91 and 92. The analytical data and sample location map from the RFA report are included in Appendix A, RFA Background Information.

1.1.2 Remedial Investigation Activities

Former UST Sites 314A, 314B, and 314D are located above the Volatile Organic Compound (VOC) plume in the shallow aquifer at Installation Restoration Program (IRP) Site 24 (VOC Source Area). However, the presence of trichloroethylene (TCE) and other chlorinated solvents is believed to be associated with the sources identified in IRP Site 24 rather than with the releases at former USTs 314A, 314B, and 314D. Figure 1-3, Vicinity Map, shows the locations of former USTs 314A, 314B, and 314D relative to IRP Site 24.

As part of the Remedial Investigation (RI), a significant amount of data collection and interpretation has already been completed for IRP Site 24. Investigations were conducted under Phase I and Phase II of the RI to ascertain the nature and extent of groundwater contamination at the station. The highest VOC concentrations, particularly TCE, were identified in groundwater beneath IRP Site 24.

The groundwater quality in the local monitoring wells was also examined as part of the RI. Well 08_DGMW74 is considered to be downgradient approximately 200 feet southwest of Former UST Sites 314A, 314B, and 314D. Well 18_PS8 is cross gradient approximately 350 feet northeast of Former UST Sites 314A, 314B, and 314D. Wells 08_DGMW74 and 18_PS8 have been impacted by TCE (CDM, 1997). Groundwater conditions in the vicinity of Former UST Sites 314A, 314B, and 314D will be addressed in the Record of Decision for IRP Site 24. A map of the estimated chlorinated solvent plume in groundwater, with the location of Former UST Sites 314A, 314B, and 314D is provided in Appendix B, Chlorinated Solvent Plume Map.

The station is preparing for closure in July 1999 in accordance with the Base Closure and Realignment Act of 1993 (BRAC III). Former UST Sites 314A, 314B, and 314D are located within an area that has been tentatively identified as a cargo area, according to the El Toro Community Reuse Plan (County of Orange, 1997). A plan map is provided in Appendix C, Tentative Reuse Parcel Locations for UST Site 314.

1.2 Scope of Work

The scope of work for this project included the following:

- removal of three USTs and their contents
- collection of soil samples from the USTs excavation boundaries and from soil borings advanced after backfilling the excavation

- analysis of collected samples for site-specific potential contaminants based on past and current contents of the USTs, using an offsite laboratory certified by the California Department of Health Services, and approved by the Naval Facilities Engineering Service Center.
- removal and replacement of utility lines within the excavation area
- backfilling and restoration of the UST excavation area

1.3 Cleanup Goals and Leaching Potential Analysis

The soil cleanup levels at the site are based on the Leaching Potential Analysis in the California Leaking Underground Fuel Tank (CA LUFT) Field Manual General-Risk Appraisal Method (State of California Water Resources Control Board, 1989). Table 1-1, Soil Cleanup Levels for UST Site 314 Using Leaching Potential Analysis from CA LUFT Field Manual, summarizes the evaluation results and cleanup levels for UST Site 314.

The depth to groundwater in the vicinity of UST Site 314 is based on available groundwater level data collected from Monitoring Well 18-PS8. Based on this data, the depth to groundwater at UST Site 314 is approximately 103 feet bgs.

Based upon the CA LUFT Field Manual, this site falls within the category of low leaching potential. The maximum allowable levels of petroleum hydrocarbon compounds that may be left at this site without posing a threat to groundwater quality are as follows:

- Benzene - 1 part per million (mg/kg)
- Toluene - 1 mg/kg
- Ethylbenzene - 50 mg/kg
- Total xylenes - 50 mg/kg
- TPH as gasoline - 1000 mg/kg
- TPH as diesel - 10,000 mg/kg

1.4 Regional Geology

The station is located on the southeastern edge of the Tustin Plain and Orange County Groundwater Basin. Loma Ridge and the Santa Ana Mountains border the Tustin Plain on the east. Small, southwest-draining streams that head along the crest of Loma Ridge eroded and transported Oligocene nonmarine and Miocene marine rocks (California Division of Mines and Geology, 1966) and deposited them in alluvial fans on the Tustin Plain. The coalescing alluvial fans formed the broad smooth surface of the Tustin Plain, which slopes away from the hills toward the Pacific Ocean. The topography at UST Site 314 is relatively flat.

1.4.1 Geology

The station and Tustin Plain are underlain by Quaternary alluvium. The Quaternary alluvium consists primarily of silty sand (SM), poorly graded sand (SP), and well-graded sand (SW); although minor (less than 5 percent) clay layers were also observed.

In general, the stratigraphy of the upper 70 feet of the vadose zone is characterized by a fining-upward sequence, which changes from SP to SM. A clay layer, approximately 5 feet thick, was recognized in five of the seven borings at a depth of approximately 70 feet bgs. The alluvium below the clay layer to 100 feet bgs consisted primarily of SM and SP.

Information on the shallow subsurface geology in the general area of UST Site 314 was obtained by reviewing the boring logs for groundwater Monitoring Wells 08_DGMW74 and 18_PS8 (JEG, 1993). The wells are constructed of 4-inch-diameter casing, and are 130 feet and 145 feet deep, respectively. The boring logs indicate that the stratigraphy consists of predominantly silty sand with layers of clayey sand from ground surface to first encountered groundwater.

1.5 Hydrogeology

The station is situated within the Irvine Groundwater Subbasin (Irvine Subbasin). The Irvine Subbasin is located southeast of and adjacent to the Main Orange County Groundwater Basin.

Regional groundwater flow has been to the west and northwest since the 1940s. The groundwater gradient has been influenced locally by large groundwater withdrawal depressions. From 1969 to 1982, an average gradient of 0.0046 feet per foot (ft/ft) to the northwest was reported in the principal aquifer zone of the Irvine area (Banks, 1984). Phase I RI data indicated a similar groundwater flow direction and a slightly higher gradient of 0.008 ft/ft (JEG, 1993).

The depth to groundwater beneath the station ranges from approximately 45 feet bgs in the foothills to 240 feet bgs in the deepest portion of the Irvine Subbasin located on the station. The depth to groundwater in the vicinity of UST Site 314 is based on available groundwater level data collected from Monitoring Well 18-PS8. Based on this data, the depth to groundwater at UST Site 314 is approximately 103 feet bgs (CDM, 1997).

Section 2
Summary of Field Activities

Field activities conducted at UST Site 314 included a geophysical utility investigation, initial soil sampling, UST gauging and sampling, UST removal, confirmation sampling, surveying, waste transportation, backfilling, verification drilling and sampling, and site restoration. Field activities were conducted in accordance with the *Draft Work Plan, Remediation of Various Underground Storage Tanks at the Marine Corps Air Station El Toro, California* (OHM, 1995). Details of the field activities are discussed in the following text.

2.1 Permitting and Utility Investigation

Before initiating field activities, OHM completed an OCHCA facility modification application and received approval (Permit No. 97-080) for the removal of USTs 314A, 314B, and 314D. The OCHCA facility modification application and approval forms are provided as Appendix D, Orange County Health Care Agency Facility Modification Application and Approval Forms.

A geophysical survey of the UST area was conducted by the OHM subcontractor, Spectrum Environmental Services, Inc., to locate the underground utilities in the area. The survey employed analog electromagnetic methods for the utility detection survey and ground-penetrating radar and electromagnetic induction metal detection methods for the UST and utilities delineation work. The Geophysical Survey Data is provided as Appendix E.

2.2 Initial Assessment Drilling and Soil Sampling

Before UST removal activities, OHM conducted initial soil sampling activities at UST Site 314 on June 10, 1997. Gregg Drilling, using a limited-access rig, advanced a total of four soil borings (314-SB-01 through 314-SB-04). The purpose of the assessment drilling and sampling was to investigate the integrity of the USTs and to ascertain whether or not a release occurred. The borings were advanced to approximately 40 feet bgs. Borings 314-SB-01 and 314-SB-02 were drilled within a distance of approximately 5 feet from the USTs and Borings 314-SB-03 and 314-SB-04 were placed downgradient of the USTs in the adjacent roadway, South Marine Way. The soil sampling locations are shown in Figure 2-1, Site Plan.

Nine soil samples were collected from the borings at depths of approximately 15 feet, 25 feet, 30 feet, and 40 feet bgs. The soil samples were analyzed for TPH extractable and purgable using CA LUFT Method 8015 modified and for VOCs using U.S. Environmental Protection Agency (EPA) Method 8260.

Laboratory analytical results of the soil samples did not report detectable concentrations of petroleum hydrocarbons. Certified laboratory analytical reports, provided by Applied P & Ch Laboratories (APCL) of Chino, California, are included as Appendix F, Laboratory Analytical Reports.

2.3 Underground Storage Tank Gauging and Sampling

The vaults of UST 314A and 314B were originally opened on April 28 and 29, 1997, and entrained liquid was observed within each vault. One liquid sample was collected from each vault (Sample Identification Numbers 18609-314-417 and 18609-314-418, respectively) for laboratory analysis. The samples were analyzed for TPH using CA LUFT Method 8015 modified; for benzene, toluene, ethylbenzene, and total xylenes (BTEX) and methyl tert-butyl ether (MTBE) using EPA Method 8020; for polychlorinated biphenyls (PCBs) using EPA Method 8081; for Title 22 Metals using EPA Methods 6010, 7060, 7470, and 7740; and for ignitability using EPA Method 1010.

USTs 314A and 314B contained liquid product and were gauged on July 28, 1997. UST 314D did not contain any entrained liquid product. UST 314A was gauged to contain approximately 6 inches of product with 3- to 6-inch-thick layer of black, oily product sludge. UST 314B was gauged to contain approximately 6 inches to 8 inches of liquid product with 4 inches of oily product sludge at the bottom. On April 4, 1997, one liquid sample was collected from each UST (Sample Identification Numbers 18609-290 and 18609-291, respectively) for laboratory analysis under the same criteria as the previous liquid product sampling except for PCBs. The analytical results of the liquid samples indicate that the USTs contained a diesel product mixed with oil with a lead concentration at 11 mg/kg. Therefore, sludge samples (Sample Identification Number 18609-409 and 18609-410) from USTs 314A and 314B were collected on July 2, 1997, and analyzed for the same analytical methods as for liquid product samples. Certified laboratory analytical reports, provided by APCL of Chino, California, are included as Appendix F, Laboratory Analytical Reports. Liquid product and sludge from both USTs were disposed offsite, as described in Section 2.6.

2.4 Underground Storage Tank Removal

UST removal field activities proceeded as follows: (1) aboveground piping was drained into the USTs and disassembled, (2) valves, piping, and pumps associated with each UST were removed, (3) overburden soil around the piping and entry vaults was excavated, (4) vaults and piping channels to the top of the USTs were demolished, (5) tops of the USTs were exposed and an access port was sawcut into the top of the USTs to provide lighting and ventilation, (6) liquid product and sludge were pumped and removed from the USTs, and (7) the insides of the USTs were rinsed and pressure washed.

UST 314D was demolished in place on August 5, 1997. USTs 314A and 314B were demolished in place from August 6 to 13, 1997. Approximately 415 cubic yards (yd^3) of

nonimpacted overburden were initially removed to expose the concrete tanks. The tank walls were broken with a hydraulic concrete breaker and the debris removed with a backhoe.

During the UST field removal activities, OHM discovered a 3-inch natural gas line and a 10-inch water main line and its thrust block with different configuration and location then originally shown on the Building 314 construction maps. OHM then, with the concurrence of the Station Resident Officer In Charge of Construction (ROICC), cut, added a new piece approximately 130 feet, and rerouted the natural gas line to allow the removal of the USTs (as shown in Figure 2-1).

The thrust block and 10-inch water line were placed above the northeast portion of UST 314B. Therefore, OHM, with the approval of the OCHCA field inspector, left the northeast portion of the concrete UST 314B in place using a wood structure of plywood and 4x4s, to support the water line (as shown in Figure 2-1) and backfilled the remaining area with pea gravel.

Some discoloration of the underlying soil was observed on the sidewalls and base of the UST 314B excavation during removal. The bottoms of USTs 314A and 314B were at a depth of approximately 14 feet bgs. Approximately 665 yd^3 of soil were excavated to remove the USTs. Groundwater was not encountered during the excavation.

Approximately 30 feet of a 4-inch-diameter product line and 7 feet of an 8-inch-diameter vent/product line were exposed and removed during excavation of the USTs. No staining was observed around the piping. Exposed piping associated with the USTs that extended beyond the excavation limits was cut, and the ends were grouted and capped at the excavation limits for abandonment in place. The piping was abandoned in place with the concurrence of the OCHCA field inspector.

2.5 Soil Sampling, Analyses, and Results

Following the removal of the USTs and visible petroleum-contaminated soils, 11 confirmation soil samples were collected in the presence of an OCHCA field inspector. Six soil samples were collected on August 15, 1997, from the UST 314A and 314D excavation areas (Sample Identification Numbers 18292-314A-528 through 18292-314A-531, and 18292-314D-532, 18292-314D-533) at depths of 10.8 feet to 17 feet bgs. Five additional soil samples were collected on August 22, 1997, from the UST 314B excavation area (Sample Identification Numbers 18609-314B-419 through 18609-314B-424) at depths of 13 feet to 15 feet bgs. The confirmation soil sampling locations are shown in Figure 2-1. A schematic cross section of the USTs 314A and 314B excavation showing analytical results and the depths of confirmation soil samples collected, is presented in Figure 2-2, Confirmation Soil Sample Locations.

Sampling, including sample handling and packaging, was conducted in accordance with the procedures described in the approved *Draft Work Plan, Remediation of Various Underground Storage Tanks at the Marine Corps Air Station El Toro, California*

(OHM, 1995). The soil samples were collected in a 2- by 6-inch-diameter brass sleeve directly from the excavator bucket, with no tools, to minimize the need for decontamination. The soil samples were analyzed for total recoverable petroleum hydrocarbons (TRPH) using EPA Method 418.1; for TPH using CA LUFT Method 8015 modified; for BTEX using EPA Method 8020; and for VOCs using EPA Method 8260.

Analytical results of the soil samples collected from the excavation pit are presented in Table 2-1, Confirmation Soil Sample Analytical Results – UST Site 314. Review of the analytical results and observed visible discolored soil encountered in the excavation revealed that some petroleum contamination remained. The maximum concentrations of TRPH were detected in Sample Number 18292-314A-531 at 34,000 mg/kg. The concentrations of TPH as diesel in the excavation ranged from nondetect to 39,000 mg/kg. Benzene was not detected in any of the samples. Laboratory analytical reports provided by APCL are included in Appendix F. Photographs of the field activities are provided in Appendix G, Site Photographs.

2.6 Waste Management

Vaults for UST 314A and UST 314B contained total approximately 3,000 gallons of a diesel fuel liquid product mixed with water. The liquids from both UST vaults were pumped out from July 28 through July 30, 1997, and were transferred to the station's central treatment facility (operated and maintained by OHM under a separate phase of this contract) for further treatment. The liquids were treated in the station's carbon adsorption treatment system, and the treated effluent water was transferred to the station's Golf Course Holding Tank for reuse.

A total of 8,900 gallons of products mixed with sludge and rinse water was pumped out from USTs 314A and 314B using a vacuum truck. A total of 6,400 gallons of liquid products with lead contamination from UST 314A was disposed offsite as hazardous, non-RCRA waste liquid to Advanced Environmental facility in Fontana, California. Also, a total of 2,500 gallons of liquid products from UST 314B was disposed offsite as nonhazardous waste liquid to the Advanced Environmental facility in Fontana, California. Copies of the waste manifest are provided as Appendix H. Approximately 265 yd^3 of contaminated soil that were removed from the UST excavation and were transported to the station's bioremediation treatment facility (operated under a separate phase of this contract) for further treatment.

The interior surfaces of the concrete USTs were decontaminated using steam and Alconox™ on July 28 through 31, 1997, before their destruction and removal. The concrete debris generated from the destruction of the USTs was transferred offsite to the Ortiz Construction facility in Irvine, California, for recycling.

2.7 Land Survey

After completing the confirmation soil sampling, the sample locations and limits of excavation were surveyed by Cal Vada Surveying, Inc., a California-registered land surveyor.

The surveyed locations were measured to ±0.1 foot horizontally and tied to the California State Plane Coordinate Systems, North American Datum 1983. The surveyed elevations were measured to ±0.01 foot vertically and tied to a mean sea level elevation. The land survey data for UST Site 314 is presented in Appendix I, Land Survey Report.

2.8 Site Restoration

With the concurrence of the station ROICC, the UST Site 314 excavation area was backfilled with approximately 600 yd^3 of nonimpacted clean stockpiled soil, approximately 400 yd^3 of soil from the excavation overburden soil, and approximately 200 yd^3 of import soil. Excavation backfill activities were carried out from August 22 to September 3, 1997. An additional 50 yd^3 of ¾-inch crushed rock was used as a base material for installation of 6-inch-thick asphalt pavement for repair of a sidewalk and roadway section at South Marine Way.

Compaction was accomplished using a compaction wheel attached to a backhoe. R. T. Frankian and Associates performed compaction tests. The compaction tests revealed a 90 percent to 95 percent relative compaction for UST Site 314 excavation backfill. A copy of the compaction results is provided in Appendix J, Compaction Test Field Reports.

2.9 Supplemental Verification Drilling and Sampling

After completion of the backfilling activities and review of confirmation soil sample analytical results, OHM contracted Gregg Drilling on September 16, 1997, to advance three additional soil borings (314SB-05 to 314SB-07) in the vicinity of the UST 314A and 314B excavation. Verification soil sampling was performed to evaluate the lateral and vertical extent of the potential petroleum hydrocarbon contamination remaining in the vadose zone.

Soil borings were advanced to a total depth of approximately 40.5 feet bgs. Verification soil samples were collected at approximately 15 feet, 25 feet, 35 feet, and 40 feet bgs to provide data for both geologic description and to assess the vertical distribution of petroleum hydrocarbons. After completing soil sampling activities, the soil borings were abandoned with a cement-bentonite grout. The locations of the verification soil borings are identified in Figure 2-1. Boring logs describing the soil lithology are provided in Appendix K, Soil Boring Logs.

A schematic cross section of the UST Site 314 excavation showing analytical results, the verification soil boring locations, and the depth of the soil samples collected is presented in Figure 2-3, Verification Drilling Cross Section.

A total of 12 soil samples were collected from the three soil borings using a California modified split-spoon sampler. The soil samples were analyzed for TPH using CA LUFT Method 8015 modified; for VOCs using EPA Method 8260; and for BTEX using EPA Method 8020.

BTEX concentrations were not detected in any of the soil samples collected from the verification soil borings. TPH was detected in only two soil samples at a sample depth of approximately 15 feet to 15.5 feet bgs; 1,800 mg/kg as motor oil in Soil Boring 314SB-05; and 520 mg/kg as motor oil and 340 mg/kg as diesel in Soil Boring 314SB-06. The analytical results of the samples collected from the soil borings are presented in Table 2-2, Verification Drilling Soil Sample Analytical Results – UST Site 314. Copies of the analytical reports provided by APCL are included in Appendix F.

Section 3
Conclusions and Recommendation

Based on the information presented in this report, review of the analytical results, and information obtained from the previously published groundwater monitoring reports, the following conclusions have been reached:

- USTs 314A, 314B, 314D, and fuel-impacted soils that could have posed a risk to groundwater were removed from the site.
- The former USTs were used for storage of diesel fuel oil; which has limited mobility in the vadose zone, when compared to gasoline.
- Groundwater was not encountered in the UST excavation
- The depth to groundwater is estimated to be approximately 103 feet bgs, based on historical data from Monitoring Well 18_PS8.
- Analytical results from 11 confirmation soil samples, collected from the excavation of USTs 314A and 314B, indicated the maximum concentrations of TRPH at 34,000 mg/kg from the northeast corner of the UST 314A at 17 feet bgs. The concentrations of TPH as diesel in the excavation ranged from 130 mg/kg to 39,000 mg/kg. No chlorinated solvents and benzene were detected in any of the soil samples.
- Analytical results of soil samples indicate that the release of the petroleum hydrocarbons is neither laterally nor vertically extensive, and the leaching potential for the residual petroleum hydrocarbons is very low.
- The potential for the residual petroleum hydrocarbons at UST Site 314 to impact the groundwater was evaluated using the CA LUFT Field Manual - General Risk Appraisal Method. UST Site 314 was characterized as having a low leaching potential. The maximum allowable levels of petroleum hydrocarbons are as follows for the referenced categories: TPH as diesel (10,000 mg/kg); TPH as gasoline (1000 mg/kg); benzene (1 mg/kg); toluene (50 mg/kg); ethylbenzene (50 mg/kg); and total xylenes (50 mg/kg).
- Analytical results of assessment and verification soil samples collected from seven soil borings indicated that the soil underlying UST Site 314 was not impacted by petroleum hydrocarbons. TPH was detected in only two soil samples at a maximum concentration of 1,800 mg/kg at a depth of 15 feet to15.5 feet bgs. BTEX and chlorinated solvents were not detected in any of the samples. All additional soil samples collected from a depth of 25 feet to 40 feet bgs did not indicate any detectable contamination.

Therefore, it is concluded that the detected concentrations of petroleum hydrocarbon pose minimal risk to groundwater quality. Insufficient mass loading is present to promote vertical migration to groundwater. This conclusion is based on the hydrogeology, depth to groundwater, relative limited mobility of diesel, and the CA LUFT Field Manual guidelines.

Based on information provided in this report, OHM, on behalf of Marine Corps Air Station MCAS El Toro, recommends that this report be submitted to the Regional Water Quality Control Board, Santa Ana Region, and that this unauthorized release case be closed for USTs 314A, 314B, (also known as SWMUs 91 and 92) and 314D.

Section 4
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MCAS El Toro. See Marine Corps Air Station, El Toro.

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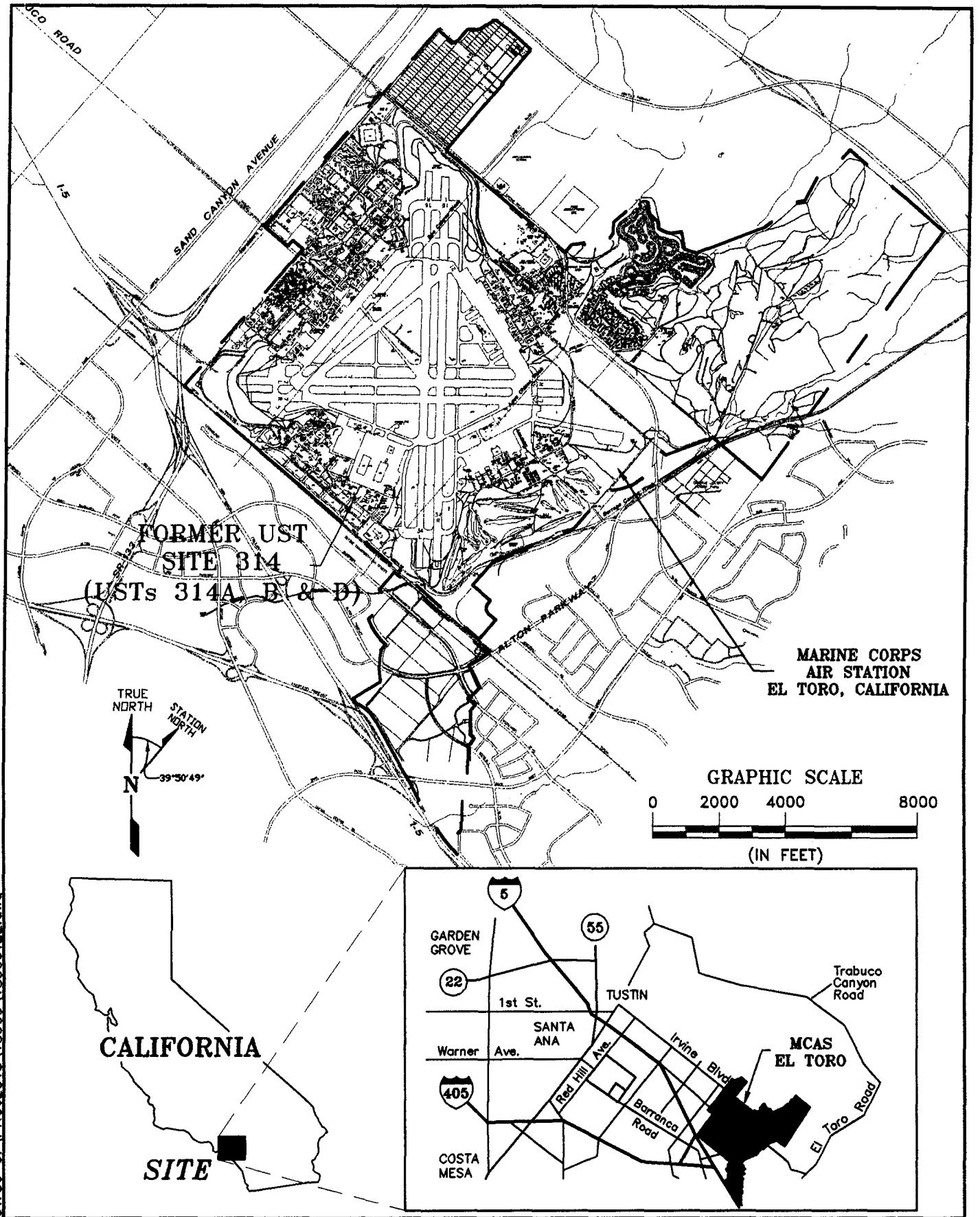
Figures



OHM Remediation Services Corp. A Subsidiary of OHM Corporation SAN DIEGO, CA	DRAWN BY R. PIRMORADIAN DATE 09/11/98	FACILITY LOCATION MAP FORMER UST SITE 314 (USTs 314A, B & D)	
	CHECKED BY DATE		
	APPROVED BY DR DATE 9/14/98		
CONTRACT NAME SWDIV	PROJECT MANAGER DATE 9/29/98	MARINE CORPS AIR STATION EL TORO, CALIFORNIA	

AUTOCAD FILE No.	PLOT SCALE	SHEET	OF	SCALE	DOCUMENT CONTROL No.	OHM PROJECT No.	FIGURE No.	REVISION
18609122.DWG	1=1	1	1	AS NOTED	SW5237	18609	FIG 1-1	0

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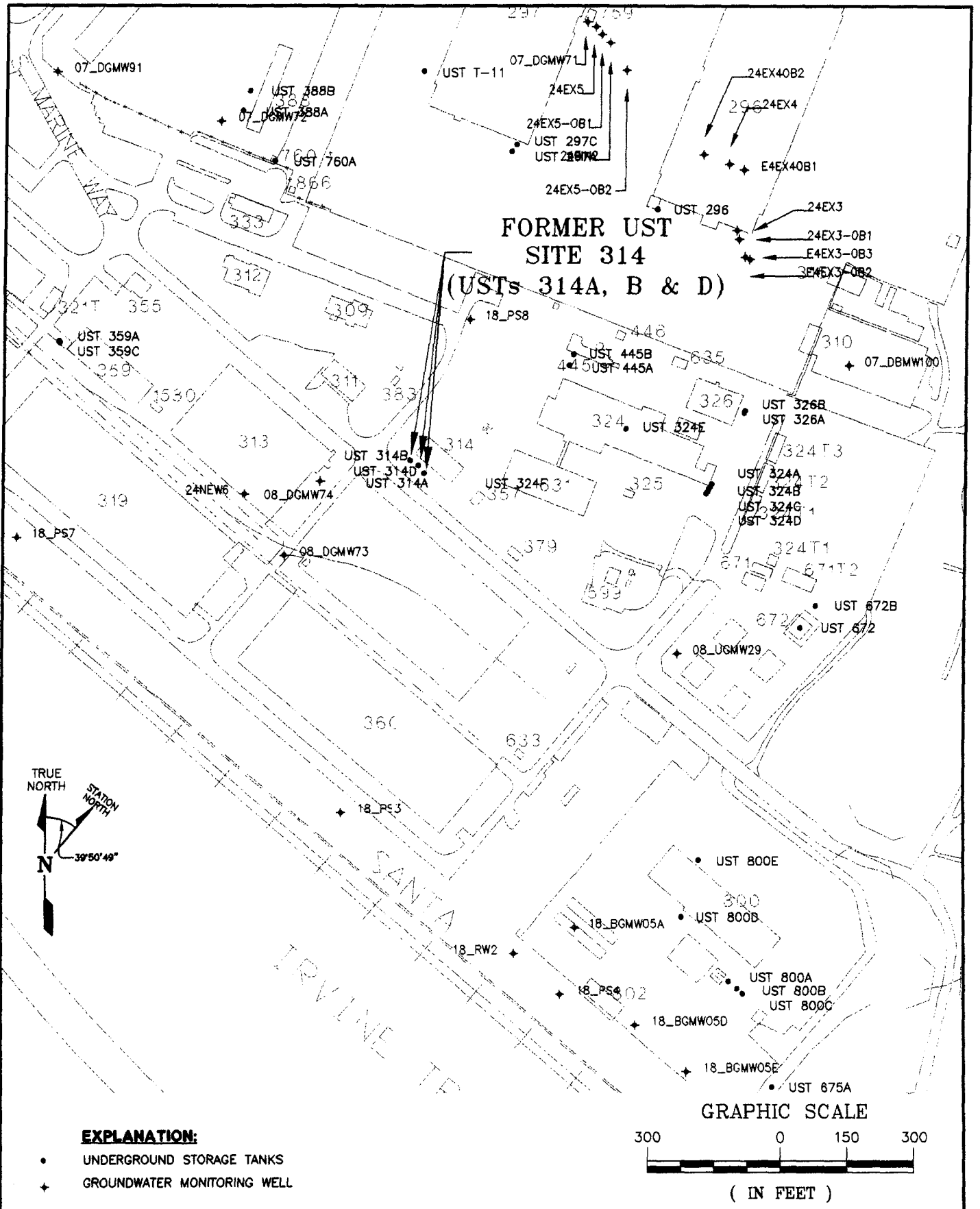

EXPLANATION:

- • UNDERGROUND STORAGE TANKS
- ✦ GROUNDWATER MONITORING WELL

OHM Remediation Services Corp.
A Subsidiary of OHM Corporation
SAN DIEGO, CA

CONTRACT NAME: SWDIV

DRAWN BY: R. PIRMORADIAN — DATE: 09/11/98
CHECKED BY — DATE
APPROVED BY: DR — DATE: 9/14/98
PROJECT MANAGER: [signature] — DATE: 9/29/98

LOCATION MAP
FORMER UST SITE 314
(USTs 314A, B & D)

MARINE CORPS AIR STATION
EL TORO, CALIFORNIA

AUTOCAD FILE No.	PLOT SCALE	SHEET	OF	SCALE	DOCUMENT CONTROL No.	OHM PROJECT No.	FIGURE No.	REVISION
18609123.DWG	1=1	1	1	AS NOTED	SW5237	18609	FIG 1-2	0

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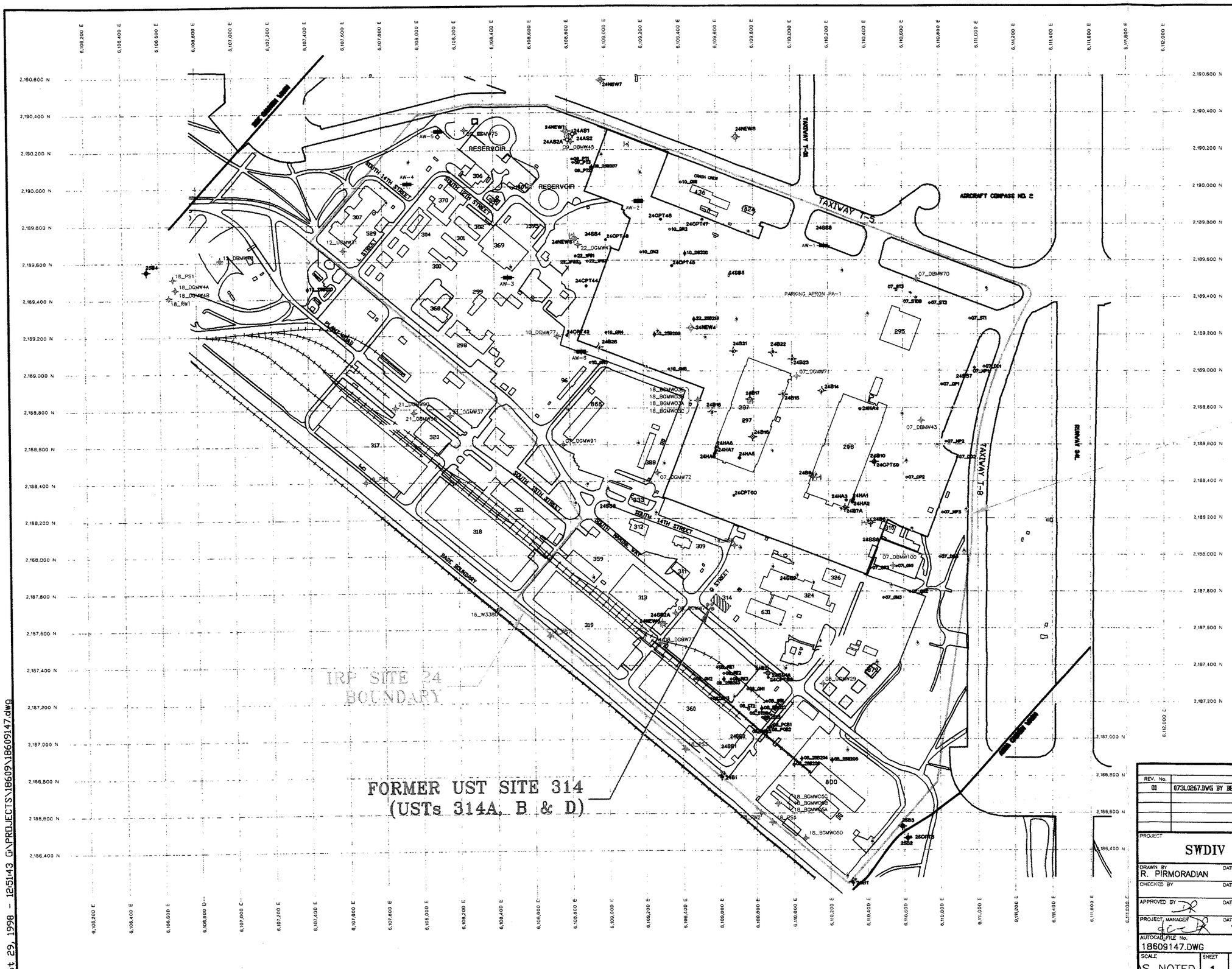


LEGEND

- BUILDING OR PAD
- STREAMS OR WASH
- IMPROVED ROADS
- UNIMPROVED ROADS
- RAILROAD
- PHASE II UNIT BOUNDARY
- FENCE
- BASE BOUNDARY

APPROXIMATE SAMPLING LOCATIONS

- AW-1 — ABANDONED WATER SUPPLY WELL
- 18_W3386 — PHASE I MONITORING WELL
- 24NEW1 — PHASE II MONITORING WELL

GRAPHIC SCALE
0 125 250 500
(IN FEET)

REVISIONS

REV. No.	DESCRIPTION	DATE	APPROVED
01	073L0267.DWG BY BECHTEL NATIONAL INC.	2/7/96	

PROJECT: SWDIV

OHM Remediation Services Corp.
A Subsidiary of OHM Corporation
SAN DIEGO, CA

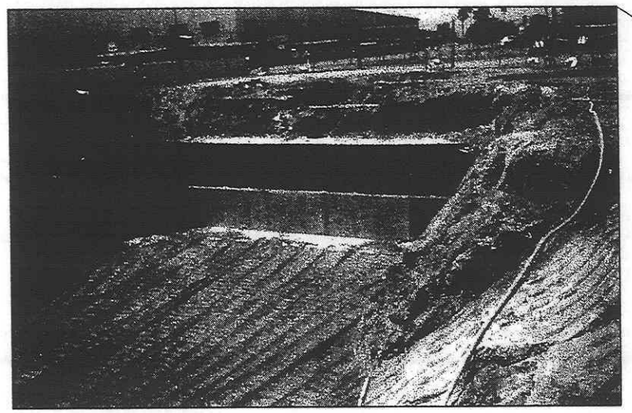
DRAWN BY: R. PIRMORADIAN — DATE: 09/29/98
CHECKED BY — DATE
APPROVED BY — DATE 12/4/97
PROJECT MANAGER — DATE 9/29/98
AUTOCAD FILE No.: 18609147.DWG

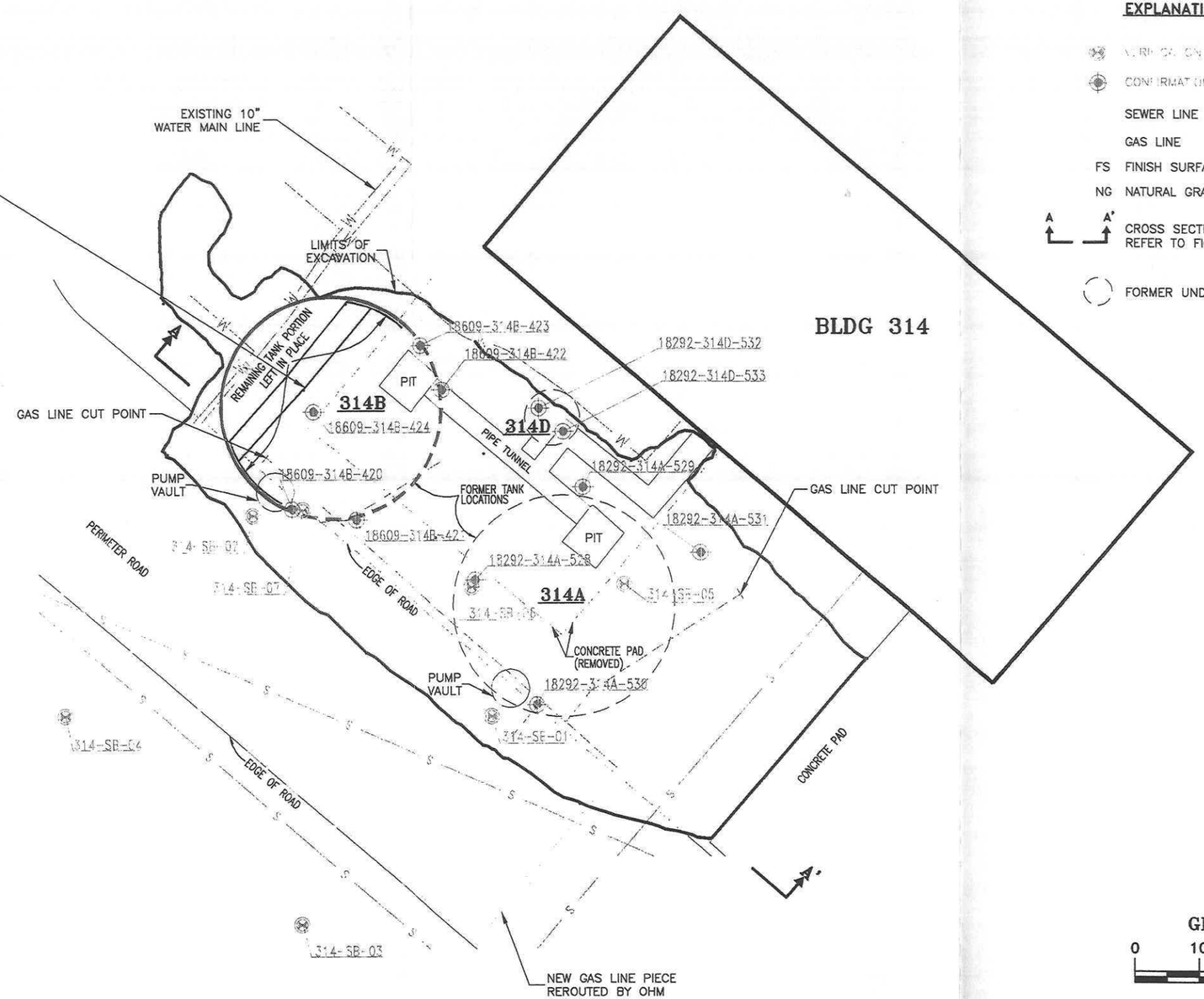
VICINITY MAP
FORMER UST SITE 314
(USTs 314A, B & D)

MARINE CORPS AIR STATION
EL TORO, CALIFORNIA

SCALE	SHEET	OF	DOCUMENT CONTROL No.	OHM PROJECT No.	DRAWING No.
AS NOTED	1	1	SW5237	18609	FIG 1-3

Sept. 29, 1998 - 1251143 G:\PROJECTS\18609\18609147.dwg





EXPLANATION:

- VERIFICATION BUILDING SOIL SAMPLE LOCATION
- CONFIRMATION SOIL SAMPLE LOCATION
- SEWER LINE
- GAS LINE
- FS FINISH SURFACE
- NG NATURAL GRADE
- A — A' CROSS SECTION, REFER TO FIGURE 2-2 & 2-3
- FORMER UNDERGROUND STORAGE TANKS

N

GRAPHIC SCALE

0 10 20 40

(IN FEET)

SAMPLE COORDINATE LISTING

#	NORTHNIG	EASTING	ELEV.	DESCRIPTION
	2187713.61	6109556.36		314SB05
	2187713.16	6109532.33		314SB06
	2187725.34	6109505.88		314SB07
252	2187660.3863	6109505.3648	262.43	BH 314SB03
253	2187693.0805	6109466.3672	267.93	BH 314SB04
	2187724.4300	6109497.9400	263.95	314SB01
	2187692.9400	6109535.4400	264.05	314SB02
3	2187718.5906	6109568.3132	260.12	18292-314A-531
4	2187728.8271	6109550.0089	256.19	18292-314A-529
5	2187737.5473	6109546.9576	261.21	18292-314D-533
6	2187741.1858	6109543.1218	262.60	18292-314D-532
7	2187714.3285	6109532.9479	254.46	18292-314A-528
8	2187694.7311	6109542.6244	255.93	18292-314A-530
103	2187723.7849	6109514.1667	248.88	314B-421
104	2187725.4727	6109504.2077	249.19	314B-420
105	2187740.6882	6109507.6137	249.07	314B-424
106	2187751.0439	6109524.4698	249.53	314B-423
107	2187744.1043	6109527.8933	249.43	314B-422

REVISIONS			
REV. No.	DESCRIPTION	DATE	APPROVED
01	97102-07C.DWG BY CALVADA		

CONTRACT NAME	SWDIV
DRAWN BY	R. PIRMORADIAN — DATE 09/29/98
CHECKED BY	DATE
APPROVED BY	DATE 9/29/98
PROJECT MANAGER	DATE 9/29/98
AUTOCAD FILE No.	18609137.DWG

OHM Remediation Services Corp.
A Subsidiary of OHM Corporation
SAN DIEGO, CA

SITE PLAN
FORMER UST SITE 314
(USTs 314A, B & D)

MARINE CORPS AIR STATION
EL TORO, CALIFORNIA

SCALE	SHEET	OF	DOCUMENT CONTROL No.	OHM PROJECT No.	DRAWING No.
AS NOTED	1	1	SW5237	18609	FIG 2-1

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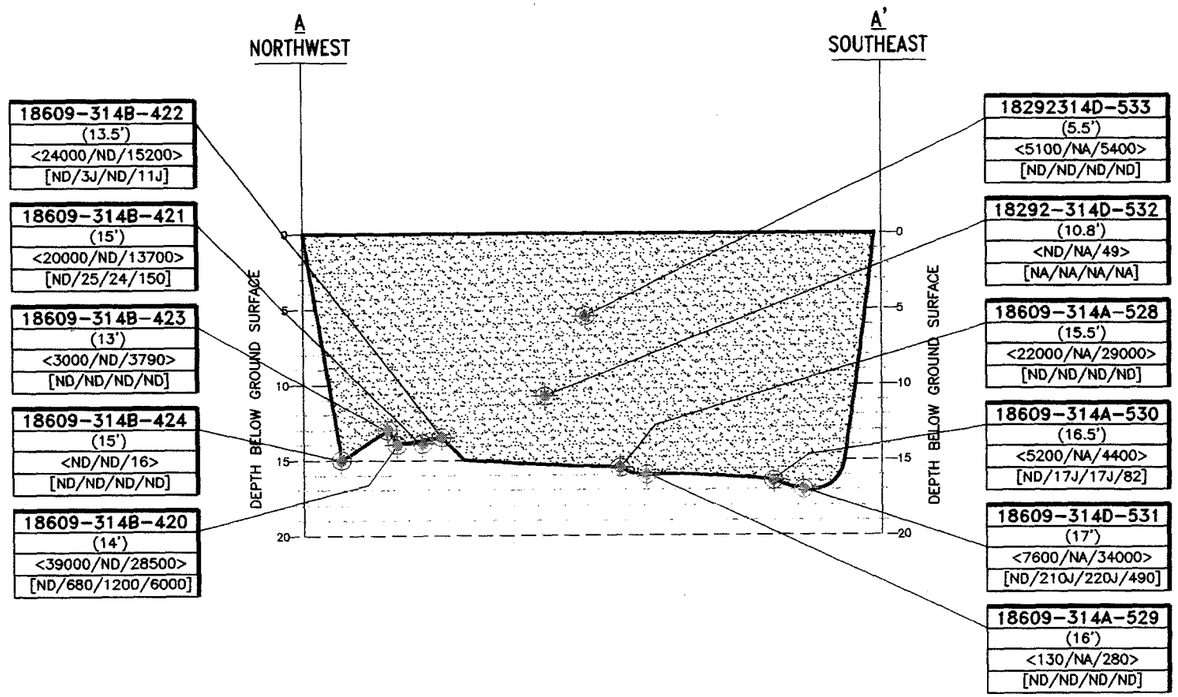

A-A' / 2-1 **CROSS SECTION**
SEE APPENDIX I

EXPLANATION:

⊕	CONFIRMATION SOIL SAMPLE LOCATION
NA	NOT ANALYZED
ND	NOT DETECTED ABOVE LABORATORY REPORTING LIMITS AS SHOWN IN TABLE 2-1
TPH	TOTAL PETROLEUM HYDROCARBONS
TRPH	TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
mg/kg	MILLIGRAMS PER KILOGRAM
µg/kg	MICROGRAMS PER KILOGRAM
J	ESTIMATED VALUE
	APPROXIMATE LIMITS OF UNDERGROUND STORAGE TANKS (314A, B & D) EXCAVATION

18292314D-533
(5.5')
<5100/NA/5400>
[ND/ND/ND/ND]

SAMPLE IDENTIFIER
(SAMPLE DEPTH IN FEET)
<TPH-EXTRACTABLE/TPH-GASOLINE/TRPH CONCENTRAION mg/kg>
[BENZENE/TOLUENE/ETHYLBENZENE/TOTAL XYLENES CONCENTRATION µg/kg]

NOTE: ALL DIMENSIONS AND LOCATIONS ARE APPROXIMATE

REVISIONS

REV. No.	DESCRIPTION	DATE	APPROVED
0	INITIAL VERSION OF DOCUMENT		

CONTRACT NAME	SWDIV
DRAWN BY	R. PIRMORADIAN — DATE 09/29/98
CHECKED BY	DATE
APPROVED BY	DR — DATE 9/21/98
PROJECT MANAGER	DATE 9/24/98
AUTOCAD FILE No.	18609133.DWG

OHM Remediation Services Corp.
A Subsidiary of OHM Corporation
SAN DIEGO, CA

CONFIRMATION SOIL SAMPLE LOCATIONS
FORMER UST SITE 314
(USTs 314A, B & D)
MARINE CORPS AIR STATION
EL TORO, CALIFORNIA

SCALE	SHEET	OF	DOCUMENT CONTROL No.	OHM PROJECT No.	DRAWING No.
AS NOTED	1	1	SW5237	18609	FIG 2-2

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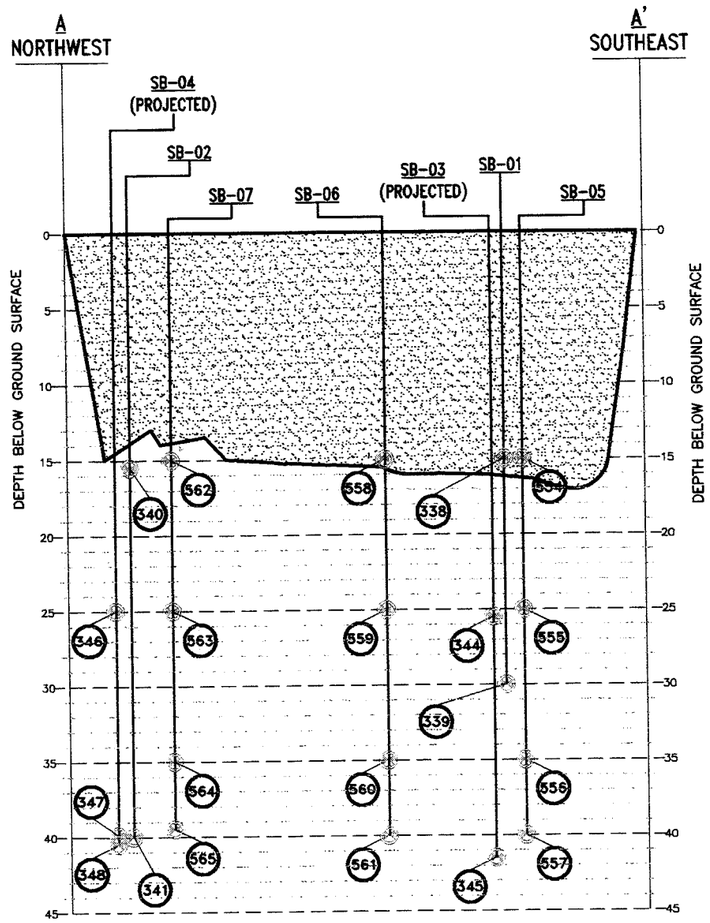

A–A' CROSS SECTION
2–1 SEE APPENDIX I

SB-07

562	18609–314–562 (15') <ND/ND/NA> [ND/ND/ND/ND]
563	18609–314–563 (25') <ND/ND/NA> [ND/ND/ND/ND]
564	18609–314–564 (35') <ND/ND/NA> [ND/ND/ND/ND]
565	18609–314–565 (39.5') <ND/ND/NA> [ND/ND/ND/ND]

SB-06

558	18609–314–558 (15') <520/ND/NA> [ND/ND/ND/ND]
559	18609–314–559 (25') <ND/ND/NA> [ND/ND/ND/ND]
560	18609–314–560 (35') <ND/ND/NA> [ND/ND/ND/ND]
561	18609–314–561 (40') <ND/ND/NA> [ND/ND/ND/ND]

SB-03

344	18609–314–344 (25.5') <ND/ND/NA> [ND/ND/ND/ND]
345	18609–314–345 (41.5') <ND/ND/NA> [ND/ND/ND/ND]

SB-01

338	18609–314–338 (15') <ND/ND/NA> [ND/ND/ND/ND]
339	18609–314–339 (30') <ND/ND/NA> [ND/ND/ND/ND]

SB-05

554	18609–314–554 (15') <1800/ND/NA> [ND/ND/ND/ND]
555	18609–314–555 (25') <ND/ND/NA> [ND/ND/ND/ND]
556	18609–314–556 (35') <ND/ND/NA> [ND/ND/ND/ND]
557	18609–314–557 (40') <ND/ND/NA> [ND/ND/ND/ND]

SB-04

346	18609–314–346 (25') <ND/ND/NA> [ND/ND/ND/ND]
347	18609–314–347 (40') <ND/ND/NA> [ND/ND/ND/ND]
348	18609–314–348 (40.5') <ND/ND/NA> [ND/ND/ND/ND]

SB-02

340	18609–314–340 (15.5') <ND/ND/NA> [ND/ND/ND/ND]
341	18609–314–341 (40') <ND/ND/NA> [ND/ND/ND/ND]

EXPLANATION:

(illegible)	(illegible)
NA	NOT ANALYZED
ND	NOT DETECTED ABOVE LABORATORY REPORTING LIMITS AS SHOWN IN TABLE 2–1
TPH	TOTAL PETROLEUM HYDROCARBONS
TRPH	TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
mg/kg	MILLIGRAMS PER KILOGRAM
µg/kg	MICROGRAMS PER KILOGRAM
J	ESTIMATED VALUE
	APPROXIMATE LIMITS OF UNDERGROUND STORAGE TANKS (314A, B & D) EXCAVATION

18609–314–562	SAMPLE IDENTIFIER
(15')	(SAMPLE DEPTH IN FEET)
<ND/ND/NA>	<TPH–EXTRACTABLE/TPH–GASOLINE/ TRPH CONCENTRAION mg/kg>
[ND/ND/ND/ND]	[BENZENE/TOLUENE/ETHYLBENZENE/TOTAL XYLENES CONCENTRATION µg/kg]

NOTE: ALL DIMENSIONS AND LOCATIONS ARE APPROXIMATE

REVISIONS

REV. No.	DESCRIPTION	DATE	APPROVED
0	INITIAL VERSION OF DOCUMENT		

CONTRACT NAME	SWDIV
DRAWN BY	R. PIRMORADIAN — DATE 09/29/98
CHECKED BY	DATE
APPROVED BY	DATE 9/29/98
PROJECT MANAGER	DATE 9/29/98
AUTOCAD FILE No.	18609144.DWG

OHM Remediation Services Corp.
A Subsidiary of OHM Corporation
SAN DIEGO, CA

VERIFICATION DRILLING
CROSS SECTION
FORMER UST SITE 314
(USTs 314A, B & D)
MARINE CORPS AIR STATION
EL TORO, CALIFORNIA

SCALE	SHEET	OF	DOCUMENT CONTROL No.	OHM PROJECT No.	DRAWING No.
AS NOTED	1	1	SW5237	18609	FIG 2–3

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Tables

Table 1-1
Soil Cleanup Levels for UST Site 314 Using Leaching Potential Analysis from CA LUFT Field Manual

Site Feature	Score	Score 10 pts if Condition is Met	Score	Score 9 pts if Condition is Met	Score	Score 5 pts if Condition is Met
Minimum depth to groundwater from the soil sample (feet)[a, b]	10	>100	--	51 - 100	--	25 - 50
Fractures in subsurface (applies to foothills or mountain ranges)	10	None	--	Unknown	--	Present
Average annual precipitation (inches)[c]	--	<10	9	10 - 25	--	26 - 40
Manmade conduits which increase vertical migration of leachate	10	None	--	Unknown	--	Present
Unique site features: recharge area, coarse soil, nearby wells, etc.	10	None	--	At least one	--	More than one
Column Totals - Total Points	**40**	+	**9**	+	--	= **49**
Range of Total Points	49 pts or more		41 - 48 pts		40 pts or less	
Maximum Allowable BTEX Levels (mg/kg)	1/50/50/50		.3/.3/1/1		Not applicable[d]	
Maximum Allowable TPH Levels (mg/kg)	Gasoline	1,000	100		10	
	Diesel	10,000	1,000		100	

Reference: California Leaking Underground Fuel Tank Manual (State of California Water Resources Control Board, 1989).

Explanation:

[a] - *If depth is greater than 5 feet and less than 25 feet, score 0 points. If depth is 5 feet or less, this table should not be used.*

[b] - *Monitoring Well 18_PS8 were used as reference to estimate a depth to groundwater of 103 feet at this site.*

[c] - *If precipitation is over 40 inches, score 0 points.*

[d] - *Levels for BTEX are not applicable at a TPH concentration of 10 mg/kg (gasoline) or 100 mg/kg (diesel). For explanation, see Step 6, page 27 of California Leaking Underground Fuel Tank Manual.*

BTEX - benzene, toluene, ethylbenzene, and total xylenes
CA LUFT - California Leaking Underground Fuel Tank
mg/kg - parts per million
pts - points
TPH - total petroleum hydrocarbons
UST - underground storage tank

Table 2 - 1
Confirmation Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18292-314A-528	18292-314A-529	18292-314A-530	18292-314A-531	18292-314D-532
Sample Location		UST-314A SW CNR	UST-314A NW CNR	UST-314A SE CNR	UST-314A NE CNR	UST-314D Bottom
Date Collected		08/14/97	08/14/97	08/14/97	08/14/97	08/14/97
Sample Depth (feet below ground surface)		15.5	16.0	16.4	17.0	10.8
	Unit					
CA LUFT 8015M						
TPH as Gasoline	mg/kg	NA	NA	NA	NA	NA
TPH as Diesel	mg/kg	22000	130	5200	7600	11.26 U
TPH as Motor Oil	mg/kg	NA	NA	NA	NA	NA
EPA 418.1						
Total Recoverable Petroleum Hydrocarbon	mg/kg	29000	280	4400	34000	49
EPA 8020						
Benzene	µg/kg	NA	NA	NA	NA	NA
Ethylbenzene	µg/kg	NA	NA	NA	NA	NA
Toluene	µg/kg	NA	NA	NA	NA	NA
Xylenes (total)	µg/kg	NA	NA	NA	NA	NA
EPA 8260A						
1,1,1,2-Tetrachloroethane	µg/kg	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
1,1,2,2-Tetrachloroethane	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
1,1,2-Trichloroethane	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
1,1-Dichloroethane	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
1,1-Dichloroethene	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
1,1-Dichloropropene	µg/kg	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	µg/kg	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	µg/kg	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	µg/kg	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	µg/kg	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	NA	NA	NA	NA	NA
1,2-Dibromoethane (EDB)	µg/kg	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	µg/kg	NA	NA	NA	NA	NA
1,2-Dichloroethane	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
1,2-Dichloropropane	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
1,3,5-Trimethylbenzene	µg/kg	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	µg/kg	NA	NA	NA	NA	NA

Table 2 - 1
Confirmation Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18292-314A-528	18292-314A-529	18292-314A-530	18292-314A-531	18292-314D-532
Sample Location		UST-314A SW CNR	UST-314A NW CNR	UST-314A SE CNR	UST-314A NE CNR	UST-314D Bottom
Date Collected		08/14/97	08/14/97	08/14/97	08/14/97	08/14/97
Sample Depth (feet below ground surface)		15.5	16.0	16.4	17.0	10.8
	Unit					
1,3-Dichloropropane	µg/kg	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	µg/kg	NA	NA	NA	NA	NA
2,2-Dichloropropane	µg/kg	NA	NA	NA	NA	NA
2-Butanone (MEK)	µg/kg	11500 U	52.1 U	58.3 U	628 U	NA
2-Chloroethyl vinyl ether	µg/kg	11500 U	52.1 U	58.3 U	628 U	NA
2-Chlorotoluene	µg/kg	NA	NA	NA	NA	NA
2-Hexanone	µg/kg	11500 U	52.1 U	58.3 U	628 U	NA
4-Chlorotoluene	µg/kg	NA	NA	NA	NA	NA
4-Methyl-2-pentanone (MIBK)	µg/kg	11500 U	52.1 U	58.3 U	628 U	NA
Acetone	µg/kg	11500 U	52.1 U	120	628 U	NA
Benzene	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
Bromobenzene	µg/kg	NA	NA	NA	NA	NA
Bromochloromethane	µg/kg	NA	NA	NA	NA	NA
Bromodichloromethane	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
Bromoform	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
Bromomethane	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
Carbon disulfide	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
Carbon tetrachloride	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
Chlorobenzene	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
Chloroethane	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
Chloroform	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
Chloromethane	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
cis-1,2-Dichloroethene	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
cis-1,3-Dichloropropene	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
Dibromochloromethane	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
Dibromomethane	µg/kg	NA	NA	NA	NA	NA
Dichlorodifluoromethane	µg/kg	NA	NA	NA	NA	NA
Ethylbenzene	µg/kg	5740 U	26.1 U	17 J	220 J	NA
Hexachlorobutadiene	µg/kg	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)	µg/kg	NA	NA	NA	NA	NA
Methylene chloride	µg/kg	3600 J	26.1 U	29.2 U	314 U	NA

Table 2 - 1
Confirmation Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18292-314A-528	18292-314A-529	18292-314A-530	18292-314A-531	18292-314D-532
Sample Location		UST-314A SW CNR	UST-314A NW CNR	UST-314A SE CNR	UST-314A NE CNR	UST-314D Bottom
Date Collected		08/14/97	08/14/97	08/14/97	08/14/97	08/14/97
Sample Depth (feet below ground surface)		15.5	16.0	16.4	17.0	10.8
	Unit					
N-Butylbenzene	µg/kg	NA	NA	NA	NA	NA
N-Propylbenzene	µg/kg	NA	NA	NA	NA	NA
Naphthalene	µg/kg	NA	NA	NA	NA	NA
p-Isopropyltoluene	µg/kg	NA	NA	NA	NA	NA
sec-Butylbenzene	µg/kg	NA	NA	NA	NA	NA
Styrene	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
tert-Butylbenzene	µg/kg	NA	NA	NA	NA	NA
Tetrachloroethene	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
Toluene	µg/kg	5740 U	26.1 U	17 J	210 J	NA
trans-1,2-Dichloroethene	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
trans-1,3-Dichloropropene	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
Trichloroethene	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
Trichlorofluoromethane	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
Vinyl acetate	µg/kg	11500 U	52.1 U	58.3 U	628 U	NA
Vinyl Chloride	µg/kg	5740 U	26.1 U	29.2 U	314 U	NA
Xylenes (total)	µg/kg	5740 U	26.1 U	82	490	NA
EPA 6010A						
Lead	mg/kg	3.31	1.53	NA	NA	NA
EPA 7420						
Lead	mg/kg	NA	NA	NA	NA	NA

Table 2 - 1
Confirmation Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18292-314D-533	18609-314B-420	18609-314B-421	18609-314B-422	18609-314B-423
Sample Location		UST-314D E Side	UST-314B West	UST-314B South	UST-314B NE	UST-314B North
Date Collected		08/14/97	08/22/97	08/22/97	08/22/97	08/22/97
Sample Depth (feet below ground surface)		5.5	14.0	14.0	13.5	13.0
	Unit					
CA LUFT 8015M						
TPH as Gasoline	mg/kg	NA	44 U	1.1 U	1.2 U	1.2 U
TPH as Diesel	mg/kg	5100	39000	20000	24000	3000
TPH as Motor Oil	mg/kg	NA	5500 U	5500 U	6100 U	1200 U
EPA 418.1						
Total Recoverable Petroleum Hydrocarbon	mg/kg	5400	28500	13700	15200	3790
EPA 8020						
Benzene	µg/kg	NA	220 U	5.5 U	6.1 U	5.9 U
Ethylbenzene	µg/kg	NA	1200	24	6.1 U	5.9 U
Toluene	µg/kg	NA	680	25	3 J	5.9 U
Xylenes (total)	µg/kg	NA	6000	150	11 J	12 U
EPA 8260A						
1,1,1,2-Tetrachloroethane	µg/kg	NA	27000 U	5500 U	1200 U	590 U
1,1,1-Trichloroethane	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
1,1,2,2-Tetrachloroethane	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
1,1,2-Trichloroethane	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
1,1-Dichloroethane	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
1,1-Dichloroethene	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
1,1-Dichloropropene	µg/kg	NA	27000 U	5500 U	1200 U	590 U
1,2,3-Trichlorobenzene	µg/kg	NA	27000 U	5500 U	1200 U	590 U
1,2,3-Trichloropropane	µg/kg	NA	27000 U	5500 U	1200 U	590 U
1,2,4-Trichlorobenzene	µg/kg	NA	27000 U	1100 J	1200 U	590 U
1,2,4-Trimethylbenzene	µg/kg	NA	22000 J	5400 J	690 J	71 J
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	NA	27000 U	5500 U	1200 U	590 U
1,2-Dibromoethane (EDB)	µg/kg	NA	27000 U	5500 U	1200 U	590 U
1,2-Dichlorobenzene	µg/kg	NA	11000 J	22000	670 J	32 J
1,2-Dichloroethane	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
1,2-Dichloropropane	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
1,3,5-Trimethylbenzene	µg/kg	NA	5400 J	1600 J	320 J	590 U
1,3-Dichlorobenzene	µg/kg	NA	27000 U	5500 U	1200 U	590 U

Table 2 - 1
Confirmation Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18292-314D-533	18609-314B-420	18609-314B-421	18609-314B-422	18609-314B-423
Sample Location		UST-314D E Side	UST-314B West	UST-314B South	UST-314B NE	UST-314B North
Date Collected		08/14/97	08/22/97	08/22/97	08/22/97	08/22/97
Sample Depth (feet below ground surface)		5.5	14.0	14.0	13.5	13.0
	Unit					
1,3-Dichloropropane	µg/kg	NA	27000 U	5500 U	1200 U	590 U
1,4-Dichlorobenzene	µg/kg	NA	4300 J	12000	570 J	44 J
2,2-Dichloropropane	µg/kg	NA	27000 U	5500 U	1200 U	590 U
2-Butanone (MEK)	µg/kg	57.7 U	NA	NA	NA	NA
2-Chloroethyl vinyl ether	µg/kg	57.7 U	NA	NA	NA	NA
2-Chlorotoluene	µg/kg	NA	27000 U	5500 U	1200 U	590 U
2-Hexanone	µg/kg	57.7 U	NA	NA	NA	NA
4-Chlorotoluene	µg/kg	NA	27000 U	5500 U	1200 U	590 U
4-Methyl-2-pentanone (MIBK)	µg/kg	57.7 U	NA	NA	NA	NA
Acetone	µg/kg	57.7 U	NA	NA	NA	NA
Benzene	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
Bromobenzene	µg/kg	NA	27000 U	5500 U	1200 U	590 U
Bromochloromethane	µg/kg	NA	27000 U	5500 U	1200 U	590 U
Bromodichloromethane	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
Bromoform	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
Bromomethane	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
Carbon disulfide	µg/kg	28.8 U	NA	NA	NA	NA
Carbon tetrachloride	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
Chlorobenzene	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
Chloroethane	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
Chloroform	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
Chloromethane	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
cis-1,2-Dichloroethene	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
cis-1,3-Dichloropropene	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
Dibromochloromethane	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
Dibromomethane	µg/kg	NA	27000 U	5500 U	1200 U	590 U
Dichlorodifluoromethane	µg/kg	NA	27000 U	5500 U	1200 U	590 U
Ethylbenzene	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
Hexachlorobutadiene	µg/kg	NA	27000 U	5500 U	1200 U	590 U
Isopropylbenzene (Cumene)	µg/kg	NA	27000 U	5500 U	1200 U	590 U
Methylene chloride	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U

Table 2 - 1
Confirmation Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18292-314D-533	18609-314B-420	18609-314B-421	18609-314B-422	18609-314B-423
Sample Location		UST-314D E Side	UST-314B West	UST-314B South	UST-314B NE	UST-314B North
Date Collected		08/14/97	08/22/97	08/22/97	08/22/97	08/22/97
Sample Depth (feet below ground surface)		5.5	14.0	14.0	13.5	13.0
	Unit					
N-Butylbenzene	µg/kg	NA	27000 U	8000	2700	590 U
N-Propylbenzene	µg/kg	NA	6300 J	5500 U	1200 U	590 U
Naphthalene	µg/kg	NA	81000	19000	2000	NA
p-Isopropyltoluene	µg/kg	NA	27000 U	1000 J	360 J	150 J
sec-Butylbenzene	µg/kg	NA	27000 U	5500 U	1200 U	590 U
Styrene	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
tert-Butylbenzene	µg/kg	NA	2200 J	5500 U	1200 U	590 U
Tetrachloroethene	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
Toluene	µg/kg	28.8 U	4300 J	5500 U	39 J	590 U
trans-1,2-Dichloroethene	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
trans-1,3-Dichloropropene	µg/kg	28.8 U	NA	NA	NA	NA
Trichloroethene	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
Trichlorofluoromethane	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
Vinyl acetate	µg/kg	57.7 U	NA	NA	NA	NA
Vinyl Chloride	µg/kg	28.8 U	27000 U	5500 U	1200 U	590 U
Xylenes (total)	µg/kg	28.8 U	17000 J	1620 J	1200 U	590 U
EPA 6010A						
Lead	mg/kg	NA	7.8 J	2.0 J	3.9 J	NA
EPA 7420						
Lead	mg/kg	NA	NA	NA	NA	NA

Table 2 - 1
Confirmation Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18609-314B-424
Sample Location		UST-314B NW
Date Collected		08/22/97
Sample Depth (feet below ground surface)		15.0
	Unit	
CA LUFT 8015M		
TPH as Gasoline	mg/kg	1.1 U
TPH as Diesel	mg/kg	11 U
TPH as Motor Oil	mg/kg	11 U
EPA 418.1		
Total Recoverable Petroleum Hydrocarbon	mg/kg	16
EPA 8020		
Benzene	µg/kg	5.4 U
Ethylbenzene	µg/kg	5.4 U
Toluene	µg/kg	5.4 U
Xylenes (total)	µg/kg	11 U
EPA 8260A		
1,1,1,2-Tetrachloroethane	µg/kg	NA
1,1,1-Trichloroethane	µg/kg	NA
1,1,2,2-Tetrachloroethane	µg/kg	NA
1,1,2-Trichloroethane	µg/kg	NA
1,1-Dichloroethane	µg/kg	NA
1,1-Dichloroethene	µg/kg	NA
1,1-Dichloropropene	µg/kg	NA
1,2,3-Trichlorobenzene	µg/kg	NA
1,2,3-Trichloropropane	µg/kg	NA
1,2,4-Trichlorobenzene	µg/kg	NA
1,2,4-Trimethylbenzene	µg/kg	NA
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	NA
1,2-Dibromoethane (EDB)	µg/kg	NA
1,2-Dichlorobenzene	µg/kg	NA
1,2-Dichloroethane	µg/kg	NA
1,2-Dichloropropane	µg/kg	NA
1,3,5-Trimethylbenzene	µg/kg	NA
1,3-Dichlorobenzene	µg/kg	NA

Table 2 - 1
Confirmation Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18609-314B-424
Sample Location		UST-314B NW
Date Collected		08/22/97
Sample Depth (feet below ground surface)		15.0
	Unit	
1,3-Dichloropropane	µg/kg	NA
1,4-Dichlorobenzene	µg/kg	NA
2,2-Dichloropropane	µg/kg	NA
2-Butanone (MEK)	µg/kg	NA
2-Chloroethyl vinyl ether	µg/kg	NA
2-Chlorotoluene	µg/kg	NA
2-Hexanone	µg/kg	NA
4-Chlorotoluene	µg/kg	NA
4-Methyl-2-pentanone (MIBK)	µg/kg	NA
Acetone	µg/kg	NA
Benzene	µg/kg	NA
Bromobenzene	µg/kg	NA
Bromochloromethane	µg/kg	NA
Bromodichloromethane	µg/kg	NA
Bromoform	µg/kg	NA
Bromomethane	µg/kg	NA
Carbon disulfide	µg/kg	NA
Carbon tetrachloride	µg/kg	NA
Chlorobenzene	µg/kg	NA
Chloroethane	µg/kg	NA
Chloroform	µg/kg	NA
Chloromethane	µg/kg	NA
cis-1,2-Dichloroethene	µg/kg	NA
cis-1,3-Dichloropropene	µg/kg	NA
Dibromochloromethane	µg/kg	NA
Dibromomethane	µg/kg	NA
Dichlorodifluoromethane	µg/kg	NA
Ethylbenzene	µg/kg	NA
Hexachlorobutadiene	µg/kg	NA
Isopropylbenzene (Cumene)	µg/kg	NA
Methylene chloride	µg/kg	NA

Table 2 - 1
Confirmation Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18609-314B-424
Sample Location		UST-314B NW
Date Collected		08/22/97
Sample Depth (feet below ground surface)		15.0
	Unit	
N-Butylbenzene	µg/kg	NA
N-Propylbenzene	µg/kg	NA
Naphthalene	µg/kg	NA
p-Isopropyltoluene	µg/kg	NA
sec-Butylbenzene	µg/kg	NA
Styrene	µg/kg	NA
tert-Butylbenzene	µg/kg	NA
Tetrachloroethene	µg/kg	NA
Toluene	µg/kg	NA
trans-1,2-Dichloroethene	µg/kg	NA
trans-1,3-Dichloropropene	µg/kg	NA
Trichloroethene	µg/kg	NA
Trichlorofluoromethane	µg/kg	NA
Vinyl acetate	µg/kg	NA
Vinyl Chloride	µg/kg	NA
Xylenes (total)	µg/kg	NA
EPA 6010A		
Lead	mg/kg	NA
EPA 7420		
Lead	mg/kg	NA

Table 2 - 1
Confirmation Soil Sample Analytical Results -Former UST Site 314

Explanation:
CA LUFT - California Leaking Underground Fuel Tank
EPA - United States Environmental Protection Agency
J - estimated
M - modified
mg/kg - milligrams per kilogram
N - north
NA - not analyzed
NE - northeast
NW - northwest
OHM - OHM Remediation Services Corp.
S - south
SE - southeast
TPH - total petroleum hydrocarbons
U - not detected above or equal to the stated reporting limit
UST - underground storage tank
µg/kg - micrograms per kilogram

Table 2 - 2
Verification Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18609-314-338	18609-314-339	18609-314-340	18609-314-341	18609-314-344
Sample Location		UST-314-SB01	UST-314-SB01	UST-314-SB02	UST-314-SB02	UST-314-SB03
Date Collected		06/10/97	06/10/97	06/10/97	06/10/97	06/11/97
Sample Depth (feet below ground surface)		15.0	30.0	15.5	40.0	25.5
	Unit					
CA LUFT 8015M						
TPH as Gasoline	mg/kg	1.1 U	1.1 U	1.0 U	1.1 U	1.4 U
TPH as Diesel	mg/kg	11 U	11 U	10 U	11 U	14 U
TPH as Motor Oil	mg/kg	11 U	11 U	10 U	11 U	14 U
EPA 418.1						
Total Recoverable Petroleum Hydrocarbon	mg/kg	NA	NA	NA	NA	NA
EPA 8020						
Benzene	µg/kg	NA	NA	NA	NA	NA
Ethylbenzene	µg/kg	NA	NA	NA	NA	NA
Toluene	µg/kg	NA	NA	NA	NA	NA
Xylenes (total)	µg/kg	NA	NA	NA	NA	NA
EPA 8260A						
1,1,1,2-Tetrachloroethane	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
1,1,1-Trichloroethane	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
1,1,2,2-Tetrachloroethane	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
1,1,2-Trichloroethane	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
1,1-Dichloroethane	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
1,1-Dichloroethene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
1,1-Dichloropropene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
1,2,3-Trichlorobenzene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
1,2,3-Trichloropropane	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
1,2,4-Trichlorobenzene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
1,2,4-Trimethylbenzene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
1,2-Dibromoethane (EDB)	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
1,2-Dichlorobenzene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
1,2-Dichloroethane	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
1,2-Dichloropropane	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
1,3,5-Trimethylbenzene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
1,3-Dichlorobenzene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U

Table 2 - 2
Verification Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18609-314-338	18609-314-339	18609-314-340	18609-314-341	18609-314-344
Sample Location		UST-314-SB01	UST-314-SB01	UST-314-SB02	UST-314-SB02	UST-314-SB03
Date Collected		06/10/97	06/10/97	06/10/97	06/10/97	06/11/97
Sample Depth (feet below ground surface)		15.0	30.0	15.5	40.0	25.5
	Unit					
1,3-Dichloropropane	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
1,4-Dichlorobenzene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
2,2-Dichloropropane	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
2-Butanone (MEK)	µg/kg	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	µg/kg	NA	NA	NA	NA	NA
2-Chlorotoluene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
2-Hexanone	µg/kg	NA	NA	NA	NA	NA
4-Chlorotoluene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
4-Methyl-2-pentanone (MIBK)	µg/kg	NA	NA	NA	NA	NA
Acetone	µg/kg	NA	NA	NA	NA	NA
Benzene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Bromobenzene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Bromochloromethane	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Bromodichloromethane	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Bromoform	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Bromomethane	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Carbon disulfide	µg/kg	NA	NA	NA	NA	NA
Carbon tetrachloride	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Chlorobenzene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Chloroethane	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Chloroform	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Chloromethane	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
cis-1,2-Dichloroethene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
cis-1,3-Dichloropropene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Dibromochloromethane	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Dibromomethane	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Dichlorodifluoromethane	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Ethylbenzene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Hexachlorobutadiene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Isopropylbenzene (Cumene)	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Methylene chloride	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U

Table 2 - 2
Verification Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18609-314-338	18609-314-339	18609-314-340	18609-314-341	18609-314-344
Sample Location		UST-314-SB01	UST-314-SB01	UST-314-SB02	UST-314-SB02	UST-314-SB03
Date Collected		06/10/97	06/10/97	06/10/97	06/10/97	06/11/97
Sample Depth (feet below ground surface)		15.0	30.0	15.5	40.0	25.5
	Unit					
N-Butylbenzene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
N-Propylbenzene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Naphthalene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
p-Isopropyltoluene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
sec-Butylbenzene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Styrene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
tert-Butylbenzene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Tetrachloroethene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Toluene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
trans-1,2-Dichloroethene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
trans-1,3-Dichloropropene	µg/kg	NA	NA	NA	NA	NA
Trichloroethene	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Trichlorofluoromethane	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Vinyl acetate	µg/kg	NA	NA	NA	NA	NA
Vinyl Chloride	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
Xylenes (total)	µg/kg	5.6 U	5.7 U	5.2 U	5.3 U	7.1 U
EPA 6010A						
Lead	mg/kg	NA	NA	NA	NA	NA
EPA 7420						
Lead	mg/kg	NA	2.1 U	NA	2.1 U	NA

Table 2 - 2
Verification Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18609-314-345	18609-314-346	18609-314-347	18609-314-348	18609-554
Sample Location		UST-314-SB03	UST-314-SB04	UST-314-SB04	UST-314-SB04	UST-314-SB05
Date Collected		06/11/97	06/11/97	06/11/97	06/11/97	09/16/97
Sample Depth (feet below ground surface)		41.5	25.0	40.0	40.5	15.0
	Unit					
CA LUFT 8015M						
TPH as Gasoline	mg/kg	1.1 U	1.2 U	1.0 U	1.1 U	1.2 U
TPH as Diesel	mg/kg	11 U	12 U	10 U	11 U	580 U
TPH as Motor Oil	mg/kg	11 U	12 U	10 U	11 U	1800
EPA 418.1						
Total Recoverable Petroleum Hydrocarbon	mg/kg	NA	NA	NA	NA	NA
EPA 8020						
Benzene	µg/kg	NA	NA	NA	NA	5.8 U
Ethylbenzene	µg/kg	NA	NA	NA	NA	5.8 U
Toluene	µg/kg	NA	NA	NA	NA	5.8 U
Xylenes (total)	µg/kg	NA	NA	NA	NA	17 U
EPA 8260A						
1,1,1,2-Tetrachloroethane	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
1,1,1-Trichloroethane	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
1,1,2,2-Tetrachloroethane	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
1,1,2-Trichloroethane	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
1,1-Dichloroethane	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
1,1-Dichloroethene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
1,1-Dichloropropene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
1,2,3-Trichlorobenzene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
1,2,3-Trichloropropane	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
1,2,4-Trichlorobenzene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
1,2,4-Trimethylbenzene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
1,2-Dibromoethane (EDB)	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
1,2-Dichlorobenzene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
1,2-Dichloroethane	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
1,2-Dichloropropane	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
1,3,5-Trimethylbenzene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
1,3-Dichlorobenzene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U

Table 2 - 2
Verification Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18609-314-345	18609-314-346	18609-314-347	18609-314-348	18609-554
Sample Location		UST-314-SB03	UST-314-SB04	UST-314-SB04	UST-314-SB04	UST-314-SB05
Date Collected		06/11/97	06/11/97	06/11/97	06/11/97	09/16/97
Sample Depth (feet below ground surface)		41.5	25.0	40.0	40.5	15.0
	Unit					
1,3-Dichloropropane	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
1,4-Dichlorobenzene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
2,2-Dichloropropane	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
2-Butanone (MEK)	µg/kg	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	µg/kg	NA	NA	NA	NA	NA
2-Chlorotoluene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
2-Hexanone	µg/kg	NA	NA	NA	NA	NA
4-Chlorotoluene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
4-Methyl-2-pentanone (MIBK)	µg/kg	NA	NA	NA	NA	NA
Acetone	µg/kg	NA	NA	NA	NA	NA
Benzene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Bromobenzene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Bromochloromethane	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Bromodichloromethane	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Bromoform	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Bromomethane	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Carbon disulfide	µg/kg	NA	NA	NA	NA	NA
Carbon tetrachloride	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Chlorobenzene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Chloroethane	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Chloroform	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Chloromethane	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
cis-1,2-Dichloroethene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
cis-1,3-Dichloropropene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Dibromochloromethane	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Dibromomethane	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Dichlorodifluoromethane	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Ethylbenzene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Hexachlorobutadiene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Isopropylbenzene (Cumene)	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Methylene chloride	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U

Table 2 - 2
Verification Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18609-314-345	18609-314-346	18609-314-347	18609-314-348	18609-554
Sample Location		UST-314-SB03	UST-314-SB04	UST-314-SB04	UST-314-SB04	UST-314-SB05
Date Collected		06/11/97	06/11/97	06/11/97	06/11/97	09/16/97
Sample Depth (feet below ground surface)		41.5	25.0	40.0	40.5	15.0
	Unit					
N-Butylbenzene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
N-Propylbenzene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Naphthalene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
p-Isopropyltoluene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
sec-Butylbenzene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Styrene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
tert-Butylbenzene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Tetrachloroethene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Toluene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
trans-1,2-Dichloroethene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
trans-1,3-Dichloropropene	µg/kg	NA	NA	NA	NA	NA
Trichloroethene	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Trichlorofluoromethane	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Vinyl acetate	µg/kg	NA	NA	NA	NA	NA
Vinyl Chloride	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	5.8 U
Xylenes (total)	µg/kg	5.6 U	5.8 U	5.2 U	5.3 U	12 U
EPA 6010A						
Lead	mg/kg	NA	NA	NA	NA	NA
EPA 7420						
Lead	mg/kg	6.9	NA	2.1 U	NA	NA

Table 2 - 2
Verification Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18609-555	18609-556	18609-557	18609-558	18609-559
Sample Location		UST-314-SB05	UST-314-SB05	UST-314-SB05	UST-314-SB06	UST-314-SB06
Date Collected		09/16/97	09/16/97	09/16/97	09/16/97	09/16/97
Sample Depth (feet below ground surface)		25.0	35.0	40.0	15.0	25.0
	Unit					
CA LUFT 8015M						
TPH as Gasoline	mg/kg	1.2 U	1.2 U	1.2 U	1.1 U	1.0 U
TPH as Diesel	mg/kg	12 U	12 U	12 U	340	10 U
TPH as Motor Oil	mg/kg	12 U	12 U	12 U	520	10 U
EPA 418.1						
Total Recoverable Petroleum Hydrocarbon	mg/kg	NA	NA	NA	NA	NA
EPA 8020						
Benzene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Ethylbenzene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Toluene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Xylenes (total)	µg/kg	18 U	18 U	18 U	16 U	16 U
EPA 8260A						
1,1,1,2-Tetrachloroethane	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
1,1,1-Trichloroethane	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
1,1,2,2-Tetrachloroethane	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
1,1,2-Trichloroethane	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
1,1-Dichloroethane	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
1,1-Dichloroethene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
1,1-Dichloropropene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
1,2,3-Trichlorobenzene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
1,2,3-Trichloropropane	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
1,2,4-Trichlorobenzene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
1,2,4-Trimethylbenzene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
1,2-Dibromoethane (EDB)	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
1,2-Dichlorobenzene	µg/kg	5.9 U	6.1 U	5.9 U	1 J	5.2 U
1,2-Dichloroethane	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
1,2-Dichloropropane	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
1,3,5-Trimethylbenzene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
1,3-Dichlorobenzene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U

Table 2 - 2
Verification Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18609-555	18609-556	18609-557	18609-558	18609-559
Sample Location		UST-314-SB05	UST-314-SB05	UST-314-SB05	UST-314-SB06	UST-314-SB06
Date Collected		09/16/97	09/16/97	09/16/97	09/16/97	09/16/97
Sample Depth (feet below ground surface)		25.0	35.0	40.0	15.0	25.0
	Unit					
1,3-Dichloropropane	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
1,4-Dichlorobenzene	µg/kg	5.9 U	6.1 U	5.9 U	2 J	5.2 U
2,2-Dichloropropane	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
2-Butanone (MEK)	µg/kg	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	µg/kg	NA	NA	NA	NA	NA
2-Chlorotoluene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
2-Hexanone	µg/kg	NA	NA	NA	NA	NA
4-Chlorotoluene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
4-Methyl-2-pentanone (MIBK)	µg/kg	NA	NA	NA	NA	NA
Acetone	µg/kg	NA	NA	NA	NA	NA
Benzene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Bromobenzene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Bromochloromethane	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Bromodichloromethane	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Bromoform	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Bromomethane	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Carbon disulfide	µg/kg	NA	NA	NA	NA	NA
Carbon tetrachloride	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Chlorobenzene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Chloroethane	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Chloroform	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Chloromethane	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
cis-1,2-Dichloroethene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
cis-1,3-Dichloropropene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Dibromochloromethane	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Dibromomethane	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Dichlorodifluoromethane	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Ethylbenzene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Hexachlorobutadiene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Isopropylbenzene (Cumene)	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Methylene chloride	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U

Table 2 - 2
Verification Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18609-555	18609-556	18609-557	18609-558	18609-559
Sample Location		UST-314-SB05	UST-314-SB05	UST-314-SB05	UST-314-SB06	UST-314-SB06
Date Collected		09/16/97	09/16/97	09/16/97	09/16/97	09/16/97
Sample Depth (feet below ground surface)		25.0	35.0	40.0	15.0	25.0
	Unit					
N-Butylbenzene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
N-Propylbenzene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Naphthalene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
p-Isopropyltoluene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
sec-Butylbenzene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Styrene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
tert-Butylbenzene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Tetrachloroethene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Toluene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
trans-1,2-Dichloroethene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
trans-1,3-Dichloropropene	µg/kg	NA	NA	NA	NA	NA
Trichloroethene	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Trichlorofluoromethane	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Vinyl acetate	µg/kg	NA	NA	NA	NA	NA
Vinyl Chloride	µg/kg	5.9 U	6.1 U	5.9 U	5.4 U	5.2 U
Xylenes (total)	µg/kg	12 U	12 U	12 U	11 U	10 U
EPA 6010A						
Lead	mg/kg	NA	NA	NA	NA	NA
EPA 7420						
Lead	mg/kg	NA	NA	NA	NA	NA

Table 2 - 2
Verification Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18609-560	18609-561	18609-562	18609-563	18609-564
Sample Location		UST-314-SB06	UST-314-SB06	UST-314-SB07	UST-314-SB07	UST-314-SB07
Date Collected		09/16/97	09/16/97	09/16/97	09/16/97	09/16/97
Sample Depth (feet below ground surface)		35.0	40.0	15.0	25.0	35.0
	Unit					
CA LUFT 8015M						
TPH as Gasoline	mg/kg	1.0 U	1.0 U	1.2 U	1.2 U	1.2 U
TPH as Diesel	mg/kg	10 U	10 U	12 U	12 U	12 U
TPH as Motor Oil	mg/kg	10 U	10 U	12 U	12 U	12 U
EPA 418.1						
Total Recoverable Petroleum Hydrocarbon	mg/kg	NA	NA	NA	NA	NA
EPA 8020						
Benzene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Ethylbenzene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Toluene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Xylenes (total)	µg/kg	15 U	16 U	18 U	17 U	18 U
EPA 8260A						
1,1,1,2-Tetrachloroethane	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
1,1,1-Trichloroethane	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
1,1,2,2-Tetrachloroethane	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
1,1,2-Trichloroethane	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
1,1-Dichloroethane	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
1,1-Dichloroethene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
1,1-Dichloropropene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
1,2,3-Trichlorobenzene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
1,2,3-Trichloropropane	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
1,2,4-Trichlorobenzene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
1,2,4-Trimethylbenzene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
1,2-Dibromoethane (EDB)	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
1,2-Dichlorobenzene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
1,2-Dichloroethane	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
1,2-Dichloropropane	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
1,3,5-Trimethylbenzene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
1,3-Dichlorobenzene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U

Table 2 - 2
Verification Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18609-560	18609-561	18609-562	18609-563	18609-564
Sample Location		UST-314-SB06	UST-314-SB06	UST-314-SB07	UST-314-SB07	UST-314-SB07
Date Collected		09/16/97	09/16/97	09/16/97	09/16/97	09/16/97
Sample Depth (feet below ground surface)		35.0	40.0	15.0	25.0	35.0
	Unit					
1,3-Dichloropropane	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
1,4-Dichlorobenzene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
2,2-Dichloropropane	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
2-Butanone (MEK)	µg/kg	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	µg/kg	NA	NA	NA	NA	NA
2-Chlorotoluene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
2-Hexanone	µg/kg	NA	NA	NA	NA	NA
4-Chlorotoluene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
4-Methyl-2-pentanone (MIBK)	µg/kg	NA	NA	NA	NA	NA
Acetone	µg/kg	NA	NA	NA	NA	NA
Benzene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Bromobenzene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Bromochloromethane	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Bromodichloromethane	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Bromoform	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Bromomethane	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Carbon disulfide	µg/kg	NA	NA	NA	NA	NA
Carbon tetrachloride	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Chlorobenzene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Chloroethane	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Chloroform	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Chloromethane	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
cis-1,2-Dichloroethene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
cis-1,3-Dichloropropene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Dibromochloromethane	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Dibromomethane	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Dichlorodifluoromethane	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Ethylbenzene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Hexachlorobutadiene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Isopropylbenzene (Cumene)	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Methylene chloride	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U

Table 2 - 2
Verification Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18609-560	18609-561	18609-562	18609-563	18609-564
Sample Location		UST-314-SB06	UST-314-SB06	UST-314-SB07	UST-314-SB07	UST-314-SB07
Date Collected		09/16/97	09/16/97	09/16/97	09/16/97	09/16/97
Sample Depth (feet below ground surface)		35.0	40.0	15.0	25.0	35.0
	Unit					
N-Butylbenzene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
N-Propylbenzene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Naphthalene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
p-Isopropyltoluene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
sec-Butylbenzene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Styrene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
tert-Butylbenzene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Tetrachloroethene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Toluene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
trans-1,2-Dichloroethene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
trans-1,3-Dichloropropene	µg/kg	NA	NA	NA	NA	NA
Trichloroethene	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Trichlorofluoromethane	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Vinyl acetate	µg/kg	NA	NA	NA	NA	NA
Vinyl Chloride	µg/kg	5.2 U	5.2 U	6.1 U	5.8 U	5.9 U
Xylenes (total)	µg/kg	10 U	10 U	12 U	12 U	12 U
EPA 6010A						
Lead	mg/kg	NA	NA	NA	NA	NA
EPA 7420						
Lead	mg/kg	NA	NA	NA	NA	NA

Table 2 - 2
Verification Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18609-565
Sample Location		UST-314-SB07
Date Collected		09/16/97
Sample Depth (feet below ground surface)		39.5
	Unit	
CA LUFT 8015M		
TPH as Gasoline	mg/kg	1.2 U
TPH as Diesel	mg/kg	12 U
TPH as Motor Oil	mg/kg	12 U
EPA 418.1		
Total Recoverable Petroleum Hydrocarbon	mg/kg	NA
EPA 8020		
Benzene	µg/kg	6.2 U
Ethylbenzene	µg/kg	6.2 U
Toluene	µg/kg	6.2 U
Xylenes (total)	µg/kg	19 U
EPA 8260A		
1,1,1,2-Tetrachloroethane	µg/kg	6.2 U
1,1,1-Trichloroethane	µg/kg	6.2 U
1,1,2,2-Tetrachloroethane	µg/kg	6.2 U
1,1,2-Trichloroethane	µg/kg	6.2 U
1,1-Dichloroethane	µg/kg	6.2 U
1,1-Dichloroethene	µg/kg	6.2 U
1,1-Dichloropropene	µg/kg	6.2 U
1,2,3-Trichlorobenzene	µg/kg	6.2 U
1,2,3-Trichloropropane	µg/kg	6.2 U
1,2,4-Trichlorobenzene	µg/kg	6.2 U
1,2,4-Trimethylbenzene	µg/kg	6.2 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	6.2 U
1,2-Dibromoethane (EDB)	µg/kg	6.2 U
1,2-Dichlorobenzene	µg/kg	6.2 U
1,2-Dichloroethane	µg/kg	6.2 U
1,2-Dichloropropane	µg/kg	6.2 U
1,3,5-Trimethylbenzene	µg/kg	6.2 U
1,3-Dichlorobenzene	µg/kg	6.2 U

Table 2 - 2
Verification Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18609-565
Sample Location		UST-314-SB07
Date Collected		09/16/97
Sample Depth (feet below ground surface)		39.5
	Unit	
1,3-Dichloropropane	µg/kg	6.2 U
1,4-Dichlorobenzene	µg/kg	6.2 U
2,2-Dichloropropane	µg/kg	6.2 U
2-Butanone (MEK)	µg/kg	NA
2-Chloroethyl vinyl ether	µg/kg	NA
2-Chlorotoluene	µg/kg	6.2 U
2-Hexanone	µg/kg	NA
4-Chlorotoluene	µg/kg	6.2 U
4-Methyl-2-pentanone (MIBK)	µg/kg	NA
Acetone	µg/kg	NA
Benzene	µg/kg	6.2 U
Bromobenzene	µg/kg	6.2 U
Bromochloromethane	µg/kg	6.2 U
Bromodichloromethane	µg/kg	6.2 U
Bromoform	µg/kg	6.2 U
Bromomethane	µg/kg	6.2 U
Carbon disulfide	µg/kg	NA
Carbon tetrachloride	µg/kg	6.2 U
Chlorobenzene	µg/kg	6.2 U
Chloroethane	µg/kg	6.2 U
Chloroform	µg/kg	6.2 U
Chloromethane	µg/kg	6.2 U
cis-1,2-Dichloroethene	µg/kg	6.2 U
cis-1,3-Dichloropropene	µg/kg	6.2 U
Dibromochloromethane	µg/kg	6.2 U
Dibromomethane	µg/kg	6.2 U
Dichlorodifluoromethane	µg/kg	6.2 U
Ethylbenzene	µg/kg	6.2 U
Hexachlorobutadiene	µg/kg	6.2 U
Isopropylbenzene (Cumene)	µg/kg	6.2 U
Methylene chloride	µg/kg	6.2 U

Table 2 - 2
Verification Soil Sample Analytical Results -Former UST Site 314

OHM Sample Number		18609-565
Sample Location		UST-314-SB07
Date Collected		09/16/97
Sample Depth (feet below ground surface)		39.5
	Unit	
N-Butylbenzene	µg/kg	6.2 U
N-Propylbenzene	µg/kg	6.2 U
Naphthalene	µg/kg	6.2 U
p-Isopropyltoluene	µg/kg	6.2 U
sec-Butylbenzene	µg/kg	6.2 U
Styrene	µg/kg	6.2 U
tert-Butylbenzene	µg/kg	6.2 U
Tetrachloroethene	µg/kg	6.2 U
Toluene	µg/kg	6.2 U
trans-1,2-Dichloroethene	µg/kg	6.2 U
trans-1,3-Dichloropropene	µg/kg	NA
Trichloroethene	µg/kg	6.2 U
Trichlorofluoromethane	µg/kg	6.2 U
Vinyl acetate	µg/kg	NA
Vinyl Chloride	µg/kg	6.2 U
Xylenes (total)	µg/kg	12 U
EPA 6010A		
Lead	mg/kg	NA
EPA 7420		
Lead	mg/kg	NA

Table 2 - 2
Verification Soil Sample Analytical Results -Former UST Site 314

Explanation:
CA LUFT - California Leaking Underground Fuel Tank
EPA - United States Environmental Protection Agency
J - estimated
M - modified
mg/kg - milligrams per kilogram
OHM - OHM Remediation Services Corp.
SB - soil boring
TPH - total petroleum hydrocarbons
U - not detected above or equal to the stated reporting limit
UST - underground storage tank
µg/kg - micrograms per kilogram

Appendix A
RFA Background Information

APPENDIX A
RFA BACKGROUND INFORMATION

TANK REMOVAL AND SITE CLOSURE REPORT UNDERGROUND STORAGE TANKS 314A, 314B, AND 314D

THE ABOVE APPENDIX WAS RECEIVED AS-IS.

QUESTIONS MAY BE DIRECTED TO:

DIANE C. SILVA
RECORDS MANAGEMENT SPECIALIST
SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132

TELEPHONE: (619) 532-3676

Craig Early

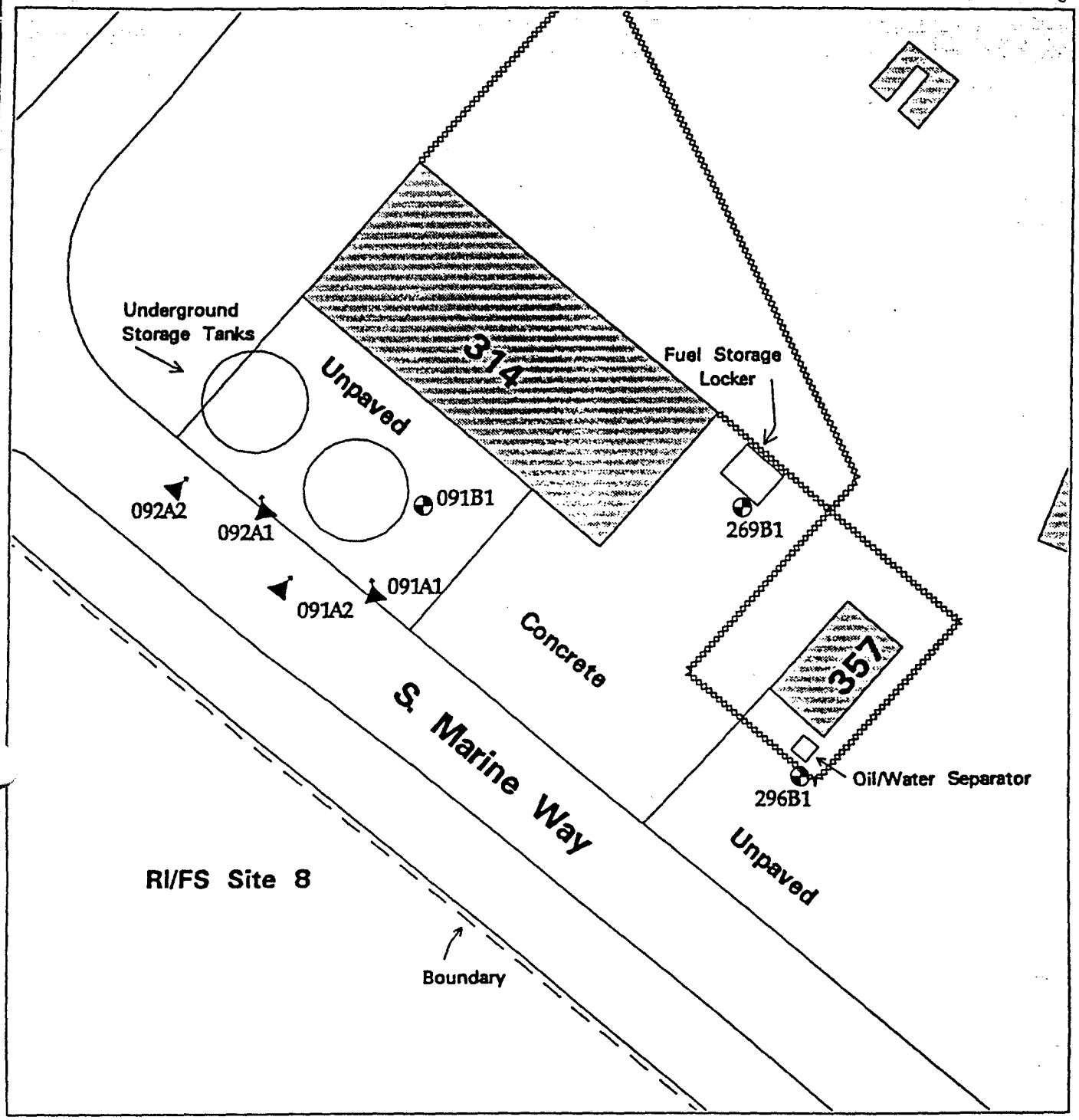


Figure 31 Sample Location Map

Boring Location and Number:

- ⊕ 123H4 5′ Deep Boring
- ◕ 123B4 25′ Deep Boring
- ▲ 123A4 60′ Long, Angle Boring

Features:

- Building
- Concrete
- Fence
- Railroad

Scale

0 20 40 80 Feet

SWMU/AOC Number and Type:

91 - Underground Storage Tank
92 - Underground Storage Tank
269 - Fuel Storage Locker
296 - Oil/Water Separator

MCAS El Toro
RCRA Facility Assessment

MCAS EL TORO RCRA FACILITY ASSESSMENT -- SAMPLING VISIT RESULTS

SWMU/AOC NUMBER	SWMU/AOC TYPE (FIGURE)	BORING NUMBER	SAMPLE DEPTH (FEET)	ANALYTICAL TEST RESULTS							RECOMMENDATIONS	
				TPH (mg/kg)	TFH (mg/kg)		VOCs (ug/kg)	SVOCs (ug/kg)	PESTICIDES/PCBs (ug/kg)	METALS (mg/kg)	Action	Rationale
					Gasoline	Diesel						
92	Underground Storage Tank (31)	A1	10	ND	NA	NA	Methylene Chloride-7 BJ *	NA	NA	NA	NFA	TPH/TFH < 1000 ppm VOCs < CRDL
			20	178	NA	NA	Methylene Chloride-5 BJ *	NA	NA	NA		
			30	151	NA	NA	Methylene Chloride-4 BJ * Acetone-10 J *	NA	NA	NA		CRDL - Contract Required Detection Limit
			40	119	NA	NA	Methylene Chloride-5 BJ *	NA	NA	NA		
			40 (Duplicate)	86	NA	NA	Methylene Chloride-5 BJ * Acetone-9 J *	NA	NA	NA		
			50	69	NA	NA	Methylene Chloride-7 BJ * Acetone-21 *	NA	NA	NA		
			60	138	NA	NA	Methylene Chloride-7 BJ *	NA	NA	NA		
		A2	10	416	NA	NA	Methylene Chloride-3 BJ * Acetone-25 B *	NA	NA	NA		
			20	117	NA	NA	Acetone-21 B *	NA	NA	NA		
			30	ND	NA	NA	Acetone-24 B *	NA	NA	NA		
			40	ND	NA	NA	Methylene Chloride-2 BJ * Acetone-32 B *	NA	NA	NA		
			50	105	NA	NA	Methylene Chloride-3 BJ * Acetone-27 B *	NA	NA	NA		
			60	185	NA	NA	Methylene Chloride-3 BJ * Acetone-24 B *	NA	NA	NA		

MCAS EL TORO RCRA FACILITY ASSESSMENT -- SAMPLING VISIT RESULTS

SWMU/AOC NUMBER	SWMU/AOC TYPE (FIGURE)	BORING NUMBER	SAMPLE DEPTH (FEET)	ANALYTICAL TEST RESULTS							RECOMMENDATIONS	
				TPH (mg/kg)	TFH (mg/kg)		VOCs (ug/kg)	SVOCs (ug/kg)	PESTICIDES/PCBs (ug/kg)	METALS (mg/kg)	Action	Rationale
					Gasoline	Diesel						
91	Underground Storage Tank (31)	A1	10	249	NA	NA	Methylene Chloride-5 BJ * Acetone-13 B *	NA	NA	NA	NFA	TPH/TFH < 1000 ppm VOCs < CRDL
		A2	10	152	NA	NA	Methylene Chloride-5 BJ * Acetone-9 BJ *	NA	NA	NA		
			20	ND	NA	NA	Methylene Chloride-5 BJ * Acetone-17 B *	NA	NA	NA		CRDL - Contract Required Detection Limit
			30	159	NA	NA	Methylene Chloride-4 BJ *	NA	NA	NA		
			40	ND	NA	NA	Methylene Chloride-5 BJ * Acetone-12 *	NA	NA	NA		
			50	187	NA	NA	Methylene Chloride-5 BJ * Acetone-9 J *	NA	NA	NA		
			60	ND	NA	NA	Methylene Chloride-6 BJ * Acetone-15 *	NA	NA	NA		
			60 (Duplicate)	142	NA	NA	Methylene Chloride-6 BJ *	NA	NA	NA		
		B1	5	ND	NA	NA	Methylene Chloride-6 BJ *	NA	NA	NA		
			10	ND	NA	NA	Methylene Chloride-18 BJ * Acetone-58 B *	NA	NA	NA		
			15	ND	NA	NA	Methylene Chloride-5 BJ *	NA	NA	NA		
			20	86	NA	NA	Methylene Chloride-6 BJ * Acetone-16 *	NA	NA	NA		
			25	ND	NA	NA	Methylene Chloride-13 B *	NA	NA	NA		

TABLE 4-1
COMPREHENSIVE LIST OF SWMUs AND AREAS OF CONCERN
IDENTIFIED DURING THE PRELIMINARY REVIEW/VISUAL SITE INSPECTION
MCAS EL TORO RFA

SWMU	SMWU TYPE	SOURCE (1)	LOCATION/BUILDING	COMMENTS	DATE	SIZE	MATERIAL	CONTENTS
91	Underground Storage Tank	f	314	Active	1945	50,000 gal	Concrete	Waste Oil
92	Underground Storage Tank	f	314	Active	1945	50,000 gal	Concrete	Waste Oil
93	Drum Storage Area	a,b	317					
94	Drum Storage Area	a,b	320	RI/FS Site				
95	Engine Test Cell	a	324					
96	Drum Storage Area	a	343	Possible Duplicate of SWMU/AOC 107 or 242				
97	Drum Storage Area	a	357					
98	Vehicle Wash Rack	a	359					
99	Drum Storage Area	a	359					
100	TCE Degreasers	a	359					
101	Oil/Water Separator	f	359	Active	1952	100 gal	Concrete	
102	Underground Storage Tank	f	359	Active	1982	500 gal	Steel	Waste Stoddard Solvent
103	Drum Storage Area (2)	c	359			120 sq ft		
104	Drum Storage Area	b	360	RI/FS Site				
105	Drum Storage Area	c	360	RI/FS Site				
106	Drum Storage Area	c	360	RI/FS Site		5,076 sq ft		
107	Hazardous Waste Storage Area	Active	371					
108	Underground Storage Tank	f	T-10	Spill Containment Tank, Active	1988	1,000 gal	Fiberglass-Coated Steel	Fuel Slop
109	Drum Storage Area (2)	b	379					
110	Vehicle Wash Rack	a	386					
111	Hazardous Waste Storage Area	Active, a	386	Duplicate of SWMU/AOC 223				
112	Oil/Water Separator	f	386		1982	100 gal	Steel	
113	Underground Storage Tank	f	386	Active	1982	185 gal	Steel	Waste Oil
114	Drum Storage Area	c	386	Active		50 sq ft		
115	Vehicle Wash Rack	a	388	Duplicate of SWMU/AOC 201				
116	Drum Storage Area	a,b	388					
117	Underground Storage Tank	f	388	Active, Identified as gasoline tank in VSI	1955	2,000 gal	Steel	Waste Oil
118	Oil/Water Separator (2)	f	388	Active	1955	100 gal	Steel	
119	Drum Storage Area	b	389					
120	Vehicle Wash Rack	a	390					

TABLE 5-1
CHEMICAL ANALYSES AT SWMUs AND AREAS OF CONCERN
MCAS EL TORO RFA

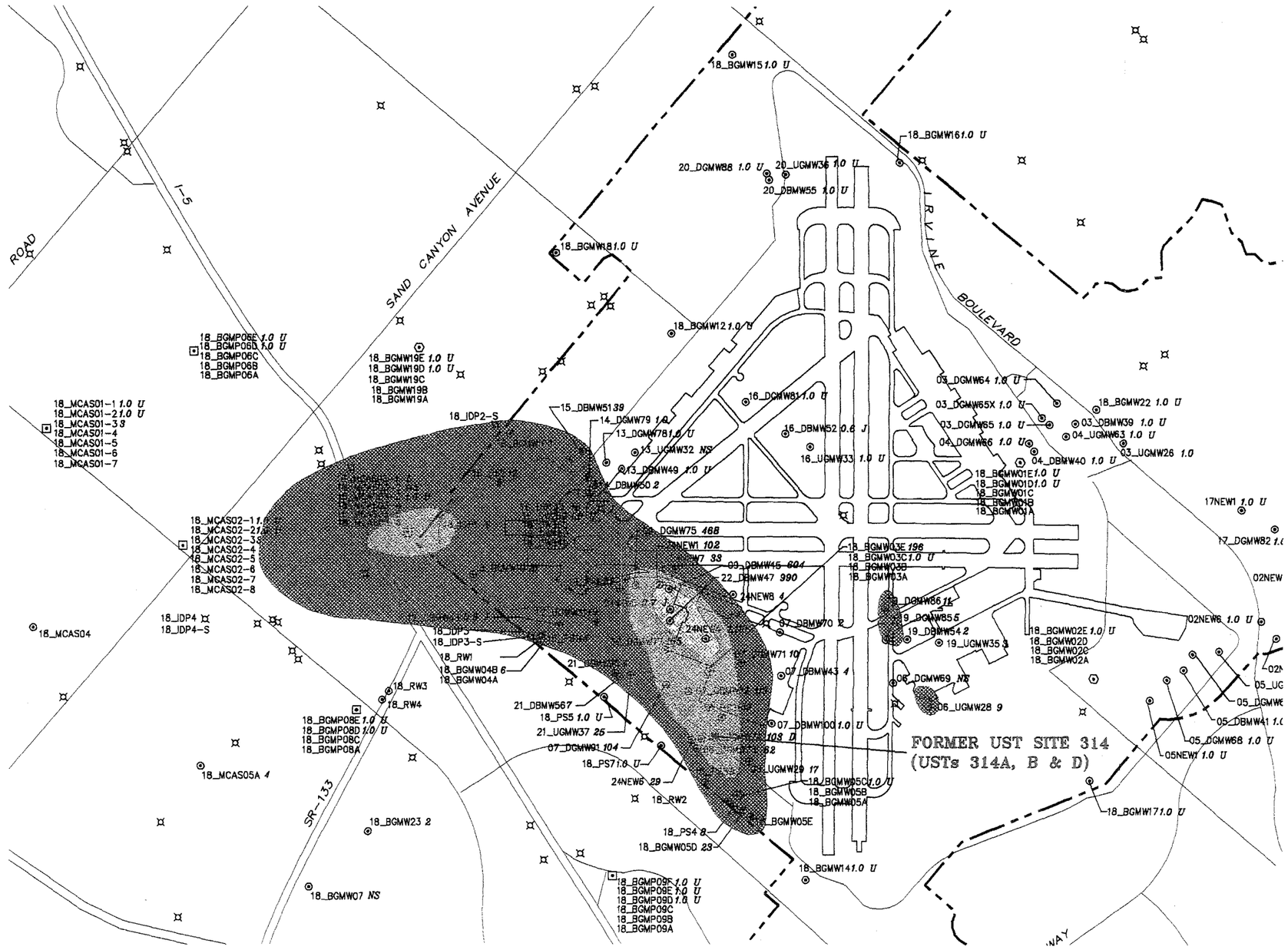
SWMU/ AOC Number	Volatile Organics	Semi-Volatile Organics	TPH	TFH	Pesticides/ PCBs	Metals	Cyanide	Dioxins/ Furans
3	X	X	X	X	X	X		
4	X	X	X	X	X	X	X	
5	X	X	X	X	X	X		
6	X			X				
7	X		X		X			
8	X	X	X	X	X	X		
9	X			X				
11	X	X	X	X	X	X		
13	X			X				
14	X			X				
15	X			X				
16	X			X				
20	X			X				
26	X	X	X	X	X	X		
27	X	X	X	X	X	X		
30	X	X	X	X	X	X		
33	X	X	X	X	X	X		
39	X	X	X	X	X	X		
41	X		X					
45	X	X	X	X	X	X	X	
46	X		X					
48	X		X					
49	X		X					
57	X		X					
59	X		X					
65	X		X					
70	X	X	X	X	X	X		
73	X	X	X	X	X	X		
76	X		X					
83	X	X	X	X	X	X		
84	X		X					
88	X	X	X	X	X	X		
90	X	X	X	X	X	X	X	
91	X		X					
92	X		X					
95	X	X	X	X	X	X		
98	X		X					
99	X	X	X	X	X	X		
100	X		X					

TABLE 5-2
AMENDED SAMPLE LOCATIONS

Page 1 of 2

SWMU/AOC	AMENDMENT
91, 92	Figure 34 in the SVWP shows the location of these SWMUs/AOCs incorrectly. They should be located where SWMU/AOC Number 269 is shown. These USTs appear to be approximately 12,000 gallons. The proposed drilling and sampling effort of two 60-foot angle borings for each SWMU/AOC will remain the same.
91	Refusal was encountered at the 20-foot depth at SWMU/AOC 91, angle boring 1. Due to nearby underground utilities and overhead obstructions, the angle boring could not be safely relocated. Therefore, the angle boring was replaced with a 25-foot boring drilled approximately 5 feet from the east edge of the tank.
99	A 60-foot angle boring was originally proposed at SWMU 99 because the SWMU was actively being used as drum storage areas during the time of the VSI. Before the field effort began, the drum storage area became inactive, thus allowing the proposed borings to be replaced with two 25-foot borings.
100	Because of nearby obstructions, the originally-planned 25-foot boring could not be placed close enough to the TCE degreaser inside Building 359 to adequately assess the possibility of a release from this SWMU/AOC. A 60-foot angle boring was substituted for the 25-foot boring to assess the soil beneath the TCE degreaser.
102	During the VSI, several drums were being stored at SWMU/AOC 102. Therefore, a 60-foot angle boring was proposed to collect soil samples from beneath the drum storage area. At the time of the SV, the drums had been removed. Thus, the 60-foot angle boring was replaced with two 25-foot borings.
107	Figure 11 of the SVWP identifies two 25-foot vertical borings at this SWMU/AOC. The type of boring shown in the SVWP was incorrectly identified and should be replaced with two 5-foot borings. The purpose of these borings was to investigate the stained area adjacent to the HWSA.
112, 113	Numerous underground utilities are located adjacent to the oil/water separator and UST at this location. A 60-foot angle boring was substituted for the 25-foot boring originally proposed to enable the drillers to safely drill under the utilities and collect samples from beneath the oil/water separator and UST.
125	This SWMU/AOC is no longer an active HWSA. The HWSA has been dismantled and the stored waste removed since the VSI was conducted in 1991. Since the area is now unpaved, the 60-foot angle boring was replaced with a 25-foot boring placed approximately in the center of the former HWSA.
164, 169	SWMU/AOC 164 is a vehicle washrack and SWMU/AOC 169 is an oil/water separator. SWMU/AOC 169 is partially located beneath SWMU/AOC 164, which is an inactive washrack. Currently, an air compressor unit and a small materials storage shed occupy approximately 80 percent of the wash pad area. Because the oil/water separator and the area occupied by the compressor unit and storage shed are in close proximity, SWMU/AOC 169 was combined with SWMU/AOC 164. The proposed 25-foot borings at each SWMU/AOC were replaced with two 60-foot angle borings slanted beneath the washrack and the oil/water separator.

Appendix B
Chlorinated Solvent Plume Map



REVISIONS			
REV. No.	DESCRIPTION	DATE	APPROVED
01	XELTBASE.DWG BY BECHTEL NATIONAL, INC		
02	17486099.DWG OHM DRAWING BY A. SUAREZ	02/12/98	
03	17486006.DWG OHM DRAWING BY R. PIRMORADIAN	03/09/98	
04	18609113.DWG OHM DRAWING BY R. PIRMORADIAN	03/10/98	

CONTRACT NAME: SWDIV

OHM Remediation Services Corp.
A Subsidiary of OHM Corporation
SAN DIEGO, CA

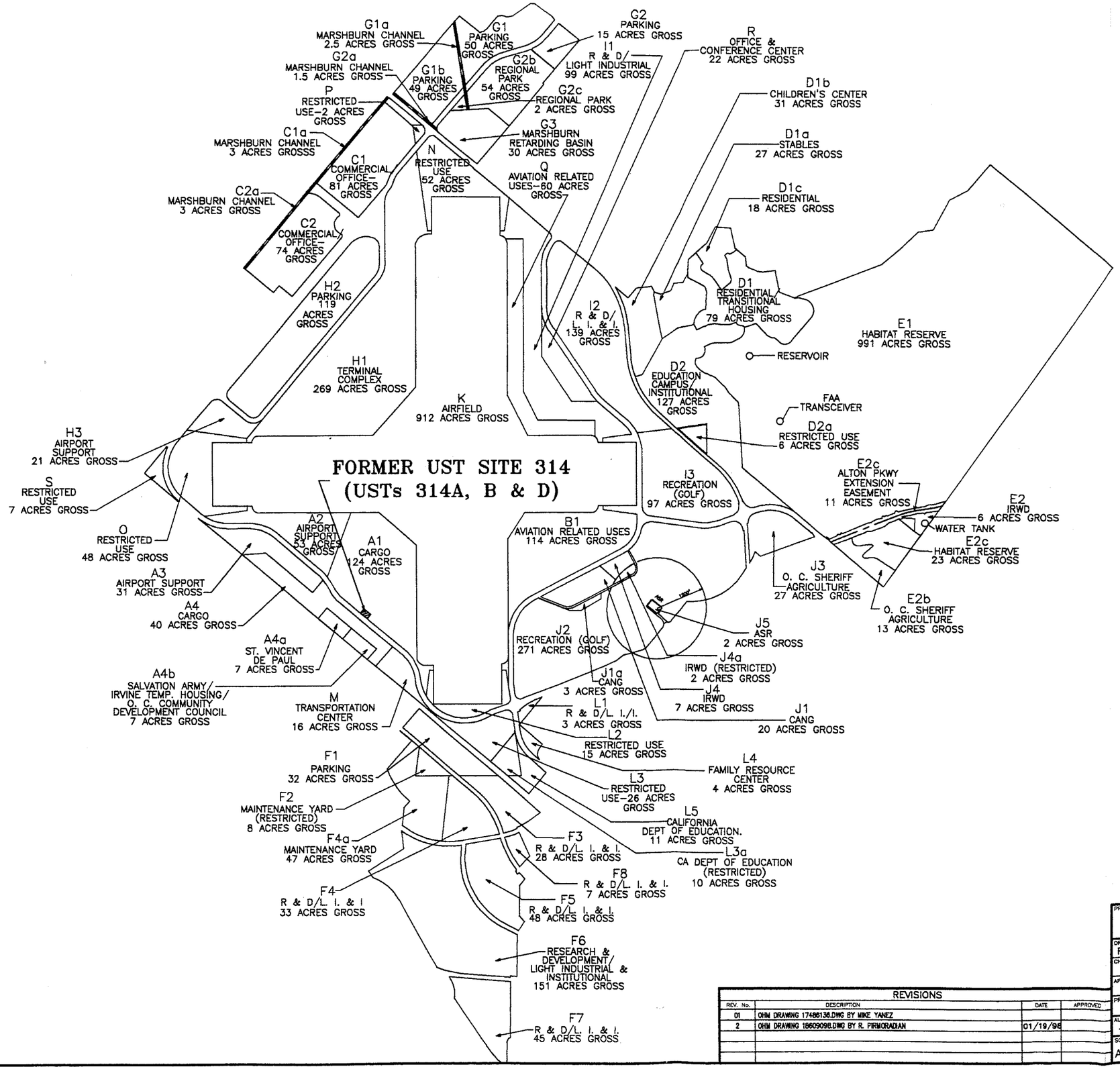
DRAWN BY: R. PIRMORADIAN DATE: 09/11/98
CHECKED BY: DATE:
APPROVED BY: DR DATE: 9/14/98
PROJECT MANAGER: DATE:
AUTOCAD FILE No.: 18609145.DWG

CHLORINATED SOLVENT PLUME
IN GROUNDWATER
FORMER UST SITE 314
(USTs 314A, B & D)
MARINE CORPS AIR STATION
EL TORO, CALIFORNIA

SCALE	SHEET	OF	DOCUMENT CONTROL No.	OHM PROJECT No.	DRAWING No.
AS NOTED	1	1	SW5237	18609	APPENDIX B

Sept 11, 1998 – 11:51:40 G:\PROJECTS\18609\18609145.dwg

Appendix C
Tentative Reuse Parcel Location for UST Site 314



GRAPHIC SCALE
0 600 1,200 2,400
(IN FEET)

REVISIONS			
REV. No.	DESCRIPTION	DATE	APPROVED
01	OHM DRAWING 17486136.DWG BY MIKE YANEZ		
2	OHM DRAWING 18609098.DWG BY R. PIRMORADIAN	01/19/98	

PROJECT: SWDIV

DRAWN BY: R. PIRMORADIAN DATE: 09/11/98
CHECKED BY: DATE:
APPROVED BY: DR DATE: 9/14/98
PROJECT MANAGER: DATE:
AUTOCAD FILE No.: 18609131.DWG

OHM Remediation Services Corp.
A Subsidiary of OHM Corporation
SAN DIEGO, CA

EL TORO COMMUNITY REUSE PLAN
1997 WORKING MAP LAND USES/
CONVEYANCES GROSS ACRES
FORMER UST SITE 314
MARINE CORPS AIR STATION
EL TORO, CALIFORNIA

SCALE	SHEET	OF	DOCUMENT CONTROL No.	OHM PROJECT No.	DRAWING No.
AS NOTED	1	1	SW5237	18609	FIG 1

Sept 11, 1998 – 11:25:33 G:\PROJECTS\18609\18609131.dwg

Appendix D
Orange County Health Care Agency Modification Application and Approval Forms

COUNTY OF ORANGE

TOM URAM
DIRECTOR

HUGH F. STALLWORTH, M.D.
HEALTH OFFICER

ENVIRONMENTAL HEALTH DIVISION
ROBERT E. MERRYMAN, REHS, MPH
DEPUTY DIRECTOR

HEALTH CARE AGENCY
PUBLIC HEALTH SERVICES
ENVIRONMENTAL HEALTH DIVISION
2009 E. EDINGER AVENUE
SANTA ANA, CALIFORNIA 92705
(714) 667-3700

(2)

PC# 97-080

FACILITY MODIFICATION APPLICATION
(INSTALLATION/REMOVAL/REPAIR)
(COMPLETE PAGES 1 & 2)

DATE: 4/6/97

FACILITY INFORMATION

NAME: MARINE CORPS AIR STATION ELTORO

STREET ADDRESS: P O Box 95001

CITY: Santa Ana CA 92709

TOTAL NUMBER OF TANKS (AFTER INSTALLATION/REMOVAL) AT THIS LOCATION: 0

TYPE OF BUSINESS:
- ☐ GASOLINE STATION
- ☒ GOVERNMENT
- ☐ FARM
- ☐ OTHER

TANK OWNER NAME (CORP., INDIVIDUAL, PUBLIC AGENCY):
MCAS ELTORO ENV Dept

STREET ADDRESS: Building T-2009

CITY: SantAna

STATE: CA ZIP 92709

TELEPHONE NO: 714-726-3309

BILLING ADDRESS INFORMATION

BILL TO NAME: OHM Remediation Services

BILL TO ADDRESS: 2031 Main Street

CITY: IRVINE

STATE: CA ZIP 92714

TELEPHONE NO.: 714-263-1146

TYPE OF CONSTRUCTION

INDICATE NO. OF TANK(S) BEING REMOVED/REPAIRED/INSTALLED BELOW: (COMPLETE PAGE 2 - INDICATING THE TANKS TO BE INSTALLED/REMOVED, OR AFFECTED BY THE REPAIR)

- ☐ INSTALLATION(S)
- ☐ REPAIR(S)/RELINE(S) TO USTs
- ☒ CLOSURE(S)/REMOVAL(S) (11)
- ☐ SYSTEM MODIFICATION (E.G. REPIPE, REPAIR TO PIPING)
- ☐ OTHER (SPECIFY)

24 HOUR EMERGENCY CONTACT PERSON

DAYS: SCOTT KEHE 714-726-2506
NAME TELEPHONE

NIGHTS: OHM - 1-800-537-9540 / ELTORO - 714-726-9911/2172
NAME TELEPHONE

APPLICANT

NAME: DHANANJAY RAWAL
PLEASE PRINT

SIGNATURE: [signature]

COMPANY NAME: OHM Remediation Services

TELEPHONE NO: 714-263-9124 x 303

FACILITY OPERATOR (CONTACT PERSON)

NAME: LT Hope Katchanian, MCAS ENV.

BUSINESS TELEPHONE NO.: 714-726-3386

NOTES: NEW INSTALLATIONS, CLOSURES, REPAIRS AND SYSTEM MODIFICATIONS OF UNDERGROUND STORAGE TANKS REQUIRE THE SUBMITTAL OF (4) SETS OF PLANS TO THIS DIVISION. THESE PLANS MUST BE APPROVED PRIOR TO THE INITIATION OF ANY CONSTRUCTION OR MODIFICATION. ALL PLANS OR REPORTS REQUIRED MUST ACCOMPANY THIS FORM AT THE TIME OF SUBMITTAL.

PLAN APPROVAL AND FEES ARE VALID FOR ONE YEAR. IF TANKS HAVE NOT BEEN REMOVED, INSTALLED OR MODIFIED WITHIN ONE YEAR OF THE APPROVAL DATE, NEW PLANS AND FEES MUST BE SUBMITTED.

OFFICE USE ONLY

PLAN CHECK NO.: _____ FEES PAID: _____ RCVD. BY: _____

PLAN APPROVAL DATE: _____ BY: _____

NUMBER OF TANKS TO RECEIVE A SURCHARGE BILL: _____ NUMBER OF TANKS TO BE ADDED TO BILLING: _____

(3)

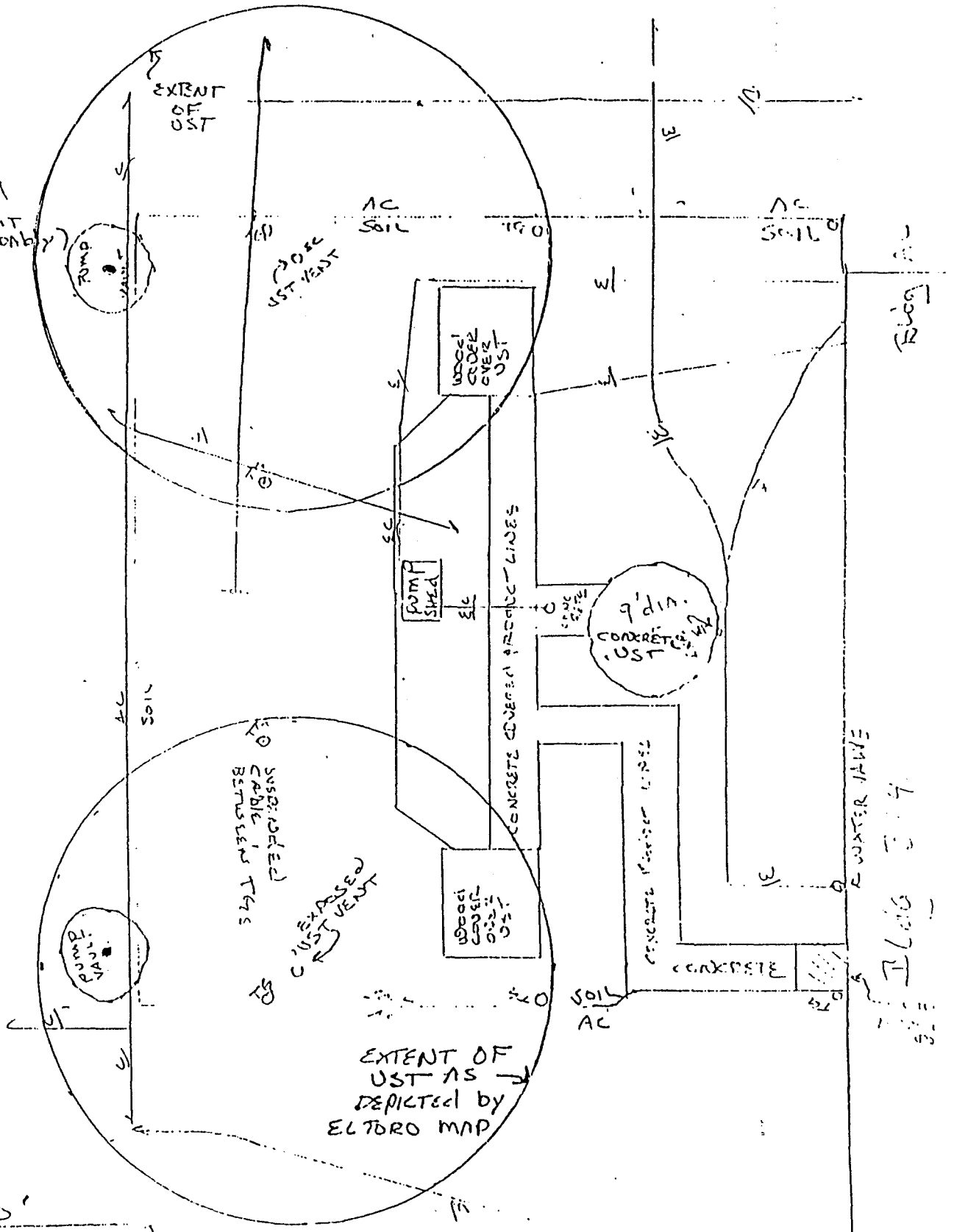
TANK INFORMATION

PROVIDE THE INFORMATION BELOW FOR ALL TANKS AND PIPING SYSTEMS TO BE INSTALLED, REMOVED OR REPAIRED. ALSO INDICATE THE UPGRADE/CHANGES TO BE MADE TO EACH TANK SYSTEM.

	TANK I.D.		314 #1A	314 #2B	~~314~~ 493 #3	~~276~~ 278A #4
MATERIAL STORED	MATERIAL OR WASTE STORED	CURRENTLY	Diesel Fuel	Unknown	Unknown	Fuel oil
		PROPOSED	None	None	None	None
		PREVIOUSLY	Diesel	Diesel	Unknown	Unknown
	FUEL TYPE, I.E., UNLEADED		N/A	N/A	N/A	N/A
TANK	TYPE (TANK, SUMP, OTHERS)		UST	UST	UST	UST
	DOUBLE WALL/SINGLE WALL		N/A	N/A	N/A	N/A
	UL NUMBER		N/A	N/A	N/A	N/A
	YEAR INSTALLED		1945	1945	1944	1945
	VAULTED/NOT VAULTED		N/A	N/A	N/A	N/A
	PRIMARY	MANUFACTURER	N/A	N/A	N/A	N/A
		CAPACITY (GALLONS)	50,000 gal	50,000	1,500	1500
		CONSTRUCTION MATERIAL	Concrete	Concrete	Concrete	Concrete
		THICKNESS (UNITS)	N/A	N/A	NA	N/A
		INTERIOR LINING	N/A	N/A	N/A	N/A
	SECONDARY	MANUFACTURER				
		CAPACITY (GALLONS)				
		CONSTRUCTION MATERIAL	NA	NA	NA	NA
		THICKNESS (UNITS)				
	CORROSION PROTECTION					
	TYPE OF LEAK DETECTION FOR USTs (LIQUID, PROBE, ETC.)		NA	NA		
	MANUFACTURER OF LEAK DETECTOR					
PIPING	LOCATION (UNDER/ABOVE GROUND)					NA
	SUCTION/PRESSURE GRAVITY/UNKNOWN				NA	
	PRIMARY	CONSTRUCTION MATERIAL				
		MANUFACTURER	NA	NA		
	SECONDARY	CONSTRUCTION MATERIAL				
		MANUFACTURER			NA	NA
	TYPE OF LEAK DETECTION FOR PIPING (PRESSURE LOSS DEVICE, ETC.)					
	MANUFACTURER OF LEAK DETECTOR					
OVERFILL PROTECTION (TYPE)						
SPILL CONTAINMENT (TYPE)						

7149720749 11-06-96 12:12PM P003 #2

E Electric
W WATER
C CONDUIT
N NATURAL GAS
TG TRAFFIC GUARD
EC EXPOSED CONDUIT (UST VENT PROBABLY)
VAULT Lid
AC ASPHALT



1" = 10'

USTs 314 A & B

Appendix E
Geophysical Survey Data

SPECTRUM

URBAN GEOPHYSICS

Results of Subsurface Investigation

MCAS El Toro
UST Site 314-A,B
Santa Ana, California

Prepared for: OHM Remediation
Anaheim, California

Date of Investigation: March 21, 1997

Prepared by:

Mark Riches
Project Manager

R. Allan Payne
Calif. Reg. Geophysicist, No. 940

Contents

Introduction

Methods

Results

Figure 1 Detected subsurface utilities on a portion of UST Site 314-A,B

Results of Subsurface Investigation
MCAS El Toro
UST Site 314-A,B
Santa Ana, California

Introduction

On March 21, 1997 Spectrum Environmental Services, Inc. conducted a subsurface investigation on a portion of UST Site 314-A,B at MCAS El Toro in Santa Ana, California. The purpose was to investigate an approximately 60 by 100-foot area for detectable subsurface utilities.

Methods

The equipment used in this investigation, where appropriate, included a GSSI SIR System 3 GPR unit with a 300 MHz transducer, Fisher TW-6 shallow-focus terrain conductivity meter, Dynatel 500-A, and Radiodetection RD600 utility locator.

The area was investigated using the following methods, where appropriate, to delineate the surface trace of detectable utilities.

1) One operator held an electromagnetic transmitter while the other operator held the electromagnetic receiver at a fixed distance from the transmitter. Both operators then walked in tandem bidirectionally over the area Detected increases in signal strength, which would suggest possible subsurface utilities, were further investigated to discern a signal-propagating utility.

2) Using a shallow-focus terrain conductivity meter, we investigated each area to identify possible buried and abandoned conduits, especially those with no surface expression.

3) With ground penetrating radar (GPR) in conjunction with a 300 MHz antenna we collected data along bi-directional continuous traverses.

4) With a passive electromagnetic receiver tuned to 50/60, radio and audio frequencies we investigated the area for buried pipes that might radiate their own electromagnetic field.

Results

The locations of the detected subsurface utilities were marked on the ground and documented on hand drawn plan-view maps generated in the field (see Figure 1).

Two approximately 50,000 gallon concrete USTs were present at this site and their surface trace was delineated on the ground according to blueprints only.

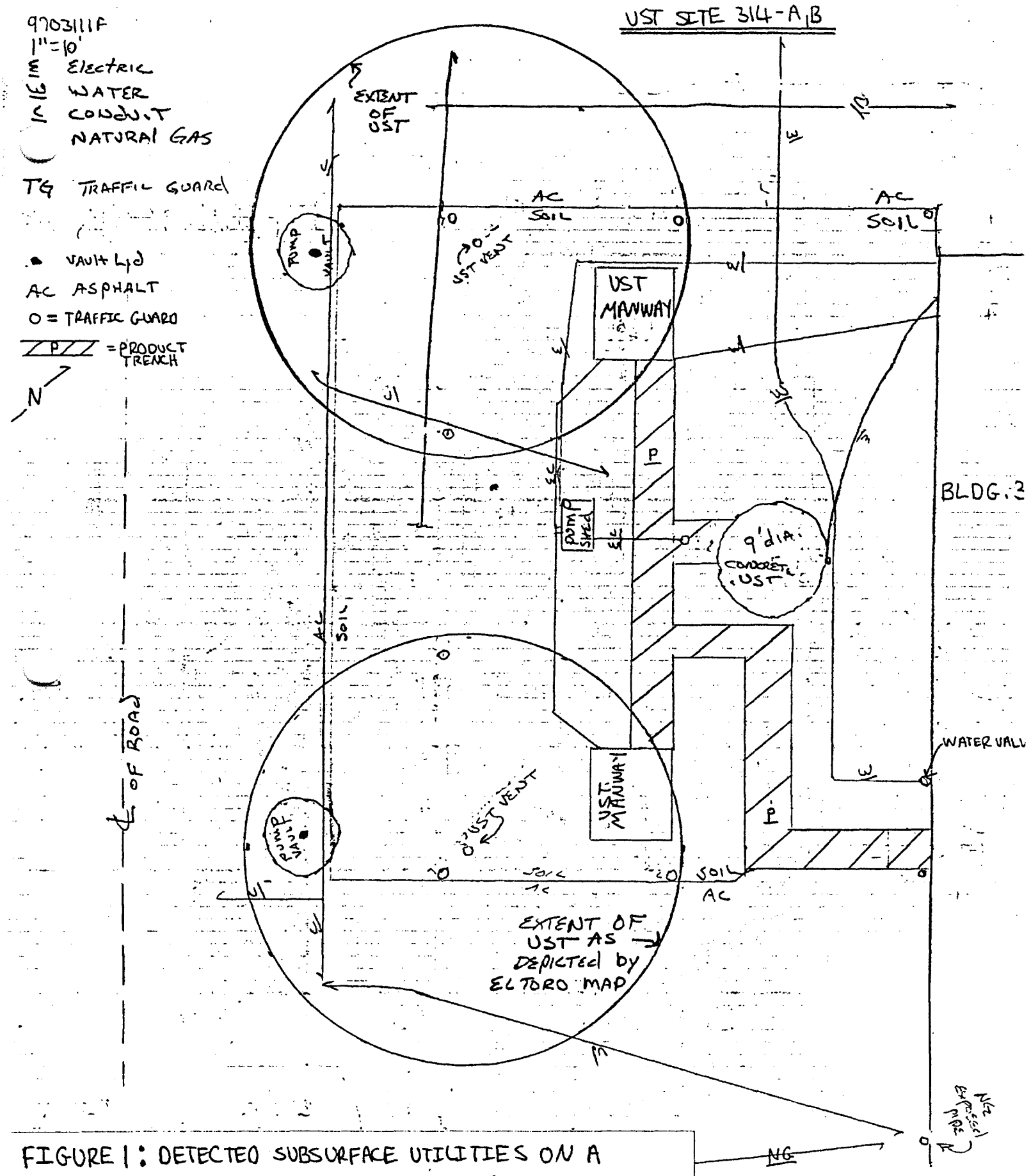


FIGURE 1: DETECTED SUBSURFACE UTILITIES ON A PORTION OF UST SITE 314-A,B

Appendix F
Laboratory Analytical Reports

M60050.002516
MCAS EL TORO
SSIC # 5090.3

APPENDIX F
LABORATORY ANALYTICAL REPORTS

TANK REMOVAL AND SITE CLOSURE REPORT UNDERGROUND STORAGE TANKS 314A, 314B, AND 314D

THE ABOVE APPENDIX WAS RECEIVED AS-IS.

QUESTIONS MAY BE DIRECTED TO:

DIANE C. SILVA
RECORDS MANAGEMENT SPECIALIST
SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132

TELEPHONE: (619) 532-3676

EMAX
LABORATORIES, INC.
630 Maple Ave.
Torrance, CA 90503
Telephone: (310) 618-8889
Fax: (310) 618-0818

RECEIVED
SEP 10 1997
COPY

Date: 09-04-1997
EMAX Batch No.: 97H083

Attn: Ms. Mary Schneider

OHM Remediation Services
2031 Main Street
Irvine CA 92714

Subject: Laboratory Report
Project: 18292/El Toro/D.O. 50

Enclosed is the Laboratory report for samples received on 08/14/97. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
18292-314A-527	H083-01	08/14/97	Water	Hold
18292-314A-528	H083-02	08/14/97	Soil	EPA 418.1 EPA M8015
18292-314A-529	H083-03	08/14/97	Soil	EPA 418.1 EPA M8015
18292-314A-530	H083-04	08/14/97	Soil	EPA 418.1 EPA M8015
18292-314A-531	H083-05	08/14/97	Soil	EPA 418.1 EPA M8015
18292-314D-532	H083-06	08/14/97	Soil	EPA 418.1 EPA M8015
18292-314D-533	H083-07	08/14/97	Soil	EPA 418.1 EPA M8015

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

97H083

CHAIN OF CUSTODY
Orange County Health Care Agency
Environmental Health Division
2009 E. Edinger Ave., Santa Ana, CA 92705
Telephone: (714) 667-3700

1. **ALL SAMPLES ARE TO BE HANDLED AS COURT EVIDENCE, AND ARE TO BE PROPERLY STORED IN A SECURE LOCATION.**

2. **PLEASE WRITE LEGIBLY.**

3. **ATTACH THIS FORM TO THE ORIGINAL REPORT OF THE ANALYTICAL RESULTS AND RETURN THEM TO THIS OFFICE. LABORATORY RESULTS RECEIVED WITHOUT PROPER CHAIN OF CUSTODY DOCUMENTATION WILL NOT BE ACCEPTED.**

4. **TO BE COMPLETED BY LABORATORY ANALYST**

LAB NO.: 97H083
DATE RECEIVED: 8-14-97
SAMPLE(S) CONDITION (PLEASE CHECK):
CHILLED: ✓ COUNTY SEAL(S) INTACT: ✓
CONTAINER IN GOOD CONDITION: ✓
DATE ANALYSIS COMPLETED: 09-10-97
ANALYST: [illegible] 9/10/97

5. **TO BE COMPLETED BY SAMPLE COLLECTOR**

SITE NAME/ADDRESS: MCAS El Toro Bldg. 314, Tanks # 314A + D, S.A.
DATE OF COLLECTION: 8-14-97
SAMPLE COLLECTOR/COMPANY: B. Satterfield OHM Remediation
TELEPHONE NO.:
HCA REPRESENTATIVE: A. Rashidi-Ard

6.

SAMPLE NUMBER	DETERMINATION REQUESTED	SAMPLE DESCRIPTION/COMMENTS	TIME OF COLLECTION
292-314A-528	TRPH (418.1), if results exceed or equal 100ppm, run 8240		9:08am
292-314A-529	↓	↓	9:12
292-314A-530	↓	↓	9:20
292-314A-531	↓	↓	9:25
292-314D-532	↓	↓	9:37
292-314D-533	↓	↓	9:41

7. **CHAIN OF CUSTODY**

	SIGNATURE	COMPANY/AGENCY	INCLUSIVE DATES/TIMES
1.	Afghanan Rashidi-Ard	Haz. Waste	8-14-97 . 9:45 am
2.	[illegible]	OHM	8/14/97 . 0945
3.	[illegible]	EMAX	8/14/97 . 1450
4.	[illegible]	EMAX	8/14/97 . 1800
5.			-
6.			-

WHITE-RETURN THIS COPY TO ENVIRONMENTAL HEALTH CANARY-LABORATORY COPY

1001

CHAIN OF CUSTODY

Orange County Health Care Agency
Environmental Health Division
2009 E. Edinger Ave., Santa Ana, CA 92705
Telephone: (714) 667-3700

1. ALL SAMPLES ARE TO BE HANDLED AS COURT EVIDENCE, AND ARE TO BE PROPERLY STORED IN A SECURE LOCATION.
2. PLEASE WRITE LEGIBLY.
3. ATTACH THIS FORM TO THE ORIGINAL REPORT OF THE ANALYTICAL RESULTS AND RETURN THEM TO THIS OFFICE. LABORATORY RESULTS RECEIVED WITHOUT PROPER CHAIN OF CUSTODY DOCUMENTATION WILL NOT BE ACCEPTED.

4. TO BE COMPLETED BY LABORATORY ANALYST

LAB NO.:
DATE RECEIVED:
SAMPLE(S) CONDITION (PLEASE CHECK):
CHILLED: COUNTY SEAL(S) INTACT:
CONTAINER IN GOOD CONDITION:
DATE ANALYSIS COMPLETED:
ANALYST:

5. TO BE COMPLETED BY SAMPLE COLLECTOR

SITE NAME/ADDRESS: MCAS El Toro Tank #314B, Santa Ana
DATE OF COLLECTION: 8-22-97
SAMPLE COLLECTOR/COMPANY: M. Banicelns / OHM Remediation
TELEPHONE NO.:
HCA REPRESENTATIVE: A. Rashidi-Ward

6.

SAMPLE NUMBER	DETERMINATION REQUESTED	SAMPLE DESCRIPTION/COMMENTS	TIME OF COLLECTION
TB-1	TPH (8015) TPH d	VOC (8015), BTEX (8020)	9:50am
TB-2	↓	↓	9:55
TB-3	↓	↓	9:58
TB-4	↓	↓	10:00
TB-5	↓	↓	10:02

7. CHAIN OF CUSTODY

	SIGNATURE	COMPANY/AGENCY	INCLUSIVE DATES/TIMES
1.	Yasmin Rashidi-Ward	Haz Waste	8-22-97 10:55am
2.	[illegible]	OHM Sr. Tech	8-22-97 10:55AM
3.	[illegible]	AHCL	8-22-97 1440
4.			
5.			
6.			

WHITE-RETURN THIS COPY TO ENVIRONMENTAL HEALTH, CANARY-LABORATORY COPY
PINK-CONTRACTOR/CONSULTANT COPY, GOLDENROD-OFFICE COPY

F272-9.1531.1(R8/89)

OHM Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

TRAN
For
Field Technical S
Rev

97H083 F3/R6C4

182768

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

1 of 1

PROJECT NAME: UST 314 A + D

PROJECT LOCATION: MCAS El toro

PROJ. NO.: 18609

PROJECT CONTACT: Dwayne Ishida

PROJECT TELEPHONE NO.: 714 263 1146

CLIENT'S REPRESENTATIVE: Lynn Homecker-SWDIV

PROJECT MANAGER/SUPERVISOR: Bill Sedlak- OHM

T=2'

EMAX

Torrance, CA

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	418.1 - TRPH	tPH - 8015 - Extractable	8240 - VOC (*)						REMARKS
1	18292-314A -527	8/14/97	0905		X	Trip Blank	1			X						
2	18292-314A -528	8/14/97	0908		X	UST 314A - 15.5' -SW Corner	1	X	X	X						
3	18292-314A -529	8/14/97	0912		X	UST 314A - 16.0' -NW Corner	1	X	X	X						
4	18292-314A -530	8/14/97	@ 0 0924		X	UST 314A - 16.4' -SE Corner	1	X	X	X						
5	18292-314A -531	8/14/97	0924		X	UST 314A - 17.0' -NE Corner	1	X	X	X						
6	18292-314D -532	8/14/97	0937		X	UST 314D - 10.8' -Bottom Middle	1	X	X	X						
7	18292-314D -533	8/14/97	0941		X	UST 314D - 5.5' -E Sidewall	1	X	X	X						
8																
9																
10																

8/14/97

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-7	OHM	[illegible]	8/14/97	1430
2	1-7	[illegible]	J Patel	8/14/97	1500
3					
4					

REMARKS
EMAX courier pickup
24 hr ~~TAT~~
(*) Run 8240 if 418 results ≥100 ppm
Samples are under DO 70, 18609

SAMPLER'S SIGNATURE

EPA METHOD 418.1
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

CLIENT:	OHM Remediation Services	DATE COLLECTED:	08/14/97
PROJECT:	18292/El Toro/D.O. 50	DATE RECEIVED:	08/14/97
BATCH NO.:	97H083	DATE EXTRACTED:	08/15/97
MATRIX:	SOIL	DATE ANALYZED:	08/15/97

SAMPLE ID	CONTROL NO	RESULT (mg/kg)	DL FACTOR	MOIST (%)	RL (mg/kg)
18292-314A-528	H083-02	29000	1000	12.9	11500
18292-314A-529	H083-03	280	1	4.1	10.4
18292-314A-530	H083-04	4400	20	14.3	233
18292-314A-531	H083-05	34000	400	20.4	5030
18292-314D-532	H083-06	49	1	11.2	11.3
18292-314D-533	H083-07	5400	20	13.3	231
MBLK1S	TRH002SB	ND	1	NA	10

RL: Reporting Limit

EMAX LABORATORIES, INC., 630 Maple Ave., Torrance, CA 90503 TEL: (310) 618-8889 FAX: (310) 618-0818

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

:LIENT: OHM Remediation Services
'ROJECT: 18292/El Toro/P.O. 50
IETHOD: EPA 418.1
IATRIX: SOIL
% MOISTURE: 4.1

BATCH NO.: 97H083
SAMPLE ID: 18292-314A-529
CONTROL NO.: H083-03

DATE RECEIVED: 08/14/97
DATE EXTRACTED: 08/15/97
DATE ANALYZED: 08/15/97

ACCESSION: 97H060, 97H073

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
TRPH	282.60	156.00	295.70	9*	156.00	291.30	6*	41*	65-135	30

* : Out of QC limit

EMAX

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

LIENT: OHM Remediation Services
RO CT: 18292/El Toro/D.O. 50
E D: EPA 418.1
ATRIX: SOIL
MOISTURE: NA

ATCH NO.: 97H083
AMPLE ID: LCS1S
ONTROL NO.: TRH002-SL

DATE RECEIVED: NA
DATE EXTRACTED: 08/15/97
DATE ANALYZED: 08/15/97

CCESSION: 97H060, 97H073

ARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	LCS RSLT (mg/kg)	LCS % REC	QC LIMIT (%)
PH	ND	150.00	151.00	101	75-125

EMAX LABORATORIES, INC. 630 Maple Ave. Torrance, CA 90503 TEL: (310) 618-8889 FAX: (310) [illegible]

EPA METHOD M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

LIENT:	OHM Remediation Services	DATE COLLECTED:	08/14/
ROJECT:	18292/El Toro/D.O. 50	DATE RECEIVED:	08/14/
ATCH NO.:	97H083	DATE EXTRACTED:	08/14/97
ATRIX:	SOIL	DATE ANALYZED:	08/15/97

AMPLE ID	CONTROL NO	RESULT (mg/kg)	H-C RANGE	% RECOVERY SURR1	% RECOVERY SURR2	DL FACTOR	MOIST (%)	PRL (mg/kg)
8292-314A-528	H083-02	22000	C10-C30	DO	DO	50	12.9	574.0
8292-314A-529	H083-03	130	C11-C25	79	92	1	4.1	10.43
8292-314A-530	H083-04	5200	C10-C28	DO	DO	10	14.3	116.7
8292-314A-531	H083-05	7600	C10-C28	DO	DO	50	20.4	628.0
8292-314D-532	H083-06	ND	N.A.	77	94	1	11.2	11.26
8292-314D-533	H083-07	5100	C10-C27	DO	DO	10	13.3	115.3
BLK1S	DSH015SB	ND	N.A.	83	97	1	NA	10

C LIMIT: (SOIL) 60-140 55-150

URR1 : Bromobenzene
URR2 : Hexacosane
RL : Project Reporting Limit
-C RANGE: C10-C15 = JP5
C6-C12 = Gas
C10-C24 = Diesel
C18-C34 = Motor Oil
SH015SB was analyzed on 08/14/97.
O : DILUTED OUT

EMAY

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

:LIENT: OHM Remediation Services
'RO : 18292/El Toro/D.O. 50
ME : EPA M8015
MATRIX: SOIL
% MOISTURE: 12.6

BATCH NO.: 97H083
SAMPLE ID: 17565-549
CONTROL NO.: H074-07

DATE RECEIVED: NA
DATE EXTRACTED: 08/14/97
DATE ANALYZED: 08/14/97

ACCESSION: 97H083 H074

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Diesel	ND	572.00	525.00	92	572.00	523.00	91	0	60-140	40

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	QC LIMIT %
Bromobenzene	114.00	145.00	127	114.00	138.00	121	60-140
Hexacosane	114.00	101.00	88	114.00	98.40	86	55-150

DATE ANALYZED : 08/15/97 for MSD

EMAX LABORATORIES, INC. 630 Maple Ave., Torrance, CA 90503 TEL: (310) 618-8889 FAX: (310) 618-9810

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

LIENT: OHM Remediation Services
ROJECT: 18292-/El Toro/D.O. 50
ETHOD: EPA M8015
ATRIX: SOIL
MOISTURE: NA

ATCH NO.: 97H083
AMPLE ID: LCS1S
ONTROL NO.: DSH015SL

DATE RECEIVED: NA
DATE EXTRACTED: 08/14/97
DATE ANALYZED: 08/14/97

CCESSION:

ARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	LCS RSLT (mg/kg)	LCS % REC	QC LIMIT (%)
iesel	ND	500.00	451.00	90	60-140

URROGATE PARAMETER	SPIKE AMOUNT (mg/kg)	LCS RESULT (mg/kg)	LCS % REC	QC LIMIT %
romobenzene	100.00	133.00	133	60-140
exacosane	100.00	87.00	87	55-150

EMAX

EMAX
LABORATORIES, INC.
630 Maple Ave.
Torrance, CA 90503
Telephone: (310) 618-8889
Fax: (310) 618-0818

RECEIVED
SEP 10 1997

COPY

Date: 09-08-1997
EMAX Batch No.: 97H083A

Attn: Ms. Mary Schneider

OHM Remediation Services
2031 Main Street
Irvine CA 92714

Subject: Laboratory Report
Project: 18292/El Toro/D.O. 50

Enclosed is the Laboratory report for samples received on 08/18/97. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
18292-314A-527	H083-01	08/14/97	Water	EPA 8260
18292-314A-528	H083-02	08/18/97	Soil	EPA 8260
18292-314A-529	H083-03	08/18/97	Soil	EPA 8260
18292-314A-530	H083-04	08/18/97	Soil	EPA 8260
18292-314A-531	H083-05	08/18/97	Soil	EPA 8260
18292-314D-533	H083-07	08/18/97	Soil	EPA 8260

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

OHM Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

LAB CO
Form 00
Field Technical Servic
Rev. 08/

97H083 F3/R6C4

182768

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

1 of 1

PROJECT NAME: UST 314 A & D

PROJECT LOCATION: MCAS El toro

PROJ. NO.: 18609

PROJECT CONTACT: Dwayne Eshida

PROJECT TELEPHONE NO.: 714 263 1146

CLIENT'S REPRESENTATIVE: Lynn Homecker-SWDIV

PROJECT MANAGER/SUPERVISOR: Bill Sedlak - OHM

T=2'C

EMAX

Torrance, CA

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	418.1 - TRPH	TPH-8015-Extractable	8240 - VOC (*)						REMARKS
1	18292-314A -527	8/14/97	0905		X	Trip Blank	1			X						
2	18292-314A -528	8/14/97	0908		X	UST 314A - 15.5' - SW Corner	1	X	X	X						
3	18292-314A -529	8/14/97	0912		X	UST 314A - 16.0' - NW Corner	1	X	X	X						
4	18292-314A -530	8/14/97	@ 0924		X	UST 314A - 16.4' - SE Corner	1	X	X	X						
5	18292-314A -531	8/14/97	0924		X	UST 314A - 17.0' - NE Corner	1	X	X	X						
6	18292-314D -532	8/14/97	0937		X	UST 314D - 10.8' - Bottom Middle	1	X	X	X						
7	18292-314D -533	8/14/97	0941		X	UST 314D - 5.5' - E Sidewall	1	X	X	X						
8																
9																
10																

8/14/97

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-7	OHM	[illegible]	8/14/97	14:15
2	1-7	[illegible]	J. Stabel	8/14/97	1500
3					
4					

REMARKS
EMAX courier pickup
24 hr TAT
(*) Run 8240 if 418 results ≥100 ppm
Samples are under DO 70, 18609

SAMPLER'S SIGNATURE

1002

EPA 8260
VOLATILE ORGANICS BY GC/MS

CLIENT:	OHM Remediation Services	DATE COLLECTED:	08/14/97
PROJECT:	18292/El Toro/D.O. 50	DATE RECEIVED:	08/14/97
BATCH NO.:	97H083A	DATE EXTRACTED:	08/20/97
SAMPLE ID:	18292-314A-527	DATE ANALYZED:	08/20/97
CONTROL NO.:	H083-01	MATRIX:	WATER
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/L)	PRL (ug/L)
1,1,1-Trichloroethane	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,1,2-Trichloroethane	ND	5
1,1-Dichloroethane	ND	5
1,1-Dichloroethene	ND	5
1,2-Dichloroethane	ND	5
2-Chloroethylvinylether	ND	10
cis-1,2-Dichloroethylene	ND	5
trans-1,2-Dichloroethylene	ND	5
1,2-Dichloropropane	ND	5
2-Butanone (MEK)	ND	10
2-Hexanone (MBK)	ND	10
4-Methyl-2-Pentanone	ND	10
Acetone	ND	10
Benzene	ND	5
Bromodichloromethane	ND	5
Bromoform	ND	5
Bromomethane	ND	5
Carbon Disulfide	ND	5
Carbon Tetrachloride	ND	5
Chlorobenzene	ND	5
Chloroethane	ND	5
Chloroform	ND	5
Chloromethane	ND	5
Dibromochloromethane	ND	5
Ethylbenzene	ND	5
Methylene Chloride	ND	5
Styrene	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Trichloroethene	ND	5
Trichlorofluoromethane	ND	5
Vinyl Acetate	ND	10
Vinyl Chloride	ND	5
Xylene (Total)	ND	5
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	110	76-114
Toluene-d8	104	88-110
4-Bromofluorobenzene	104	86-115

PRL: Project Reporting Limit

2005

EPA 8260
VOLATILE ORGANICS BY GC/MS

CLIENT:	OHM Remediation Services	DATE COLLECTED:	NA
PROJECT:	18292/El Toro/D.O. 50	DATE RECEIVED:	NA
BATCH NO.:	97H083A	DATE EXTRACTED:	08/20/97
SAMPLE ID:	MBLK2W	DATE ANALYZED:	08/20/97
CONTROL NO.:	VOH1001B	MATRIX:	WATER
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/L)	PRL (ug/L)
1,1,1-Trichloroethane	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,1,2-Trichloroethane	ND	5
1,1-Dichloroethane	ND	5
1,1-Dichloroethene	ND	5
1,2-Dichloroethane	ND	5
2-Chloroethylvinylether	ND	10
cis-1,2-Dichloroethylene	ND	5
trans-1,2-Dichloroethylene	ND	5
1,2-Dichloropropane	ND	5
2-Butanone (MEK)	ND	10
2-Hexanone (MBK)	ND	10
4-Methyl-2-Pentanone	ND	10
Acetone	ND	10
Benzene	ND	5
Bromodichloromethane	ND	5
Bromoform	ND	5
Bromomethane	ND	5
Carbon Disulfide	ND	5
Carbon Tetrachloride	ND	5
Chlorobenzene	ND	5
Chloroethane	ND	5
Chloroform	ND	5
Chloromethane	ND	5
Dibromochloromethane	ND	5
Ethylbenzene	ND	5
Methylene Chloride	ND	5
Styrene	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Trichloroethene	ND	5
Trichlorofluoromethane	ND	5
Vinyl Acetate	ND	10
Vinyl Chloride	ND	5
Xylene (Total)	ND	5
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	104	76-114
Toluene-d8	104	88-110
4-Bromofluorobenzene	107	86-115

PRL: Project Reporting Limit

EMAX LABORATORIES, INC., 630 Maple Ave., Torrance, CA 90503 TEL: (310) 618-8889 FAX: (310) 618-0818

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

:ENT: OHM Remediation Services
JECT: 18292/El Toro/D.O. 50
'HO: EPA 8260
'R: WATER
IOI: RE: NA

:CH NO.: 97H083A
IPLE ID: LCS2W/LCD2W
ITROL NO.: VOH1001L/C

DATE RECEIVED: NA
DATE EXTRACTED: 08/20/97
DATE ANALYZED: 08/20/97

:ESSION:

RAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
l-Dichloroethene	ND	20.00	21.70	108	20.00	19.90	100	8	10-234	14
nzene	ND	20.00	21.30	107	20.00	20.40	102	5	37-151	11
ichloroethene	ND	20.00	20.50	103	20.00	20.40	102	0	71-157	14
luene	ND	20.00	22.10	110	20.00	20.90	104	5	47-150	13
lorobenzene	ND	20.00	22.30	111	20.00	21.10	105	5	37-160	13

RROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT %
2-Dichlorethane-d4	50.00	53.80	108	50.00	51.10	102	76-114
luene-d8	50.00	51.60	103	50.00	52.50	105	88-110
Bromofluorobenzene	50.00	53.20	106	50.00	52.60	105	86-115

2007

EPA 8260
VOLATILE ORGANICS BY GC/MS

CLIENT:	OHM Remediation Services	DATE COLLECTED:	08/18/97
PROJECT:	18292/El Toro/D.O. 50	DATE RECEIVED:	08/18/97
BATCH NO.:	97HQ83A	DATE EXTRACTED:	08/23/97
SAMPLE ID:	18292-314A-528	DATE ANALYZED:	08/23/97
CONTROL NO.:	H083-02	MATRIX:	SOIL
% MOISTURE:	12.9	DILUTION FACTOR:	1000

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)
1,1,1-Trichloroethane	ND	5740
1,1,2,2-Tetrachloroethane	ND	5740
1,1,2-Trichloroethane	ND	5740
1,1-Dichloroethane	ND	5740
1,1-Dichloroethene	ND	5740
1,2-Dichloroethane	ND	5740
2-Chloroethylvinylether	ND	11500
cis-1,2-Dichloroethylene	ND	5740
trans-1,2-Dichloroethylene	ND	5740
1,2-Dichloropropane	ND	5740
2-Butanone (MEK)	ND	11500
2-Hexanone (MBK)	ND	11500
4-Methyl-2-Pentanone	ND	11500
Acetone	ND	11500
Benzene	ND	5740
Bromodichloromethane	ND	5740
Bromoform	ND	5740
Bromomethane	ND	5740
Carbon Disulfide	ND	5740
Carbon Tetrachloride	ND	5740
Chlorobenzene	ND	5740
Chloroethane	ND	5740
Chloroform	ND	5740
Chloromethane	ND	5740
Dibromochloromethane	ND	5740
Ethylbenzene	ND	5740
Methylene Chloride	3600J	5740
Styrene	ND	5740
Tetrachloroethene	ND	5740
Toluene	ND	5740
Trichloroethene	ND	5740
Trichlorofluoromethane	ND	5740
Vinyl Acetate	ND	11500
Vinyl Chloride	ND	5740
Xylene (Total)	ND	5740
cis-1,3-Dichloropropene	ND	5740
trans-1,3-Dichloropropene	ND	5740

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	108	70-121
Toluene-d8	104	81-117
4-Bromofluorobenzene	106	74-121

PRL: Project Reporting Limit
NOTE: Sample was diluted prior to analysis due to high level of of heavy hydrocarbon.

EMAX LABORATORIES, INC., 630 Maple Ave., Torrance, CA 90503 TEL: (310) 618-8889 FAX: (310) 618-0818

EPA 8260
VOLATILE ORGANICS BY GC/MS

CLIENT:	OHM Remediation Services	DATE COLLECTED:	08/18/97
PROJECT:	18292/El Toro/D.O. 50	DATE RECEIVED:	08/18/97
BATCH NO.:	97H083A	DATE EXTRACTED:	08/21/97
SAMPLE ID:	18292-314A-529	DATE ANALYZED:	08/21/97
CONTROL NO.:	H083-03	MATRIX:	SOIL
% MOISTURE:	4.1	DILUTION FACTOR:	5

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)
1,1,1-Trichloroethane	ND	26.1
1,1,2,2-Tetrachloroethane	ND	26.1
1,1,2-Trichloroethane	ND	26.1
1,1-Dichloroethane	ND	26.1
1,1-Dichloroethene	ND	26.1
1,2-Dichloroethane	ND	26.1
2-Chloroethylvinylether	ND	52.1
cis-1,2-Dichloroethylene	ND	26.1
trans-1,2-Dichloroethylene	ND	26.1
1,2-Dichloropropane	ND	26.1
2-Butanone (MEK)	ND	52.1
2-Hexanone (MBK)	ND	52.1
4-Methyl-2-Pentanone	ND	52.1
Acetone	ND	52.1
Benzene	ND	26.1
Bromodichloromethane	ND	26.1
Bromoform	ND	26.1
Bromomethane	ND	26.1
Carbon Disulfide	ND	26.1
Carbon Tetrachloride	ND	26.1
Chlorobenzene	ND	26.1
Chloroethane	ND	26.1
Chloroform	ND	26.1
Chloromethane	ND	26.1
Dibromochloromethane	ND	26.1
Ethylbenzene	ND	26.1
Methylene Chloride	ND	26.1
Styrene	ND	26.1
Tetrachloroethene	ND	26.1
Toluene	ND	26.1
Trichloroethene	ND	26.1
Trichlorofluoromethane	ND	26.1
Vinyl Acetate	ND	52.1
Vinyl Chloride	ND	26.1
Xylene (Total)	ND	26.1
cis-1,3-Dichloropropene	ND	26.1
trans-1,3-Dichloropropene	ND	26.1

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	96	70-121
Toluene-d8	95	81-117
4-Bromofluorobenzene	100	74-121

PRL: Project Reporting Limit
NOTE: Sample was diluted prior to analysis due to high level of of heavy hydrocarbon.

EMAX LABORATORIES, INC., 630 Maple Ave., Torrance, CA 90503 TEL: (310) 618-8889 FAX: (310) 618-0818

EPA 8260
VOLATILE ORGANICS BY GC/MS

CLIENT:	OHM Remediation Services	DATE COLLECTED:	08/18/97
PROJECT:	18292/El Toro/D.O. 50	DATE RECEIVED:	08/18/97
BATCH NO.:	97H083A	DATE EXTRACTED:	08/21/97
SAMPLE ID:	18292-314A-530	DATE ANALYZED:	08/21/97
CONTROL NO.:	H083-04	MATRIX:	SOIL
% MOISTURE:	14.3	DILUTION FACTOR:	5

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)
1,1,1-Trichloroethane	ND	29.2
1,1,2,2-Tetrachloroethane	ND	29.2
1,1,2-Trichloroethane	ND	29.2
1,1-Dichloroethane	ND	29.2
1,1-Dichloroethene	ND	29.2
1,2-Dichloroethane	ND	29.2
2-Chloroethylvinylether	ND	58.3
cis-1,2-Dichloroethylene	ND	29.2
trans-1,2-Dichloroethylene	ND	29.2
1,2-Dichloropropane	ND	29.2
2-Butanone (MEK)	ND	58.3
2-Hexanone (MBK)	ND	58.3
4-Methyl-2-Pentanone	ND	58.3
Acetone	120	58.3
Benzene	ND	29.2
Bromodichloromethane	ND	29.2
Bromoform	ND	29.2
Bromomethane	ND	29.2
Carbon Disulfide	ND	29.2
Carbon Tetrachloride	ND	29.2
Chlorobenzene	ND	29.2
Chloroethane	ND	29.2
Chloroform	ND	29.2
Chloromethane	ND	29.2
Dibromochloromethane	ND	29.2
Ethylbenzene	17J	29.2
Methylene Chloride	ND	29.2
Styrene	ND	29.2
Tetrachloroethene	ND	29.2
Toluene	17J	29.2
Trichloroethene	ND	29.2
Trichlorofluoromethane	ND	29.2
Vinyl Acetate	ND	58.3
Vinyl Chloride	ND	29.2
Xylene (Total)	82	29.2
cis-1,3-Dichloropropene	ND	29.2
trans-1,3-Dichloropropene	ND	29.2

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	96	70-121
Toluene-d8	96	81-117
4-Bromofluorobenzene	97	74-121

PRL: Project Reporting Limit
NOTE: Sample was diluted prior to analysis due to high level of of heavy hydrocarbon.

EMAX LABORATORIES, INC., 630 Maple Ave., Torrance, CA 90503 TEL: (310) 618-8889 FAX: (310) 618-0818

EPA 8260
VOLATILE ORGANICS BY GC/MS

CLIENT:	OHM Remediation Services	DATE COLLECTED:	08/18/97
PROJECT:	18292/El Toro/D.O. 50	DATE RECEIVED:	08/18/97
BATCH NO.:	97H083A	DATE EXTRACTED:	08/22/97
SAMPLE ID:	18292-314A-531	DATE ANALYZED:	08/22/97
CONTROL NO.:	H083-05	MATRIX:	SOIL
% MOISTURE:	20.4	DILUTION FACTOR:	50

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)
1,1,1-Trichloroethane	ND	314
1,1,2,2-Tetrachloroethane	ND	314
1,1,2-Trichloroethane	ND	314
1,1-Dichloroethane	ND	314
1,1-Dichloroethene	ND	314
1,2-Dichloroethane	ND	314
2-Chloroethylvinylether	ND	628
cis-1,2-Dichloroethylene	ND	314
trans-1,2-Dichloroethylene	ND	314
1,2-Dichloropropane	ND	314
2-Butanone (MEK)	ND	628
2-Hexanone (MBK)	ND	628
4-Methyl-2-Pentanone	ND	628
Acetone	ND	628
Benzene	ND	314
Bromodichloromethane	ND	314
Bromoform	ND	314
Bromomethane	ND	314
Carbon Disulfide	ND	314
Carbon Tetrachloride	ND	314
Chlorobenzene	ND	314
Chloroethane	ND	314
Chloroform	ND	314
Chloromethane	ND	314
Dibromochloromethane	ND	314
Ethylbenzene	220J	314
Methylene Chloride	ND	314
Styrene	ND	314
Tetrachloroethene	ND	314
Toluene	210J	314
Trichloroethene	ND	314
Trichlorofluoromethane	ND	314
Vinyl Acetate	ND	628
Vinyl Chloride	ND	314
Xylene (Total)	490	314
cis-1,3-Dichloropropene	ND	314
trans-1,3-Dichloropropene	ND	314

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	103	70-121
Toluene-d8	106	81-117
4-Bromofluorobenzene	107	74-121

PRL: Project Reporting Limit
NOTE: Sample was diluted prior to analysis due to high level of of heavy hydrocarbon.

EMAX LABORATORIES, INC., 630 Maple Ave., Torrance, CA 90503 TEL: (310) 618-8889 FAX: (310) 618-0818

EPA 8260
VOLATILE ORGANICS BY GC/MS

CLIENT:	OHM Remediation Services	DATE COLLECTED:	08/18/97
PROJECT:	18292/El Toro/D.O. 50	DATE RECEIVED:	08/18/97
BATCH NO.:	97H083A	DATE EXTRACTED:	08/21/97
SAMPLE ID:	18292-314D-533	DATE ANALYZED:	08/21/97
CONTROL NO.:	H083-07	MATRIX:	SOIL
% MOISTURE:	13.3	DILUTION FACTOR:	5

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)
1,1,1-Trichloroethane	ND	28.8
1,1,2,2-Tetrachloroethane	ND	28.8
1,1,2-Trichloroethane	ND	28.8
1,1-Dichloroethane	ND	28.8
1,1-Dichloroethene	ND	28.8
1,2-Dichloroethane	ND	28.8
2-Chloroethylvinylether	ND	57.7
cis-1,2-Dichloroethylene	ND	28.8
trans-1,2-Dichloroethylene	ND	28.8
1,2-Dichloropropane	ND	28.8
2-Butanone (MEK)	ND	57.7
2-Hexanone (MBK)	ND	57.7
4-Methyl-2-Pentanone	ND	57.7
Acetone	ND	57.7
Benzene	ND	28.8
Bromodichloromethane	ND	28.8
Bromoform	ND	28.8
Bromomethane	ND	28.8
Carbon Disulfide	ND	28.8
Carbon Tetrachloride	ND	28.8
Chlorobenzene	ND	28.8
Chloroethane	ND	28.8
Chloroform	ND	28.8
Chloromethane	ND	28.8
Dibromochloromethane	ND	28.8
Ethylbenzene	ND	28.8
Methylene Chloride	ND	28.8
Styrene	ND	28.8
Tetrachloroethene	ND	28.8
Toluene	ND	28.8
Trichloroethene	ND	28.8
Trichlorofluoromethane	ND	28.8
Vinyl Acetate	ND	57.7
Vinyl Chloride	ND	28.8
Xylene (Total)	ND	28.8
cis-1,3-Dichloropropene	ND	28.8
trans-1,3-Dichloropropene	ND	28.8

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	94	70-121
Toluene-d8	95	81-117
4-Bromofluorobenzene	97	74-121

PRL: Project Reporting Limit
NOTE: Sample was diluted prior to analysis due to high level of of heavy hydrocarbon.

EMAX LABORATORIES, INC., 630 Maple Ave., Torrance, CA 90503 TEL: (310) 618-8889 FAX: (310) 618-0818

EPA 8260
VOLATILE ORGANICS BY GC/MS

CLIENT:	OHM Remediation Services	DATE COLLECTED:	NA
PROJECT:	18292/El Toro/D.O. 50	DATE RECEIVED:	NA
BATCH NO.:	97H083A	DATE EXTRACTED:	08/21/97
SAMPLE ID:	MBLK1S	DATE ANALYZED:	08/21/97
CONTROL NO.:	VOH1101B	MATRIX:	SOIL
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	PRL (ug/kg)
1,1,1-Trichloroethane	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,1,2-Trichloroethane	ND	5
1,1-Dichloroethane	ND	5
1,1-Dichloroethene	ND	5
1,2-Dichloroethane	ND	5
2-Chloroethylvinylether	ND	10
cis-1,2-Dichloroethylene	ND	5
trans-1,2-Dichloroethylene	ND	5
1,2-Dichloropropane	ND	5
2-Butanone (MEK)	ND	10
2-Hexanone (MBK)	ND	10
4-Methyl-2-Pentanone	ND	10
Acetone	ND	10
Benzene	ND	5
Bromodichloromethane	ND	5
Bromoform	ND	5
Bromomethane	ND	5
Carbon Disulfide	ND	5
Carbon Tetrachloride	ND	5
Chlorobenzene	ND	5
Chloroethane	ND	5
Chloroform	ND	5
Chloromethane	ND	5
Dibromochloromethane	ND	5
Ethylbenzene	ND	5
Methylene Chloride	ND	5
Styrene	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Trichloroethene	ND	5
Trichlorofluoromethane	ND	5
Vinyl Acetate	ND	10
Vinyl Chloride	ND	5
Xylene (Total)	ND	5
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	82	70-121
Toluene-d8	94	81-117
4-Bromofluorobenzene	96	74-121

PRL: Project Reporting Limit

EMAX LABORATORIES, INC., 630 Maple Ave., Torrance, CA 90503 TEL: (310) 618-8889 FAX: (310) 618-0818

EPA 8260
VOLATILE ORGANICS BY GC/MS

CLIENT:	OHM Remediation Services	DATE COLLECTED:	NA
PROJECT:	18292/El Toro/D.O. 50	DATE RECEIVED:	NA
BATCH NO.:	97H083A	DATE EXTRACTED:	08/20/97
SAMPLE ID:	MBLK1W	DATE ANALYZED:	08/20/97
CONTROL NO.:	VOH1201B	MATRIX:	WATER
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/L)	PRL (ug/L)
1,1,1-Trichloroethane	ND	5
1,1,2,2-Tetrachloroethane	ND	5
1,1,2-Trichloroethane	ND	5
1,1-Dichloroethane	ND	5
1,1-Dichloroethene	ND	5
1,2-Dichloroethane	ND	5
2-Chloroethylvinylether	ND	10
cis-1,2-Dichloroethylene	ND	5
trans-1,2-Dichloroethylene	ND	5
1,2-Dichloropropane	ND	5
2-Butanone (MEK)	ND	10
2-Hexanone (MBK)	ND	10
4-Methyl-2-Pentanone	ND	10
Acetone	ND	10
Benzene	ND	5
Bromodichloromethane	ND	5
Bromoform	ND	5
Bromomethane	ND	5
Carbon Disulfide	ND	5
Carbon Tetrachloride	ND	5
Chlorobenzene	ND	5
Chloroethane	ND	5
Chloroform	ND	5
Chloromethane	ND	5
Dibromochloromethane	ND	5
Ethylbenzene	ND	5
Methylene Chloride	ND	5
Styrene	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Trichloroethene	ND	5
Trichlorofluoromethane	ND	5
Vinyl Acetate	ND	10
Vinyl Chloride	ND	5
Xylene (Total)	ND	5
cis-1,3-Dichloropropene	ND	5
trans-1,3-Dichloropropene	ND	5

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
1,2-Dichloroethane-d4	112	76-114
Toluene-d8	107	88-110
4-Bromofluorobenzene	108	86-115

PRL: Project Reporting Limit

EMAX LABORATORIES, INC., 630 Maple Ave., Torrance, CA 90503 TEL: (310) 618-8889 FAX: (310) 618-0818

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

ENT: OHM Remediation Services
JECT: 18292/El Toro/D.O. 50
HOD: EPA 8260
R: SOIL
IOI[illegible]E: NA

CH NO.: 97H083A
IPLE ID: LCS1S/LCD1S
ITROL NO.: VOH1101L/C

DATE RECEIVED: NA
DATE EXTRACTED: 08/21/97
DATE ANALYZED: 08/21/97

ESSION:

AMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
-Dichloroethene	ND	20.00	20.10	101	20.00	20.00	100	1	10-234	22
izene	ND	20.00	19.00	95	20.00	18.90	94	0	37-151	21
chloroethene	ND	20.00	20.60	103	20.00	20.30	101	2	71-157	24
uene	ND	20.00	19.20	96	20.00	18.90	94	2	47-150	21
orobenzene	ND	20.00	20.20	101	20.00	20.20	101	0	37-160	21

ROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT %
-Dichlorethane-d4	50.00	41.00	82	50.00	42.30	85	70-121
uene-d8	50.00	47.80	96	50.00	46.20	92	81-117
romofluorobenzene	50.00	47.20	94	50.00	47.70	95	74-121

EMAX LABORATORIES, INC., 630 Maple Ave., Torrance, CA 90503 TEL: (310) 618-8889 FAX: (310) 618-0818

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

:ENT: OHM Remediation Services
JJECT: 18292/El Toro/D.O. 50
'HOD: EPA 8260
'RIX: WATER
IOISTURE: NA

'CH NO.: 97H083A
IPLE ID: LCS1W/LCD1W
ITROL NO.: VOH1201L/C

DATE RECEIVED: NA
DATE EXTRACTED: 08/22/97
DATE ANALYZED: 08/22/97

:ESSION:

:AMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
l-Dichloroethene	ND	20.00	19.50	98	20.00	19.50	98	0	10-234	14
ızene	ND	20.00	22.50	112	20.00	23.10	116	3	37-151	11
ichloroethene	ND	20.00	21.10	105	20.00	21.00	105	0	71-157	14
.uene	ND	20.00	23.00	115	20.00	24.00	120	4	47-150	13
.orobenzene	ND	20.00	22.10	110	20.00	23.00	115	4	37-160	13

:ROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT %
2-Dichlorethane-d4	50.00	57.00	114	50.00	54.80	110	76-114
.uene-d8	50.00	52.60	105	50.00	53.90	108	88-110
ɜromofluorobenzene	50.00	53.80	108	50.00	53.50	107	86-115

2016

C O P Y

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2 3 1997

EMAX
LABORATORIES, INC.
630 Maple Ave.
Torrance, CA 90503
Telephone: (310) 618-8889
Fax: (310) 618-0818

Date: 09-22-1997
EMAX Batch No.: 97H083B

Attn: Ms. Mary Schneider

OHM Remediation Services
2031 Main Street
Irvine CA 92614-6509

Subject: Laboratory Report
Project: 18292/El Toro/D.O. 50

Enclosed is the Laboratory report for samples requested on 09/18/97. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
18292-314A-528	H083-02	08/14/95	Soil	Lead
18292-314A-529	H083-03	08/14/95	Soil	Lead

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Pang

Kam Y. Pang, Ph.D.
Laboratory Director

OHM Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

LAB COPY
Form 0019
Field Technical Services
Rev. 08/89

97H083 F3/RGC4

182768

MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

1 of 1

NAME: ST 314 A + D	PROJECT LOCATION: MCAS El toro
PROJECT CONTACT: Dwayne Ishida	PROJECT TELEPHONE NO.: 714 263 1146
REPRESENTATIVE: Homecker-SWDIV	PROJECT MANAGER/SUPERVISOR: Bill Sedlak - OHM

T=2°C

EMAX

Torrance, CA

SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	418.1 - TRPH	TPH-8015 - Extractable	8240 - VOC (*)						REMARKS
92-314A -527	8/14/97	0905		X	Trip Blank	1			X						
92-314A -528	8/14/97	0908		X	UST 314A - 15.5' - SW Corner	1	X	X	X						
92-314A -529	8/14/97	0912		X	UST 314A - 16.0' - NW Corner	1	X	X	X						
92-314A -530	8/14/97	0924		X	UST 314A - 16.4' - SE Corner	1	X	X	X						
92-314A -531	8/14/97	0924		X	UST 314A - 17.0' - NE Corner	1	X	X	X						
92-314D -532	8/14/97	0937		X	UST 314D - 10.8' - Bottom Middle	1	X	X	X						
92-314D -533	8/14/97	0941		X	UST 314D - 5.5' - E Sidewall	1	X	X	X						

8/14/97

ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1-7	OHM	[illegible]	8/14/97	1450
1-7	[illegible]	J S Patel	8/14/97	1600

REMARKS
EMAX courier pickup
24 hr TAT
(*) Run 8240 if 418 results ≥100 ppm
Samples are under DO 70, 18609

SAMPLER'S SIGNATURE

002

EPA METHOD 3050/6010
TOTAL LEAD BY TRACE

IENT:	OHM Remediation Services	DATE COLLECTED:	08/14/95
OJECT:	18292/El Toro/D.O. 50	DATE RECEIVED:	09/18/97
ATCH NO.:	97H083B	DATE EXTRACTED:	09/18/97
MATRIX:	SOIL	DATE ANALYZED:	09/18/97

SAMPLE ID	CONTROL NO	RESULT (mg/kg)	DL FACTOR	MOIST (%)	RL (mg/kg)
18292-314A-528	H083-02	3.31	1	12.9	.69
18292-314A-529	H083-03	1.53	1	4.1	.63
MBLK1S	IPI020SB	ND	1	NA	.6

RL: Reporting Limit

FMAX

EMAX QUALITY CONTROL DATA
DUPLICATE ANALYSIS

:LIENT: OHM Remediation Services
'ROJECT: 18292/El Toro/D.O. 50
IETHOD: EPA 3050/6010
IATRIX: SOIL
: MOISTURE: 4.1

==========

ATCH NO.: 97H083B
AMPLE ID: 18292-314A-529
ONTROL NO.: H083-03

DATE RECEIVED: 09/18/97
DATE EXTRACTED: 09/18/97
DATE ANALYZED: 09/18/97

CCESSION:

'ARAMETER	SAMPLE (mg/kg)	DUP. SAMPLE (mg/kg)	RPD (%)	RPD LIMIT (%)
ead	1.53	1.31	16	20

EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: OHM Remediation Services
PROJECT: 18292/El Toro/D.O. 50
METHOD: EPA 3050/6010
MATRIX: SOIL
% MOISTURE: 4.1

==========

BATCH NO.: 97H083B
SAMPLE ID: 18292-314A-529
CONTROL NO.: H083-03

DATE RECEIVED: 09/18/97
DATE EXTRACTED: 09/18/97
DATE ANALYZED: 09/18/97

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	QC LIMIT (%)
Lead	1.53	104.00	94.50	89	75-125

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

.IENT: OHM Remediation Services
ROJECT: 18292/El Toro/D.O. 50
ETHOD: EPA 3050/6010
ATRIX: SOIL
MOISTURE: NA

ATCH NO.: 97H083B
AMPLE ID: LCS1S/LCD1S
ONTROL NO.: IPI020SL/C

DATE RECEIVED: NA
DATE EXTRACTED: 09/18/97
DATE ANALYZED: 09/18/97

CCESSION:

ARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
ead	ND	100.00	91.00	91	100.00	90.40	90	1	75-125	20

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710

Tel. (909) 590-1828 Fax (909) 590-1498

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September 9, 1997

Mary Schneider
OHM Remediation Services (Irvine)
2031 Main St.
Irvine, CA. 92714

Dear Ms. Schneider,

Enclosed please find two copies of Level C Data Package Deliverables and Electronic Data Deliverables for the project: UST 314 Contents. This package includes samples in our service ID of 97-3520.

Please contact me if you have any questions.

Sincerely yours,

Kevin Xie, Ph.D
QA Director

2870A

97H012

CHAIN-OF-CUSTODY RECORD

03/WC3

Form 001
Field Technical Service
Rev. 08/8

182856

1 of 1

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526.

PROJECT NAME: UST 314 Contents	PROJECT LOCATION: MCAS El Toro
PROJ. NO.: 18609	PROJECT CONTACT: Thiza T. Williams
PROJECT TELEPHONE NO.: 714 2631146	
CLIENT'S REPRESENTATIVE: Lynn Hornaker - SW DIV	PROJECT MANAGER/SUPERVISOR: Bill Sedlak - OHM

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS): 8015 - HH - Purgeable; 8015 - HH - Extractable; 8020 - BTEX; 1010 - Ignitability; 6000/7000 - Total TC metals; 8081 - PCB (Hold); EMAX

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	8015 - HH - Purgeable	8015 - HH - Extractable	8020 - BTEX	1010 - Ignitability	6000/7000 - Total TC metals				REMARKS
1	18609-416	8/4/97	1030		X	Trip Blank	1	X		X						
2	18609-417	8/4/97	1100		X	UST 314 - Vault A	2	X	X	X	X	X				Note: 2 vials only! (Product)
3	18609-418	8/4/97	1150		X	UST 314 - Vault B	10	X	X	X	X	X				
4																
5																
6																
7							8/4/97									
8																
9																
10																

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-3	[signature]	[signature]	8/4/97	230 PM
2		[signature]	[signature]	8/4/97	330 PM
3		[signature]	[signature]	8/5/97	1340
4					

REMARKS
EMAX courier pickup. T=2°C
Hold PCB Analysis
Metals container NOT preserved
5 day TAT

SAMPLER'S SIGNATURE: [signature]

14202

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	08/04/97
Project ID:	UST 314 Contents	Service ID:	973520	Collected by:	
		Lab Sample ID:	97-3520-2	Received Date:	08/05/97
Sample ID:	**18609-417**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	μg/L	50	<1.6	U	P		97M2186M	08/06/97	08/07/97	5	6010
ARSENIC	7440-38-2	μg/L	25	<2.1	U	P		97M2186M	08/06/97	08/07/97	5	6010
BARIUM	7440-39-3	μg/L	50	274		P		97M2186M	08/06/97	08/07/97	5	6010
BERYLLIUM	7440-41-7	μg/L	10	<0.058	U	P		97M2186M	08/06/97	08/07/97	5	6010
CADMIUM	7440-43-9	μg/L	10	<0.085	U	P		97M2186M	08/06/97	08/07/97	5	6010
CHROMIUM	7440-47-3	μg/L	25	12.5	B	P		97M2186M	08/06/97	08/07/97	5	6010
COBALT	7440-48-4	μg/L	25	21.3	B	P		97M2186M	08/06/97	08/07/97	5	6010
COPPER	7440-50-8	μg/L	50	14.0	B	P		97M2186M	08/06/97	08/07/97	5	6010
LEAD	7439-92-1	μg/L	25	585		P		97M2186M	08/06/97	08/07/97	5	6010
MERCURY	7439-97-6	μg/L	0.5	<0.01	U	CV		97M2185N	08/06/97	08/06/97	1	7470
MOLYBDENUM	7439-98-7	μg/L	25	23.6	B	P		97M2186M	08/06/97	08/07/97	5	6010
NICKEL	7440-02-0	μg/L	25	68.3		P		97M2186M	08/06/97	08/07/97	5	6010
SELENIUM	7782-49-2	μg/L	50	<3.5	U	P		97M2186M	08/06/97	08/07/97	5	6010
SILVER	7440-22-4	μg/L	50	<0.65	U	P		97M2186M	08/06/97	08/07/97	5	6010
THALLIUM	7440-28-0	μg/L	50	<1.2	U	P		97M2186M	08/06/97	08/07/97	5	6010
VANADIUM	7440-62-2	μg/L	50	3.4	B	P		97M2186M	08/06/97	08/07/97	5	6010
ZINC	7440-66-6	μg/L	25	77.7		P		97M2186M	08/06/97	08/07/97	5	6010

Not Detected (N.D.) is shown as IDL moisture-corrected if applicable

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

14289

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	08/04/97
Project ID:	UST 314 Contents	Service ID:	973520	Collected by:	
		Lab Sample ID:	97-3520-3	Received Date:	08/05/97
Sample ID:	**18609-418**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	µg/L	10	<1.6	U	P		97M2186M	08/06/97	08/07/97	1	6010
ARSENIC	7440-38-2	µg/L	5	<2.1	U	P		97M2186M	08/06/97	08/07/97	1	6010
BARIUM	7440-39-3	µg/L	10	113		P		97M2186M	08/06/97	08/07/97	1	6010
BERYLLIUM	7440-41-7	µg/L	2	<0.058	U	P		97M2186M	08/06/97	08/07/97	1	6010
CADMIUM	7440-43-9	µg/L	2	<0.085	U	P		97M2186M	08/06/97	08/07/97	1	6010
CHROMIUM	7440-47-3	µg/L	5	2.0	B	P		97M2186M	08/06/97	08/07/97	1	6010
COBALT	7440-48-4	µg/L	5	0.54	B	P		97M2186M	08/06/97	08/07/97	1	6010
COPPER	7440-50-8	µg/L	10	3.1	B	P		97M2186M	08/06/97	08/07/97	1	6010
LEAD	7439-92-1	µg/L	5	1.2	B	P		97M2186M	08/06/97	08/07/97	1	6010
MERCURY	7439-97-6	µg/L	0.5	<0.057	U	CV		97M2185N	08/06/97	08/06/97	1	7470
MOLYBDENUM	7439-98-7	µg/L	5	<0.75	U	P		97M2186M	08/06/97	08/07/97	1	6010
NICKEL	7440-02-0	µg/L	5	4.0	B	P		97M2186M	08/06/97	08/07/97	1	6010
SELENIUM	7782-49-2	µg/L	10	3.7	B	P		97M2186M	08/06/97	08/07/97	1	6010
SILVER	7440-22-4	µg/L	10	<0.65	U	P		97M2186M	08/06/97	08/07/97	1	6010
THALLIUM	7440-28-0	µg/L	10	<1.2	U	P		97M2186M	08/06/97	08/07/97	1	6010
VANADIUM	7440-62-2	µg/L	10	<0.55	U	P		97M2186M	08/06/97	08/07/97	1	6010
ZINC	7440-66-6	µg/L	5	24.1		P		97M2186M	08/06/97	08/07/97	1	6010

Not Detected (N.D.) is shown as IDL moisture-corrected if applicable

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

14290

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	08/08/97
Project ID:	UST 314 Contents	Service ID:	973520	Collected by:	
		Lab Sample ID:	97G3425-MB-01	Received Date:	08/08/97
Sample ID:	**97G3425-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	3510	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	08/08/97	Anal. Date:	08/09/97
Batch No:	97G3425	Prep. No:	1 of 1	Anal. Time:	03:14
Data File Name:	3425G.K01	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/L	0.5	<0.5	U
2	TPH AS MOTOR OIL	TBD-0002	mg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-149	89
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	08/04/97
Project ID:	UST 314 Contents	Service ID:	973520	Collected by:	
		Lab Sample ID:	97-3520-2	Received Date:	08/05/97
Sample ID:	**18609-417**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	08/08/97	Anal. Date:	08/13/97
Batch No:	97G3425	Prep. No:	1 of 1	Anal. Time:	18:55
Data File Name:	3520.102	Sample Amount:	5.0 mL	Dilution Factor:	2000
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/L	1000	1000	
2	TPH AS MOTOR OIL	TBD-0002	mg/L	1000	910	J

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-149	1
# of out-of-control				1

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

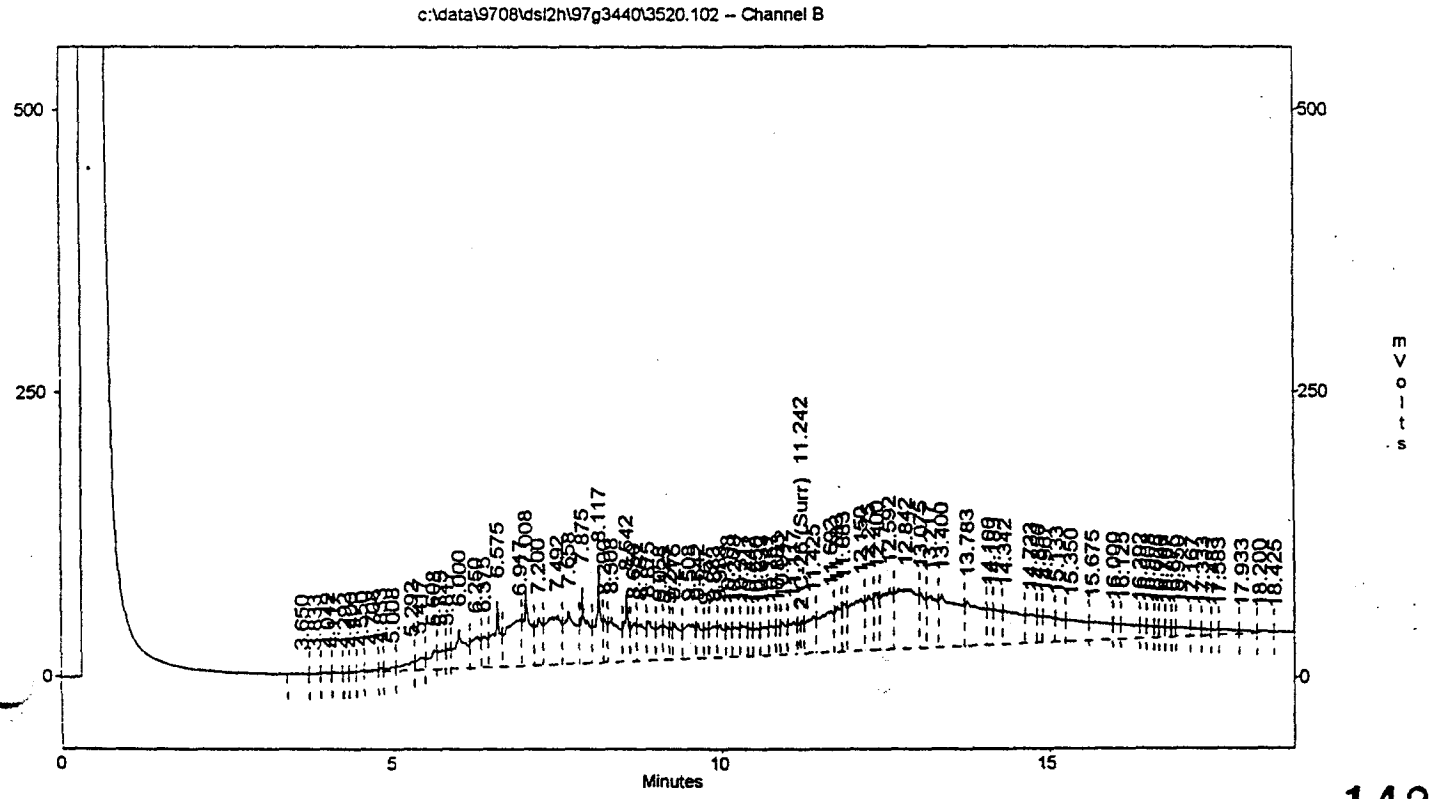
14250

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9708\dsl2h\97g3440\3520.102
Method : c:\ezchrom\methods\dsl2-022.h00
Sample ID : %97g3425 f=2
Vial : 29
Volume : 1
Acquired : Aug 13, 1997 18:55:18
Printed : Aug 14, 1997 09:10:50
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.24	5591	0.352
1 DIESEL		9929820	583.315



14251

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9708\dsl2h\97g3440\3520.102
Method : c:\ezchrom\methods\j5mo-017.h00
Sample ID : %97g3425 f=2
Vial : 29
Volume : 1
Acquired : Aug 13, 1997 18:55:18
Printed : Aug 14, 1997 09:13:03
User : System

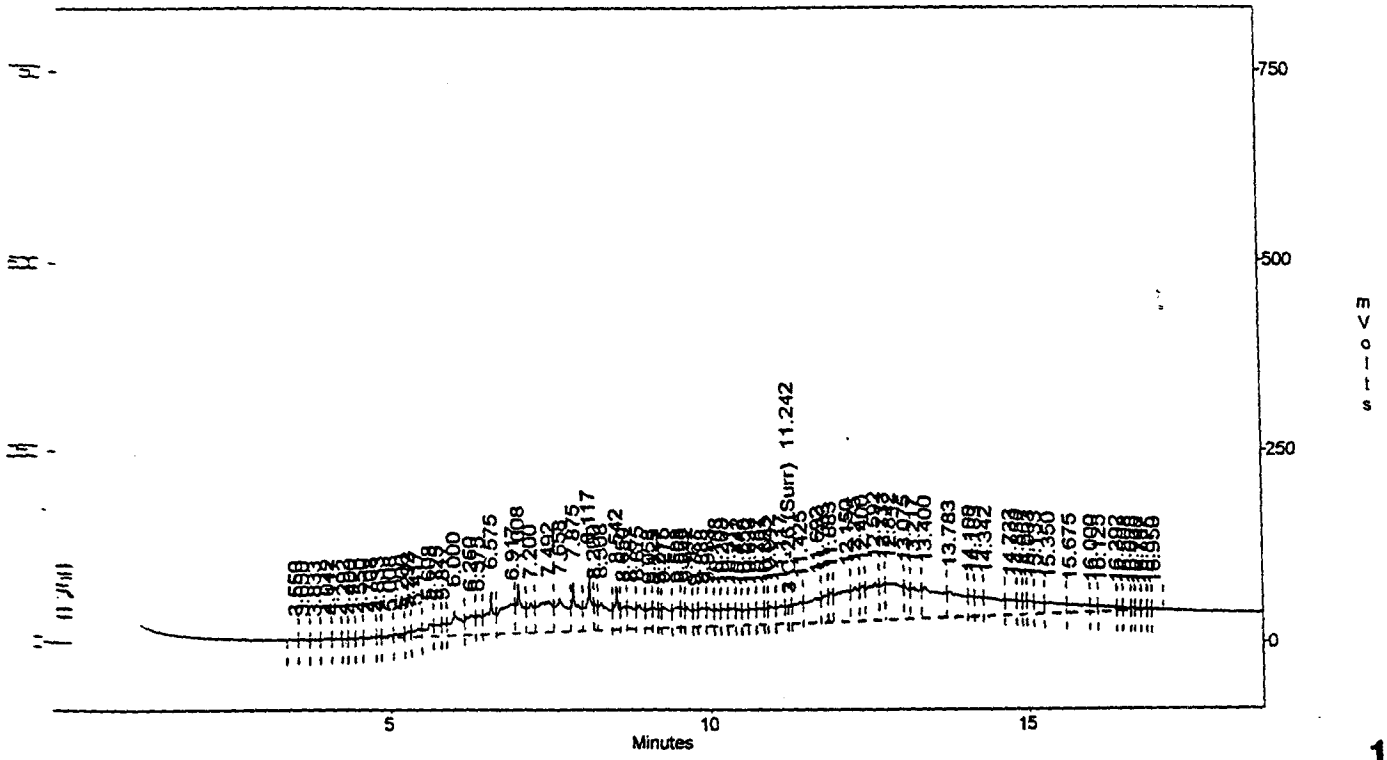
Sample's matrix is oily liquid. 8/14/97

Channel B Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.24	5591	0.370
1 Jp-5		4600827	239.681
2 motor oil		7873872	454.051

(ILT-16)

c:\data\9708\dsl2h\97g3440\3520.102 – Channel B



14252

Applied P & Ch Laboratory

Organic Analysis Results for Method LUFT-E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	08/04/97
Project ID:	UST 314 Contents	Service ID:	973520	Collected by:	
		Lab Sample ID:	97-3520-3	Received Date:	08/05/97
Sample ID:	**18609-418**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC: H
Anal. Method:	LUFT-E	Prep. Date:	08/08/97	Anal. Date:	08/13/97
Batch No:	97G3425	Prep. No:	1 of 1	Anal. Time:	13:43
Data File Name:	3520.103	Sample Amount:	500 mL	Dilution Factor:	2
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/L	1	8.4	
2	TPH AS MOTOR OIL	TBD-0002	mg/L	1	1	

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-149	81
# of out-of-control				1

[a]Corresponds to the minimum reading of the thermometer used.

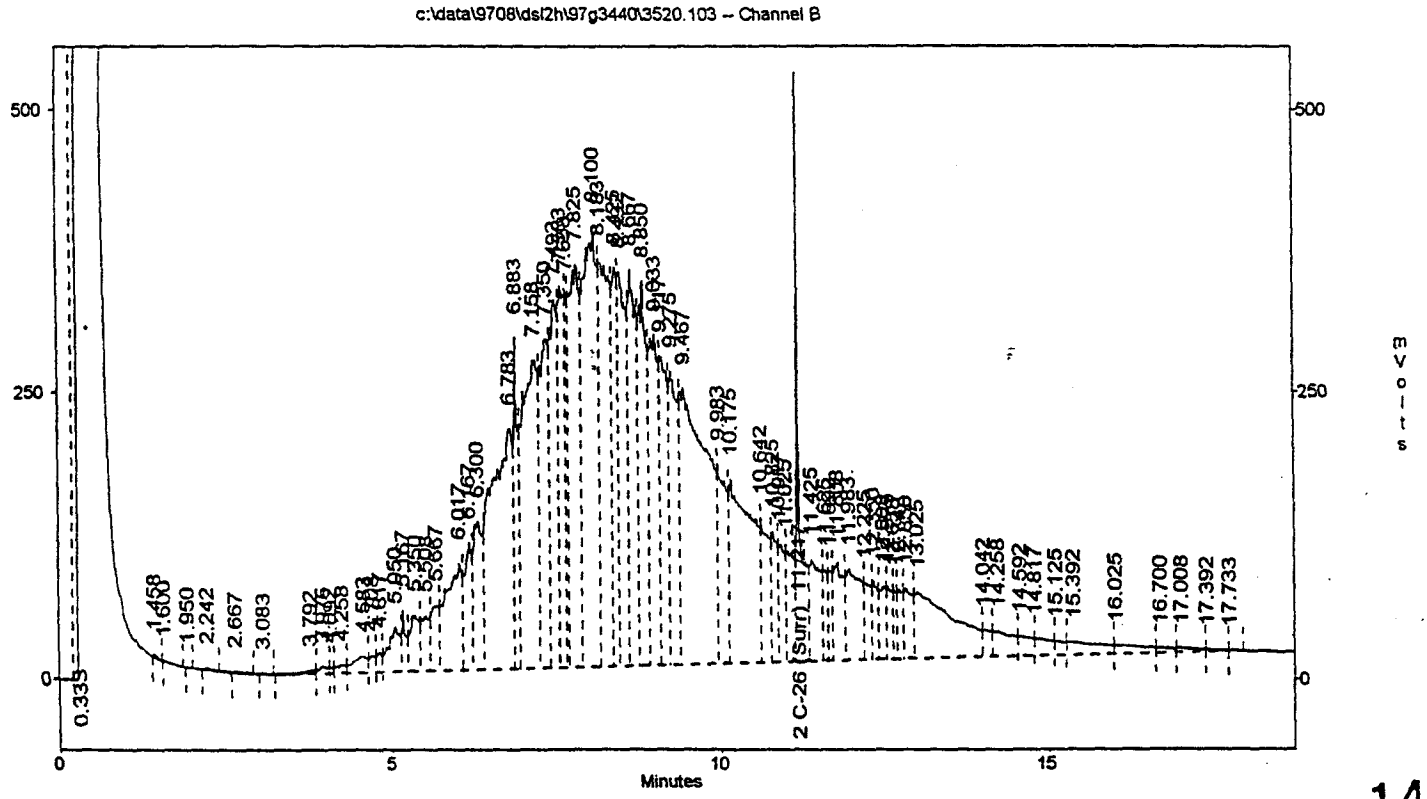
Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9708\dsl2h\97g3440\3520.103
Method : c:\ezchrom\methods\dsl2-022.h00
Sample ID : %97g3425 f=.002
Vial : 59
Volume : 1
Acquired : Aug 13, 1997 13:43:42
Printed : Aug 13, 1997 14:37:58
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.22	647635	40.721
1 DIESEL		71473528	4198.622



14254

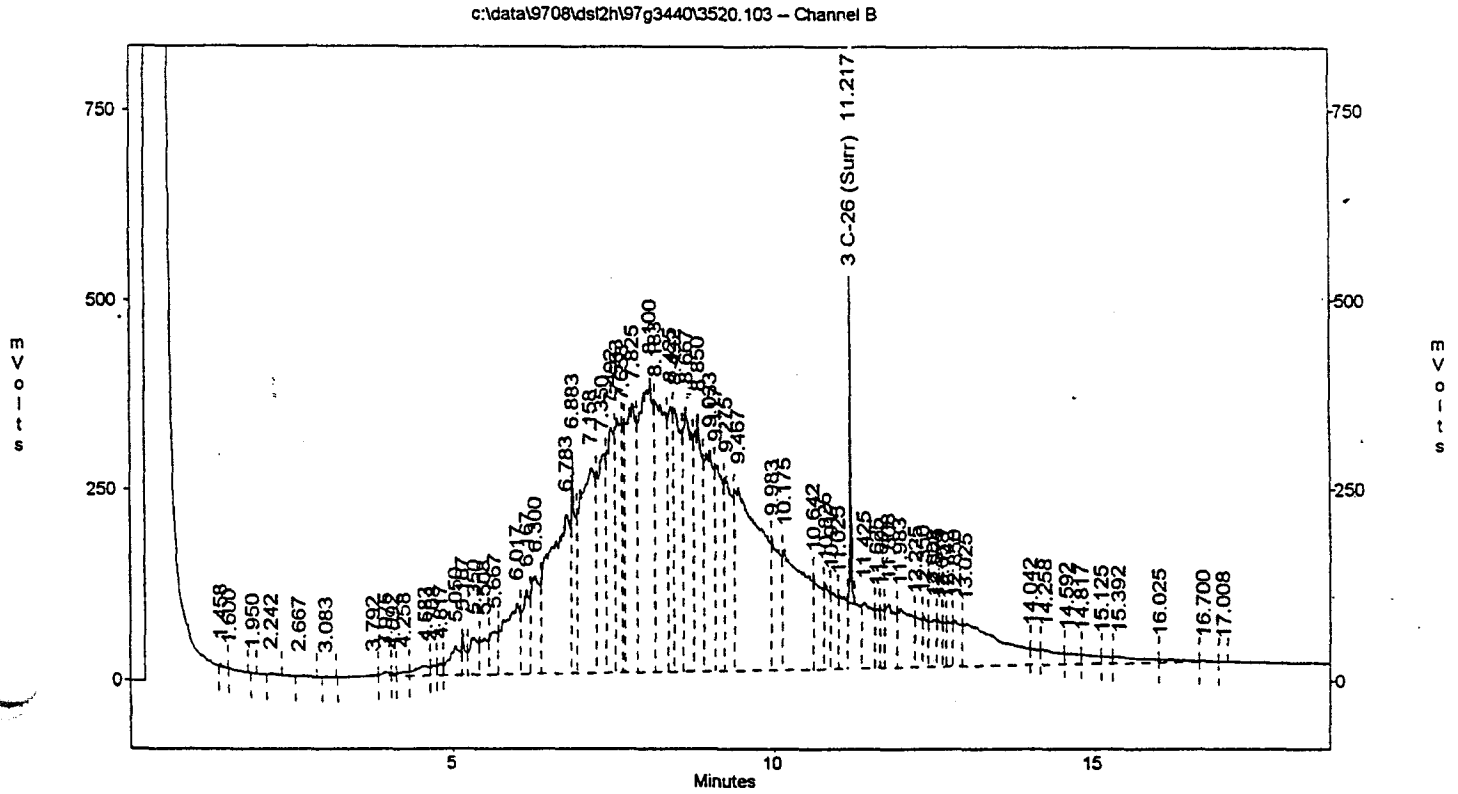
Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9708\dsl2h\97g3440\3520.103
Method : c:\ezchrom\methods\j5mo-017.h00
Sample ID : %97g3425 f=.002
Vial : 59
Volume : 1
Acquired : Aug 13, 1997 13:43:42
Printed : Aug 13, 1997 14:39:00
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.22	647635	42.817
1 Jp-5		28413546	1480.207
2 motor oil		9987518	575.935

(11.3-16)



14255

Applied P & Ch Laboratory

Organic Analysis Results for Method LUFT-8020

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	08/06/97
Project ID:	UST 314 Contents	Service ID:	973520	Collected by:	
		Lab Sample ID:	97G3382-MB-01	Received Date:	08/06/97
Sample ID:	**97G3382-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	LUFT-8020	Prep. Date:	08/06/97	Anal. Date:	08/06/97
Batch No:	97G3382	Prep. No:	–	Anal. Time:	10:57
Data File Name:	3382G.K01	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/L	0.05	< 0.05	U
2	BENZENE	71-43-2	μg/L	0.5	< 0.5	U
3	ETHYLBENZENE	100-41-4	μg/L	0.5	< 0.5	U
4	TOLUENE	108-88-3	μg/L	0.5	< 0.5	U
5	O-XYLENE	95-47-6	μg/L	0.5	< 0.5	U
6	M/P-XYLENE	108-38-3	μg/L	1	< 1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	68-124	106
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	71-134	99
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	99
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

14206

Applied P & Ch Laboratory

Organic Analysis Results for Method LUFT-8020

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	08/07/97
Project ID:	UST 314 Contents	Service ID:	973520	Collected by:	
		Lab Sample ID:	97G3398-MB-01	Received Date:	08/07/97
Sample ID:	**97G3398-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	LUFT-8020	Prep. Date:	08/07/97	Anal. Date:	08/07/97
Batch No:	97G3398	Prep. No:	–	Anal. Time:	10:23
Data File Name:	3398G.K01	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/L	0.05	< 0.05	U
2	BENZENE	71-43-2	μg/L	0.5	< 0.5	U
3	ETHYLBENZENE	100-41-4	μg/L	0.5	< 0.5	U
4	TOLUENE	108-88-3	μg/L	0.5	< 0.5	U
5	O-XYLENE	95-47-6	μg/L	0.5	< 0.5	U
6	M/P-XYLENE	108-38-3	μg/L	1	< 1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	68-124	110
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	71-134	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	102
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

14207

Applied P & Ch Laboratory

Organic Analysis Results for Method LUFT-8020

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	08/04/97
Project ID:	UST 314 Contents	Service ID:	973520	Collected by:	
		Lab Sample ID:	97-3520-1	Received Date:	08/05/97
Sample ID:	**18609-416**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	LUFT-8020	Prep. Date:	08/06/97	Anal. Date:	08/06/97
Batch No:	97G3382	Prep. No:	–	Anal. Time:	22:59
Data File Name:	3520.001	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/L	0.05	< 0.05	U
2	BENZENE	71-43-2	μg/L	0.5	< 0.5	U
3	ETHYLBENZENE	100-41-4	μg/L	0.5	< 0.5	U
4	TOLUENE	108-88-3	μg/L	0.5	< 0.5	U
5	O-XYLENE	95-47-6	μg/L	0.5	< 0.5	U
6	M/P-XYLENE	108-38-3	μg/L	1	< 1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	68-124	107
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	71-134	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	100
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

142

Applied P & Ch Laboratory

Organic Analysis Results for Method LUFT-8020

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	08/04/97
Project ID:	UST 314 Contents	Service ID:	973520	Collected by:	
		Lab Sample ID:	97-3520-2	Received Date:	08/05/97
Sample ID:	**18609-417**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	LUFT-8020	Prep. Date:	08/07/97	Anal. Date:	08/07/97
Batch No:	97G3398	Prep. No:	-	Anal. Time:	18:17
Data File Name:	3520.102	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/L	0.05	< 0.05 [a]	U
2	BENZENE	71-43-2	μg/L	0.5	1.2	
3	ETHYLBENZENE	100-41-4	μg/L	0.5	2.2	
4	TOLUENE	108-88-3	μg/L	0.5	0.7	
5	O-XYLENE	95-47-6	μg/L	0.5	0.9	
6	M/P-XYLENE	108-38-3	μg/L	1	0.6	J

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	68-124	102
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	71-134	104
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	106
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Sample Chromatogram contains peaks originated from Diesel.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

14209

Applied P & Ch Laboratory
Gasoline/BTXE, GC analysis by FID/PID (System N)

File : C:\DATA\9708\97g3398\3520.102
Method : c:\ezchrom\methods\Luft-020.n00
Sample ID : 3520-2 w f=1
Acquired : Aug 07, 1997 18:17:44
Printed : Aug 07, 1997 18:32:49

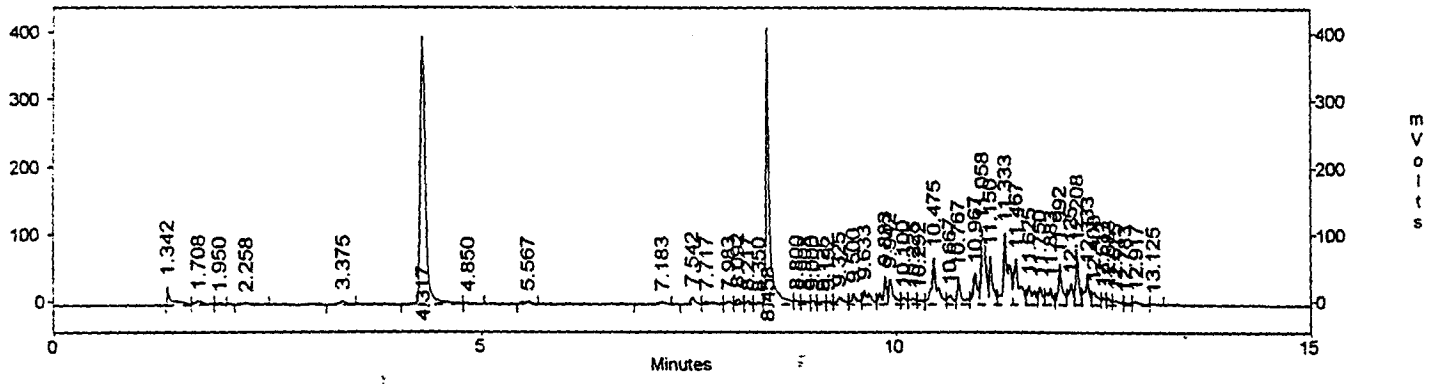
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
6	2. TFT	4.32	1666650	397878	16660.04883	100.0
16	7. BFB	8.46	1257661	410966	12316.01758	102.1
G1	1. Gasoline		4333421		16619.95508	260.7

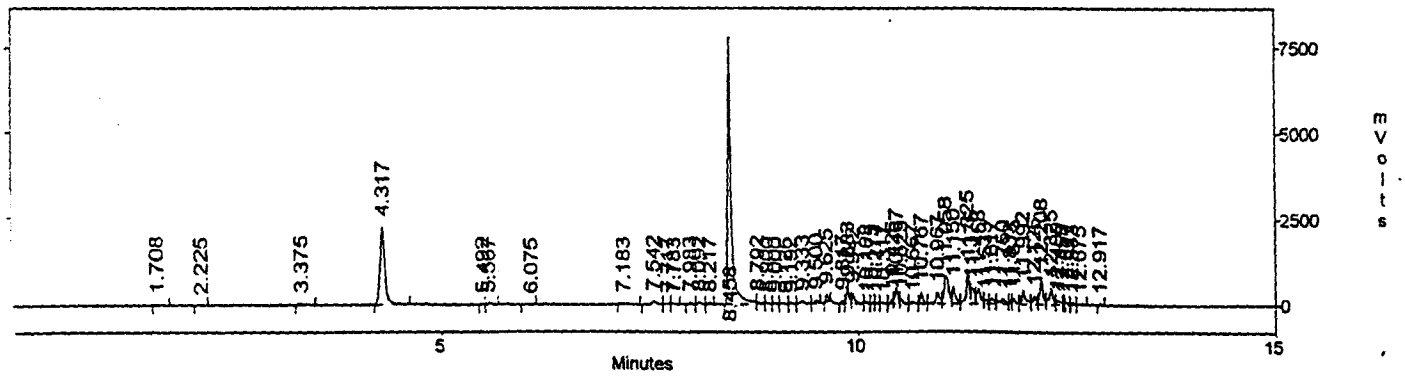
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
2	9. MTBE	2.22	20337	3875	0.76506	0.30
3	1. Benzene W 20	3.38	237222	50967	2.26079	1.17
4	2. TFT (Int.)	4.32	8969585	2219180	1.00000	100.00
6	3. Toluene W 80	5.57	136306	32329	2.13342	0.71
9	5. Et-Bz W 19	7.54	345372	88771	1.72959	2.23
10	6. P/M xylene W 82	7.72	115380	33232	2.18880	0.59
13	7. O-xylene W 27	8.09	156236	60506	1.99633	0.87
15	8. BFB (Surr.)	8.46	23157282	7794091	2.48401	103.93

C:\DATA\9708\97g3398\3520.102 – Channel A



C:\DATA\9708\97g3398\3520.102 – Channel B



14210

Applied P & Ch Laboratory

Organic Analysis Results for Method LUFT-8020

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	08/04/97
Project ID:	UST 314 Contents	Service ID:	973520	Collected by:	
		Lab Sample ID:	97-3520-3	Received Date:	08/05/97
Sample ID:	**18609-418**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	LUFT-8020	Prep. Date:	08/07/97	Anal. Date:	08/07/97
Batch No:	97G3398	Prep. No:	–	Anal. Time:	18:42
Data File Name:	3520.103	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/L	0.05	< 0.05 [a]	U
2	BENZENE	71-43-2	μg/L	0.5	1.4	
3	ETHYLBENZENE	100-41-4	μg/L	0.5	2.7	
4	TOLUENE	108-88-3	μg/L	0.5	0.8	
5	O-XYLENE	95-47-6	μg/L	0.5	1	
6	M/P-XYLENE	108-38-3	μg/L	1	0.7	J

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	68-124	101
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	71-134	104
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	107
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Sample Chromatogram contains peaks originated from Diesel.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

14211

Applied P & Ch Laboratory
Gasoline/BTXE, GC analysis by FID/PID (System N)

File : C:\DATA\9708\97g3398\3520.103
Method : c:\ezchrom\methods\Luft-020.n00
Sample ID : 3520-3 w f=1
Acquired : Aug 07, 1997 18:42:52
Printed : Aug 07, 1997 18:57:58

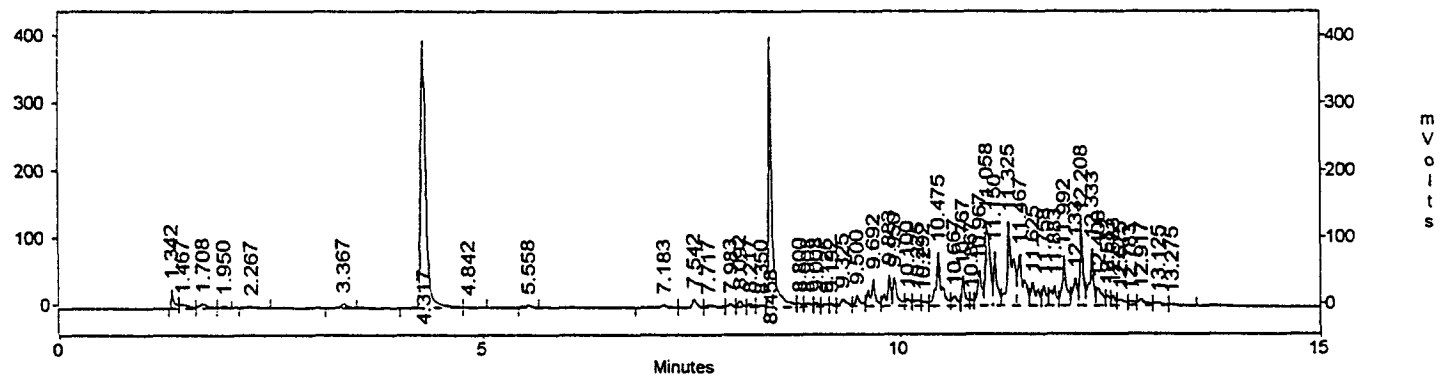
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
7	2. TFT	4.32	1668567	397695	16660.04883	100.2
17	7. BFB	8.46	1246238	402794	12316.01758	101.2
G1	1. Gasoline		5282395		16619.95508	317.8

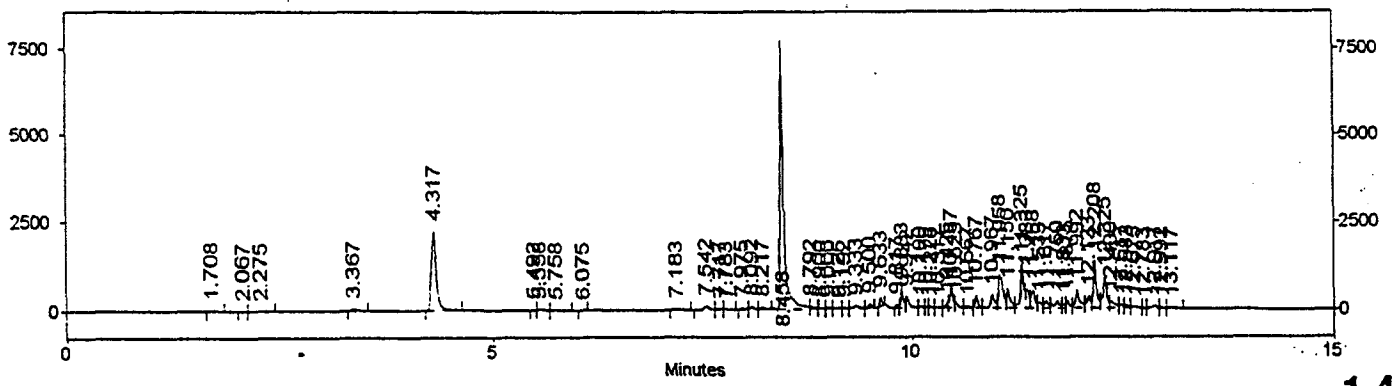
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
3	9. MTBE	2.28	62372	6274	0.76506	0.90
4	1. Benzene W 20	3.37	288102	61325	2.26079	1.41
5	2. TFT (Int.)	4.32	9017573	2211397	1.00000	100.00
7	3. Toluene W 80	5.56	162589	36594	2.13342	0.85
11	5. Et-Bz W 19	7.54	417575	107004	1.72959	2.68
12	6. P/M xylene W 82	7.72	130318	34545	2.18880	0.66
15	7. O-xylene W 27	8.09	178082	68167	1.99633	0.99
17	8. BFB (Surr.)	8.46	23198704	7709194	2.48401	103.57

C:\DATA\9708\97g3398\3520.103 -- Channel A



C:\DATA\9708\97g3398\3520.103 -- Channel B



14212

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710

Tel. (909) 590-1828 Fax (909) 590-1498

FILE COPY

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OCT 20 1997

October 13, 1997

Mary Schneider
OHM Remediation Services (Irvine)
2031 Main St.
Irvine, CA. 92714

Dear Ms. Schneider,

Enclosed please find two copies of Level C Data Package Deliverables and Electronic Data Deliverables for the project: UST 493 + 367. This package includes samples in our service ID of 97-3916.

Please contact me if you have any questions.

Sincerely yours,

Kevin Xie, Ph.D
QA Director

OHM Remediation Services Corp
Subsidiary of OHM Corporation
U.S. Route 224 East • Findlay, Ohio 45840 • (419) 423-3526

CHAIN-OF-CUSTODY RECORD

LABORATORY COPY
209535

FORM 0019 REV 2-97

SITE COORDINATOR: DWAYNE Isllida	LAB COORDINATOR'S PHONE: (714) 263-1146	LAB COORDINATOR'S FAX: (714) 263-1147	LABORATORY SERVICE CO	LABORATORY CONTACT	SEND REPORT TO (NAME):
PROJECT NAME: EL TORO	PROJECT LOCATION: M.C.A.S. EL TORO	PROJECT NUMBER: 18609	LABORATORY PHONE	LABORATORY FAX	RECIPIENT NAME
PROJECT CONTACT: DWAYNE Isllida	PROJECT PHONE NUMBER: 263-1146	PROJECT FAX: 263-1147	LABORATORY ADDRESS		ADDRESS
PROJECT ADDRESS: 2031 MAIN ST.	CITY, STATE AND ZIPCODE: IRVINE, CA 92709	CLIENT: SWDIV	CITY, STATE AND ZIPCODE: CHINO, CA.		CITY, STATE AND ZIPCODE
PROJECT MANAGER: Bill SEDLAK	PROJECT MANAGER'S PHONE: 263-1146	PROJECT MANAGER'S FAX: 263-1147			

APCL

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont	QC Level	T.A.T	TPH-Purgeable	TPH-Extractable	8020-BTEX	TPH-Air	Title 22 Metals				Comments
1	18609-532	S	9/9/97	1125	—	1	C	5DAY	X	X	X	X	X				
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

MB 9/9/97

SAMPLES COLLECTED BY: MB H5807

COURIER AND AIR BILL NUMBER:

COOLER HANDLING/RELINQUISHED RECEIPT

RELINQUISHED BY	RECEIVED BY	DATE	TIME	SAMPLE COMBINATION RECEIPT
Mandeb Bermudez	[illegible signature]	9/9/97	1455	

21702

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Yellow - Project Data Manager

OHM Remediation Services Corp
Subsidiary of OHM Corporation
U.S. Route 224 East • Findlay, Ohio 45840 • (419) 423-3526

CHAIN-OF-CUSTODY RECORD

9916

LABORATORY COPY
209525

FORM 0019 REV. 2

OHM LAB COORDINATOR: DWAYNE ISHIDA	LAB COORDINATOR'S PHONE: (714) 263-1146	LAB COORDINATOR'S FAX: 475-5433	LABORATORY SERVICE ID	LABORATORY CONTACT	MAIL REPORT (COMPANY NAME)
PROJECT NAME: RIST 493 + 367	PROJECT LOCATION: MCAS EL TORO	PROJECT NUMBER: 18609	LABORATORY PHONE	LABORATORY FAX	RECIPIENT NAME
PROJECT CONTACT: D. ISHIDA Verification drilling	PROJECT PHONE NUMBER: (714) 263-1146	PROJECT FAX: 475-5433	LABORATORY ADDRESS		ADDRESS
PROJECT ADDRESS: 2031 MAIN ST	CITY, STATE AND ZIPCODE: IRVINE, CA 92614	CLIENT: SNDIV	CITY, STATE AND ZIPCODE: CHINO, CA		CITY, STATE AND ZIPCODE
PROJECT MANAGER: BILL SEDLAK	PROJECT MANAGER'S PHONE: (714) 263-1146	PROJECT MANAGER'S FAX: 263-1147			

APCL

Item	Sample Identifier	Matrix	TIME ~~Date~~	DATE ~~Time~~	Preserved	# of Cont.	QC Level	T.A.T.	Analyses: TPH-EXT.	TPH GAS/BTEX	NEHAD 1312						Comments
1	18609-527	W	0700	9/9/97	HCl	2	C	5 DAY		X							
2	18609-528	S	0753		4°C	1	C		X	X							
3	18609-529	S	0757		4°C	1	C		X	X							MS/MSD
4	18609-530	S	0805		4°C	1	C		X	X							
5	18609-531	S	0813		4°C	1	C		X	X							
6	18609-543	S	1223		4°C	1	C		X	X							
7	18609-544	S	1247		4°C	1	C		X	X							
8	18609-545	S	1328		4°C	1	C		X	X							
9	18609-546	S	1427	↓	4°C	1	C	↓	X	X							
10	18609-547	W	1419	9/9/97	HCl 4°C	3	C	5 DAY	X	X							

SAMPLES COLLECTED BY: [signature]
COURIER AND AIR BILL NUMBER:
COOLER TEMPERATURE UPON RECEIPT:

RELINQUISHED BY	RECEIVED BY	DATE	TIME	SAMPLES CONDITION UPON RECEIPT
[signature]	[signature]	9/9/97	1515	

21703

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Yellow - Project Data Manager

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97-3916-6	Received Date:	09/09/97
Sample ID:	18609-532	Sample Matrix	Soil	Moisture %:	17.2
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	6.0	<6.0	U	P		97M2342	091797	091797	1	6010
ARSENIC	7440-38-2	mg/kg	0.36	5.0		P		97M2342	091797	091797	1	6010
BARIUM	7440-39-3	mg/kg	1.2	112		P		97M2342	091797	091797	1	6010
BERYLLIUM	7440-41-7	mg/kg	0.24	<0.24	U	P		97M2342	091797	091797	1	6010
CADMIUM	7440-43-9	mg/kg	0.24	1.4		P		97M2342	091797	091797	1	6010
CHROMIUM	7440-47-3	mg/kg	0.60	7.9		P		97M2342	091797	091797	1	6010
COBALT	7440-48-4	mg/kg	0.60	3.9		P		97M2342	091797	091797	1	6010
COPPER	7440-50-8	mg/kg	0.60	15.2		P		97M2342	091797	091797	1	6010
LEAD	7439-92-1	mg/kg	0.24	892		P		97M2342	091797	091797	1	6010
MERCURY	7439-97-6	mg/kg	0.24	<0.24	U	P		97M2344	091797	091797	1	7471
MOLYBDENUM	7439-98-7	mg/kg	0.24	0.65		P		97M2342	091797	091797	1	6010
NICKEL	7440-02-0	mg/kg	0.36	18.8		P		97M2342	091797	091797	1	6010
SELENIUM	7782-49-2	mg/kg	0.60	<0.60	U	P		97M2342	091797	091797	1	6010
SILVER	7440-22-4	mg/kg	0.60	<0.60	U	P		97M2342	091797	091797	1	6010
THALLIUM	7440-28-0	mg/kg	6.0	<6.0	U	P		97M2342	091797	091797	1	6010
VANADIUM	7440-62-2	mg/kg	0.60	20.8		P		97M2342	091797	091797	1	6010
ZINC	7440-66-6	mg/kg	0.60	80.4		P		97M2342	091797	091797	1	6010

Not Detected (N.D.) is shown as IDL moisture-corrected if applicable

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

21860

Applied P & Ch Laboratory

Wet Analysis Results for Method ASTM-D2216

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Anal. Method	ASTM-D2216
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	

Component Name: Moisture, percent in soil
CAS No: 7732-18-5

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
97-3916-2	18609-528	Soil	09/09/97	09/09/97	09/11/97	97W4916	%Moisture	0.5	3.7	
97-3916-3	18609-529	Soil	09/09/97	09/09/97	09/11/97	97W4916	%Moisture	0.5	10.1	
97-3916-4	18609-530	Soil	09/09/97	09/09/97	09/11/97	97W4916	%Moisture	0.5	10.7	
97-3916-5	18609-531	Soil	09/09/97	09/09/97	09/11/97	97W4916	%Moisture	0.5	15.2	
97-3916-6	18609-532	Soil	09/09/97	09/09/97	09/11/97	97W4916	%Moisture	0.5	17.2	
97-3916-7	18609-543	Soil	09/09/97	09/09/97	09/11/97	97W4916	%Moisture	0.5	21.8	
97-3916-8	18609-544	Soil	09/09/97	09/09/97	09/11/97	97W4916	%Moisture	0.5	8.5	
97-3916-9	18609-545	Soil	09/09/97	09/09/97	09/11/97	97W4916	%Moisture	0.5	16.8	
97-3916-10	18609-546	Soil	09/09/97	09/09/97	09/11/97	97W4916	%Moisture	0.5	10.8	

Note: Q - Qualifier.
Qualifier: U - Not Detected or less than MDL
B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

21849

Applied P & Ch Laboratory

Wet Analysis Results for Method 418.1

Client Name: OHM Remediation Services (Irvine) Project No: 18609 Anal. Method 418.1
Project ID: UST 493 + 367 Service ID: 973916 Collected by:

Component Name: TRPH
CAS No: 9999-148

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
97-3916-6	18609-532	Soil	09/09/97	09/09/97	09/12/97	97W4935	mg/kg	12	33200	
97W4935-MB-01	97W4935-MB-01	Soil	09/12/97	09/12/97	09/12/97	97W4935	mg/kg	10	<10	U

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Note: Q - Qualifier.
Qualifier: U - Not Detected or less than MDL
B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

21850

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 418.1

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973916
Project ID:	UST 493 + 367	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97W4935		
LCS Filename:	-	Date Analyzed:	091297	Time Analyzed:	16:14
LCSD Filename:	-	Date Analyzed:	091297	Time Analyzed:	16:14

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
TRPH	mg/kg	1000	0	921	92	80-120
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
TRPH	mg/kg	1000	941	94	2	15	80-120
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

21851

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 418.1

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	3916
Project ID:	UST 493 + 367	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97W4935		
MS Filename:	-	Date Analyzed:	091297	Time Analyzed:	16:14
MSD Filename:	-	Date Analyzed:	091297	Time Analyzed:	16:14
MS Sample No:	18609-1438	Sample Lab ID:	97-3928-18	Moisture, %	7.7

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
TRPH	mg/kg	1080	234	1210	90	75-120
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
TRPH	mg/kg	1080	1190	89	1	15	75-120
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

21852

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/11/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97G3723-MB-01	Received Date:	09/11/97
Sample ID:	**97G3723-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	09/11/97	Anal. Date:	09/15/97
Batch No:	97G3723	Prep. No:	1 of 1	Anal. Time:	08:28
Data File Name:	3723G.K01	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	10	<10	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	90
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21775

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97-3916-2	Received Date:	09/09/97
Sample ID:	18609-528	Sample Matrix	Soil	Moisture %:	3.7
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	09/11/97	Anal. Date:	09/15/97
Batch No:	97G3723	Prep. No:	1 of 1	Anal. Time:	13:10
Data File Name:	3916.002	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	10	<10	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	81
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21776

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97-3916-3	Received Date:	09/09/97
Sample ID:	18609-529	Sample Matrix	Soil	Moisture %:	10.1
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	09/11/97	Anal. Date:	09/15/97
Batch No:	97G3723	Prep. No:	1 of 1	Anal. Time:	13:39
Data File Name:	3916.003	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	11	<11	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	11	<11	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	89
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21777

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97-3916-4	Received Date:	09/09/97
Sample ID:	18609-530	Sample Matrix	Soil	Moisture %:	10.7
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	09/11/97	Anal. Date:	09/15/97
Batch No:	97G3723	Prep. No:	1 of 1	Anal. Time:	14:08
Data File Name:	3916.004	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	11	<11	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	11	<11	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	84
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21778

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97-3916-5	Received Date:	09/09/97
Sample ID:	**18609-531**	Sample Matrix	Soil	Moisture %:	15.2
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	09/11/97	Anal. Date:	09/15/97
Batch No:	97G3723	Prep. No:	1 of 1	Anal. Time:	14:36
Data File Name:	3916.005	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	12	<12	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	80
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21779

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97-3916-6	Received Date:	09/09/97
Sample ID:	18609-532	Sample Matrix	Soil	Moisture %:	17.2
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	09/11/97	Anal. Date:	09/15/97
Batch No:	97G3723	Prep. No:	1 of 1	Anal. Time:	15:04
Data File Name:	3916.006	Sample Amount:	20.0 g	Dilution Factor:	10
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	120	2300	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	120	260	

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	93
# of out-of-control				0

[a]Sample chromatogram contains peaks originated from Diesel.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

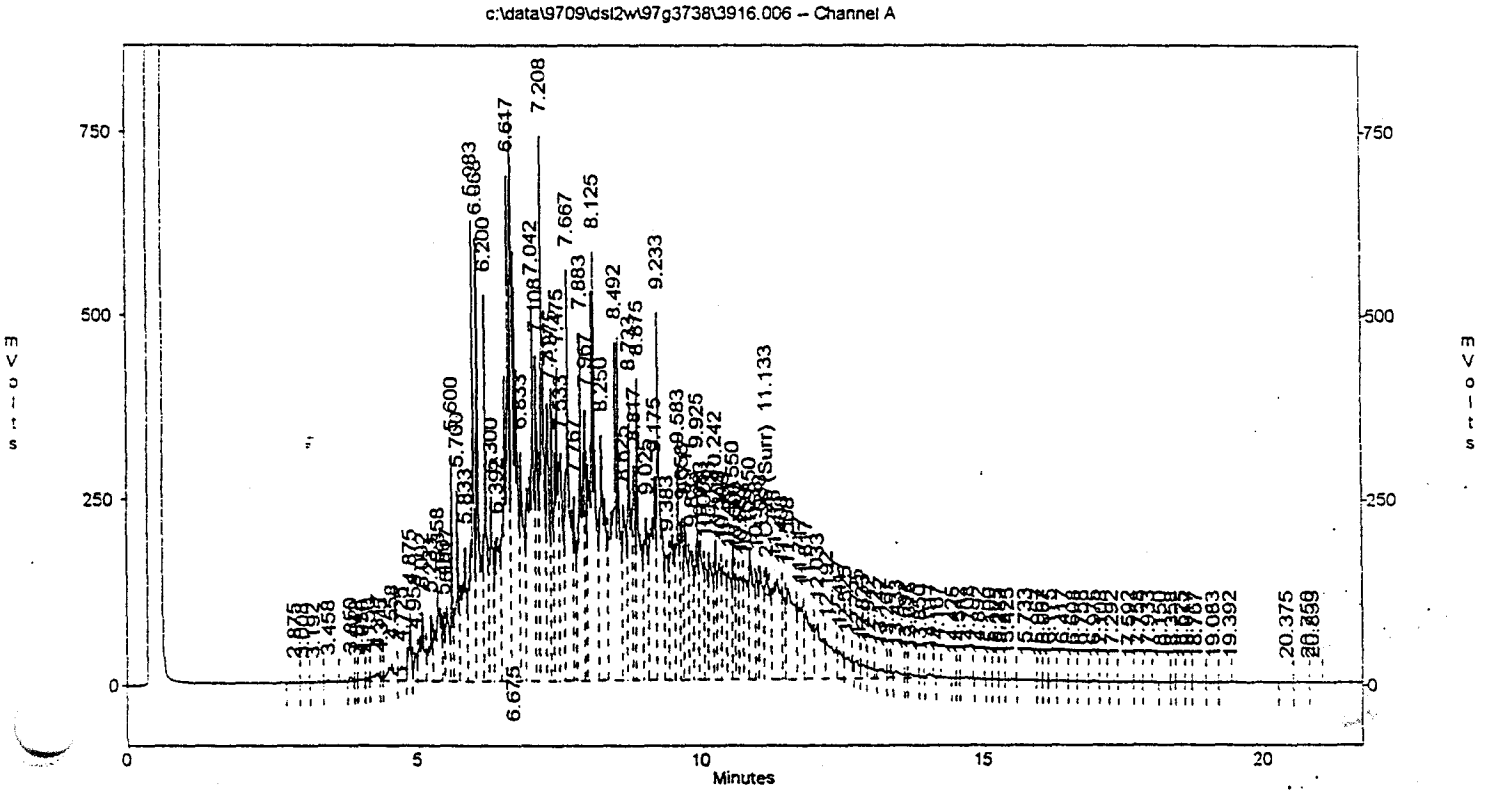
21780

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9709\dsl2w\97g3738\3916.006
Method : c:\ezchrom\methods\dsl2-005.w00
Sample ID : 3916-6 f=.5
Vial : 37
Volume : 1
Acquired : Sep 15, 1997 15:04:42
Printed : Sep 16, 1997 09:27:21
User : System

Channel A Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.13	76433	4.672
1 Diesel		73513208	3766.926



21781

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

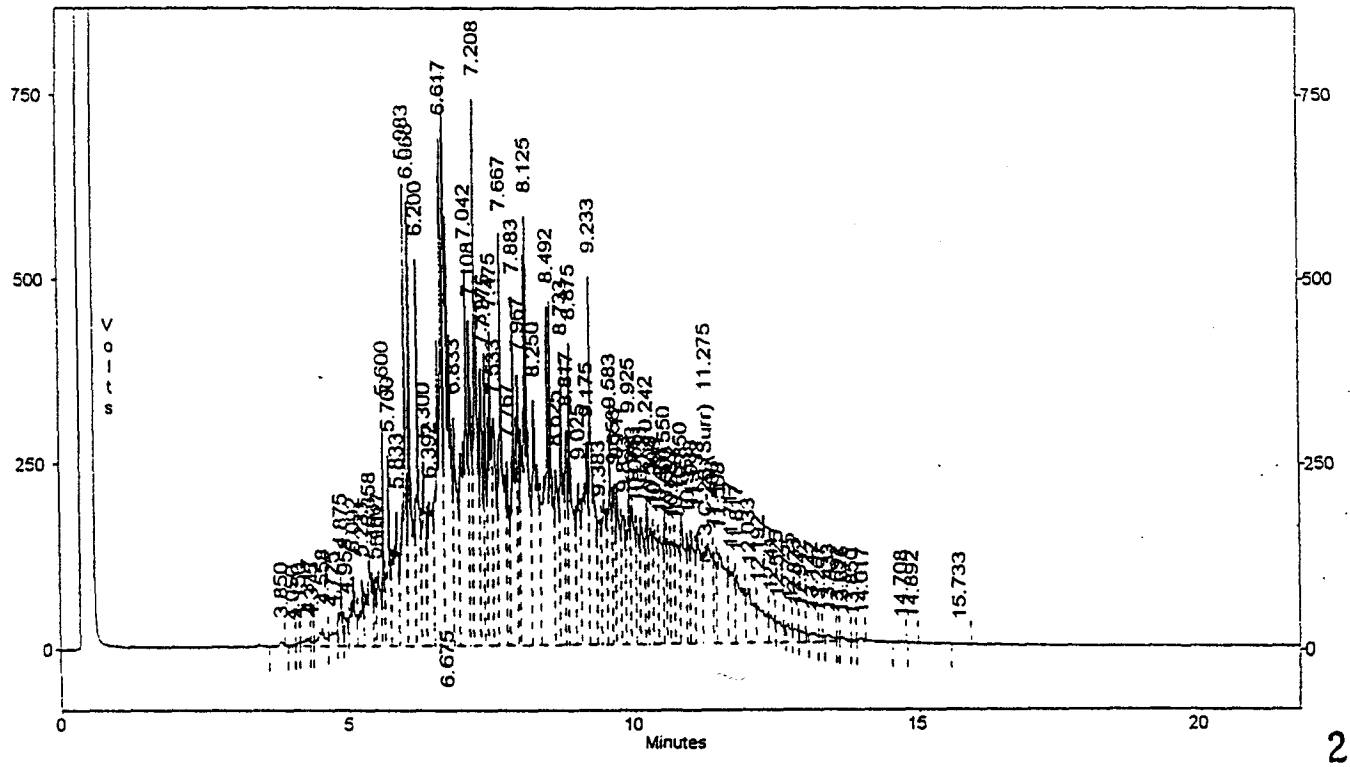
File : c:\data\9709\dsl2w\97g3738\3916.006
Method : c:\ezchrom\methods\j5mo-007.w00
Sample ID : 3916-6 f=.5
Vial : 37
Volume : 1
Acquired : Sep 15, 1997 15:04:42
Printed : Sep 16, 1997 09:25:22
User : System

Channel A Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.27	108352	6.724
1 Jp-5		40123976	1924.760
2 Motor oil		5634746	425.510

(11.2-16)

c:\data\9709\dsl2w\97g3738\3916.006 – Channel A



21782

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97-3916-7	Received Date:	09/09/97
Sample ID:	**18609-543**	Sample Matrix	Soil	Moisture %:	21.8
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	09/11/97	Anal. Date:	09/15/97
Batch No:	97G3723	Prep. No:	1 of 1	Anal. Time:	16:57
Data File Name:	3916.007	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	13	<13	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	13	<13	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	79
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21783

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97-3916-8	Received Date:	09/09/97
Sample ID:	18609-544	Sample Matrix	Soil	Moisture %:	8.5
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	09/11/97	Anal. Date:	09/15/97
Batch No:	97G3723	Prep. No:	1 of 1	Anal. Time:	17:26
Data File Name:	3916.008	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	11	<11	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	11	<11	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	82
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21784

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97-3916-9	Received Date:	09/09/97
Sample ID:	18609-545	Sample Matrix	Soil	Moisture %:	16.8
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	09/11/97	Anal. Date:	09/15/97
Batch No:	97G3723	Prep. No:	1 of 1	Anal. Time:	17:54
Data File Name:	3916.009	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	12	<12	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	95
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21785

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97-3916-10	Received Date:	09/09/97
Sample ID:	18609-546	Sample Matrix	Soil	Moisture %:	10.8
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	09/11/97	Anal. Date:	09/15/97
Batch No:	97G3723	Prep. No:	1 of 1	Anal. Time:	18:22
Data File Name:	3916.010	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	11	< 11	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	11	< 11	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	79
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21786

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/12/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97G3730-MB-01	Received Date:	09/12/97
Sample ID:	**97G3730-MB-01**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Method Blank	Prep. Method:	3510	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/12/97	Anal. Date:	09/15/97
Batch No:	97G3730	Prep. No:	1 of 1	Anal. Time:	06:05
Data File Name:	3730G.K01	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/L	0.5	<0.5	U
2	TPH AS MOTOR OIL	TBD-0002	mg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-149	70
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21787

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97-3916-11	Received Date:	09/09/97
Sample ID:	**18609-547**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/12/97	Anal. Date:	09/15/97
Batch No:	97G3730	Prep. No:	1 of 1	Anal. Time:	13:10
Data File Name:	3916.011	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/L	0.5	<0.5	U
2	TPH AS MOTOR OIL	TBD-0002	mg/L	0.5	<0.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-149	70
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Sample chromatogram contains single peaks in MEK range.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21788

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/12/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97G3739-MB-01	Received Date:	09/12/97
Sample ID:	97G3739-MB-01	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	09/12/97	Anal. Date:	09/12/97
Batch No:	97G3739	Prep. No:	–	Anal. Time:	17:28
Data File Name:	3739G.K01	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/L	0.05	<0.05	U
2	BENZENE	71-43-2	μg/L	0.5	<0.5	U
3	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
4	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
5	XYLENES (TOTAL)	108-38-3	μg/L	1.5	<1.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	68-124	94
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	71-134	99
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	94
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21707

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/15/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97G3742-MB-01	Received Date:	09/15/97
Sample ID:	97G3742-MB-01	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/15/97	Anal. Date:	09/15/97
Batch No:	97G3742	Prep. No:	–	Anal. Time:	10:30
Data File Name:	3742G.K01	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1	<1	U
2	BENZENE	71-43-2	μg/kg	5	<5	U
3	ETHYLBENZENE	100-41-4	μg/kg	5	<5	U
4	TOLUENE	108-88-3	μg/kg	5	<5	U
5	XYLENES (TOTAL)	108-38-3	μg/kg	15	<15	U
6	XYLENES (TOTAL)	95-47-6	μg/kg	15	<15	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	79
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	98
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	101
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21708

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97G3748-MB-01	Received Date:	09/16/97
Sample ID:	**97G3748-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/16/97	Anal. Date:	09/16/97
Batch No:	97G3748	Prep. No:	–	Anal. Time:	00:51
Data File Name:	3748G.K01	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1	<1	U
2	BENZENE	71-43-2	μg/kg	5	<5	U
3	ETHYLBENZENE	100-41-4	μg/kg	5	<5	U
4	TOLUENE	108-88-3	μg/kg	5	<5	U
5	XYLENES (TOTAL)	108-38-3	μg/kg	15	<15	U
6	O-XYLENE	95-47-6	μg/kg	15	<15	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	86
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	105
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	96
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21709

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97-3916-1	Received Date:	09/09/97
Sample ID:	**18609-527**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	09/12/97	Anal. Date:	09/12/97
Batch No:	97G3739	Prep. No:	–	Anal. Time:	18:55
Data File Name:	3916.001	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/L	0.05	<0.05	U
2	BENZENE	71-43-2	μg/L	0.5	<0.5	U
3	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
4	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
5	XYLENES (TOTAL)	108-38-3	μg/L	1.5	<1.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	68-124	95
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	71-134	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	92
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21710

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97-3916-2	Received Date:	09/09/97
Sample ID:	**18609-528**	Sample Matrix	Soil	Moisture %:	3.7
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/15/97	Anal. Date:	09/15/97
Batch No:	97G3742	Prep. No:	–	Anal. Time:	22:17
Data File Name:	3916.002	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.0	<1.0	U
2	BENZENE	71-43-2	μg/kg	5.2	<5.2	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.2	<5.2	U
4	TOLUENE	108-88-3	μg/kg	5.2	<5.2	U
5	XYLENES (TOTAL)	108-38-3	μg/kg	16	<16	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	83
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	100
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21711

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97-3916-3	Received Date:	09/09/97
Sample ID:	18609-529	Sample Matrix	Soil	Moisture %:	10.1
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/15/97	Anal. Date:	09/15/97
Batch No:	97G3742	Prep. No:	-	Anal. Time:	13:23
Data File Name:	3916.003	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.1	<1.1	U
2	BENZENE	71-43-2	µg/kg	5.6	<5.6	U
3	ETHYLBENZENE	100-41-4	µg/kg	5.6	<5.6	U
4	TOLUENE	108-88-3	µg/kg	5.6	<5.6	U
5	XYLENES (TOTAL)	108-38-3	µg/kg	17	<17	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	85
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	101
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	101
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97-3916-4	Received Date:	09/09/97
Sample ID:	**18609-530**	Sample Matrix	Soil	Moisture %:	10.7
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/15/97	Anal. Date:	09/15/97
Batch No:	97G3742	Prep. No:	–	Anal. Time:	22:43
Data File Name:	3916.004	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.1	<1.1	U
2	BENZENE	71-43-2	μg/kg	5.6	<5.6	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.6	<5.6	U
4	TOLUENE	108-88-3	μg/kg	5.6	<5.6	U
5	XYLENES (TOTAL)	108-38-3	μg/kg	17	<17	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	85
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	101
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	99
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97-3916-5	Received Date:	09/09/97
Sample ID:	18609-531	Sample Matrix	Soil	Moisture %:	15.2
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/15/97	Anal. Date:	09/15/97
Batch No:	97G3742	Prep. No:	–	Anal. Time:	23:08
Data File Name:	3916.005	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.2	<1.2	U
2	BENZENE	71-43-2	μg/kg	5.9	<5.9	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.9	<5.9	U
4	TOLUENE	108-88-3	μg/kg	5.9	<5.9	U
5	XYLENES (TOTAL)	95-47-6	μg/kg	18	<18	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	84
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	100
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97-3916-6	Received Date:	09/09/97
Sample ID:	**18609-532**	Sample Matrix	Soil	Moisture %:	17.2
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/15/97	Anal. Date:	09/15/97
Batch No:	97G3742	Prep. No:	–	Anal. Time:	14:15
Data File Name:	3916.006	Sample Amount:	4 g	Dilution Factor:	100
Methanol Vol.	10 mL				
Test Level:	Medium	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	120	<120 [a]	U
2	BENZENE	71-43-2	μg/kg	600	<600	U
3	ETHYLBENZENE	100-41-4	μg/kg	600	<600	U
4	TOLUENE	108-88-3	μg/kg	600	<600	U
5	XYLENES (TOTAL)	95-47-6	μg/kg	1800	<1800	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	87
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	101
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	100
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Sample chromatogram contains peaks originated from Diesel.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21715

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Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97-3916-7	Received Date:	09/09/97
Sample ID:	18609-543	Sample Matrix	Soil	Moisture %:	21.8
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/15/97	Anal. Date:	09/15/97
Batch No:	97G3742	Prep. No:	–	Anal. Time:	23:34
Data File Name:	3916.007	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.3	<1.3	U
2	BENZENE	71-43-2	μg/kg	6.4	<6.4	U
3	ETHYLBENZENE	100-41-4	μg/kg	6.4	<6.4	U
4	TOLUENE	108-88-3	μg/kg	6.4	<6.4	U
5	XYLENES (TOTAL)	95-47-6	μg/kg	19	<19	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	85
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	101
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	100
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97-3916-8	Received Date:	09/09/97
Sample ID:	**18609-544**	Sample Matrix	Soil	Moisture %:	8.5
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/16/97	Anal. Date:	09/16/97
Batch No:	97G3748	Prep. No:	–	Anal. Time:	02:07
Data File Name:	3916.008	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.1	<1.1	U
2	BENZENE	71-43-2	μg/kg	5.5	<5.5	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.5	<5.5	U
4	TOLUENE	108-88-3	μg/kg	5.5	<5.5	U
5	XYLENES (TOTAL)	108-38-3	μg/kg	16	<16	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	85
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	102
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	98
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21717

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97-3916-9	Received Date:	09/09/97
Sample ID:	18609-545	Sample Matrix	Soil	Moisture %:	16.8
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/16/97	Anal. Date:	09/16/97
Batch No:	97G3748	Prep. No:	–	Anal. Time:	02:33
Data File Name:	3916.009	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.2	<1.2	U
2	BENZENE	71-43-2	μg/kg	6.0	<6.0	U
3	ETHYLBENZENE	100-41-4	μg/kg	6.0	<6.0	U
4	TOLUENE	108-88-3	μg/kg	6.0	<6.0	U
5	XYLENES (TOTAL)	108-38-3	μg/kg	18	<18	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	78
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	95
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	99
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21718

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97-3916-10	Received Date:	09/09/97
Sample ID:	18609-546	Sample Matrix	Soil	Moisture %:	10.8
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/16/97	Anal. Date:	09/16/97
Batch No:	97G3748	Prep. No:	–	Anal. Time:	02:58
Data File Name:	3916.010	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.1	<1.1	U
2	BENZENE	71-43-2	μg/kg	5.6	<5.6	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.6	<5.6	U
4	TOLUENE	108-88-3	μg/kg	5.6	<5.6	U
5	XYLENES (TOTAL)	108-38-3	μg/kg	17	<17	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	85
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	101
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	99
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21719

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	973916	Collected by:	
		Lab Sample ID:	97-3916-11	Received Date:	09/09/97
Sample ID:	18609-547	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	09/12/97	Anal. Date:	09/12/97
Batch No:	97G3739	Prep. No:	–	Anal. Time:	19:17
Data File Name:	3916.011	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/L	0.05	0.06 [a]	
2	BENZENE	71-43-2	μg/L	0.5	<0.5	U
3	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
4	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
5	XYLENES (TOTAL)	108-38-3	μg/L	1.5	<1.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	68-124	97
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	71-134	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	95
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Sample chromatogram contains single peaks in MEK range.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

21720

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710

Tel. (909) 590-1828 Fax (909) 590-1498

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OCT 20 1997

FILE COPY

October 20, 1997

Mary Schneider
OHM Remediation Services (Irvine)
2031 Main St.
Irvine, CA. 92714

Dear Ms. Schneider,

Enclosed please find two copies of Level C Data Package Deliverables and Electronic Data Deliverables for the project: 18609 / El Toro. This package includes samples in our service ID of 97-3987.

Please contact me if you have any questions.

Sincerely yours,

Kevin Xie, Ph.D
QA Director

OHM Remediation Services Corp
Subsidiary of OHM Corporation
U.S. Route 224 East • Findlay, Ohio 45840 • (419) 423-3526

CHAIN-OF-CUSTODY RECORD

LABORATORY COPY
209472

FORM 0019 REV. 2-97

OHM's LAB COORDINATOR	LAB COORDINATOR'S PHONE	LAB COORDINATOR'S FAX	LABORATORY SERVICE ID	LABORATORY CONTACT	MAIL REPORT (COMPANY NAME)
DWAYNE ISHIDA	(714) 263-1146	(714) 263-1147			
PROJECT NAME	**PROJECT LOCATION**	**PROJECT NUMBER**	**LABORATORY PHONE**	**LABORATORY FAX**	**RECIPIENT NAME**
EL TORO	M.C.A.S. EL TORO	18609			
PROJECT CONTACT	**PROJECT PHONE NUMBER**	**PROJECT FAX**	**LABORATORY ADDRESS**		**ADDRESS**
D. ISHIDA	263-1146	263-1147			
PROJECT ADDRESS	**CITY, STATE AND ZIPCODE**	**CLIENT**	**CITY, STATE AND ZIPCODE**		**CITY, STATE AND ZIPCODE**
2031 MAIN ST.	IRVINE, CA.	SWDIV	CHINO, CA		
PROJECT MANAGER	**PROJECT MANAGER'S PHONE**	**PROJECT MANAGER'S FAX**			
Bill SEDLAK	263-1146	263-1147			

A.P.C.L.

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont	QC Level	T.A.T.	Analyses: PH-PURGABLE	PH-EXTRACTABLE	8020-BTEX	8260	1312-SPLP				Comments
1	18609-554	S	9/16/97	0859	—	1	C	5 DAY	X	X	X	X					
2	18609-555	↓	↓	0906	—	1	C	5 DAY	X	X	X	X					
3	18609-556			0913	—	1	C	5 DAY	X	X	X	X					
4	18609-557			0916	—	1	C	5 DAY	X	X	X	X					
5	18609-558			1043	—	1	C	5 DAY	X	X	X	X					
6	18609-559			1050	—	1	C	5 DAY	X	X	X	X					
7	18609-560			1059	—	1	C	5 DAY	X	X	X	X					
8	18609-561	S	9/16/97	1102	—	1	C	5 DAY	X	X	X	X					
9																	
10																	

9/16/97

SAMPLES COLLECTED BY: JMR

COURIER AND AIR BILL NUMBER:

COOLER TEMPERATURE UPON RECEIPT:

RELINQUISHED BY	RECEIVED BY	DATE	TIME	SAMPLE'S CONDITION UPON RECEIPT
Marsha L. Bennett	Denise Valle	9/16/97	1445	

23904

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Yellow - Project Data Manager

OHM Remediation Services Corp
Subsidiary of OHM Corporation
U.S. Route 224 East • Findlay, Ohio 45840 • (419) 423-3526

CHAIN-OF-CUSTODY RECORD

LABORATORY COPY
209473

FORM 0019 REV. 2-97

OHM's LAB COORDINATOR	LAB COORDINATOR'S PHONE	LAB COORDINATOR'S FAX	LABORATORY SERVICE ID	LABORATORY CONTACT	MAIL REPORT (COMPANY NAME)
DWAYNE ISHIDA	(714) 263-1196	(714) 263-1147			
PROJECT NAME	**PROJECT LOCATION**	**PROJECT NUMBER**	**LABORATORY PHONE**	**LABORATORY FAX**	**RECIPIENT NAME**
EL TORO	M.C.A.S. EL TORO	18609			
PROJECT CONTACT	**PROJECT PHONE NUMBER**	**PROJECT FAX**	**LABORATORY ADDRESS**		**ADDRESS**
D. ISHIDA	263-1146	263-1147			
PROJECT ADDRESS	**CITY, STATE AND ZIPCODE**	**CLIENT**	**CITY, STATE AND ZIPCODE**		**CITY, STATE AND ZIPCODE**
2031 MAIN ST.	IRVINE, CA.	SWDIV	CHINO, CA.		
PROJECT MANAGER	**PROJECT MANAGER'S PHONE**	**PROJECT MANAGER'S FAX**			
BILL SEDLAK	263-1146	263-1147			

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont	QC Level	T.A.T	Analyses: TPH-Purgeable	TPH-Extractable	8020-BTEX	8260	1312-SPLP				Comments
1	18609-562	S	9/16/97	1322	—	1	C	5DAY	X	X	X	X					
2	18609-563	S		1329	—	1	C	5DAY	X	X	X	X					
3	18609-564	S		1338	—	1	D	5DAY	X	X	X	X					
4	18609-565	S		1340	—	1	C	5DAY	X	X	X	X					
5	18609-553	W	9/16/97	0800	HCL	2	C	5DAY	X		X	X					
6																	
7																	
8																	
9																	
10																	

APCL.

MR 9/16/97

SAMPLES COLLECTED BY: MR

COURIER AND AIR BILL NUMBER:

COOLER TEMPERATURE UPON RECEIPT:

RELINQUISHED BY	RECEIVED BY	DATE	TIME	SAMPLE'S CONDITION UPON RECEIPT
Marlah Bo[illegible]	Denise Valen[illegible]	9/16/97	1245	

Distribution: White - Laboratory (To be returned with Analytical R[illegible]); Goldenrod - Project File; Yellow - Project Data Manager

23905

Applied P & Ch Laboratory

Wet Analysis Results for Method ASTM-D2216

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Anal. Method	ASTM-D2216
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida

Component Name: Moisture, percent in soil
CAS No: 7732-18-5

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
97-3987-2	18609-554	Soil	09/16/97	09/16/97	09/18/97	97W5004	%Moisture	0.5	13.2	
97-3987-3	18609-555	Soil	09/16/97	09/16/97	09/18/97	97W5004	%Moisture	0.5	15.5	
97-3987-4	18609-556	Soil	09/16/97	09/16/97	09/18/97	97W5004	%Moisture	0.5	17.8	
97-3987-5	18609-557	Soil	09/16/97	09/16/97	09/18/97	97W5004	%Moisture	0.5	15.4	
97-3987-6	18609-558	Soil	09/16/97	09/16/97	09/18/97	97W5004	%Moisture	0.5	7.1	
97-3987-7	18609-559	Soil	09/16/97	09/16/97	09/18/97	97W5004	%Moisture	0.5	4.3	
97-3987-8	18609-560	Soil	09/16/97	09/16/97	09/18/97	97W5004	%Moisture	0.5	3.0	
97-3987-9	18609-561	Soil	09/16/97	09/16/97	09/18/97	97W5004	%Moisture	0.5	4.4	
97-3987-10	18609-562	Soil	09/16/97	09/16/97	09/18/97	97W5004	%Moisture	0.5	18.4	
97-3987-11	18609-563	Soil	09/16/97	09/16/97	09/18/97	97W5004	%Moisture	0.5	13.8	
97-3987-12	18609-564	Soil	09/16/97	09/16/97	09/18/97	97W5004	%Moisture	0.5	15.0	
97-3987-13	18609-565	Soil	09/16/97	09/16/97	09/18/97	97W5004	%Moisture	0.5	19.4	

Note: Q - Qualifier.
Qualifier: U - Not Detected or less than MDL
B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

24254

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/18/97
Project ID:	El Toro	Service ID:	973987	Collected by:	
		Lab Sample ID:	97G3779-MB-01	Received Date:	09/18/97
Sample ID:	**97G3779-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/18/97	Anal. Date:	09/18/97
Batch No:	97G3779	Prep. No:	1 of 1	Anal. Time:	21:55
Data File Name:	3779G.K01	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	10	<10	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	63
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

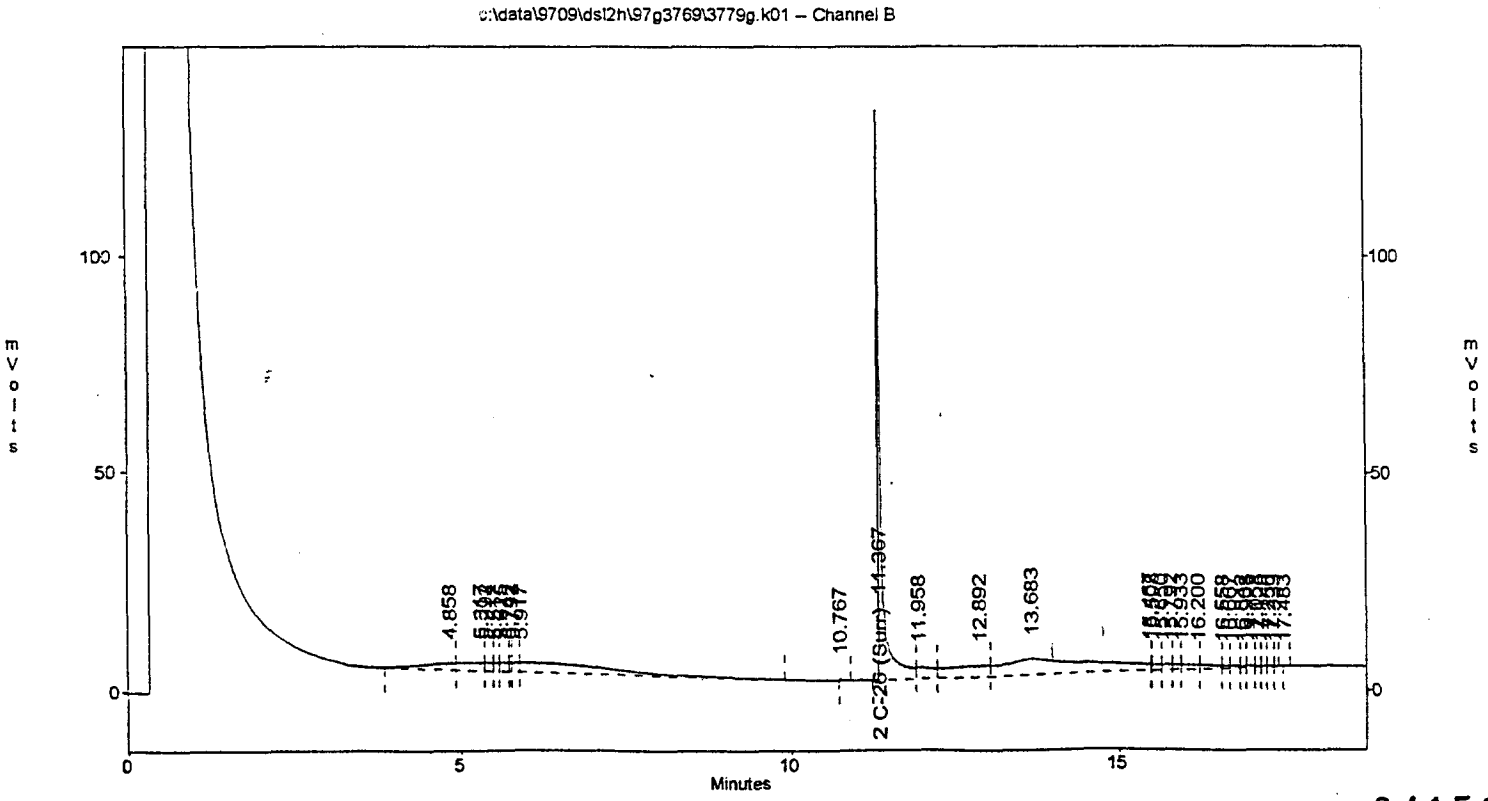
24152

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9709\dsl2h\97g3769\3779g.k01
Method : c:\ezchrom\methods\dsl2-023.h00
Sample ID : #97g3779,s f=.05
Vial : 5
Volume : 1
Acquired : Sep 18, 1997 21:55:54
Printed : Sep 19, 1997 14:01:17
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.37	417987	31.389
1 DIESEL		342511	17.721



24153

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/19/97
Project ID:	El Toro	Service ID:	973987	Collected by:	
		Lab Sample ID:	97G3789-MB-01	Received Date:	09/19/97
Sample ID:	**97G3789-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/19/97	Anal. Date:	09/20/97
Batch No:	97G3789	Prep. No:	1 of 1	Anal. Time:	10:54
Data File Name:	3789G.K01	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	10	<10	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	69
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

24154

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-2	Received Date:	09/16/97
Sample ID:	**18609-554**	Sample Matrix	Soil	Moisture %:	13.2
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/18/97	Anal. Date:	09/19/97
Batch No:	97G3779	Prep. No:	1 of 1	Anal. Time:	04:15
Data File Name:	3987.002	Sample Amount:	20.0 g	Dilution Factor:	50
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	580	<580	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	580	1800	

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	594
# of out-of-control				1

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

24155

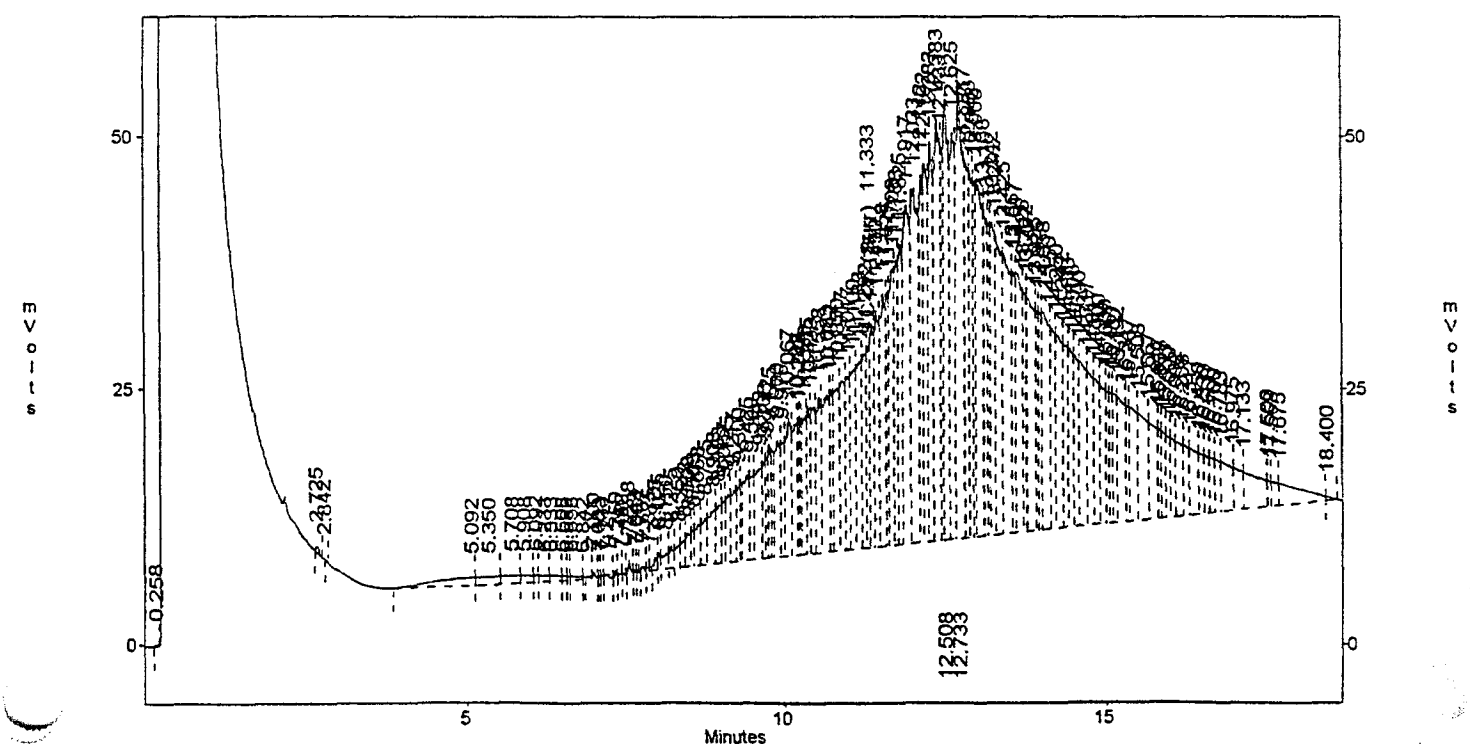
Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9709\dsl2h\97g3769\3987.002
Method : c:\ezchrom\methods\j5mo-018.h00
Sample ID : 3987-2 f=2.5
Vial : 17
Volume : 1
Acquired : Sep 19, 1997 04:15:33
Printed : Sep 22, 1997 17:09:14
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.33	58513	5.951
1 Jp-5		117153	6.045
2 motor oil		8440831	608.264

c:\data\9709\dsl2h\97g3769\3987.002 -- Channel B



24156

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-3	Received Date:	09/16/97
Sample ID:	18609-555	Sample Matrix	Soil	Moisture %:	15.5
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/19/97	Anal. Date:	09/20/97
Batch No:	97G3789	Prep. No:	1 of 1	Anal. Time:	13:24
Data File Name:	3987.003	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	12	<12	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	57
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

24157

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-4	Received Date:	09/16/97
Sample ID:	**18609-556**	Sample Matrix	Soil	Moisture %:	17.8
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/18/97	Anal. Date:	09/19/97
Batch No:	97G3779	Prep. No:	1 of 1	Anal. Time:	05:05
Data File Name:	3987.004	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	12	<12	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	66
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

24158

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-5	Received Date:	09/16/97
Sample ID:	18609-557	Sample Matrix	Soil	Moisture %:	15.4
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/19/97	Anal. Date:	09/20/97
Batch No:	97G3789	Prep. No:	1 of 1	Anal. Time:	13:49
Data File Name:	3987.005	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	12	<12	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	59
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

24159

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-6	Received Date:	09/16/97
Sample ID:	**18609-558**	Sample Matrix	Soil	Moisture %:	7.1
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/18/97	Anal. Date:	09/19/97
Batch No:	97G3779	Prep. No:	1 of 1	Anal. Time:	06:46
Data File Name:	3987.006	Sample Amount:	20.0 g	Dilution Factor:	10
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	110	340	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	110	520	

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	57
# of out-of-control				0

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

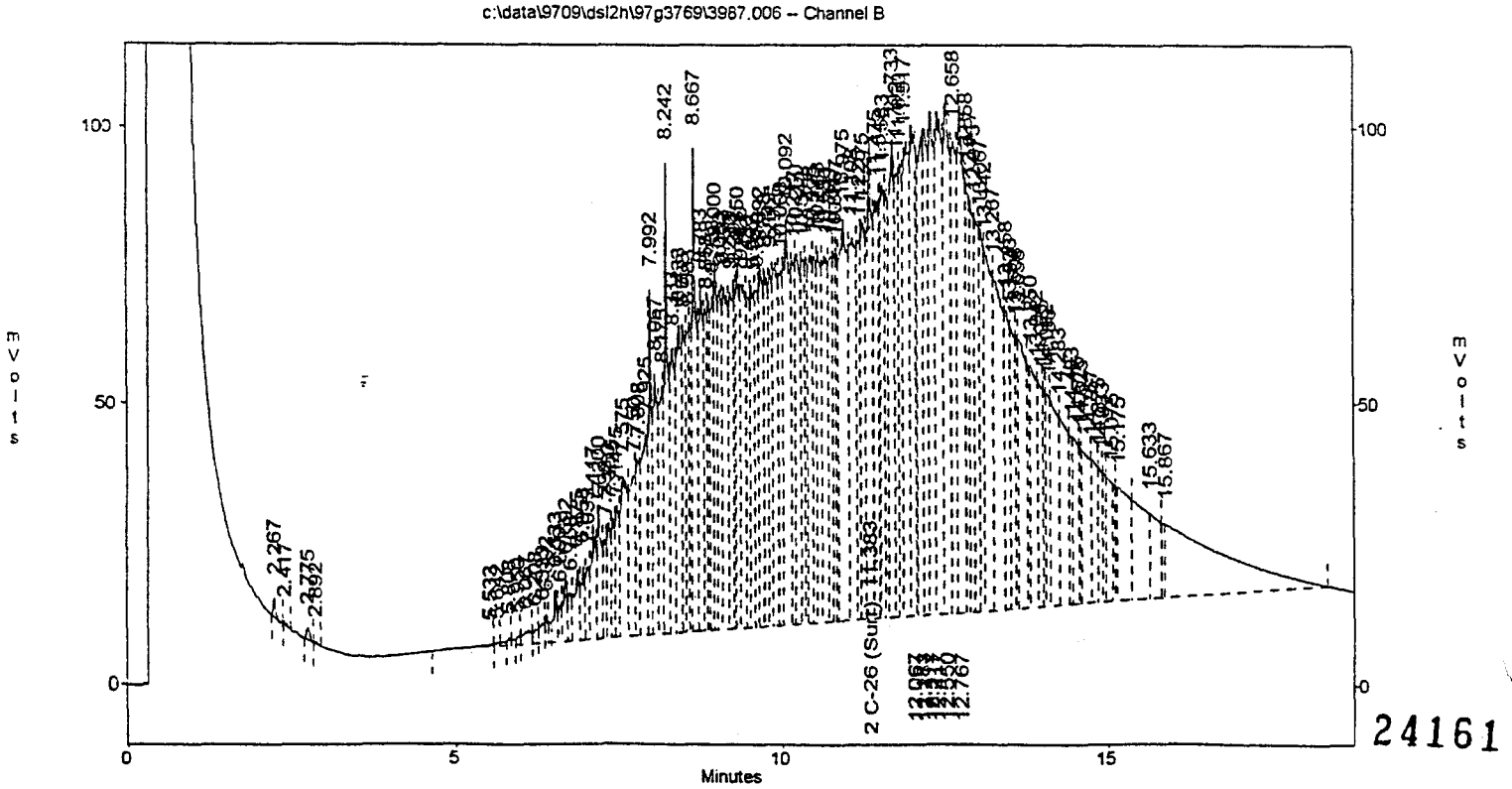
24160

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9709\dsl2h\97g3769\3987.006
Method : c:\ezchrom\methods\dsl2-023.h00
Sample ID : 3987-6 f=.5
Vial : 21
Volume : 1
Acquired : Sep 19, 1997 06:46:18
Printed : Sep 22, 1997 16:59:04
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.38	27923	2.097
1 DIESEL		12238951	633.221



24161

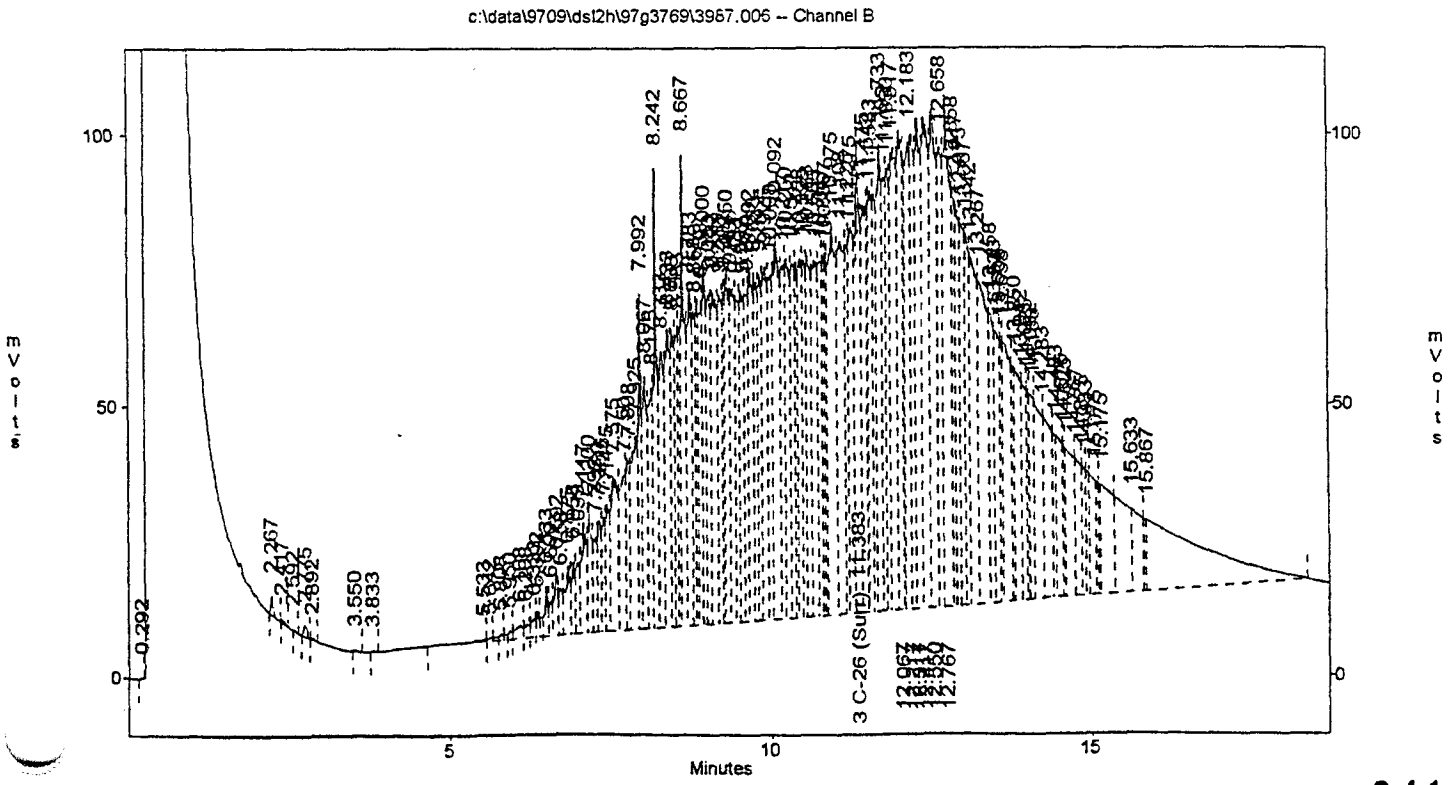
Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9709\dsl2h\97g3769\3987.006
Method : c:\ezchrom\methods\j5mo-018.h00
Sample ID : 3987-6 f=.5
Vial : 21
Volume : 1
Acquired : Sep 19, 1997 06:46:18
Printed : Sep 22, 1997 17:01:15
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.38	27923	2.840
1 Jp-5		1847082	95.303
2 motor oil		13279009	956.913

(11.0-16)



24162

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-7	Received Date:	09/16/97
Sample ID:	**18609-559**	Sample Matrix	Soil	Moisture %:	4.3
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/19/97	Anal. Date:	09/20/97
Batch No:	97G3789	Prep. No:	1 of 1	Anal. Time:	14:14
Data File Name:	3987.007	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	10	<10	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	53
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

24163

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-8	Received Date:	09/16/97
Sample ID:	**18609-560**	Sample Matrix	Soil	Moisture %:	3.0
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/19/97	Anal. Date:	09/20/97
Batch No:	97G3789	Prep. No:	1 of 1	Anal. Time:	14:40
Data File Name:	3987.008	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	10	<10	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	51
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

24164

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-9	Received Date:	09/16/97
Sample ID:	**18609-561**	Sample Matrix	Soil	Moisture %:	4.4
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/19/97	Anal. Date:	09/20/97
Batch No:	97G3789	Prep. No:	1 of 1	Anal. Time:	15:55
Data File Name:	3987.009	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	10	<10	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	51
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

24165

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-10	Received Date:	09/16/97
Sample ID:	**18609-562**	Sample Matrix	Soil	Moisture %:	18.4
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/19/97	Anal. Date:	09/20/97
Batch No:	97G3789	Prep. No:	1 of 1	Anal. Time:	16:20
Data File Name:	3987.010	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	12	<12	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	67
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

24166

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-11	Received Date:	09/16/97
Sample ID:	**18609-563**	Sample Matrix	Soil	Moisture %:	13.8
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/19/97	Anal. Date:	09/20/97
Batch No:	97G3789	Prep. No:	1 of 1	Anal. Time:	16:45
Data File Name:	3987.011	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	12	<12	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	51
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

24167

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-12	Received Date:	09/16/97
Sample ID:	**18609-564**	Sample Matrix	Soil	Moisture %:	15.0
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/18/97	Anal. Date:	09/19/97
Batch No:	97G3779	Prep. No:	1 of 1	Anal. Time:	10:33
Data File Name:	3987.012	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	12	<12	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	69
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

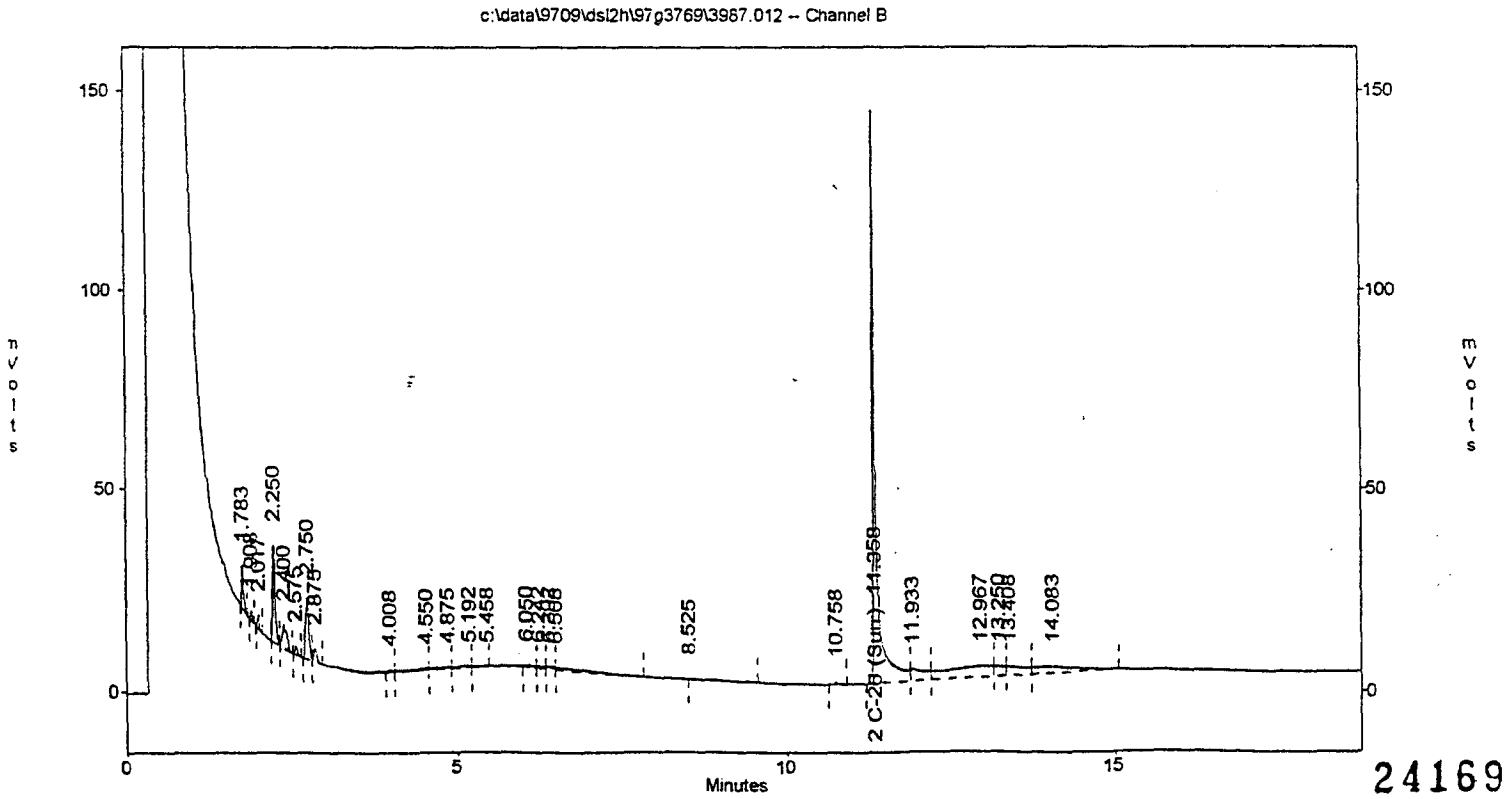
24168

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9709\dsl2h\97g3769\3987.012
Method : c:\ezchrom\methods\dsl2-023.h00
Sample ID : 3987-12 f=.05
Vial : 27
Volume : 1
Acquired : Sep 19, 1997 10:33:10
Printed : Sep 22, 1997 17:15:05
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.36	462335	34.719
1 DIESEL		58688	3.036



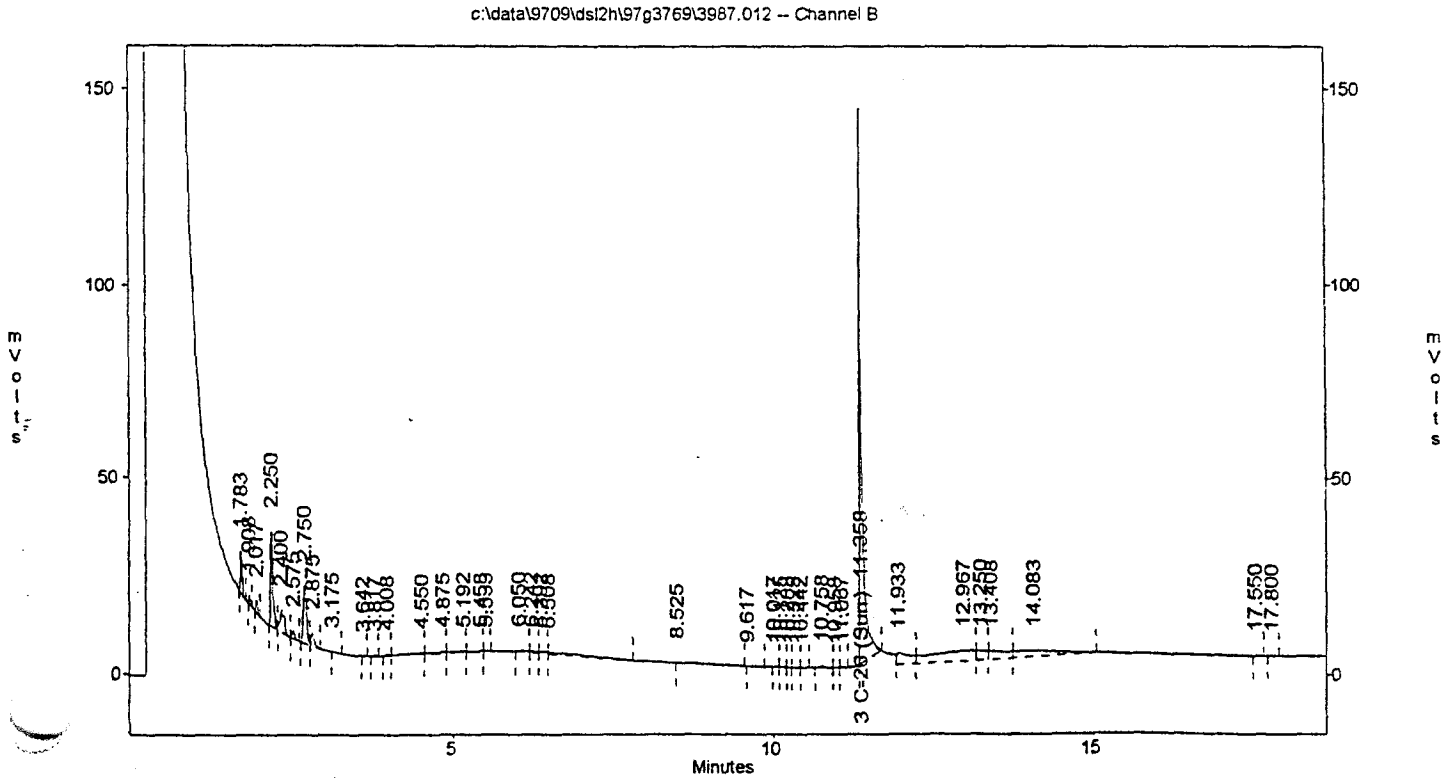
24169

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9709\dsl2h\97g3769\3987.012
Method : c:\ezchrom\methods\j5mo-018.h00
Sample ID : 3987-12 f=.05
Vial : 27
Volume : 1
Acquired : Sep 19, 1997 10:33:10
Printed : Sep 22, 1997 10:15:32
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.36	379250	38.573
1 Jp-5		225966	11.659
2 motor oil		706839	50.936



24170

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-13	Received Date:	09/16/97
Sample ID:	18609-565	Sample Matrix	Soil	Moisture %:	19.4
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: H
Anal. Method:	M8015E	Prep. Date:	09/19/97	Anal. Date:	09/20/97
Batch No:	97G3789	Prep. No:	1 of 1	Anal. Time:	17:10
Data File Name:	3987.013	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	12	<12	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	54
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

24171

2D

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	3987
Project ID:	El Toro	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3779		

#	Client Sample No	Lab Sample ID	S1 %	#	TOT OUT
1	97G3779-MB-01	97G3779-MB-01	63		0
2	97G3779-LCS-01	97G3779-LCS-01	88		0
3	97G3779-LSD-01	97G3779-LSD-01	88		0
4	18609-568-MS	97-4006-3MS	60		0
5	18609-568-MSD	97-4006-3MSD	59		0
6	18609-554	97-3987-2	594	D	1
7	18609-556	97-3987-4	66		0
8	18609-558	97-3987-6	57		0
9	18609-564	97-3987-12	69		0
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

S1 = HEXACOSANE, C_{26}

QC Control Limit
50-146

#. Column to be used to flag recovery values:

* - Values outside of contract required QC Limits D - Surrogate diluted out I - Matrix Interference

24172

2D

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	3987
Project ID:	El Toro	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3789		

#	Client Sample No	Lab Sample ID	S1 % #	TOT OUT
1	97G3789-MB-01	97G3789-MB-01	69	0
2	97G3789-LCS-01	97G3789-LCS-01	84	0
3	97G3789-LSD-01	97G3789-LSD-01	92	0
4	18609-568-MS	97-4006-3MS	65	0
5	18609-568-MSD	97-4006-3MSD	69	0
6	18609-555	97-3987-3	57	0
7	18609-557	97-3987-5	59	0
8	18609-559	97-3987-7	53	0
9	18609-560	97-3987-8	51	0
10	18609-561	97-3987-9	51	0
11	18609-562	97-3987-10	67	0
12	18609-563	97-3987-11	51	0
13	18609-565	97-3987-13	54	0
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

QC Control Limit

S1 = HEXACOSANE, C_{26} 50-146

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

24173

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973987
Project ID:	El Toro	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3779		
LCS Filename:	3779G.L01	Date Analyzed:	091897	Time Analyzed:	22:21
LCSD Filename:	3779G.J01	Date Analyzed:	091897	Time Analyzed:	22:46

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/kg	50	0	44.9	90	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
TPH AS DIESEL	mg/kg	50	45.1	90	0	35	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

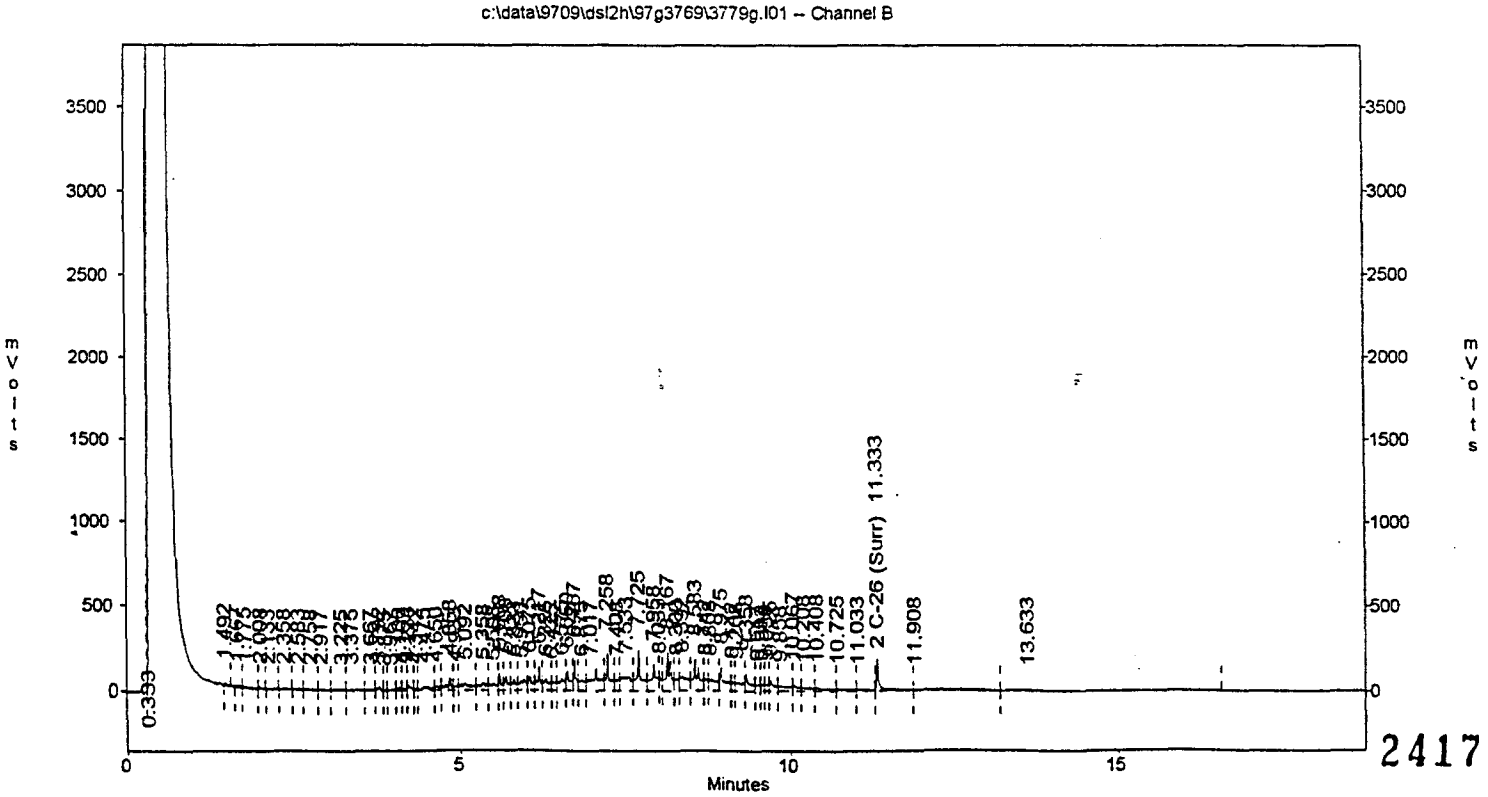
24174

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9709\dsl2h\97g3769\3779g.101
Method : c:\ezchrom\methods\dsl2-023.h00
Sample ID : f=.05
Vial : 6
Volume : 1
Acquired : Sep 18, 1997 22:21:12
Printed : Sep 19, 1997 14:01:32
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.33	585007	43.931
1 DIESEL		17342480	897.268



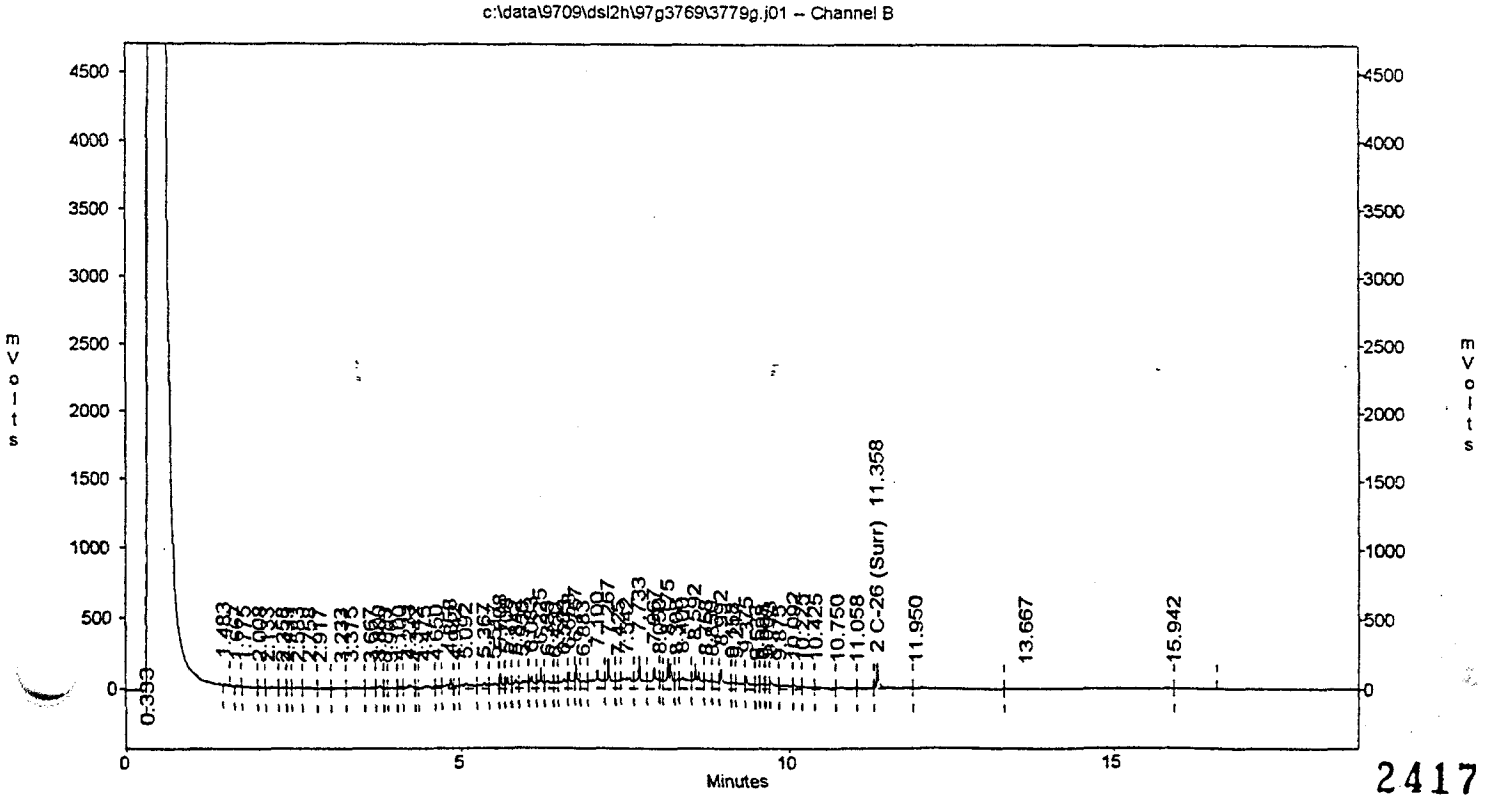
24175

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9709\dsl2h\97g3769\3779g.j01
Method : c:\ezchrom\methods\dsl2-023.h00
Sample ID : f=.05
Vial : 7
Volume : 1
Acquired : Sep 18, 1997 22:46:51
Printed : Sep 19, 1997 14:01:55
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.36	586761	44.063
1 DIESEL		17445148	902.580



24176

3D

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	3987
Project ID:	El Toro	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3779		
MS Filename:	3779G.M01	Date Analyzed:	091897	Time Analyzed:	23:12
MSD Filename:	3779G.N01	Date Analyzed:	091897	Time Analyzed:	23:37
MS Sample No:	**18609-568**	Sample Lab ID:	97-4006-3	Moisture, %	13.0

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/kg	57.5	0	38.8	67	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
TPH AS DIESEL	mg/kg	57.5	37.4	65	3	30	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

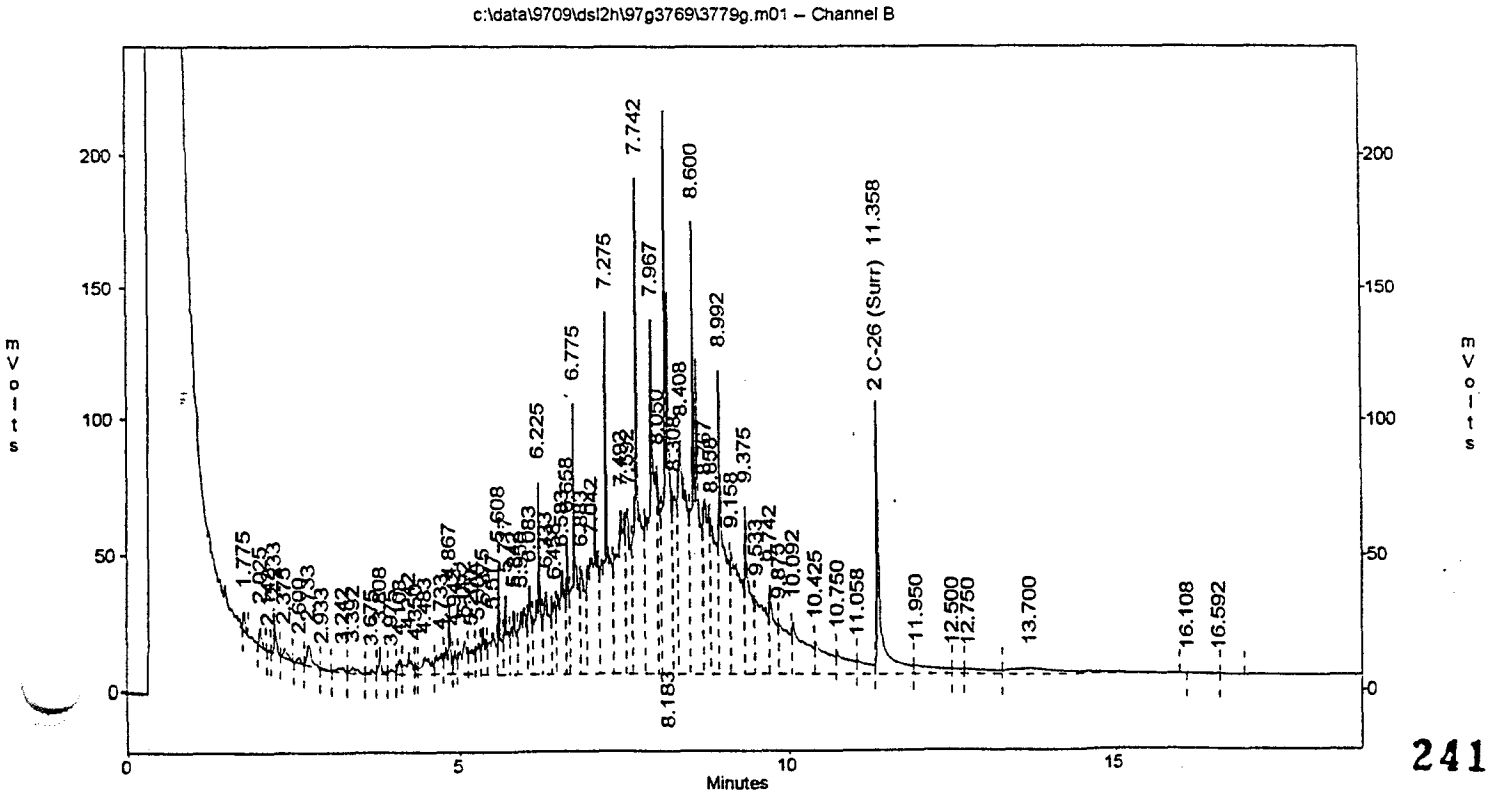
24177

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9709\dsl2h\97g3769\3779g.m01
Method : c:\ezchrom\methods\dsl2-023.h00
Sample ID : $4006-3 f=.05
Vial : 8
Volume : 1
Acquired : Sep 18, 1997 23:12:03
Printed : Sep 19, 1997 14:02:15
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.36	400799	30.098
1 DIESEL		13037472	674.535



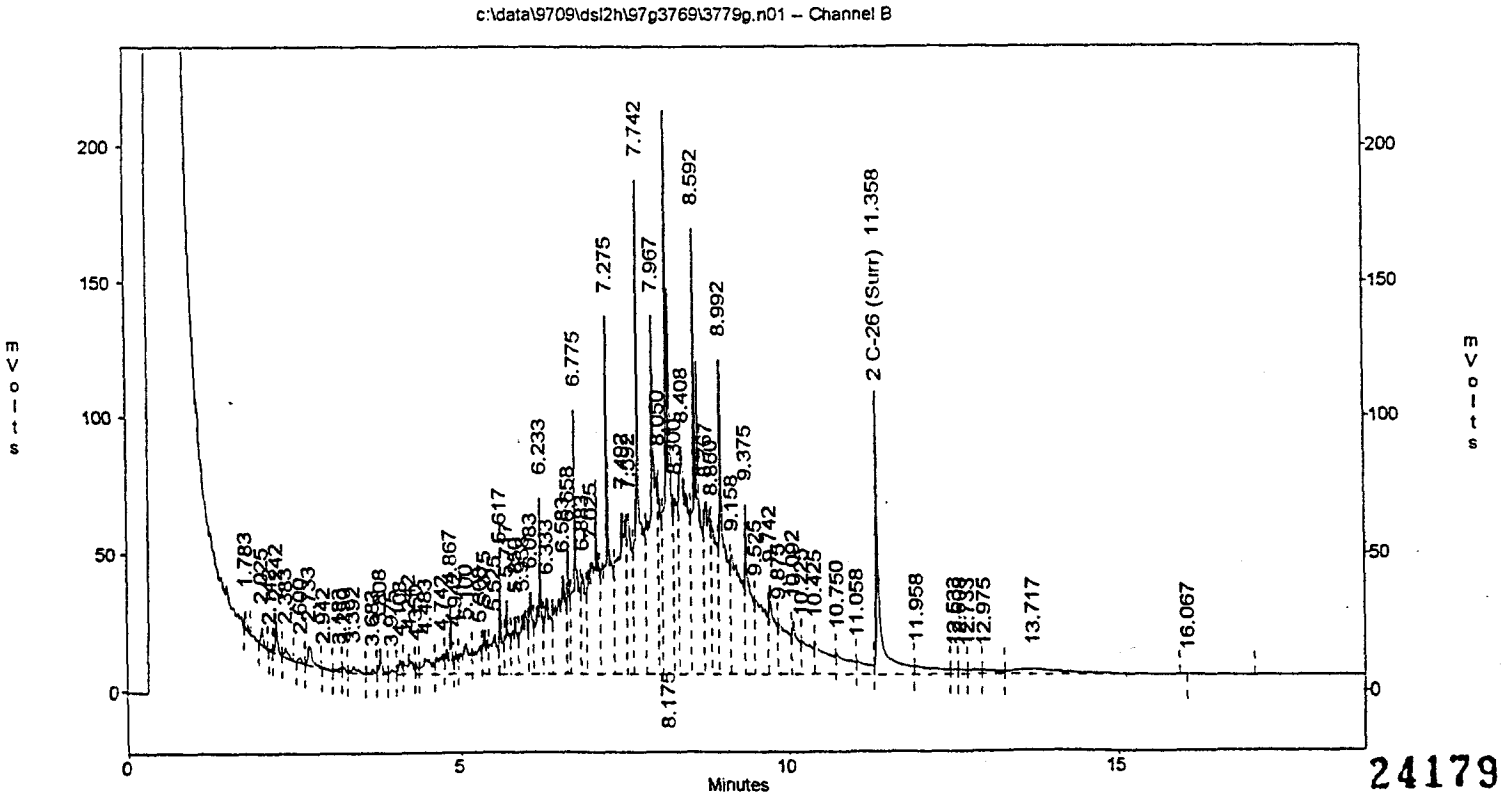
24178

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-H, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9709\dsl2h\97g3769\3779g.n01
Method : c:\ezchrom\methods\dsl2-023.h00
Sample ID : $4006-3 f=.05
Vial : 9
Volume : 1
Acquired : Sep 18, 1997 23:37:25
Printed : Sep 19, 1997 14:02:48
User : System

Channel B Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.36	391223	29.379
1 DIESEL		12568711	650.282



24179

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973987
Project ID:	El Toro	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3789		
LCS Filename:	3789G.L01	Date Analyzed:	092097	Time Analyzed:	11:19
LCSD Filename:	3789G.J01	Date Analyzed:	092097	Time Analyzed:	11:44

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/kg	50	0	48.8	98	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
TPH AS DIESEL	mg/kg	50	49.6	99	1	35	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

24180

3D

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	3987
Project ID:	El Toro	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3789		
MS Filename:	3789G.M01	Date Analyzed:	092097	Time Analyzed:	12:09
MSD Filename:	3789G.N01	Date Analyzed:	092097	Time Analyzed:	12:34
MS Sample No:	18609-568	Sample Lab ID:	97-4006-3	Moisture, %	13.0

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/kg	57.5	0	48.3	84	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
TPH AS DIESEL	mg/kg	57.5	50.4	88	5	30	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

24181

Applied P & Ch Laboratory

Method Blank Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973987
Project ID:	El Toro	Project No:	18609	Analysis Date:	09/18/97
		Sample Matrix:	Soil	Analysis Time:	21:55
Sample ID:	**97G3779-MB-01**	Batch No:	97G3779	Instrument ID:	GC: H
Lab Sample ID:	97G3779-MB-01	Data File Name:	3779G.K01	GC Column:	DB-1
				Column ID:	0.32 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G3779-LCS-01	97G3779-LCS-01	Lab Control Spike	3779G.L01	09/18/97	22:21
2	97G3779-LSD-01	97G3779-LSD-01	Lab Control Spike Duplicate	3779G.J01	09/18/97	22:46
3	18609-568-MS	97-4006-3MS	Matrix Spike	3779G.M01	09/18/97	23:12
4	18609-568-MSD	97-4006-3MSD	Matrix Spike Duplicate	3779G.N01	09/18/97	23:37
5	18609-554	97-3987-2	Field Sample	3987.002	09/19/97	04:15
6	18609-556	97-3987-4	Field Sample	3987.004	09/19/97	05:05
7	18609-558	97-3987-6	Field Sample	3987.006	09/19/97	06:46
8	18609-564	97-3987-12	Field Sample	3987.012	09/19/97	10:33
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

24182

Applied P & Ch Laboratory

Method Blank Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973987
Project ID:	El Toro	Project No:	18609	Analysis Date:	09/20/97
		Sample Matrix:	Soil	Analysis Time:	10:54
Sample ID:	**97G3789-MB-01**	Batch No:	97G3789	Instrument ID:	GC: H
Lab Sample ID:	97G3789-MB-01	Data File Name:	3789G.K01	GC Column:	DB-1
				Column ID:	0.32 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G3789-LCS-01	97G3789-LCS-01	Lab Control Spike	3789G.L01	09/20/97	11:19
2	97G3789-LSD-01	97G3789-LSD-01	Lab Control Spike Duplicate	3789G.J01	09/20/97	11:44
3	18609-568-MS	97-4006-3MS	Matrix Spike	3789G.M01	09/20/97	12:09
4	18609-568-MSD	97-4006-3MSD	Matrix Spike Duplicate	3789G.N01	09/20/97	12:34
5	18609-555	97-3987-3	Field Sample	3987.003	09/20/97	13:24
6	18609-557	97-3987-5	Field Sample	3987.005	09/20/97	13:49
7	18609-559	97-3987-7	Field Sample	3987.007	09/20/97	14:14
8	18609-560	97-3987-8	Field Sample	3987.008	09/20/97	14:40
9	18609-561	97-3987-9	Field Sample	3987.009	09/20/97	15:55
10	18609-562	97-3987-10	Field Sample	3987.010	09/20/97	16:20
11	18609-563	97-3987-11	Field Sample	3987.011	09/20/97	16:45
12	18609-565	97-3987-13	Field Sample	3987.013	09/20/97	17:10
13						
14						
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24183

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/19/97
Project ID:	El Toro	Service ID:	973987	Collected by:	
		Lab Sample ID:	97G3778-MB-01	Received Date:	09/19/97
Sample ID:	**97G3778-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3778	Prep. No:	–	Anal. Time:	11:13
Data File Name:	3778G.K01	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1	<1	U
2	BENZENE	71-43-2	μg/kg	5	<5	U
3	ETHYLBENZENE	100-41-4	μg/kg	5	<5	U
4	TOLUENE	108-88-3	μg/kg	5	<5	U
5	XYLENES (TOTAL)	108-38-3	μg/kg	15	<15	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	102
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	101
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	100
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

24072

Applied P & Ch Laboratory
Gasoline/BTXE, GC analysis by FID/PID (System N)

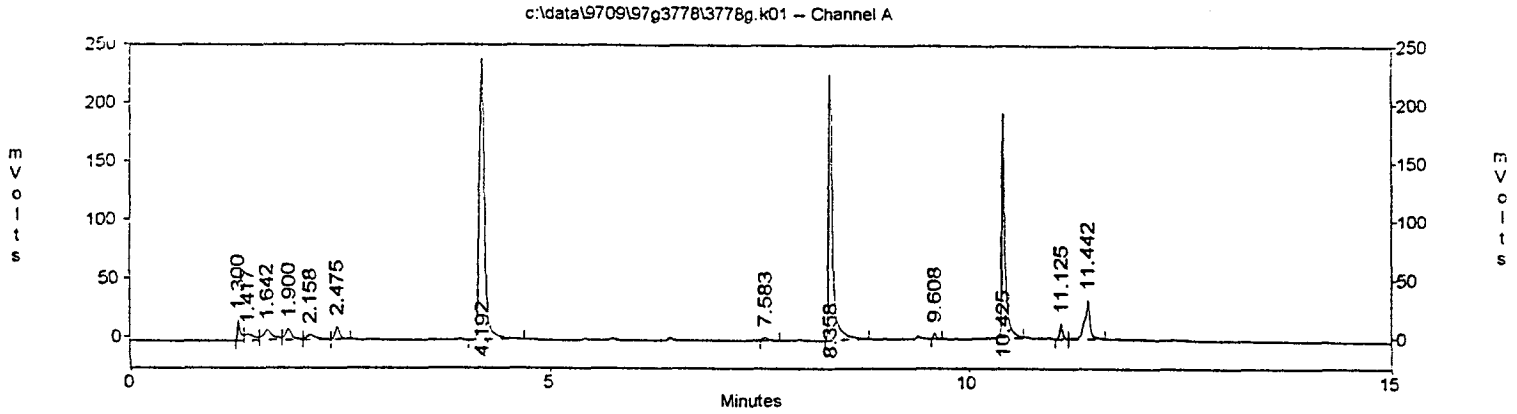
File : c:\data\9709\97g3778\3778g.k01
Method : c:\ezchrom\methods\lufts013.n00
Sample ID : mb s f=5
Acquired : Sep 19, 1997 11:13:54
Printed : Sep 19, 1997 11:37:19

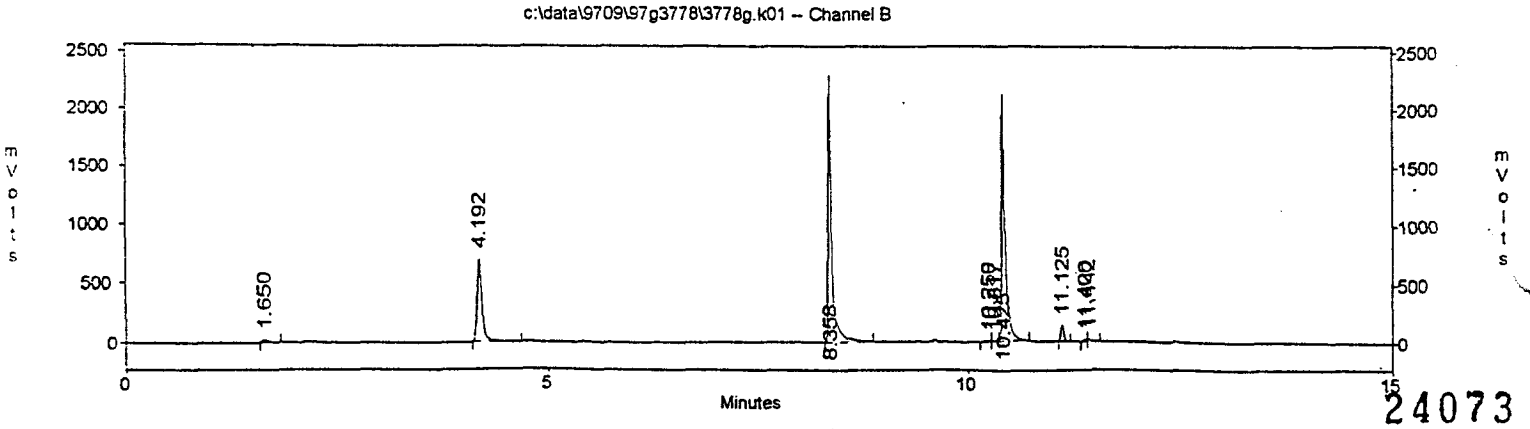
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
7	2. TFT	4.19	1016094	240002	12605.34375	80.6
9	7. BFB	8.36	725419	227059	7089.23193	102.3
11	10.3-Br-Cl-Bz	10.43	538882	191558	5071.21387	106.3
G1	1. Gasoline		332440		11762.49512	28.3

Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
--	9. MTBE	2.18	0	0	0.00000	0.00
--	1. Benzene W 20	3.26	0	0	0.00000	0.00
2	2. TFT (Int.)	4.19	2935396	701722	1.00000	100.00
--	3. Toluene W 80	5.45	0	0	0.00000	0.00
--	5. Et-Bz W 19	7.43	0	0	0.00000	0.00
--	6. P/M xylene W 82	7.62	0	0	0.00000	0.00
--	7. O-xylene W 27	8.00	0	0	0.00000	0.00
3	8. BFB (Surr.)	8.36	7386546	2296175	2.49216	100.97
6	10. 3-Br-Cl-Bz	10.43	5972132	2118181	1.93321	105.24





24073

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/19/97
Project ID:	El Toro	Service ID:	973987	Collected by:	
		Lab Sample ID:	97G3783-MB-01	Received Date:	09/19/97
Sample ID:	**97G3783-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3783	Prep. No:	–	Anal. Time:	11:26
Data File Name:	3783G.K01	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/L	0.05	<0.05	U
2	BENZENE	71-43-2	μg/L	0.5	<0.5	U
3	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
4	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
5	XYLENES (TOTAL)	108-38-3	μg/L	1.5	<1.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	68-124	94
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	71-134	99
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	94
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

24074

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-1	Received Date:	09/16/97
Sample ID:	**18609-553**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3783	Prep. No:	–	Anal. Time:	14:33
Data File Name:	3987.001	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/L	0.05	<0.05	U
2	BENZENE	71-43-2	μg/L	0.5	<0.5	U
3	ETHYLBENZENE	100-41-4	μg/L	0.5	<0.5	U
4	TOLUENE	108-88-3	μg/L	0.5	<0.5	U
5	XYLENES (TOTAL)	108-38-3	μg/L	1.5	<1.5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	68-124	91
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	71-134	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	90
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

24075

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-2	Received Date:	09/16/97
Sample ID:	**18609-554**	Sample Matrix	Soil	Moisture %:	13.2
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3778	Prep. No:	–	Anal. Time:	15:01
Data File Name:	3987.002	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.2	<1.2	U
2	BENZENE	71-43-2	μg/kg	5.8	<5.8	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.8	<5.8	U
4	TOLUENE	108-88-3	μg/kg	5.8	<5.8	U
5	XYLENES (TOTAL)	108-38-3	μg/kg	17	<17	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	104
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	99
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	99
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

24076

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-3	Received Date:	09/16/97
Sample ID:	**18609-555**	Sample Matrix	Soil	Moisture %:	15.5
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3778	Prep. No:	–	Anal. Time:	15:27
Data File Name:	3987.003	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.2	<1.2	U
2	BENZENE	71-43-2	μg/kg	5.9	<5.9	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.9	<5.9	U
4	TOLUENE	108-88-3	μg/kg	5.9	<5.9	U
5	XYLENES (TOTAL)	108-38-3	μg/kg	18	<18	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	107
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	101
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

24077

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-4	Received Date:	09/16/97
Sample ID:	**18609-556**	Sample Matrix	Soil	Moisture %:	17.8
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3778	Prep. No:	–	Anal. Time:	15:53
Data File Name:	3987.004	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.2	<1.2	U
2	BENZENE	71-43-2	μg/kg	6.1	<6.1	U
3	ETHYLBENZENE	100-41-4	μg/kg	6.1	<6.1	U
4	TOLUENE	108-88-3	μg/kg	6.1	<6.1	U
5	XYLENES (TOTAL)	108-38-3	μg/kg	18	<18	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	106
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	99
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

24078

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-5	Received Date:	09/16/97
Sample ID:	**18609-557**	Sample Matrix	Soil	Moisture %:	15.4
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3778	Prep. No:	–	Anal. Time:	17:10
Data File Name:	3987.005	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.2	<1.2	U
2	BENZENE	71-43-2	μg/kg	5.9	<5.9	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.9	<5.9	U
4	TOLUENE	108-88-3	μg/kg	5.9	<5.9	U
5	XYLENES (TOTAL)	108-38-3	μg/kg	18	<18	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	106
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	101
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	99
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

24079

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-6	Received Date:	09/16/97
Sample ID:	18609-558	Sample Matrix	Soil	Moisture %:	7.1
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3778	Prep. No:	–	Anal. Time:	17:35
Data File Name:	3987.006	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.1	<1.1	U
2	BENZENE	71-43-2	μg/kg	5.4	<5.4	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.4	<5.4	U
4	TOLUENE	108-88-3	μg/kg	5.4	<5.4	U
5	XYLENES (TOTAL)	108-38-3	μg/kg	16	<16	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	103
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	97
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

24080

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-7	Received Date:	09/16/97
Sample ID:	18609-559	Sample Matrix	Soil	Moisture %:	4.3
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3778	Prep. No:	–	Anal. Time:	18:01
Data File Name:	3987.007	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.0	<1.0	U
2	BENZENE	71-43-2	μg/kg	5.2	<5.2	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.2	<5.2	U
4	TOLUENE	108-88-3	μg/kg	5.2	<5.2	U
5	XYLENES (TOTAL)	108-38-3	μg/kg	16	<16	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	104
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	97
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

24081

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-8	Received Date:	09/16/97
Sample ID:	18609-560	Sample Matrix	Soil	Moisture %:	3.0
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3778	Prep. No:	–	Anal. Time:	18:27
Data File Name:	3987.008	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.0	<1.0	U
2	BENZENE	71-43-2	μg/kg	5.2	<5.2	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.2	<5.2	U
4	TOLUENE	108-88-3	μg/kg	5.2	<5.2	U
5	XYLENES (TOTAL)	108-38-3	μg/kg	15	<15	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	104
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	98
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

24082

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-9	Received Date:	09/16/97
Sample ID:	**18609-561**	Sample Matrix	Soil	Moisture %:	4.4
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3778	Prep. No:	–	Anal. Time:	18:53
Data File Name:	3987.009	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.0	<1.0	U
2	BENZENE	71-43-2	μg/kg	5.2	<5.2	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.2	<5.2	U
4	TOLUENE	108-88-3	μg/kg	5.2	<5.2	U
5	XYLENES (TOTAL)	108-38-3	μg/kg	16	<16	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	103
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	96
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

24083

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-10	Received Date:	09/16/97
Sample ID:	**18609-562**	Sample Matrix	Soil	Moisture %:	18.4
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3778	Prep. No:	–	Anal. Time:	19:19
Data File Name:	3987.010	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.2	<1.2	U
2	BENZENE	71-43-2	μg/kg	6.1	<6.1	U
3	ETHYLBENZENE	100-41-4	μg/kg	6.1	<6.1	U
4	TOLUENE	108-88-3	μg/kg	6.1	<6.1	U
5	XYLENES (TOTAL)	108-38-3	μg/kg	18	<18	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	104
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	99
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	97
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-11	Received Date:	09/16/97
Sample ID:	**18609-563**	Sample Matrix	Soil	Moisture %:	13.8
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3778	Prep. No:	–	Anal. Time:	19:44
Data File Name:	3987.011	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) Y	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.2	<1.2	U
2	BENZENE	71-43-2	μg/kg	5.8	<5.8	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.8	<5.8	U
4	TOLUENE	108-88-3	μg/kg	5.8	<5.8	U
5	XYLENES (TOTAL)	108-38-3	μg/kg	17	<17	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	104
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	97
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-12	Received Date:	09/16/97
Sample ID:	**18609-564**	Sample Matrix	Soil	Moisture %:	15.0
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3778	Prep. No:	–	Anal. Time:	20:10
Data File Name:	3987.012	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.2	<1.2	U
2	BENZENE	71-43-2	μg/kg	5.9	<5.9	U
3	ETHYLBENZENE	100-41-4	μg/kg	5.9	<5.9	U
4	TOLUENE	108-88-3	μg/kg	5.9	<5.9	U
5	XYLENES (TOTAL)	108-38-3	μg/kg	18	<18	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	103
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α,α,α-TRIFLUOROTOLUENE	98-08-8	50-200	95
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory
Gasoline/BTXE, GC analysis by FID/PID (System N)

File : C:\DATA\9709\97g3778\3987.012
Method : c:\ezchrom\methods\Lufts013.n00
Sample ID : 3987-12 s f=5
Acquired : Sep 19, 1997 20:10:23
Printed : Sep 19, 1997 20:25:28

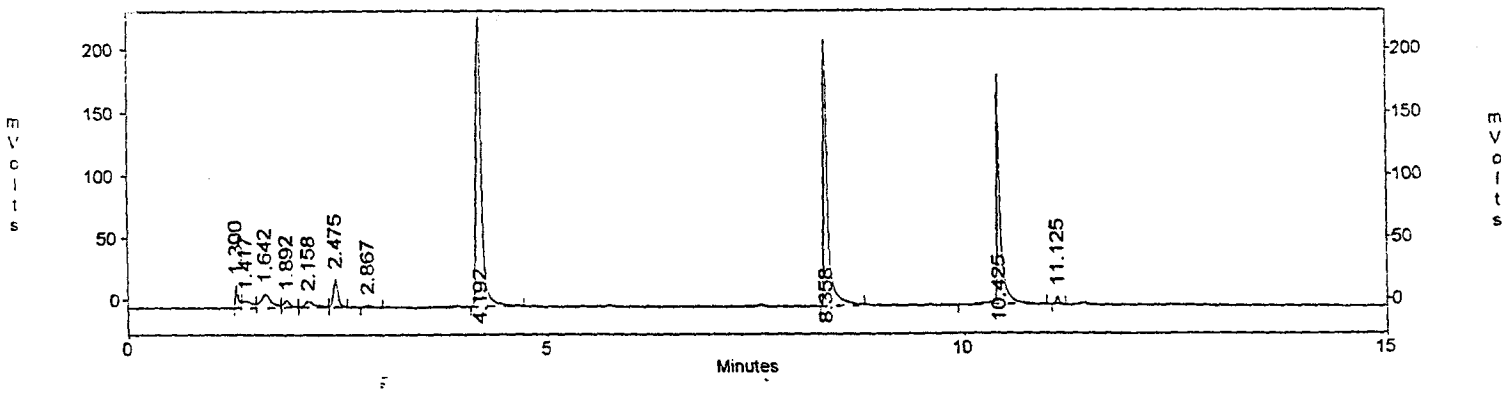
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
8	2. TFT	4.19	1001024	231103	12605.34375	79.4
9	7. BFB	8.36	731158	212747	7089.23193	103.1
10	10.3-Br-Cl-Bz	10.43	603980	184106	5071.21387	119.1
G1	1. Gasoline		157937		11762.49512	13.4

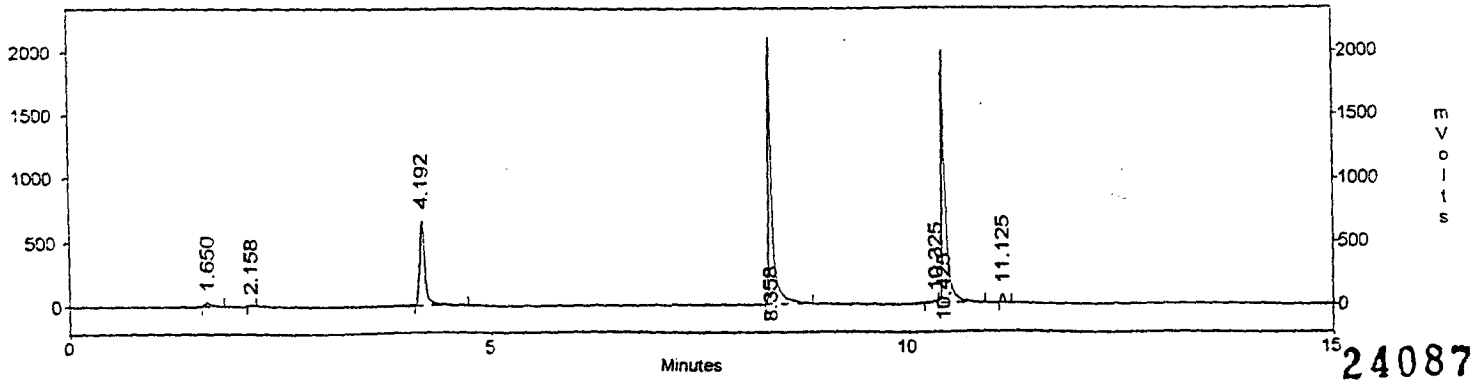
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
2	9. MTBE	2.16	23189	6150	0.79978	1.02
--	1. Benzene W 20	3.26	0	0	0.00000	0.00
3	2. TFT (Int.)	4.19	2836666	658519	1.00000	100.00
--	3. Toluene W 80	5.45	0	0	0.00000	0.00
--	5. Et-Bz W 19	7.43	0	0	0.00000	0.00
--	6. P/M xylene W 82	7.62	0	0	0.00000	0.00
--	7. O-xylene W 27	8.00	0	0	0.00000	0.00
4	8. BFB (Surr.)	8.36	7084107	2107251	2.49216	100.21
6	10. 3-Br-Cl-Bz	10.43	6146368	1988663	1.93321	112.08

C:\DATA\9709\97g3778\3987.012 -- Channel A



C:\DATA\9709\97g3778\3987.012 -- Channel B



24087

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-13	Received Date:	09/16/97
Sample ID:	**18609-565**	Sample Matrix	Soil	Moisture %:	19.4
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: N
Anal. Method:	M8015V	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3778	Prep. No:	–	Anal. Time:	20:36
Data File Name:	3987.013	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1.2	<1.2	U
2	BENZENE	71-43-2	μg/kg	6.2	<6.2	U
3	ETHYLBENZENE	100-41-4	μg/kg	6.2	<6.2	U
4	TOLUENE	108-88-3	μg/kg	6.2	<6.2	U
5	XYLENES (TOTAL)	108-38-3	μg/kg	19	<19	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	70-132	104
2	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-126	100
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	α, α, α-TRIFLUOROTOLUENE	98-08-8	50-200	97
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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2D

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	3987
Project ID:	El Toro	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3778		

#	Client Sample No	Lab Sample ID	S1 % #	S2 % #	TOT OUT
1	97G3778-MB-01	97G3778-MB-01	102	101	0
2	97G3778-LCS-01	97G3778-LCS-01	105	102	0
3	97G3778-LSD-01	97G3778-LSD-01	110	101	0
4	18609-554-MS	97-3987-2MS	113	99	0
5	18609-554-MSD	97-3987-2MSD	115	100	0
6	18609-554	97-3987-2	104	99	0
7	18609-555	97-3987-3	107	100	0
8	18609-556	97-3987-4	106	100	0
9	18609-557	97-3987-5	106	101	0
10	18609-558	97-3987-6	103	100	0
11	18609-559	97-3987-7	104	100	0
12	18609-560	97-3987-8	104	100	0
13	18609-561	97-3987-9	103	100	0
14	18609-562	97-3987-10	104	99	0
15	18609-563	97-3987-11	104	100	0
16	18609-564	97-3987-12	103	100	0
17	18609-565	97-3987-13	104	100	0
18					
19					
20					
21					
22					
23					
24					
25					

	QC Control Limit
S1 = 4-BROMO-FLUOROBENZENE (FID)	70-132
S2 = 4-BROMO-FLUOROBENZENE (PID)	65-126

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

24089

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	3987
Project ID:	El Toro	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G3783		

#	Client Sample No	Lab Sample ID	S1 % #	S2 % #	TOT OUT
1	97G3783-MB-01	97G3783-MB-01	94	99	0
2	97G3783-LCS-01	97G3783-LCS-01	94	104	0
3	97G3783-LSD-01	97G3783-LSD-01	97	106	0
4	NPDES-W-549-MS	97-4011-1MS	91	105	0
5	NPDES-W-549-MSD	97-4011-1MSD	99	111	0
6	18609-553	97-3987-1	91	100	0
7					
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25					

	QC Control Limit
S1 = 4-BROMO-FLUOROBENZENE (FID)	68-124
S2 = 4-BROMO-FLUOROBENZENE (PID)	71-134

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

3B

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973987
Project ID:	El Toro	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3778		
LCS Filename:	3778G.L01	Date Analyzed:	091997	Time Analyzed:	11:39
LCSD Filename:	3778G.J01	Date Analyzed:	091997	Time Analyzed:	12:04

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
GASOLINE	mg/kg	5	0	5.03	101	77-122
BENZENE	µg/kg	100	0	94.6	95	72-119
ETHYLBENZENE	µg/kg	95	0	88.3	93	71-134
TOLUENE	µg/kg	400	0	396	99	79-129
O-XYLENE	µg/kg	135	0	127	94	70-133
XYLENES (TOTAL)	µg/kg	410	0	353	86	72-133
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/kg	5	4.92	98	3	23	77-122
BENZENE	µg/kg	100	90.6	91	4	23	72-119
ETHYLBENZENE	µg/kg	95	85.9	90	3	31	71-134
TOLUENE	µg/kg	400	381	95	4	25	79-129
O-XYLENE	µg/kg	135	124	92	2	32	70-133
XYLENES (TOTAL)	µg/kg	410	341	83	4	30	72-133
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

24091

Applied P & Ch Laboratory
Gasoline/BTXE, GC analysis by FID/PID (System N)

File : c:\data\9709\97g3778\3778g.101
Method : c:\ezchrom\methods\lufts013.n00
Sample ID : lcs s f=5 gc6855
Acquired : Sep 19, 1997 11:39:21
Printed : Sep 19, 1997 17:42:12

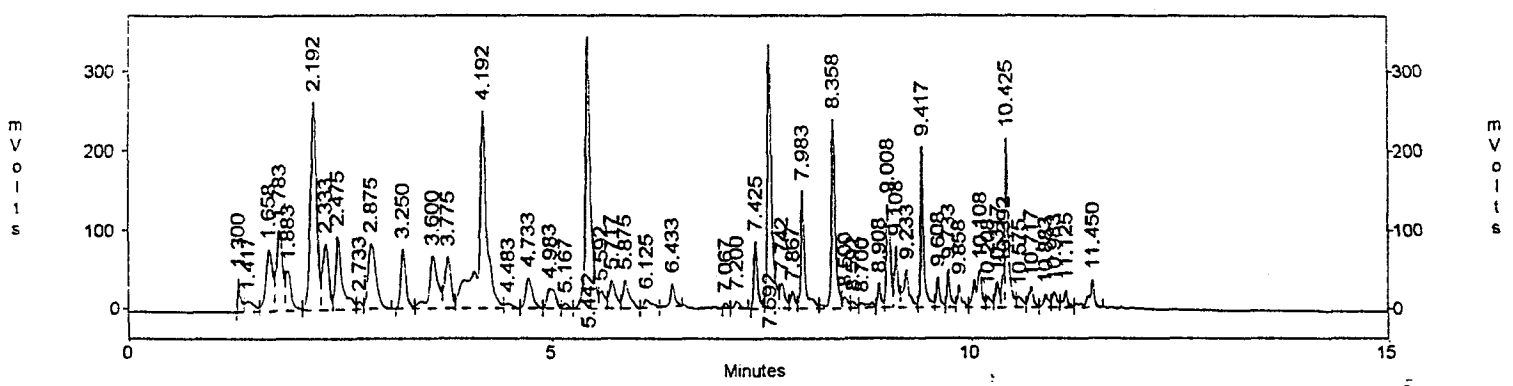
Channel A Results

No.	Name	RT, min	Area	H, V	Ave RF	ESTD (ppb)
14	2. TFT	4.19	1834706	248777	12605.34375	145.5
32	7. BFB	8.36	742738	238833	7089.23193	104.8
48	10.3-Br-Cl-Bz	10.43	583809	213950	5071.21387	115.1
G1	1. Gasoline		11830887		11762.49512	1005.8

Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
5	9. MTBE	2.18	2701013	495447	0.79978	119.35
11	1. Benzene W 20	3.25	1805510	383161	3.37302	18.92
15	2. TFT (Int.)	4.19	2829736	704621	1.00000	100.00
19	3. Toluene W 80	5.44	7110548	1696266	3.16927	79.29
25	5. Et-Bz W 19	7.43	1280292	379254	2.56232	17.66
26	6. P/M xylene W 82	7.59	6647689	1763322	3.32514	70.65
29	7. O-xylene W 27	7.98	2095417	653493	2.91125	25.44
31	8. BFB (Surr.)	8.36	7195911	2418136	2.49216	102.04
47	10. 3-Br-Cl-Bz	10.43	6976302	2351871	1.93321	127.53

c:\data\9709\97g3778\3778g.l01 -- Channel A



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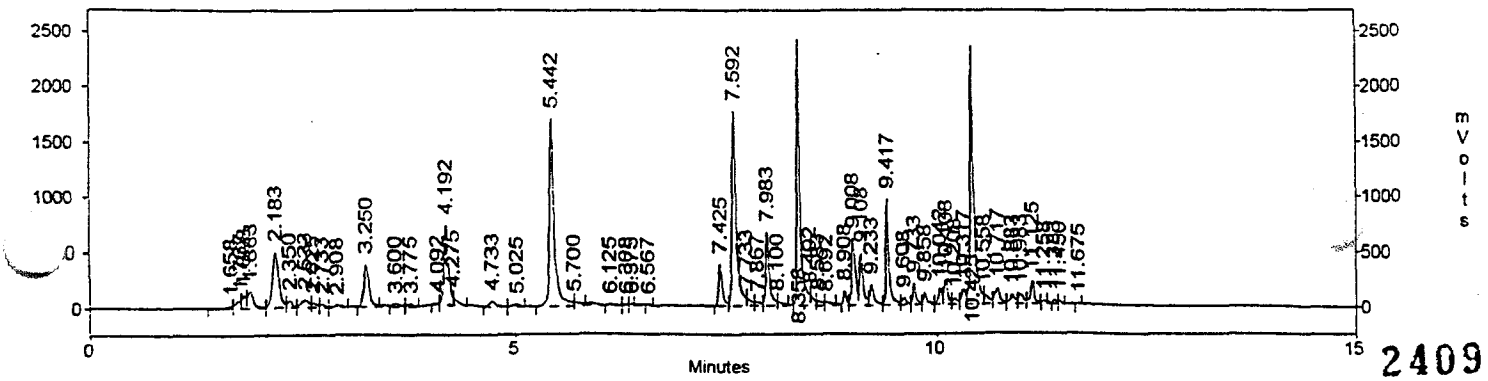


24092

Applied P & Ch Laboratory
Gasoline/BTXE, GC analysis by FID/PID (System N)

File : c:\data\9709\97g3778\3778g.j01
Method : c:\ezchrom\methods\lufts013.n00
Sample ID : lcsd s f=5 gc6855
Acquired : Sep 19, 1997 12:04:56
Printed : Sep 22, 1997 09:51:59

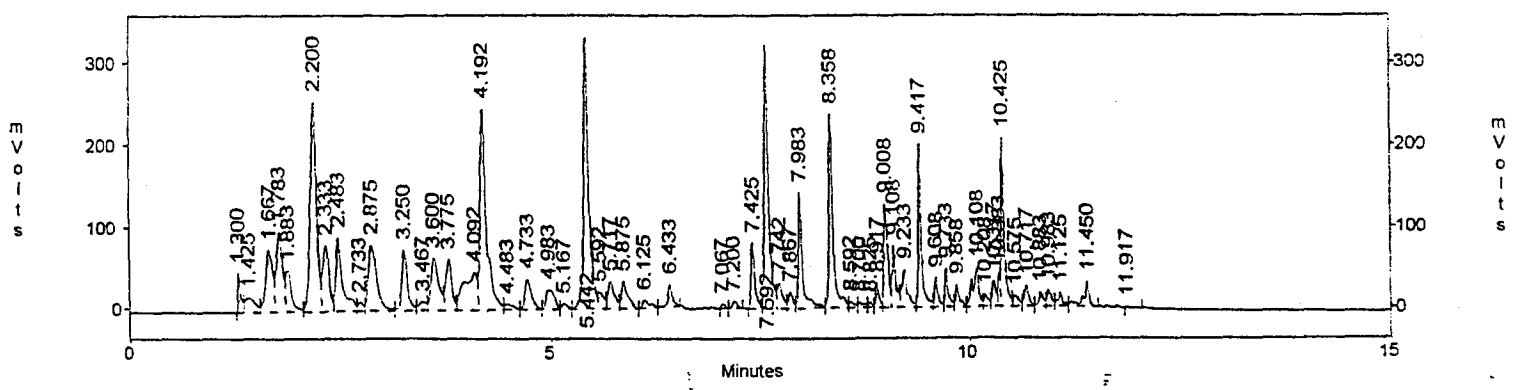
Channel A Results

No.	Name	RT, min	Area	H, V	Ave RF	ESTD (ppb)
16	2. TFT	4.19	1304409	245416	12605.34375	103.5
34	7. BFB	8.36	778430	236598	7089.23193	109.8
50	10.3-Br-Cl-Bz	10.43	592447	205980	5071.21387	116.8
G1	1. Gasoline		11579134		11762.49512	984.4

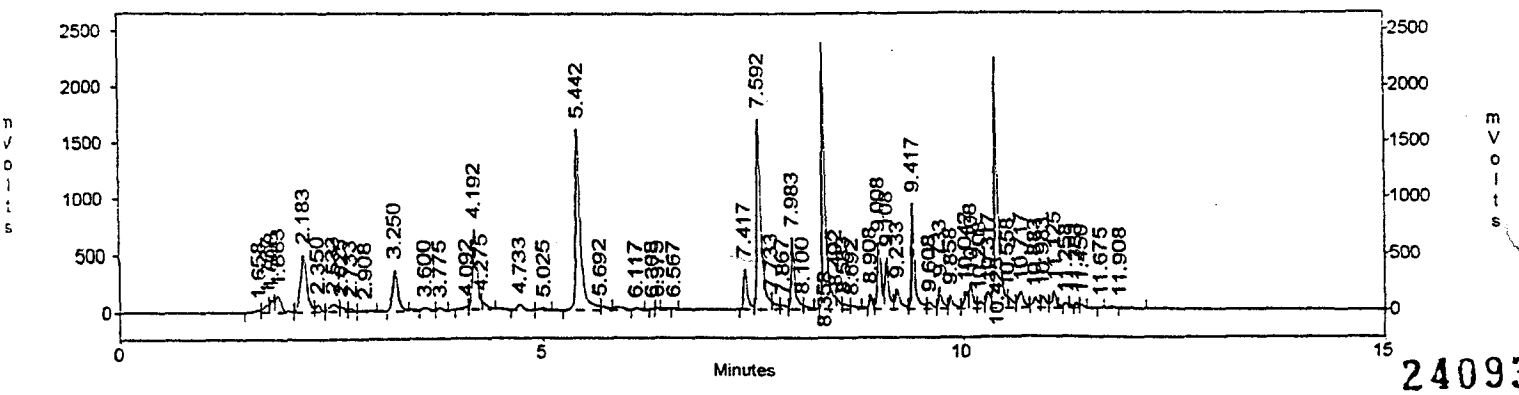
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
5	9. MTBE	2.18	2696090	495669	0.79978	119.31
11	1. Benzene W 20	3.25	1727303	365128	3.37302	18.12
15	2. TFT (Int.)	4.19	2825412	696874	1.00000	100.00
19	3. Toluene W 80	5.44	6824769	1611745	3.16927	76.22
25	5. Et-Bz W 19	7.42	1243264	358345	2.56232	17.17
26	6. P/M xylene W 82	7.59	6415687	1696892	3.32514	68.29
29	7. O-xylene W 27	7.98	2044889	628475	2.91125	24.86
31	8. BFB (Surr.)	8.36	7124998	2387337	2.49216	101.19
47	10. 3-Br-Cl-Bz	10.43	6784569	2242477	1.93321	124.21

c:\data\9709\97g3778\3778g.j01 -- Channel A



c:\data\9709\97g3778\3778g.j01 -- Channel B



24093

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973987
Project ID:	El Toro	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3778		
MS Filename:	3778G.M01	Date Analyzed:	091997	Time Analyzed:	13:44
MSD Filename:	3778G.N01	Date Analyzed:	091997	Time Analyzed:	14:10
MS Sample No:	**18609-554**	Sample Lab ID:	97-3987-2	Moisture, %	13.2

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
GASOLINE	mg/kg	5.76	0	5.38	93	65-127
BENZENE	µg/kg	115	0	109	95	70-121
ETHYLBENZENE	µg/kg	109	0	91.5	84	71-134
TOLUENE	µg/kg	461	0	445	97	79-129
O-XYLENE	µg/kg	156	0	151	97	70-133
XYLENES (TOTAL)	µg/kg	472	0	379	80	72-133
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/kg	5.76	5.65	98	5	31	65-127
BENZENE	µg/kg	115	107	93	2	26	70-121
ETHYLBENZENE	µg/kg	109	85.9	79	6	26	71-134
TOLUENE	µg/kg	461	432	94	3	24	79-129
O-XYLENE	µg/kg	156	138	88	10	30	70-133
XYLENES (TOTAL)	µg/kg	472	362	77	4	27	72-133
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

24094

Applied P & Ch Laboratory
Gasoline/BTXE, GC analysis by FID/PID (System N)

File : c:\data\9709\97g3778\3778g.m01
Method : c:\ezchrom\methods\lufts013.n00
Sample ID : $3987-2 s f=5 ms
Acquired : Sep 19, 1997 13:44:34
Printed : Sep 19, 1997 17:39:04

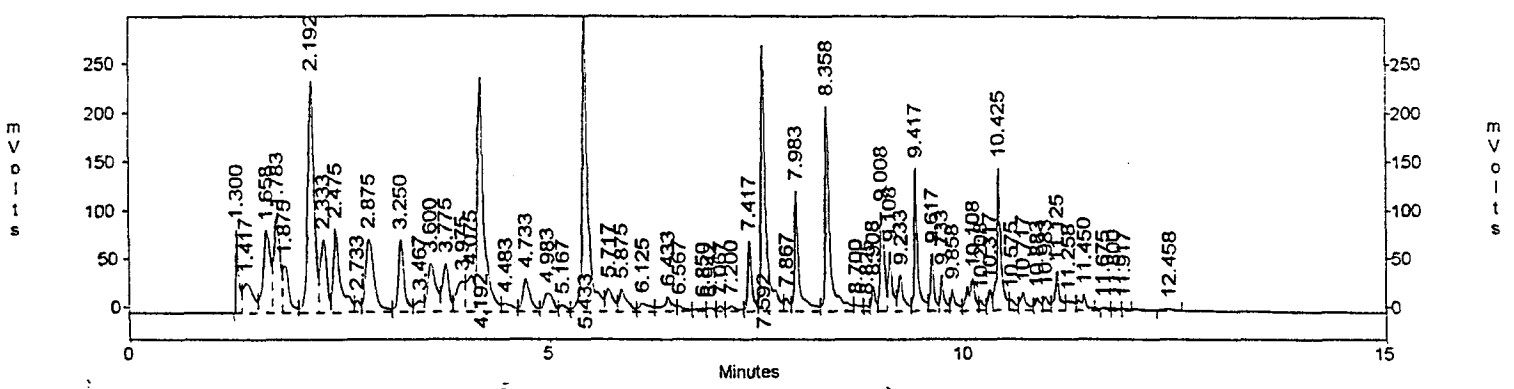
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
17	2. TFT	4.19	1245842	239512	12605.34375	98.8
36	7. BFB	8.36	797034	209809	7089.23193	112.4
50	10.3-Br-Cl-Bz	10.43	501467	145672	5071.21387	98.9
G1	1. Gasoline		10977043		11762.49512	933.2

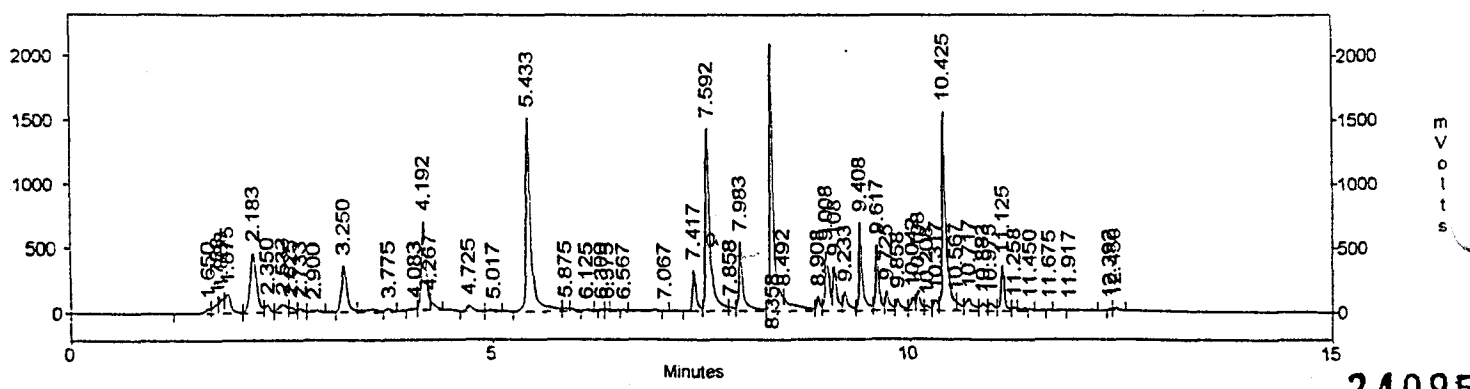
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
5	9. MTBE	2.18	2556960	463637	0.79978	118.52
11	1. Benzene W 20	3.25	1727054	360437	3.37302	18.98
14	2. TFT (Int.)	4.19	2697572	676388	1.00000	100.00
18	3. Toluene W 80	5.43	6610031	1517435	3.16927	77.32
25	5. Et-Bz W 19	7.42	1097542	315375	2.56232	15.88
26	6. P/M xylene W 82	7.59	5905854	1425575	3.32514	65.84
28	7. O-xylene W 27	7.98	2058005	536469	2.91125	26.21
29	8. BFB (Surr.)	8.36	6682066	2089425	2.49216	99.39
43	10. 3-Br-Cl-Bz	10.43	4973949	1556951	1.93321	95.38

c:\data\9709\97g3778\3778g.m01 -- Channel A



c:\data\9709\97g3778\3778g.m01 -- Channel B



24095

Applied P & Ch Laboratory
Gasoline/BTXE, GC analysis by FID/PID (System N)

File : c:\data\9709\97g3778\3778g.n01
Method : c:\ezchrom\methods\lufts013.n00
Sample ID : $3987-2 s f=5 msd
Acquired : Sep 19, 1997 14:10:24
Printed : Sep 19, 1997 17:35:45

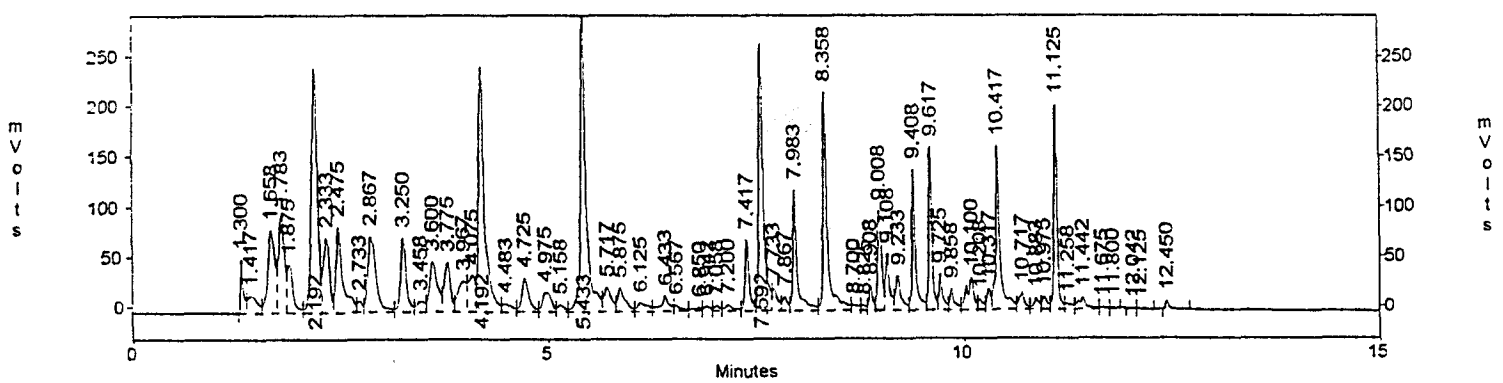
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
17	2. TFT	4.19	1273726	244494	12605.34375	101.0
37	7. BFB	8.36	811955	218840	7089.23193	114.5
51	10.3-Br-Cl-Bz	10.42	622290	163770	5071.21387	122.7
G1	1. Gasoline		11545591		11762.49512	981.6

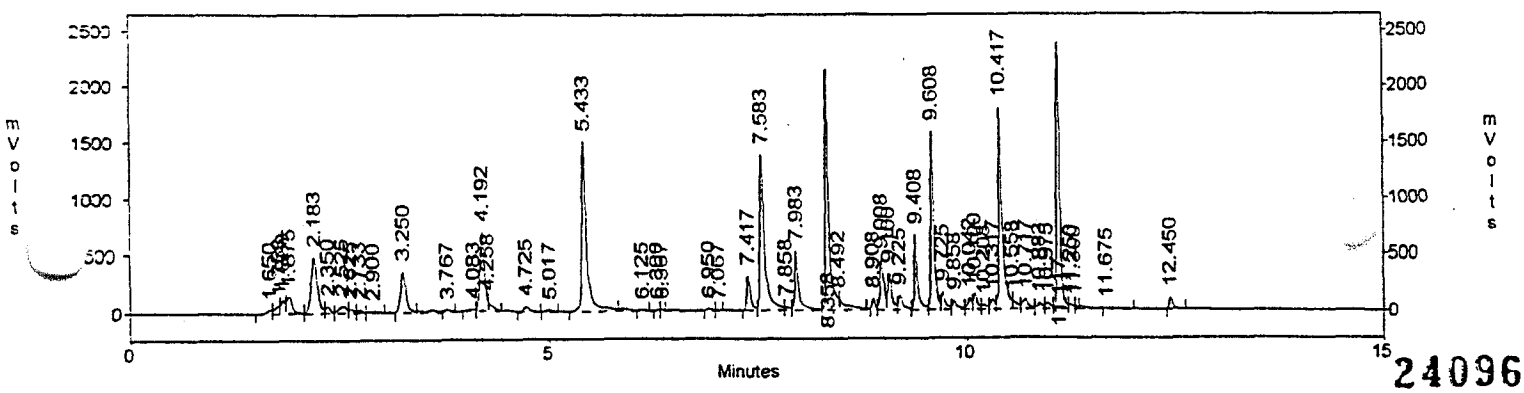
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
5	9. MTBE	2.18	2631579	481696	0.79978	121.32
11	1. Benzene W 20	3.25	1692000	358126	3.37302	18.50
14	2. TFT (Int.)	4.19	2712091	686227	1.00000	100.00
18	3. Toluene W 80	5.43	6449490	1507167	3.16927	75.03
24	5. Et-Bz W 19	7.42	1036755	305763	2.56232	14.92
25	6. P/M xylene W 82	7.58	5666109	1382742	3.32514	62.83
27	7. O-xylene W 27	7.98	1892425	511971	2.91125	23.97
28	8. BFB (Surr.)	8.36	6752340	2142249	2.49216	99.90
42	10. 3-Br-Cl-Bz	10.42	5553279	1792617	1.93321	105.92

c:\data\9709\97g3778\3778g.n01 – Channel A



c:\data\9709\97g3778\3778g.n01 – Channel B



24096

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973987
Project ID:	El Toro	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G3783		
LCS Filename:	3783G.L01	Date Analyzed:	091997	Time Analyzed:	11:49
LCSD Filename:	3783G.J01	Date Analyzed:	091997	Time Analyzed:	12:11

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
GASOLINE	mg/L	1	0	0.890	89	75-122
BENZENE	µg/L	20	0	17.4	87	77-121
ETHYLBENZENE	µg/L	19	0	16.3	86	78-132
TOLUENE	µg/L	80	0	67.8	85	77-134
O-XYLENE	µg/L	27	0	24.6	91	77-133
XYLENES (TOTAL)	µg/L	82	0	70.8	86	81-131
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/L	1	0.966	97	9	23	75-122
BENZENE	µg/L	20	17.2	86	1	22	77-121
ETHYLBENZENE	µg/L	19	16.4	86	0	27	78-132
TOLUENE	µg/L	80	67.6	85	0	29	77-134
O-XYLENE	µg/L	27	24.7	91	0	28	77-133
XYLENES (TOTAL)	µg/L	82	71.0	87	1	25	81-131
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

24097

3A

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	3987
Project ID:	El Toro	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G3783		
MS Filename:	3783G.M01	Date Analyzed:	091997	Time Analyzed:	12:32
MSD Filename:	3783G.N01	Date Analyzed:	091997	Time Analyzed:	12:54
MS Sample No:	NPDES-W-549	Sample Lab ID:	97-4011-1		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
GASOLINE	mg/L	1	0	1.03	103	75-120
BENZENE	µg/L	20	0	18.8	94	72-121
ETHYLBENZENE	µg/L	19	0	17.5	92	74-132
TOLUENE	µg/L	80	0	71.8	90	77-134
O-XYLENE	µg/L	27	0	25.9	96	74-133
XYLENES (TOTAL)	µg/L	82	0	74.6	91	70-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/L	1	1.03	103	0	23	75-120
BENZENE	µg/L	20	18.6	93	1	22	72-121
ETHYLBENZENE	µg/L	19	17.0	89	3	27	74-132
TOLUENE	µg/L	80	69.3	87	3	24	77-134
O-XYLENE	µg/L	27	25.1	93	3	27	74-133
XYLENES (TOTAL)	µg/L	82	72.0	88	3	32	70-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

24098

Applied P & Ch Laboratory

Method Blank Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973987
Project ID:	El Toro	Project No:	18609	Analysis Date:	09/19/97
		Sample Matrix:	Soil	Analysis Time:	11:13
Sample ID:	**97G3778-MB-01**	Batch No:	97G3778	Instrument ID:	GC: N
Lab Sample ID:	97G3778-MB-01	Data File Name:	3778G.K01	GC Column:	DB-1
		Heated Purge: (Y/N)	Y	Column ID:	0.53 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G3778-LCS-01	97G3778-LCS-01	Lab Control Spike	3778G.L01	09/19/97	11:39
2	97G3778-LSD-01	97G3778-LSD-01	Lab Control Spike Duplicate	3778G.J01	09/19/97	12:04
3	18609-554-MS	97-3987-2MS	Matrix Spike	3778G.M01	09/19/97	13:44
4	18609-554-MSD	97-3987-2MSD	Matrix Spike Duplicate	3778G.N01	09/19/97	14:10
5	18609-554	97-3987-2	Field Sample	3987.002	09/19/97	15:01
6	18609-555	97-3987-3	Field Sample	3987.003	09/19/97	15:27
7	18609-556	97-3987-4	Field Sample	3987.004	09/19/97	15:53
8	18609-557	97-3987-5	Field Sample	3987.005	09/19/97	17:10
9	18609-558	97-3987-6	Field Sample	3987.006	09/19/97	17:35
10	18609-559	97-3987-7	Field Sample	3987.007	09/19/97	18:01
11	18609-560	97-3987-8	Field Sample	3987.008	09/19/97	18:27
12	18609-561	97-3987-9	Field Sample	3987.009	09/19/97	18:53
13	18609-562	97-3987-10	Field Sample	3987.010	09/19/97	19:19
14	18609-563	97-3987-11	Field Sample	3987.011	09/19/97	19:44
15	18609-564	97-3987-12	Field Sample	3987.012	09/19/97	20:10
16	18609-565	97-3987-13	Field Sample	3987.013	09/19/97	20:36
17						
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19						
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22						
23						
24						
25						

24099

Applied P & Ch Laboratory

Method Blank Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973987
Project ID:	El Toro	Project No:	18609	Analysis Date:	09/19/97
		Sample Matrix:	Water	Analysis Time:	11:26
Sample ID:	**97G3783-MB-01**	Batch No:	97G3783	Instrument ID:	GC: B
Lab Sample ID:	97G3783-MB-01	Data File Name:	3783G.K01	GC Column:	RTX-5
		Heated Purge: (Y/N)	N	Column ID:	0.53 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G3783-LCS-01	97G3783-LCS-01	Lab Control Spike	3783G.L01	09/19/97	11:49
2	97G3783-LSD-01	97G3783-LSD-01	Lab Control Spike Duplicate	3783G.J01	09/19/97	12:11
3	NPDES-W-549-MS	97-4011-1MS	Matrix Spike	3783G.M01	09/19/97	12:32
4	NPDES-W-549-MSD	97-4011-1MSD	Matrix Spike Duplicate	3783G.N01	09/19/97	12:54
5	18609-553	97-3987-1	Field Sample	3987.001	09/19/97	14:33
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Applied P & Ch Laboratory

Surrogate Recovery Summary for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	3987
Project ID:	El Toro	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G3776		

#	Client Sample No	Lab Sample ID	S1 % #	S2 % #	S3 % #	S4 % #	TOT OUT
1	97G3776-MB-01	97G3776-MB-01	105	105	107	104	0
2	97G3776-LCS-01	97G3776-LCS-01	100	99	100	97	0
3	18609-553	97-3987-1	106	106	109	102	0
4	97G3776-MB-02	97G3776-MB-02	111	105	106	107	0
5	97G3776-LSD-01	97G3776-LSD-01	97	97	96	97	0
6	18609-575-MS	97-4003-1MS	100	97	98	99	0
7	18609-575-MSD	97-4003-1MSD	105	101	102	102	0
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

	QC Control Limit
S1 = 4-BROMO-FLUOROBENZENE (BFB)	89-111
S2 = DIBROMOFLUOROMETHANE	86-117
S3 = 1,2-DICHLOROETHANE-D4	81-113
S4 = TOLUENE-D8	88-109

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

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Applied P & Ch Laboratory

Surrogate Recovery Summary for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	3987
Project ID:	El Toro	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3777		

#	Client Sample No	Lab Sample ID	S1 % #	S2 % #	S3 % #	S4 % #	TOT OUT
1	97G3777-MB-01	97G3777-MB-01	100	105	99	92	0
2	97G3777-LCS-01	97G3777-LCS-01	89	98	93	87	0
3	97G3777-LSD-01	97G3777-LSD-01	98	104	97	94	0
4	18609-564-MS	97-3987-12MS	103	110	102	97	0
5	18609-564-MSD	97-3987-12MSD	101	108	103	97	0
6	18609-554	97-3987-2	107	100	98	97	0
7	18609-555	97-3987-3	96	98	97	93	0
8	18609-556	97-3987-4	97	97	95	94	0
9	18609-557	97-3987-5	97	95	87	97	0
10	18609-559	97-3987-7	97	96	94	97	0
11	18609-560	97-3987-8	97	98	97	97	0
12	97G3777-MB-02	97G3777-MB-02	95	98	94	90	0
13	18609-562	97-3987-10	96	95	92	94	0
14	18609-563	97-3987-11	97	95	91	96	0
15	18609-564	97-3987-12	96	94	92	96	0
16	18609-565	97-3987-13	97	95	92	95	0
17	18609-558	97-3987-6	99	94	92	97	0
18	18609-561	97-3987-9	109	103	101	106	0
19							
20							
21							
22							
23							
24							
25							

	QC Control Limit
S1 = 4-BROMO-FLUOROBENZENE (BFB)	86-114
S2 = DIBROMOFLUOROMETHANE	85-116
S3 = 1,2-DICHLOROETHANE-D4	80-119
S4 = TOLUENE-D8	81-116

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

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Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973987
Project ID:	El Toro	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G3776		
LCS Filename:	G3776L01	Date Analyzed:	091897	Time Analyzed:	18:24
LCSD Filename:	G3776J01	Date Analyzed:	091997	Time Analyzed:	05:48

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
BENZENE	µg/L	50	0	47.4	95	57-150
CHLOROBENZENE	µg/L	50	0	46.6	93	74-123
1,1-DICHLOROETHENE	µg/L	50	0	50.8	102	73-131
TOLUENE	µg/L	50	0	47.7	95	74-126
TRICHLOROETHENE	µg/L	50	0	48.2	96	71-123
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
BENZENE	µg/L	50	50.4	101	6	43	57-150
CHLOROBENZENE	µg/L	50	49.1	98	5	25	74-123
1,1-DICHLOROETHENE	µg/L	50	52.7	105	3	28	73-131
TOLUENE	µg/L	50	50.7	101	6	24	74-126
TRICHLOROETHENE	µg/L	50	49.9	100	4	25	71-123
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

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Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	3987
Project ID:	El Toro	Project No:	18609	Sample Matrix:	Water
		Batch No:	97G3776		
MS Filename:	G3776M02	Date Analyzed:	091997	Time Analyzed:	06:21
MSD Filename:	G3776N02	Date Analyzed:	091997	Time Analyzed:	06:53
MS Sample No:	18609-575	Sample Lab ID:	97-4003-1		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
BENZENE	µg/L	50	0	44.6	89	57-150
CHLOROBENZENE	µg/L	50	0	41.0	82	74-124
1,1-DICHLOROETHENE	µg/L	50	0	58.2	116	69-126
TOLUENE	µg/L	50	0	45.4	91	74-126
TRICHLOROETHENE	µg/L	50	0	47.5	95	71-123
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
BENZENE	µg/L	50	43.4	87	2	43	57-150
CHLOROBENZENE	µg/L	50	39.9	80	2	25	74-124
1,1-DICHLOROETHENE	µg/L	50	57.7	115	1	28	69-126
TOLUENE	µg/L	50	45.0	90	1	24	74-126
TRICHLOROETHENE	µg/L	50	45.0	90	5	25	71-123
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

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Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973987
Project ID:	El Toro	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3777		
LCS Filename:	G3777L01	Date Analyzed:	091997	Time Analyzed:	00:20
LCSD Filename:	G3777J01	Date Analyzed:	091997	Time Analyzed:	00:59

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
BENZENE	µg/kg	50	0	50.7	101	80-121
CHLOROBENZENE	µg/kg	50	0	49.7	99	80-118
1,1-DICHLOROETHENE	µg/kg	50	0	51.2	102	68-134
TOLUENE	µg/kg	50	0	49.9	100	80-119
TRICHLOROETHENE	µg/kg	50	0	50.7	101	80-121
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
BENZENE	µg/kg	50	50.7	101	0	20	80-121
CHLOROBENZENE	µg/kg	50	49.3	99	0	22	80-118
1,1-DICHLOROETHENE	µg/kg	50	51.4	103	1	44	68-134
TOLUENE	µg/kg	50	50.0	100	0	46	80-119
TRICHLOROETHENE	µg/kg	50	51.0	102	1	42	80-121
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/18/97
Project ID:	El Toro	Service ID:	973987	Collected by:	
		Lab Sample ID:	97G3776-MB-01	Received Date:	09/18/97
Sample ID:	**97G3776-MB-01**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC/MS: Q
Anal. Method:	8260	Prep. Date:	09/18/97	Anal. Date:	09/18/97
Batch No:	97G3776	Prep. No:	-	Anal. Time:	16:47
Data File Name:	G3776K01	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	-				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/L	5	< 5	U
2	BROMOBENZENE	108-86-1	µg/L	5	< 5	U
3	BROMOCHLOROMETHANE	74-97-5	µg/L	5	< 5	U
4	BROMODICHLOROMETHANE	75-27-4	µg/L	5	< 5	U
5	BROMOFORM	75-25-2	µg/L	5	< 5	U
6	BROMOMETHANE	74-83-9	µg/L	5	< 5	U
7	N-BUTYLBENZENE	104-51-8	µg/L	5	< 5	U
8	SEC-BUTYLBENZENE	135-98-8	µg/L	5	< 5	U
9	TERT-BUTYLBENZENE	98-06-6	µg/L	5	< 5	U
10	CARBON TETRACHLORIDE	56-23-5	µg/L	5	< 5	U
11	CHLOROBENZENE	108-90-7	µg/L	5	< 5	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/L	5	< 5	U
13	CHLOROETHANE	75-00-3	µg/L	5	< 5	U
14	CHLOROFORM	67-66-3	µg/L	5	< 5	U
15	CHLOROMETHANE	74-87-3	µg/L	5	< 5	U
16	2-CHLOROTOLUENE	95-49-8	µg/L	5	< 5	U
17	4-CHLOROTOLUENE	106-43-4	µg/L	5	< 5	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/L	5	< 5	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/L	5	< 5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/L	5	< 5	U
21	DIBROMOMETHANE	74-95-3	µg/L	5	< 5	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/L	5	< 5	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/L	5	< 5	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/L	5	< 5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/L	5	< 5	U
26	1,1-DICHLOROETHANE	75-34-3	µg/L	5	< 5	U
27	1,2-DICHLOROETHANE	107-06-2	µg/L	5	< 5	U
28	1,1-DICHLOROETHENE	75-35-4	µg/L	5	< 5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/L	5	< 5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/L	5	< 5	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/L	5	< 5	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/L	5	< 5	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/L	5	< 5	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/L	5	< 5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/L	5	< 5	U
36	ETHYLBENZENE	100-41-4	µg/L	5	< 5	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/L	5	< 5	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/L	5	< 5	U
39	METHYLENE CHLORIDE	75-09-2	µg/L	5	< 5	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/L	5	<5	U
41	N-PROPYLBENZENE	103-65-1	µg/L	5	<5	U
42	STYRENE	100-42-5	µg/L	5	<5	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/L	5	<5	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/L	5	<5	U
45	TETRACHLOROETHENE	127-18-4	µg/L	5	<5	U
46	TOLUENE	108-88-3	µg/L	5	<5	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/L	5	<5	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/L	5	<5	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/L	5	<5	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/L	5	<5	U
51	TRICHLOROETHENE	79-01-6	µg/L	5	<5	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/L	5	<5	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/L	5	<5	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/L	5	<5	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/L	5	<5	U
56	VINYL CHLORIDE	75-01-4	µg/L	5	<5	U
57	XYLENES (TOTAL)	1330-20-7	µg/L	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	89-111	105
2	DIBROMOFLUOROMETHANE	1868-53-7	86-117	105
3	1,2-DICHLOROETHANE-D4	17060-07-0	81-113	107
4	TOLUENE-D8	2037-26-5	88-109	104
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	97
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	85
3	FLUOROBENZENE	462-06-6	50-200	104
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-11	Received Date:	09/16/97
Sample ID:	**18609-563**	Sample Matrix	Soil	Moisture %:	13.8
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3777	Prep. No:	–	Anal. Time:	13:43
Data File Name:	3987-11	Sample Amount:	5 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	5.8	<5.8	U
2	BROMOBENZENE	108-86-1	µg/kg	5.8	<5.8	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	5.8	<5.8	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.8	<5.8	U
5	BROMOFORM	75-25-2	µg/kg	5.8	<5.8	U
6	BROMOMETHANE	74-83-9	µg/kg	5.8	<5.8	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	5.8	<5.8	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	5.8	<5.8	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	5.8	<5.8	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.8	<5.8	U
11	CHLOROBENZENE	108-90-7	µg/kg	5.8	<5.8	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.8	<5.8	U
13	CHLOROETHANE	75-00-3	µg/kg	5.8	<5.8	U
14	CHLOROFORM	67-66-3	µg/kg	5.8	<5.8	U
15	CHLOROMETHANE	74-87-3	µg/kg	5.8	<5.8	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	5.8	<5.8	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	5.8	<5.8	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	5.8	<5.8	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/kg	5.8	<5.8	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	5.8	<5.8	U
21	DIBROMOMETHANE	74-95-3	µg/kg	5.8	<5.8	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	5.8	<5.8	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	5.8	<5.8	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	5.8	<5.8	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	5.8	<5.8	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.8	<5.8	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.8	<5.8	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.8	<5.8	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.8	<5.8	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.8	<5.8	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.8	<5.8	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	5.8	<5.8	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	5.8	<5.8	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	5.8	<5.8	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.8	<5.8	U
36	ETHYLBENZENE	100-41-4	µg/kg	5.8	<5.8	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	5.8	<5.8	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	5.8	<5.8	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	5.8	<5.8	U

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/19/97
Project ID:	El Toro	Service ID:	973987	Collected by:	
		Lab Sample ID:	97G3776-MB-02	Received Date:	09/19/97
Sample ID:	**97G3776-MB-02**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC/MS: Q
Anal. Method:	8260	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3776	Prep. No:	–	Anal. Time:	03:38
Data File Name:	G3776K02	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/L	5	<5	U
2	BROMOBENZENE	108-86-1	µg/L	5	<5	U
3	BROMOCHLOROMETHANE	74-97-5	µg/L	5	<5	U
4	BROMODICHLOROMETHANE	75-27-4	µg/L	5	<5	U
5	BROMOFORM	75-25-2	µg/L	5	<5	U
6	BROMOMETHANE	74-83-9	µg/L	5	<5	U
7	N-BUTYLBENZENE	104-51-8	µg/L	5	<5	U
8	SEC-BUTYLBENZENE	135-98-8	µg/L	5	<5	U
9	TERT-BUTYLBENZENE	98-06-6	µg/L	5	<5	U
10	CARBON TETRACHLORIDE	56-23-5	µg/L	5	<5	U
11	CHLOROBENZENE	108-90-7	µg/L	5	<5	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/L	5	<5	U
13	CHLOROETHANE	75-00-3	µg/L	5	<5	U
14	CHLOROFORM	67-66-3	µg/L	5	<5	U
15	CHLOROMETHANE	74-87-3	µg/L	5	<5	U
16	2-CHLOROTOLUENE	95-49-8	µg/L	5	<5	U
17	4-CHLOROTOLUENE	106-43-4	µg/L	5	<5	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/L	5	<5	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/L	5	<5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/L	5	<5	U
21	DIBROMOMETHANE	74-95-3	µg/L	5	<5	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/L	5	<5	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/L	5	<5	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/L	5	<5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/L	5	<5	U
26	1,1-DICHLOROETHANE	75-34-3	µg/L	5	<5	U
27	1,2-DICHLOROETHANE	107-06-2	µg/L	5	<5	U
28	1,1-DICHLOROETHENE	75-35-4	µg/L	5	<5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/L	5	<5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/L	5	<5	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/L	5	<5	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/L	5	<5	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/L	5	<5	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/L	5	<5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/L	5	<5	U
36	ETHYLBENZENE	100-41-4	µg/L	5	<5	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/L	5	<5	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/L	5	<5	U
39	METHYLENE CHLORIDE	75-09-2	µg/L	5	<5	U

23909

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/L	5	<5	U
41	N-PROPYLBENZENE	103-65-1	µg/L	5	<5	U
42	STYRENE	100-42-5	µg/L	5	<5	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/L	5	<5	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/L	5	<5	U
45	TETRACHLOROETHENE	127-18-4	µg/L	5	<5	U
46	TOLUENE	108-88-3	µg/L	5	<5	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/L	5	<5	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/L	5	<5	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/L	5	<5	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/L	5	<5	U
51	TRICHLOROETHENE	79-01-6	µg/L	5	<5	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/L	5	<5	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/L	5	<5	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/L	5	<5	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/L	5	<5	U
56	VINYL CHLORIDE	75-01-4	µg/L	5	<5	U
57	XYLENES (TOTAL)	1330-20-7	µg/L	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	89-111	111
2	DIBROMOFLUOROMETHANE	1868-53-7	86-117	105
3	1,2-DICHLOROETHANE-D4	17060-07-0	81-113	106
4	TOLUENE-D8	2037-26-5	88-109	107
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	88
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	78
3	FLUOROBENZENE	462-06-6	50-200	92
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

23910

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/18/97
Project ID:	El Toro	Service ID:	973987	Collected by:	
		Lab Sample ID:	97G3777-MB-01	Received Date:	09/18/97
Sample ID:	**97G3777-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	09/18/97	Anal. Date:	09/18/97
Batch No:	97G3777	Prep. No:	–	Anal. Time:	23:42
Data File Name:	G3777K01	Sample Amount:	5 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	5	< 5	U
2	BROMOBENZENE	108-86-1	µg/kg	5	< 5	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	5	< 5	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	5	< 5	U
5	BROMOFORM	75-25-2	µg/kg	5	< 5	U
6	BROMOMETHANE	74-83-9	µg/kg	5	< 5	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	5	< 5	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	5	< 5	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	5	< 5	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5	< 5	U
11	CHLOROBENZENE	108-90-7	µg/kg	5	< 5	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5	< 5	U
13	CHLOROETHANE	75-00-3	µg/kg	5	< 5	U
14	CHLOROFORM	67-66-3	µg/kg	5	< 5	U
15	CHLOROMETHANE	74-87-3	µg/kg	5	< 5	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	5	< 5	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	5	< 5	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	5	< 5	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/kg	5	< 5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	5	< 5	U
21	DIBROMOMETHANE	74-95-3	µg/kg	5	< 5	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	5	< 5	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	5	< 5	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	5	< 5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	5	< 5	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	5	< 5	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	5	< 5	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	5	< 5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5	< 5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5	< 5	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5	< 5	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	5	< 5	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	5	< 5	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	5	< 5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5	< 5	U
36	ETHYLBENZENE	100-41-4	µg/kg	5	< 5	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	5	< 5	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	5	< 5	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	5	< 5	U

23911

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	5	<5	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	5	<5	U
42	STYRENE	100-42-5	µg/kg	5	<5	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	5	<5	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5	<5	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	5	<5	U
46	TOLUENE	108-88-3	µg/kg	5	<5	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	5	<5	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	5	<5	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5	<5	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5	<5	U
51	TRICHLOROETHENE	79-01-6	µg/kg	5	<5	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	5	<5	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	5	<5	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	5	<5	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	5	<5	U
56	VINYL CHLORIDE	75-01-4	µg/kg	5	<5	U
57	XYLENES (TOTAL)	1330-20-7	µg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	100
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	105
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	99
4	TOLUENE-D8	2037-26-5	81-116	92
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	95
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	91
3	FLUOROBENZENE	462-06-6	50-200	98
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

23912

Quantitation Report: "Spiked T &CH Lab" EPA 8260

23913

Data Filename: C:\HPCHEM\1\DATA\97G3777\G37..K01.D
Method : C:\HPCHEM\1\METHODS\826SC014.M
Acq. Time : Sep 18 23:42 1997
Method Update: Fri Sep 12 10:19 1997
Quant. Time : Sep 19 12:01 1997
Print Time : Fri Sep 19 12:02 1997
Miscleneous :

Sample : 20
Inst. : GCMS-C
RF via : Multiple Level Calibration
Operator: EDDIE
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards											Dev(Min)	
1	1	Fluorobenzene	12.86	12.85	0.000	96	70	7103.709	50.00		0.00	
47	47	Chlorobezene-d5	19.88	19.87	0.000	117	82	5551.578	50.00		0.00	
62	62	1,4-Dichlorobenze	24.58	24.59	0.000	152	150	2630.712	50.00		0.00	
System Monitoring Compounds (Surrogate)											%Recovery	
27	27	Di-Br-F-Me (surr)	11.33	11.32	0.000	111	113	1973.535	52.69	52.7	105.38%	
29	29	1,2-Di-Cl-Et-d4 (	12.08	12.07	0.000	65	102	1986.333	49.70	49.7	99.39%	
55	55	toluene-d8	16.62	16.62	0.000	98	100	6838.565	45.86	45.9	91.72%	
70	70	4-Br-1-F-Bz (S3)	22.35	22.35	0.000	174	95	1989.693	49.75	49.8	99.51%	
Internal Surrogate Compounds											%Recovery	
2	2	CD2BrCl 53 132	10.75	10.76	0.000	53	132	145.409	48.02	48.0	96.04%	
10	10	aceton-d6 10xIS	6.67	6.68	0.000	46	64	3813.047	483.15	483.2	96.63%	
28	28	Pt-F-Bz (surr) 1	11.39	11.38	0.000	168	99	3360.321	53.93	53.9	107.85%	
31	31	1,4-difluorobenze	13.07	13.06	0.000	114	88	6662.378	52.40	52.4	104.80%	
Target Compounds											Qvalue	

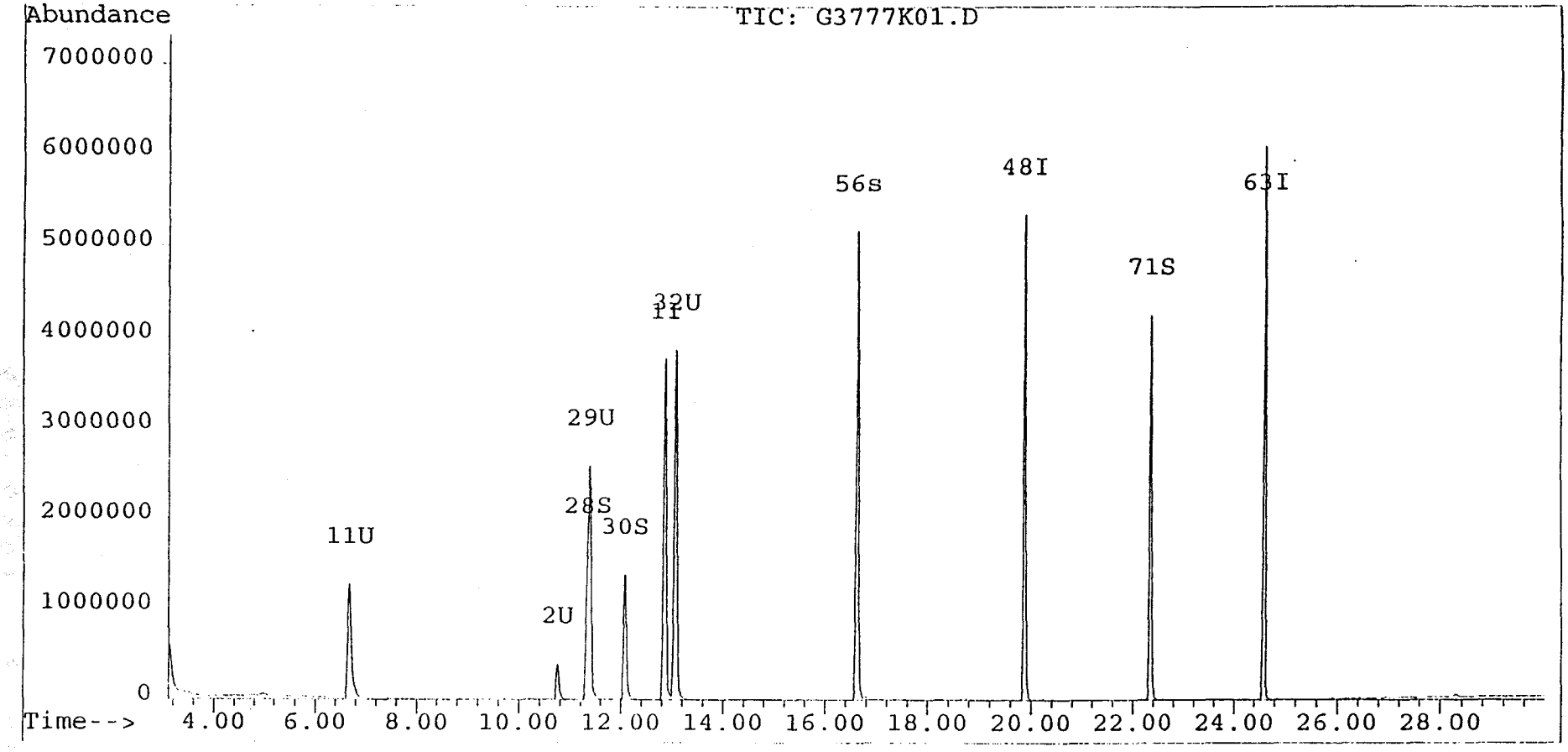
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

23914

Data File : C:\HPCHEM\1\DATA\97G3777\G3777K01.D
Acq On : 18 Sep 97 11:42 pm
Sample : 20
Misc :
Quant Time: Sep 19 12:01 1997

Vial: 13
Operator: EDDIE
Inst : GCMS-C
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\826SC014.M
Title : **Applied P &Ch Lab** EPA 8260
Last Update : Fri Sep 12 10:19:05 1997
Response via : Multiple Level Calibration



Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/19/97
Project ID:	El Toro	Service ID:	973987	Collected by:	
		Lab Sample ID:	97G3777-MB-02	Received Date:	09/19/97
Sample ID:	97G3777-MB-02	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3777	Prep. No:	–	Anal. Time:	12:26
Data File Name:	G3777K02	Sample Amount:	5 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	5	< 5	U
2	BROMOBENZENE	108-86-1	µg/kg	5	< 5	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	5	< 5	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	5	< 5	U
5	BROMOFORM	75-25-2	µg/kg	5	< 5	U
6	BROMOMETHANE	74-83-9	µg/kg	5	< 5	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	5	< 5	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	5	< 5	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	5	< 5	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5	< 5	U
11	CHLOROBENZENE	108-90-7	µg/kg	5	< 5	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5	< 5	U
13	CHLOROETHANE	75-00-3	µg/kg	5	< 5	U
14	CHLOROFORM	67-66-3	µg/kg	5	< 5	U
15	CHLOROMETHANE	74-87-3	µg/kg	5	< 5	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	5	< 5	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	5	< 5	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	5	< 5	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/kg	5	< 5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	5	< 5	U
21	DIBROMOMETHANE	74-95-3	µg/kg	5	< 5	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	5	< 5	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	5	< 5	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	5	< 5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	5	< 5	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	5	< 5	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	5	< 5	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	5	< 5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5	< 5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5	< 5	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5	< 5	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	5	< 5	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	5	< 5	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	5	< 5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5	< 5	U
36	ETHYLBENZENE	100-41-4	µg/kg	5	< 5	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	5	< 5	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	5	< 5	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	5	< 5	U

23915

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	5	<5	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	5	<5	U
42	STYRENE	100-42-5	µg/kg	5	<5	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	5	<5	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5	<5	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	5	<5	U
46	TOLUENE	108-88-3	µg/kg	5	<5	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	5	<5	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	5	<5	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5	<5	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5	<5	U
51	TRICHLOROETHENE	79-01-6	µg/kg	5	<5	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	5	<5	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	5	<5	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	5	<5	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	5	<5	U
56	VINYL CHLORIDE	75-01-4	µg/kg	5	<5	U
57	XYLENES (TOTAL)	1330-20-7	µg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	95
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	98
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	94
4	TOLUENE-D8	2037-26-5	81-116	90
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	100
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	93
3	FLUOROBENZENE	462-06-6	50-200	99
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

23916

Quantitation Report: Applied Tech Lab EPA 8260

23917

Filename: C:\HPCHEM\1\DATA\97G3777\G37. 02.D
Method : C:\HPCHEM\1\METHODS\826SC014.M
Acq. Time : Sep 19 12:26 1997
Method Update: Fri Sep 12 10:19 1997
Quant. Time : Sep 19 13:30 1997
Print Time : Fri Sep 19 13:31 1997
Miscleneous :

Sample : 4
Inst. : GCMS-C
RF via : Multiple Level Calibration
Operator: EDDIE
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene	12.86	12.85	0.000	96	70	7283.140	50.00		0.00	
47	47 Chlorobezene-d5	19.88	19.87	0.000	117	82	5461.576	50.00		0.00	
62	62 1,4-Dichlorobenze	24.58	24.59	0.000	152	150	2501.693	50.00		0.00	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Me (surr)	11.33	11.32	0.000	111	113	1882.462	49.02	49.0	98.04%	
29	29 1,2-Di-Cl-Et-d4 (	12.08	12.07	0.000	65	102	1928.568	47.06	47.1	94.12%	
55	55 toluene-d8	16.62	16.62	0.000	98	100	6615.617	45.10	45.1	90.19%	
70	70 4-Br-1-F-Bz (S3)	22.35	22.35	0.000	174	95	1804.091	47.44	47.4	94.88%	
Internal Surrogate Compounds										%Recovery	
2	2 CD2BrCl 53 132	10.75	10.76	0.000	53	132	156.630	50.45	50.5	100.91%	
10	10 aceton-d6 10xIS	6.67	6.68	0.000	46	64	3641.635	450.06	450.1	90.01%	
28	28 Pt-F-Bz (surr) 1	11.39	11.38	0.000	168	99	3090.567	48.37	48.4	96.75%	
31	31 1,4-difluorobenze	13.06	13.06	0.000	114	88	6625.574	50.83	50.8	101.66%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
18	18 methylene chlorid	7.68	7.68	0.000	84	49	19.716	0.45	0.5	85	

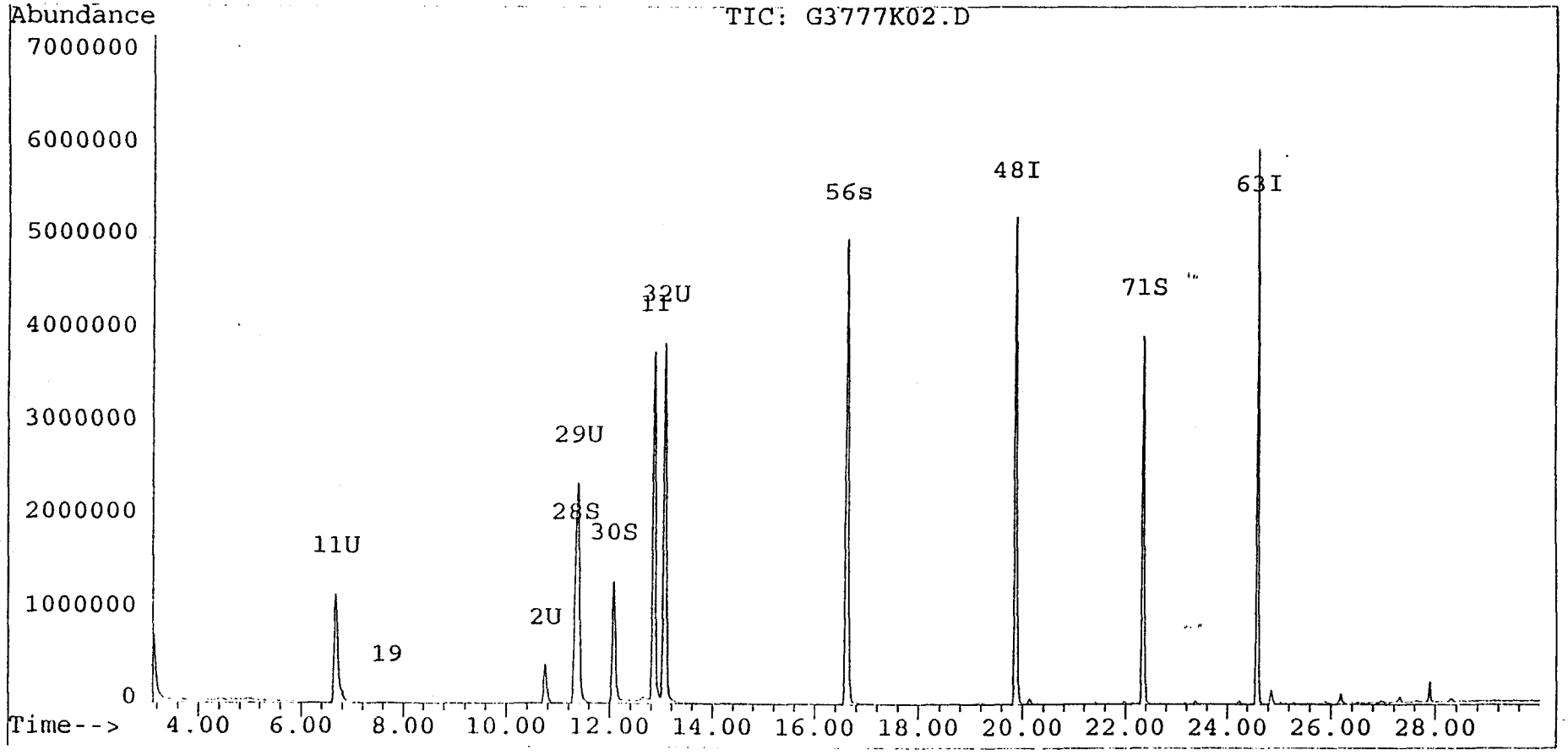
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

23918

Data File : C:\HPCHEM\1\DATA\97G3777\G3777K02.D
Acq On : 19 Sep 97 12:26 pm
Sample : 4
Misc :
Quant Time: Sep 19 13:30 1997

Vial: 5
Operator: EDDIE
Inst : GCMS-C
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\826SC014.M
Title : **Applied P &Ch Lab** EPA 8260
Last Update : Fri Sep 12 10:19:05 1997
Response via : Multiple Level Calibration



Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-1	Received Date:	09/16/97
Sample ID:	**18609-553**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: Q
Anal. Method:	8260	Prep. Date:	09/18/97	Anal. Date:	09/18/97
Batch No:	97G3776	Prep. No:	–	Anal. Time:	20:35
Data File Name:	3987-01	Sample Amount:	5 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/L	5	< 5	U
2	BROMOBENZENE	108-86-1	µg/L	5	< 5	U
3	BROMOCHLOROMETHANE	74-97-5	µg/L	5	< 5	U
4	BROMODICHLOROMETHANE	75-27-4	µg/L	5	< 5	U
5	BROMOFORM	75-25-2	µg/L	5	< 5	U
6	BROMOMETHANE	74-83-9	µg/L	5	< 5	U
7	N-BUTYLBENZENE	104-51-8	µg/L	5	< 5	U
8	SEC-BUTYLBENZENE	135-98-8	µg/L	5	< 5	U
9	TERT-BUTYLBENZENE	98-06-6	µg/L	5	< 5	U
10	CARBON TETRACHLORIDE	56-23-5	µg/L	5	< 5	U
11	CHLOROBENZENE	108-90-7	µg/L	5	< 5	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/L	5	< 5	U
13	CHLOROETHANE	75-00-3	µg/L	5	< 5	U
14	CHLOROFORM	67-66-3	µg/L	5	< 5	U
15	CHLOROMETHANE	74-87-3	µg/L	5	< 5	U
16	2-CHLOROTOLUENE	95-49-8	µg/L	5	< 5	U
17	4-CHLOROTOLUENE	106-43-4	µg/L	5	< 5	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/L	5	< 5	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/L	5	< 5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/L	5	< 5	U
21	DIBROMOMETHANE	74-95-3	µg/L	5	< 5	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/L	5	< 5	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/L	5	< 5	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/L	5	< 5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/L	5	< 5	U
26	1,1-DICHLOROETHANE	75-34-3	µg/L	5	< 5	U
27	1,2-DICHLOROETHANE	107-06-2	µg/L	5	< 5	U
28	1,1-DICHLOROETHENE	75-35-4	µg/L	5	< 5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/L	5	< 5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/L	5	< 5	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/L	5	< 5	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/L	5	< 5	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/L	5	< 5	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/L	5	< 5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/L	5	< 5	U
36	ETHYLBENZENE	100-41-4	µg/L	5	< 5	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/L	5	< 5	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/L	5	< 5	U
39	METHYLENE CHLORIDE	75-09-2	µg/L	5	< 5	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/L	5	<5	U
41	N-PROPYLBENZENE	103-65-1	µg/L	5	<5	U
42	STYRENE	100-42-5	µg/L	5	<5	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/L	5	<5	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/L	5	<5	U
45	TETRACHLOROETHENE	127-18-4	µg/L	5	<5	U
46	TOLUENE	108-88-3	µg/L	5	<5	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/L	5	<5	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/L	5	<5	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/L	5	<5	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/L	5	<5	U
51	TRICHLOROETHENE	79-01-6	µg/L	5	<5	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/L	5	<5	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/L	5	<5	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/L	5	<5	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/L	5	<5	U
56	VINYL CHLORIDE	75-01-4	µg/L	5	<5	U
57	XYLENES (TOTAL)	1330-20-7	µg/L	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	89-111	106
2	DIBROMOFLUOROMETHANE	1868-53-7	86-117	106
3	1,2-DICHLOROETHANE-D4	17060-07-0	81-113	109
4	TOLUENE-D8	2037-26-5	88-109	102
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	87
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	74
3	FLUOROBENZENE	462-06-6	50-200	93
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-2	Received Date:	09/16/97
Sample ID:	**18609-554**	Sample Matrix	Soil	Moisture %:	13.2
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3777	Prep. No:	–	Anal. Time:	03:33
Data File Name:	3987-02	Sample Amount:	5 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	5.8	<5.8	U
2	BROMOBENZENE	108-86-1	µg/kg	5.8	<5.8	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	5.8	<5.8	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.8	<5.8	U
5	BROMOFORM	75-25-2	µg/kg	5.8	<5.8	U
6	BROMOMETHANE	74-83-9	µg/kg	5.8	<5.8	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	5.8	<5.8	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	5.8	<5.8	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	5.8	<5.8	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.8	<5.8	U
11	CHLOROBENZENE	108-90-7	µg/kg	5.8	<5.8	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.8	<5.8	U
13	CHLOROETHANE	75-00-3	µg/kg	5.8	<5.8	U
14	CHLOROFORM	67-66-3	µg/kg	5.8	<5.8	U
15	CHLOROMETHANE	74-87-3	µg/kg	5.8	<5.8	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	5.8	<5.8	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	5.8	<5.8	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	5.8	<5.8	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/kg	5.8	<5.8	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	5.8	<5.8	U
21	DIBROMOMETHANE	74-95-3	µg/kg	5.8	<5.8	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	5.8	<5.8	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	5.8	<5.8	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	5.8	<5.8	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	5.8	<5.8	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.8	<5.8	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.8	<5.8	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.8	<5.8	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.8	<5.8	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.8	<5.8	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.8	<5.8	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	5.8	<5.8	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	5.8	<5.8	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	5.8	<5.8	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.8	<5.8	U
36	ETHYLBENZENE	100-41-4	µg/kg	5.8	<5.8	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	5.8	<5.8	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	5.8	<5.8	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	5.8	<5.8	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	5.8	< 5.8	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	5.8	< 5.8	U
42	STYRENE	100-42-5	µg/kg	5.8	< 5.8	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	5.8	< 5.8	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.8	< 5.8	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	5.8	< 5.8	U
46	TOLUENE	108-88-3	µg/kg	5.8	< 5.8	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	5.8	< 5.8	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	5.8	< 5.8	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.8	< 5.8	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.8	< 5.8	U
51	TRICHLOROETHENE	79-01-6	µg/kg	5.8	< 5.8	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	5.8	< 5.8	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	5.8	< 5.8	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	5.8	< 5.8	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	5.8	< 5.8	U
56	VINYL CHLORIDE	75-01-4	µg/kg	5.8	< 5.8	U
57	XYLENES (TOTAL)	1330-20-7	µg/kg	12	< 12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	107
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	100
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	98
4	TOLUENE-D8	2037-26-5	81-116	97
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	110
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	91
3	FLUOROBENZENE	462-06-6	50-200	124
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-3	Received Date:	09/16/97
Sample ID:	**18609-555**	Sample Matrix	Soil	Moisture %:	15.5
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3777	Prep. No:	–	Anal. Time:	04:11
Data File Name:	3987-03	Sample Amount:	5 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	5.9	<5.9	U
2	BROMOBENZENE	108-86-1	µg/kg	5.9	<5.9	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	5.9	<5.9	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.9	<5.9	U
5	BROMOFORM	75-25-2	µg/kg	5.9	<5.9	U
6	BROMOMETHANE	74-83-9	µg/kg	5.9	<5.9	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	5.9	<5.9	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	5.9	<5.9	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	5.9	<5.9	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.9	<5.9	U
11	CHLOROBENZENE	108-90-7	µg/kg	5.9	<5.9	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.9	<5.9	U
13	CHLOROETHANE	75-00-3	µg/kg	5.9	<5.9	U
14	CHLOROFORM	67-66-3	µg/kg	5.9	<5.9	U
15	CHLOROMETHANE	74-87-3	µg/kg	5.9	<5.9	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	5.9	<5.9	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	5.9	<5.9	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	5.9	<5.9	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/kg	5.9	<5.9	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	5.9	<5.9	U
21	DIBROMOMETHANE	74-95-3	µg/kg	5.9	<5.9	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	5.9	<5.9	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	5.9	<5.9	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	5.9	<5.9	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	5.9	<5.9	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.9	<5.9	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.9	<5.9	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.9	<5.9	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.9	<5.9	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.9	<5.9	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.9	<5.9	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	5.9	<5.9	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	5.9	<5.9	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	5.9	<5.9	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.9	<5.9	U
36	ETHYLBENZENE	100-41-4	µg/kg	5.9	<5.9	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	5.9	<5.9	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	5.9	<5.9	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	5.9	<5.9	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	5.9	< 5.9	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	5.9	< 5.9	U
42	STYRENE	100-42-5	µg/kg	5.9	< 5.9	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	5.9	< 5.9	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.9	< 5.9	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	5.9	< 5.9	U
46	TOLUENE	108-88-3	µg/kg	5.9	< 5.9	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	5.9	< 5.9	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	5.9	< 5.9	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.9	< 5.9	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.9	< 5.9	U
51	TRICHLOROETHENE	79-01-6	µg/kg	5.9	< 5.9	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	5.9	< 5.9	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	5.9	< 5.9	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	5.9	< 5.9	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	5.9	< 5.9	U
56	VINYL CHLORIDE	75-01-4	µg/kg	5.9	< 5.9	U
57	XYLENES (TOTAL)	1330-20-7	µg/kg	12	< 12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	96
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	98
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	97
4	TOLUENE-D8	2037-26-5	81-116	93
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	115
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	109
3	FLUOROBENZENE	462-06-6	50-200	125
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-4	Received Date:	09/16/97
Sample ID:	**18609-556**	Sample Matrix	Soil	Moisture %:	17.8
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3777	Prep. No:	–	Anal. Time:	04:50
Data File Name:	3987-04	Sample Amount:	5 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	6.1	<6.1	U
2	BROMOBENZENE	108-86-1	µg/kg	6.1	<6.1	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	6.1	<6.1	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.1	<6.1	U
5	BROMOFORM	75-25-2	µg/kg	6.1	<6.1	U
6	BROMOMETHANE	74-83-9	µg/kg	6.1	<6.1	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	6.1	<6.1	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	6.1	<6.1	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	6.1	<6.1	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.1	<6.1	U
11	CHLOROBENZENE	108-90-7	µg/kg	6.1	<6.1	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.1	<6.1	U
13	CHLOROETHANE	75-00-3	µg/kg	6.1	<6.1	U
14	CHLOROFORM	67-66-3	µg/kg	6.1	<6.1	U
15	CHLOROMETHANE	74-87-3	µg/kg	6.1	<6.1	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	6.1	<6.1	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	6.1	<6.1	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	6.1	<6.1	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/kg	6.1	<6.1	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	6.1	<6.1	U
21	DIBROMOMETHANE	74-95-3	µg/kg	6.1	<6.1	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	6.1	<6.1	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	6.1	<6.1	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	6.1	<6.1	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	6.1	<6.1	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.1	<6.1	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.1	<6.1	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.1	<6.1	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.1	<6.1	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.1	<6.1	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.1	<6.1	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	6.1	<6.1	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	6.1	<6.1	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	6.1	<6.1	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.1	<6.1	U
36	ETHYLBENZENE	100-41-4	µg/kg	6.1	<6.1	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	6.1	<6.1	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	6.1	<6.1	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	6.1	<6.1	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	6.1	<6.1	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	6.1	<6.1	U
42	STYRENE	100-42-5	µg/kg	6.1	<6.1	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	6.1	<6.1	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.1	<6.1	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	6.1	<6.1	U
46	TOLUENE	108-88-3	µg/kg	6.1	<6.1	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	6.1	<6.1	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	6.1	<6.1	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.1	<6.1	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.1	<6.1	U
51	TRICHLOROETHENE	79-01-6	µg/kg	6.1	<6.1	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	6.1	<6.1	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	6.1	<6.1	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	6.1	<6.1	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	6.1	<6.1	U
56	VINYL CHLORIDE	75-01-4	µg/kg	6.1	<6.1	U
57	XYLENES (TOTAL)	1330-20-7	µg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	97
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	97
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	95
4	TOLUENE-D8	2037-26-5	81-116	94
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	115
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	107
3	FLUOROBENZENE	462-06-6	50-200	125
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-5	Received Date:	09/16/97
Sample ID:	**18609-557**	Sample Matrix	Soil	Moisture %:	15.4
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3777	Prep. No:	–	Anal. Time:	05:28
Data File Name:	3987-05	Sample Amount:	5 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	5.9	<5.9	U
2	BROMOBENZENE	108-86-1	µg/kg	5.9	<5.9	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	5.9	<5.9	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.9	<5.9	U
5	BROMOFORM	75-25-2	µg/kg	5.9	<5.9	U
6	BROMOMETHANE	74-83-9	µg/kg	5.9	<5.9	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	5.9	<5.9	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	5.9	<5.9	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	5.9	<5.9	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.9	<5.9	U
11	CHLOROBENZENE	108-90-7	µg/kg	5.9	<5.9	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.9	<5.9	U
13	CHLOROETHANE	75-00-3	µg/kg	5.9	<5.9	U
14	CHLOROFORM	67-66-3	µg/kg	5.9	<5.9	U
15	CHLOROMETHANE	74-87-3	µg/kg	5.9	<5.9	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	5.9	<5.9	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	5.9	<5.9	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	5.9	<5.9	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/kg	5.9	<5.9	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	5.9	<5.9	U
21	DIBROMOMETHANE	74-95-3	µg/kg	5.9	<5.9	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	5.9	<5.9	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	5.9	<5.9	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	5.9	<5.9	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	5.9	<5.9	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.9	<5.9	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.9	<5.9	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.9	<5.9	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.9	<5.9	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.9	<5.9	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.9	<5.9	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	5.9	<5.9	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	5.9	<5.9	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	5.9	<5.9	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.9	<5.9	U
36	ETHYLBENZENE	100-41-4	µg/kg	5.9	<5.9	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	5.9	<5.9	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	5.9	<5.9	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	5.9	<5.9	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	5.9	< 5.9	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	5.9	< 5.9	U
42	STYRENE	100-42-5	µg/kg	5.9	< 5.9	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	5.9	< 5.9	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.9	< 5.9	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	5.9	< 5.9	U
46	TOLUENE	108-88-3	µg/kg	5.9	< 5.9	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	5.9	< 5.9	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	5.9	< 5.9	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.9	< 5.9	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.9	< 5.9	U
51	TRICHLOROETHENE	79-01-6	µg/kg	5.9	< 5.9	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	5.9	< 5.9	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	5.9	< 5.9	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	5.9	< 5.9	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	5.9	< 5.9	U
56	VINYL CHLORIDE	75-01-4	µg/kg	5.9	< 5.9	U
57	XYLENES (TOTAL)	1330-20-7	µg/kg	12	< 12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	97
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	95
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	87
4	TOLUENE-D8	2037-26-5	81-116	97
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	113
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	102
3	FLUOROBENZENE	462-06-6	50-200	126
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-6	Received Date:	09/16/97
Sample ID:	**18609-558**	Sample Matrix	Soil	Moisture %:	7.1
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3777	Prep. No:	–	Anal. Time:	15:40
Data File Name:	3987-06	Sample Amount:	5 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	5.4	<5.4	U
2	BROMOBENZENE	108-86-1	µg/kg	5.4	<5.4	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	5.4	<5.4	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.4	<5.4	U
5	BROMOFORM	75-25-2	µg/kg	5.4	<5.4	U
6	BROMOMETHANE	74-83-9	µg/kg	5.4	<5.4	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	5.4	<5.4	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	5.4	<5.4	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	5.4	<5.4	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.4	<5.4	U
11	CHLOROBENZENE	108-90-7	µg/kg	5.4	<5.4	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.4	<5.4	U
13	CHLOROETHANE	75-00-3	µg/kg	5.4	<5.4	U
14	CHLOROFORM	67-66-3	µg/kg	5.4	<5.4	U
15	CHLOROMETHANE	74-87-3	µg/kg	5.4	<5.4	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	5.4	<5.4	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	5.4	<5.4	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	5.4	<5.4	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/kg	5.4	<5.4	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	5.4	<5.4	U
21	DIBROMOMETHANE	74-95-3	µg/kg	5.4	<5.4	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	5.4	1	J
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	5.4	<5.4	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	5.4	2	J
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	5.4	<5.4	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.4	<5.4	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.4	<5.4	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.4	<5.4	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.4	<5.4	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.4	<5.4	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.4	<5.4	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	5.4	<5.4	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	5.4	<5.4	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	5.4	<5.4	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.4	<5.4	U
36	ETHYLBENZENE	100-41-4	µg/kg	5.4	<5.4	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	5.4	<5.4	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	5.4	<5.4	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	5.4	<5.4	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	5.4	< 5.4	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	5.4	< 5.4	U
42	STYRENE	100-42-5	µg/kg	5.4	< 5.4	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	5.4	< 5.4	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.4	< 5.4	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	5.4	< 5.4	U
46	TOLUENE	108-88-3	µg/kg	5.4	< 5.4	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	5.4	< 5.4	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	5.4	< 5.4	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.4	< 5.4	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.4	< 5.4	U
51	TRICHLOROETHENE	79-01-6	µg/kg	5.4	< 5.4	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	5.4	< 5.4	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	5.4	< 5.4	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	5.4	< 5.4	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	5.4	< 5.4	U
56	VINYL CHLORIDE	75-01-4	µg/kg	5.4	< 5.4	U
57	XYLENES (TOTAL)	1330-20-7	µg/kg	11	< 11	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	99
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	94
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	92
4	TOLUENE-D8	2037-26-5	81-116	97
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	111
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	97
3	FLUOROBENZENE	462-06-6	50-200	118
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-7	Received Date:	09/16/97
Sample ID:	**18609-559**	Sample Matrix	Soil	Moisture %:	4.3
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3777	Prep. No:	–	Anal. Time:	06:07
Data File Name:	3987-07	Sample Amount:	5 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	5.2	<5.2	U
2	BROMOBENZENE	108-86-1	µg/kg	5.2	<5.2	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	5.2	<5.2	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.2	<5.2	U
5	BROMOFORM	75-25-2	µg/kg	5.2	<5.2	U
6	BROMOMETHANE	74-83-9	µg/kg	5.2	<5.2	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	5.2	<5.2	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	5.2	<5.2	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	5.2	<5.2	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.2	<5.2	U
11	CHLOROBENZENE	108-90-7	µg/kg	5.2	<5.2	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.2	<5.2	U
13	CHLOROETHANE	75-00-3	µg/kg	5.2	<5.2	U
14	CHLOROFORM	67-66-3	µg/kg	5.2	<5.2	U
15	CHLOROMETHANE	74-87-3	µg/kg	5.2	<5.2	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	5.2	<5.2	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	5.2	<5.2	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	5.2	<5.2	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/kg	5.2	<5.2	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	5.2	<5.2	U
21	DIBROMOMETHANE	74-95-3	µg/kg	5.2	<5.2	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	5.2	<5.2	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	5.2	<5.2	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	5.2	<5.2	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	5.2	<5.2	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	5.2	<5.2	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	5.2	<5.2	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	5.2	<5.2	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.2	<5.2	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.2	<5.2	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.2	<5.2	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	5.2	<5.2	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	5.2	<5.2	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	5.2	<5.2	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.2	<5.2	U
36	ETHYLBENZENE	100-41-4	µg/kg	5.2	<5.2	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	5.2	<5.2	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	5.2	<5.2	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	5.2	<5.2	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	5.2	< 5.2	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	5.2	< 5.2	U
42	STYRENE	100-42-5	µg/kg	5.2	< 5.2	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	5.2	< 5.2	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.2	< 5.2	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	5.2	< 5.2	U
46	TOLUENE	108-88-3	µg/kg	5.2	< 5.2	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	5.2	< 5.2	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	5.2	< 5.2	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.2	< 5.2	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.2	< 5.2	U
51	TRICHLOROETHENE	79-01-6	µg/kg	5.2	< 5.2	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	5.2	< 5.2	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	5.2	< 5.2	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	5.2	< 5.2	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	5.2	< 5.2	U
56	VINYL CHLORIDE	75-01-4	µg/kg	5.2	< 5.2	U
57	XYLENES (TOTAL)	1330-20-7	µg/kg	10	< 10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	97
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	96
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	94
4	TOLUENE-D8	2037-26-5	81-116	97
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	113
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	106
3	FLUOROBENZENE	462-06-6	50-200	125
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-8	Received Date:	09/16/97
Sample ID:	**18609-560**	Sample Matrix	Soil	Moisture %:	3.0
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3777	Prep. No:	–	Anal. Time:	06:45
Data File Name:	3987-08	Sample Amount:	5 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	5.2	<5.2	U
2	BROMOBENZENE	108-86-1	µg/kg	5.2	<5.2	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	5.2	<5.2	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.2	<5.2	U
5	BROMOFORM	75-25-2	µg/kg	5.2	<5.2	U
6	BROMOMETHANE	74-83-9	µg/kg	5.2	<5.2	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	5.2	<5.2	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	5.2	<5.2	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	5.2	<5.2	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.2	<5.2	U
11	CHLOROBENZENE	108-90-7	µg/kg	5.2	<5.2	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.2	<5.2	U
13	CHLOROETHANE	75-00-3	µg/kg	5.2	<5.2	U
14	CHLOROFORM	67-66-3	µg/kg	5.2	<5.2	U
15	CHLOROMETHANE	74-87-3	µg/kg	5.2	<5.2	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	5.2	<5.2	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	5.2	<5.2	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	5.2	<5.2	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/kg	5.2	<5.2	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	5.2	<5.2	U
21	DIBROMOMETHANE	74-95-3	µg/kg	5.2	<5.2	U
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23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	5.2	<5.2	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	5.2	<5.2	U
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29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5.2	<5.2	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.2	<5.2	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.2	<5.2	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	5.2	<5.2	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	5.2	<5.2	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	5.2	<5.2	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.2	<5.2	U
36	ETHYLBENZENE	100-41-4	µg/kg	5.2	<5.2	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	5.2	<5.2	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	5.2	<5.2	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	5.2	<5.2	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	5.2	< 5.2	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	5.2	< 5.2	U
42	STYRENE	100-42-5	µg/kg	5.2	< 5.2	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	5.2	< 5.2	U
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46	TOLUENE	108-88-3	µg/kg	5.2	< 5.2	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	5.2	< 5.2	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	5.2	< 5.2	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.2	< 5.2	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.2	< 5.2	U
51	TRICHLOROETHENE	79-01-6	µg/kg	5.2	< 5.2	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	5.2	< 5.2	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	5.2	< 5.2	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	5.2	< 5.2	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	5.2	< 5.2	U
56	VINYL CHLORIDE	75-01-4	µg/kg	5.2	< 5.2	U
57	XYLENES (TOTAL)	1330-20-7	µg/kg	10	< 10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	97
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	98
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	97
4	TOLUENE-D8	2037-26-5	81-116	97
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	106
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	97
3	FLUOROBENZENE	462-06-6	50-200	118
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-9	Received Date:	09/16/97
Sample ID:	**18609-561**	Sample Matrix	Soil	Moisture %:	4.4
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3777	Prep. No:	–	Anal. Time:	16:19
Data File Name:	3987-09A	Sample Amount:	5 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	5.2	<5.2	U
2	BROMOBENZENE	108-86-1	µg/kg	5.2	<5.2	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	5.2	<5.2	U
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7	N-BUTYLBENZENE	104-51-8	µg/kg	5.2	<5.2	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	5.2	<5.2	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	5.2	<5.2	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.2	<5.2	U
11	CHLOROBENZENE	108-90-7	µg/kg	5.2	<5.2	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.2	<5.2	U
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16	2-CHLOROTOLUENE	95-49-8	µg/kg	5.2	<5.2	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	5.2	<5.2	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	5.2	<5.2	U
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21	DIBROMOMETHANE	74-95-3	µg/kg	5.2	<5.2	U
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30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.2	<5.2	U
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35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.2	<5.2	U
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38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	5.2	<5.2	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	5.2	<5.2	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	5.2	< 5.2	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	5.2	< 5.2	U
42	STYRENE	100-42-5	µg/kg	5.2	< 5.2	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	5.2	< 5.2	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.2	< 5.2	U
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46	TOLUENE	108-88-3	µg/kg	5.2	< 5.2	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	5.2	< 5.2	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	5.2	< 5.2	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.2	< 5.2	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.2	< 5.2	U
51	TRICHLOROETHENE	79-01-6	µg/kg	5.2	< 5.2	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	5.2	< 5.2	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	5.2	< 5.2	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	5.2	< 5.2	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	5.2	< 5.2	U
56	VINYL CHLORIDE	75-01-4	µg/kg	5.2	< 5.2	U
57	XYLENES (TOTAL)	1330-20-7	µg/kg	10	< 10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	109
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	103
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	101
4	TOLUENE-D8	2037-26-5	81-116	106
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	91
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	81
3	FLUOROBENZENE	462-06-6	50-200	95
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-10	Received Date:	09/16/97
Sample ID:	**18609-562**	Sample Matrix	Soil	Moisture %:	18.4
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3777	Prep. No:	–	Anal. Time:	13:05
Data File Name:	3987-10	Sample Amount:	5 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	6.1	<6.1	U
2	BROMOBENZENE	108-86-1	µg/kg	6.1	<6.1	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	6.1	<6.1	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.1	<6.1	U
5	BROMOFORM	75-25-2	µg/kg	6.1	<6.1	U
6	BROMOMETHANE	74-83-9	µg/kg	6.1	<6.1	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	6.1	<6.1	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	6.1	<6.1	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	6.1	<6.1	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.1	<6.1	U
11	CHLOROBENZENE	108-90-7	µg/kg	6.1	<6.1	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.1	<6.1	U
13	CHLOROETHANE	75-00-3	µg/kg	6.1	<6.1	U
14	CHLOROFORM	67-66-3	µg/kg	6.1	<6.1	U
15	CHLOROMETHANE	74-87-3	µg/kg	6.1	<6.1	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	6.1	<6.1	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	6.1	<6.1	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	6.1	<6.1	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/kg	6.1	<6.1	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	6.1	<6.1	U
21	DIBROMOMETHANE	74-95-3	µg/kg	6.1	<6.1	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	6.1	<6.1	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	6.1	<6.1	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	6.1	<6.1	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	6.1	<6.1	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.1	<6.1	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.1	<6.1	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.1	<6.1	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.1	<6.1	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.1	<6.1	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.1	<6.1	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	6.1	<6.1	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	6.1	<6.1	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	6.1	<6.1	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.1	<6.1	U
36	ETHYLBENZENE	100-41-4	µg/kg	6.1	<6.1	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	6.1	<6.1	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	6.1	<6.1	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	6.1	<6.1	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	6.1	<6.1	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	6.1	<6.1	U
42	STYRENE	100-42-5	µg/kg	6.1	<6.1	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	6.1	<6.1	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.1	<6.1	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	6.1	<6.1	U
46	TOLUENE	108-88-3	µg/kg	6.1	<6.1	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	6.1	<6.1	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	6.1	<6.1	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.1	<6.1	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.1	<6.1	U
51	TRICHLOROETHENE	79-01-6	µg/kg	6.1	<6.1	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	6.1	<6.1	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	6.1	<6.1	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	6.1	<6.1	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	6.1	<6.1	U
56	VINYL CHLORIDE	75-01-4	µg/kg	6.1	<6.1	U
57	XYLENES (TOTAL)	1330-20-7	µg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	96
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	95
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	92
4	TOLUENE-D8	2037-26-5	81-116	94
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	118
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	109
3	FLUOROBENZENE	462-06-6	50-200	119
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

23938

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	5.8	<5.8	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	5.8	<5.8	U
42	STYRENE	100-42-5	µg/kg	5.8	<5.8	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	5.8	<5.8	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.8	<5.8	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	5.8	<5.8	U
46	TOLUENE	108-88-3	µg/kg	5.8	<5.8	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	5.8	<5.8	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	5.8	<5.8	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.8	<5.8	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.8	<5.8	U
51	TRICHLOROETHENE	79-01-6	µg/kg	5.8	<5.8	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	5.8	<5.8	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	5.8	<5.8	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	5.8	<5.8	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	5.8	<5.8	U
56	VINYL CHLORIDE	75-01-4	µg/kg	5.8	<5.8	U
57	XYLENES (TOTAL)	1330-20-7	µg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	97
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	95
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	91
4	TOLUENE-D8	2037-26-5	81-116	96
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	121
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	110
3	FLUOROBENZENE	462-06-6	50-200	124
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-12	Received Date:	09/16/97
Sample ID:	18609-564	Sample Matrix	Soil	Moisture %:	15.0
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3777	Prep. No:	–	Anal. Time:	14:22
Data File Name:	3987-12	Sample Amount:	5 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	5.9	<5.9	U
2	BROMOBENZENE	108-86-1	µg/kg	5.9	<5.9	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	5.9	<5.9	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	5.9	<5.9	U
5	BROMOFORM	75-25-2	µg/kg	5.9	<5.9	U
6	BROMOMETHANE	74-83-9	µg/kg	5.9	<5.9	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	5.9	<5.9	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	5.9	<5.9	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	5.9	<5.9	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5.9	<5.9	U
11	CHLOROBENZENE	108-90-7	µg/kg	5.9	<5.9	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5.9	<5.9	U
13	CHLOROETHANE	75-00-3	µg/kg	5.9	<5.9	U
14	CHLOROFORM	67-66-3	µg/kg	5.9	<5.9	U
15	CHLOROMETHANE	74-87-3	µg/kg	5.9	<5.9	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	5.9	<5.9	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	5.9	<5.9	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	5.9	<5.9	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/kg	5.9	<5.9	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	5.9	<5.9	U
21	DIBROMOMETHANE	74-95-3	µg/kg	5.9	<5.9	U
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24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	5.9	<5.9	U
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30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5.9	<5.9	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5.9	<5.9	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	5.9	<5.9	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	5.9	<5.9	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	5.9	<5.9	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5.9	<5.9	U
36	ETHYLBENZENE	100-41-4	µg/kg	5.9	<5.9	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	5.9	<5.9	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	5.9	<5.9	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	5.9	<5.9	U

23941

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	5.9	< 5.9	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	5.9	< 5.9	U
42	STYRENE	100-42-5	µg/kg	5.9	< 5.9	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	5.9	< 5.9	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5.9	< 5.9	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	5.9	< 5.9	U
46	TOLUENE	108-88-3	µg/kg	5.9	< 5.9	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	5.9	< 5.9	U
48	1,2.4-TRICHLOROBENZENE	120-82-1	µg/kg	5.9	< 5.9	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5.9	< 5.9	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5.9	< 5.9	U
51	TRICHLOROETHENE	79-01-6	µg/kg	5.9	< 5.9	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	5.9	< 5.9	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	5.9	< 5.9	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	5.9	< 5.9	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	5.9	< 5.9	U
56	VINYL CHLORIDE	75-01-4	µg/kg	5.9	< 5.9	U
57	XYLENES (TOTAL)	1330-20-7	µg/kg	12	< 12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	96
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	94
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	92
4	TOLUENE-D8	2037-26-5	81-116	96
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	121
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	111
3	FLUOROBENZENE	462-06-6	50-200	125
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

23942

Quantitation Report: **Applied P &Ch Lab** EPA 8260

23943

Data Filename: C:\HPCHEM\1\DATA\97G3777\3987-12.D
Method : C:\HPCHEM\1\METHODS\826SC014.M
Acq. Time : Sep 19 14:22 1997
Method Update: Fri Sep 12 10:19 1997
Quant. Time : Sep 22 10:37 1997
Print Time : Mon Sep 22 10:38 1997
Miscleneous :

Sample : f=1 7
Inst. : GCMS-C
RF via : Multiple Level Calibration
Operator: EDDIE
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards											Dev(Min)	
1	1	Fluorobenzene	12.85	12.85	0.000	96	70	9171.314	50.00		0.00	
47	47	Chlorobezene-d5	19.87	19.87	0.000	117	82	6598.908	50.00		0.00	
62	62	1,4-Dichlorobenze	24.58	24.59	0.000	152	150	3007.650	50.00		0.00	
System Monitoring Compounds (Surrogate)											%Recovery	
27	27	Di-Br-F-Me (surr)	11.32	11.32	0.000	111	113	2281.371	47.18	47.2	94.35%	
29	29	1,2-Di-Cl-Et-d4 (	12.07	12.07	0.000	65	102	2368.215	45.89	45.9	91.79%	
55	55	toluene-d8	16.62	16.62	0.000	98	100	8506.904	47.99	48.0	95.99%	
70	70	4-Br-1-F-Bz (S3)	22.34	22.35	0.000	174	95	2198.027	48.08	48.1	96.15%	
Internal Surrogate Compounds											%Recovery	
2	2	CD2BrCl 53 132	10.74	10.76	0.000	53	132	197.012	50.40	50.4	100.79%	
10	10	aceton-d6 10xIS	6.66	6.68	0.000	46	64	4927.754	483.63	483.6	96.73%	
28	28	Pt-F-Bz (surr) 1	11.38	11.38	0.000	168	99	3891.078	48.37	48.4	96.73%	
31	31	1,4-difluorobenze	13.06	13.06	0.000	114	88	8208.770	50.01	50.0	100.02%	
Target Compounds											Qvalue	

|| = Qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

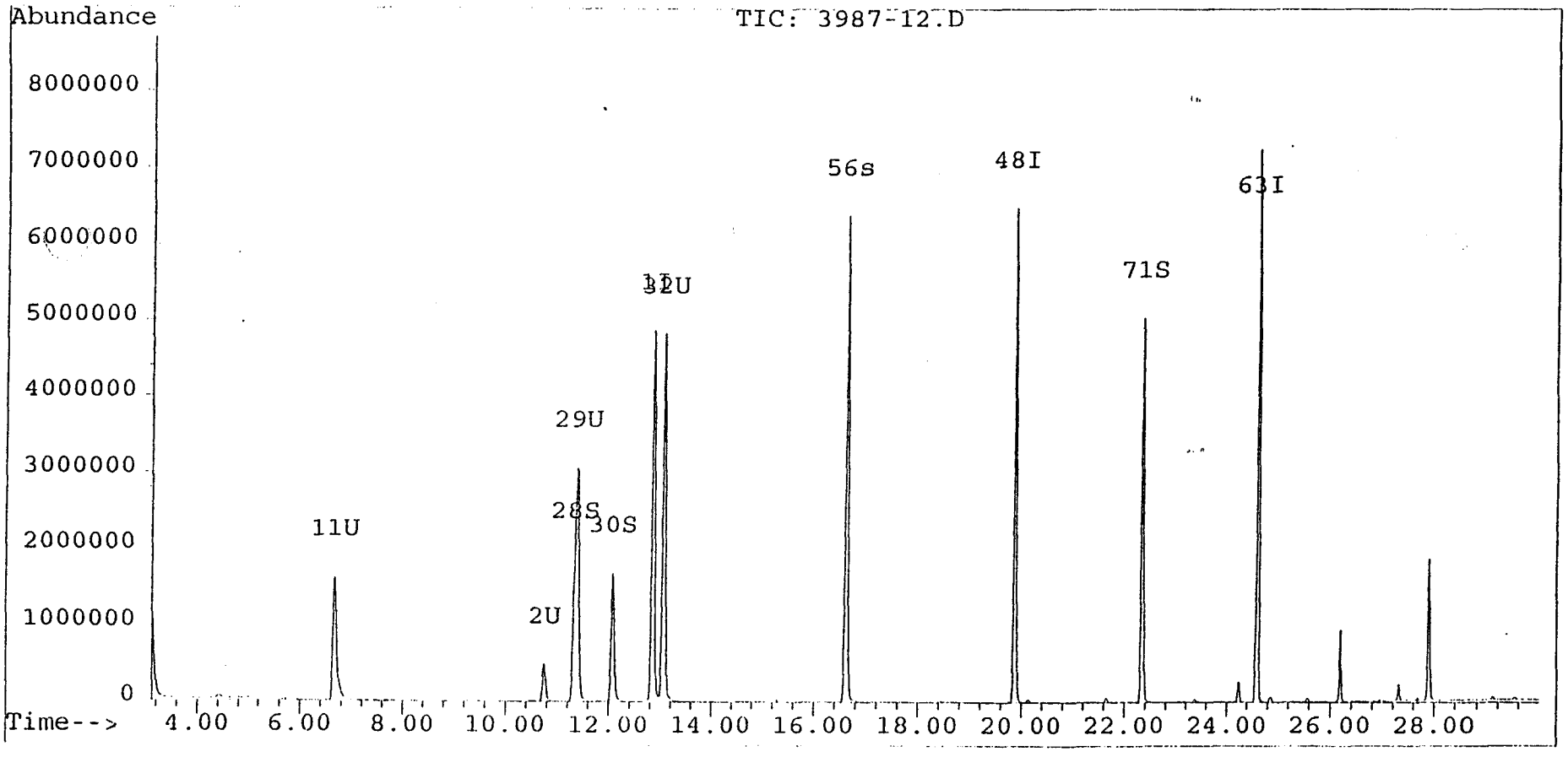
Quant[illegible]ion Report

23944

Data File : C:\HPCHEM\1\DATA\97G3777\3987-12.D
Acq On : 19 Sep 97 2:22 pm
Sample : f=1 7
Misc :
Quant Time: Sep 22 10:37 1997

Vial: 37
Operator: EDDIE
Inst : GCMS-C
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\826SC014.M
Title : **Applied P &Ch Lab** EPA 8260
Last Update : Fri Sep 12 10:19:05 1997
Response via : Multiple Level Calibration



Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/16/97
Project ID:	El Toro	Service ID:	973987	Collected by:	D.Ishida
		Lab Sample ID:	97-3987-13	Received Date:	09/16/97
Sample ID:	**18609-565**	Sample Matrix	Soil	Moisture %:	19.4
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: C
Anal. Method:	8260	Prep. Date:	09/19/97	Anal. Date:	09/19/97
Batch No:	97G3777	Prep. No:	–	Anal. Time:	15:01
Data File Name:	3987-13	Sample Amount:	5 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	6.2	<6.2	U
2	BROMOBENZENE	108-86-1	µg/kg	6.2	<6.2	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	6.2	<6.2	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	6.2	<6.2	U
5	BROMOFORM	75-25-2	µg/kg	6.2	<6.2	U
6	BROMOMETHANE	74-83-9	µg/kg	6.2	<6.2	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	6.2	<6.2	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	6.2	<6.2	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	6.2	<6.2	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	6.2	<6.2	U
11	CHLOROBENZENE	108-90-7	µg/kg	6.2	<6.2	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	6.2	<6.2	U
13	CHLOROETHANE	75-00-3	µg/kg	6.2	<6.2	U
14	CHLOROFORM	67-66-3	µg/kg	6.2	<6.2	U
15	CHLOROMETHANE	74-87-3	µg/kg	6.2	<6.2	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	6.2	<6.2	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	6.2	<6.2	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	6.2	<6.2	U
19	1,2-DIBROMO-3-CHLOROPROPANE (DB	96-12-8	µg/kg	6.2	<6.2	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	6.2	<6.2	U
21	DIBROMOMETHANE	74-95-3	µg/kg	6.2	<6.2	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	6.2	<6.2	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	6.2	<6.2	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	6.2	<6.2	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	6.2	<6.2	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	6.2	<6.2	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	6.2	<6.2	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	6.2	<6.2	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	6.2	<6.2	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	6.2	<6.2	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	6.2	<6.2	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	6.2	<6.2	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	6.2	<6.2	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	6.2	<6.2	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	6.2	<6.2	U
36	ETHYLBENZENE	100-41-4	µg/kg	6.2	<6.2	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	6.2	<6.2	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	6.2	<6.2	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	6.2	<6.2	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	6.2	<6.2	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	6.2	<6.2	U
42	STYRENE	100-42-5	µg/kg	6.2	<6.2	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	6.2	<6.2	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	6.2	<6.2	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	6.2	<6.2	U
46	TOLUENE	108-88-3	µg/kg	6.2	<6.2	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	6.2	<6.2	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	6.2	<6.2	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	6.2	<6.2	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	6.2	<6.2	U
51	TRICHLOROETHENE	79-01-6	µg/kg	6.2	<6.2	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	6.2	<6.2	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	6.2	<6.2	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	6.2	<6.2	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	6.2	<6.2	U
56	VINYL CHLORIDE	75-01-4	µg/kg	6.2	<6.2	U
57	XYLENES (TOTAL)	1330-20-7	µg/kg	12	<12	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	97
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	95
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	92
4	TOLUENE-D8	2037-26-5	81-116	95
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	123
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	113
3	FLUOROBENZENE	462-06-6	50-200	127
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

23946

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710

Tel. (909) 590-1828 Fax (909) 590-1498

RECEIVED OCT 0 1997

FILE COPY

October 29, 1997

Mary Schneider
OHM Remediation Services (Irvine)
2031 Main St.
Irvine, CA. 92714

Dear Ms. Schneider,

Enclosed please find two copies of Level C Data Package Deliverables and Electronic Data Deliverables for the project: UST 493 + 367. This package includes samples in our service ID of 97-4047.

Please contact me if you have any questions.

Sincerely yours,

Kevin Xie, Ph.D
QA Director

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	974047	Collected by:	
		Lab Sample ID:	97-4047-1	Received Date:	09/09/97
Sample ID:	18609-532 [a]	Sample Matrix	Soil	Moisture %:	
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC LEAD	7439-92-1	mg/L	0.005	54.5		P		97M2394M	09/29/97	09/29/97	1	6010
STLC LEAD	7439-92-1	mg/L	0.005	43.1 [b]		P		97M2430M	10/06/97	10/06/97	1	6010

[a] Additional analysis to 97-3916-5 requested on 09/22/97.

[b] Re-extraction and re-analysis were performed from 10/04-06/97

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

26908

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	09/09/97
Project ID:	UST 493 + 367	Service ID:	974047	Collected by:	
		Lab Sample ID:	97-4047-1	Received Date:	09/09/97
Sample ID:	18609-532 [a]	Sample Matrix	Soil	Moisture %:	
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD	7439-92-1	mg/L	0.005	2.5		P		97M2394M	09/29/97	09/29/97	1	6010
TCLP LEAD	7439-92-1	mg/L	0.005	3.6 [b]		P		97M2430M	10/06/97	10/06/97	1	6010

[a] Additional analysis to 97-3916-5 requested on 09/22/97.

[b] Re-extraction and re-analysis were performed from 10/04-06/97

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

26909

OHM Remediation Services Corp
Subsidiary of OHM Corporation
U.S. Route 224 East • Findlay, Ohio 45840 • (419) 423-3526

CHAIN-OF-CUSTODY RECORD

LABORATORY COPY
209535

FORM 0019 REV 2/97

OHM LAB COORDINATOR: DWAYNE Isshida	LAB COORDINATOR'S PHONE: (714) 263-1146	LAB COORDINATOR'S FAX: (714) 263-1147	LABORATORY SERVICE ID	LABORATORY CONTACT	MAIL REPORT (COMPANY NAME)
PROJECT NAME: EL TORO	PROJECT LOCATION: M.C.A.S. EL TORO	PROJECT NUMBER: 18609	LABORATORY PHONE	LABORATORY FAX	RECIPIENT NAME
PROJECT CONTACT: DWAYNE Isshida	PROJECT PHONE NUMBER: 263-1146	PROJECT FAX: 263-1147	LABORATORY ADDRESS		ADDRESS
PROJECT ADDRESS: 2031 MAIN ST.	CITY, STATE AND ZIPCODE: IRVINE, CA 92709	CLIENT: SWDIV	CITY, STATE AND ZIPCODE: CHINO, CA.		CITY, STATE, AND ZIPCODE
PROJECT MANAGER: Bill SEDLAK	PROJECT MANAGER'S PHONE: 263-1146	PROJECT MANAGER'S FAX: 263-1147			

APCL

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont	QC Level	T.A.T	Analyses: TPH-Purgeable	TPH-Extractable	8020-BTEX	TPH-418.1	Title 22 Metals				Comments
1	18609-532	S	9/9/97	1125	—	1	C	5DAY	X	X	X	X	X				
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

MB 9/9/97

SAMPLES COLLECTED BY: MB #5807

COURIER AND AIR BILL NUMBER:

COOLER TEMPERATURE UPON RECEIPT:

RELINQUISHED BY	RECEIVED BY	DATE	TIME	SAMPLE'S CONDITION UPON RECEIPT
Mandah Bannach	[illegible]	9/9/97	1455	

209692

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Yellow - Project Data Manager

OHM Remediation Services Corp
Subsidiary of OHM Corporation
U.S. Route 224 East • Findlay, Ohio 45840 • (419) 423-3526

CHAIN-OF-CUSTODY RECORD

LABORATORY COPY

FORM 0019 REV 2/97

OHM LAB COORDINATOR: DWAYNE ISHIDA	LAB COORDINATOR'S PHONE: (714) 263-1146	LAB COORDINATOR'S FAX: 475-5433	LABORATORY SERVICE ID	LABORATORY CONTACT	MAIL REPORT (COMPANY NAME)
PROJECT NAME: UST 493 + 367	PROJECT LOCATION: MCAS EL TORO	PROJECT NUMBER: 18609	LABORATORY PHONE	LABORATORY FAX	RECIPIENT NAME
PROJECT CONTACT: D. ISHIDA Verification drilling	PROJECT PHONE NUMBER: (714) 263-1146	PROJECT FAX: 475-5433	LABORATORY ADDRESS		ADDRESS
PROJECT ADDRESS: 2031 MAIN ST	CITY STATE AND ZIPCODE: IRVINE, CA 92614	CLIENT: SWDIV	CITY STATE AND ZIPCODE: CHINO, CA		CITY STATE AND ZIPCODE
PROJECT MANAGER: BILL SEDLAK	PROJECT MANAGER'S PHONE: (714) 263-1146	PROJECT MANAGER'S FAX: 263-1147			

APCL

Item	Sample Identifier	Matrix	Time	Date	Preserved	# of Cont	QC Level	T.A.T	Analyses: TPH-EXT.	Analyses: TPH GAS/BTEX METHOD 1312	Comments
1	18609-527	W	0700	9/9/97	HCl	2	C	5 DAY		X	
2	18609-528	S	0753		4°C	1	C		X	X	
3	18609-529	S	0757		4°C	1	C		X	X	MS/MSD
4	18609-530	S	0805		4°C	1	C		X	X	
5	18609-531	S	0813		4°C	1	C		X	X	
6	18609-543	S	1223		4°C	1	C		X	X	
7	18609-544	S	1247		4°C	1	C		X	X	
8	18609-545	S	1328		4°C	1	C		X	X	
9	18609-546	S	1427		4°C	1	C		X	X	
10	18609-547	W	1419	9/9/97	HCl 4°C	3	C	5 DAY	X	X	

SAMPLES COLLECTED BY: [signature]	COURIER AND AIR BILL NUMBER			COOLER TEMPERATURE UPON RECEIPT
RELINQUISHED BY: [signature]	RECEIVED BY: [signature]	DATE: 9/9/97	TIME: 1515	SAMPLE CONDITION UPON RECEIPT

Distribution: White - Laboratory (To be returned with Analytical Report), Goldenrod - Project File; Yellow - Project Data Manager

26903

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Case Narrative

Project: UST 314 A & B Contents /18609

For OHM Remediation Services (Irvine)

APCL Service No: 097-3095

1. Sample Identification

The sample identifications are listed in the following table:

OHM Remediation Services (Irvine) Sample ID	APCL Sample ID
18609-409	97-03095-1
18609-410	97-03095-2

2. Analytical Methodology

Samples are analyzed by EPA methods

M8015E/M8015D (TPH: Diesel),
M8015E/M8015M (TPH: Motor Oil),
1010 (Ignitability (Flashpoint)),
6010/various (TTLC 17 Metals),
ASTM-D2216 (Moisture, percent in soil),
9040/150.1 (pH),
8260 (Volatile organics),
M8015V/M8015G (TPH: Gasoline),
8080 (Polychlorinated Biphenyl (PCB)),
200.7/6010 (Lead, Pb, by ICP/WET/STLC),

3. Holding Time

Samples were extracted, digested and analyzed within the holding times defined by the appropriate EPA methods of the analyses.

4. Tele-log

None

5. Anomaly

The above sludge samples contained high amounts of diesel and motor oil hydrocarbons. In doing PCB analyses, sample extracts could not be concentrated to 1.0 mL. Dilutions had to be made due to the nature of matrix. The MS/MSD were performed on sample 18609-409. MS/MSD were analyzed at 10 times dilution. Recoveries of both MS/MSD were out of control limits due to dilution.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

LAB CORP
Form 001
Field Technical Service
Rev. 08/8

182827

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

1 of 1

PROJECT NAME: UST 314 A+B Contents	PROJECT LOCATION: MCAS El Toro
PROJ. NO.: 18609	PROJECT CONTACT: Dwayne Ishida
PROJECT TELEPHONE NO.: 714 236 1146	
CLIENT'S REPRESENTATIVE: Lynn Hornaker - SW DIV	PROJECT MANAGER/SUPERVISOR: Bill Sedlak - OHM

APCL

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	8015-VPH - Purgeable	8015-VPH - Extractable	8020 - BTEX	1010 - Ignitability	6010 - T. 22 metals		8080 - PCB (Hold)		REMARKS
1	18609-409	7/2/97	1035		X	Sludge from UST 314-A	1	X	X	X	X	X		X		
2	18609-410	7/2/97	1110		X	Sludge from UST 314-B	1	X	X	X	X	X		X		
3																
4																
5																
6																
7																
8																
9																
10																

7/2/97

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-2	OHM		7/2/97	3:15
2	1-2			7/2/97	1600
3	1-2		Melissa Stinson	7/2/97	1700
4					

REMARKS
APCL courier pickup.
Results due by Monday (7/7/97)
Trip Blank - see COC # 182825 (7/2/97)
Hold the PCB analysis until further notice.

SAMPLER'S SIGNATURE

37102

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	07/03/97
Project ID:	UST 314 A & B Contents	Service ID:	973095	Collected by:	
		Lab Sample ID:	97G2962-MB-01	Received Date:	07/03/97
Sample ID:	**97G2962-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	07/03/97	Anal. Date:	07/05/97
Batch No:	97G2962	Prep. No:	1 of 1	Anal. Time:	10:51
Data File Name:	2962G.K01	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS JP-5	68334-30-5	mg/kg	10	<10	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	62
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

37195

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	07/02/97
Project ID:	UST 314 A & B Contents	Service ID:	973095	Collected by:	
		Lab Sample ID:	97-3095-1	Received Date:	07/02/97
Sample ID:	**18609-409**	Sample Matrix	Soil	Moisture %:	42.5
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	07/03/97	Anal. Date:	07/06/97
Batch No:	97G2962	Prep. No:	1 of 1	Anal. Time:	17:00
Data File Name:	3095.101	Sample Amount:	20.0 g	Dilution Factor:	500
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS JP-5	68334-30-5	mg/kg	8700	96000	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	8700	110000	

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	156000
# of out-of-control				1

[a]Corresponds to the minimum reading of the thermometer used.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

37196

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9707\dsl2w\97g2962\3095.101
Method : c:\ezchrom\methods\dsl2-003.w00
Sample ID : %97G2962 f=25
Vial : 18
Volume : 2
Acquired : Jul 06, 1997 17:00:52
Printed : Jul 06, 1997 17:30:43
User : System

Reference

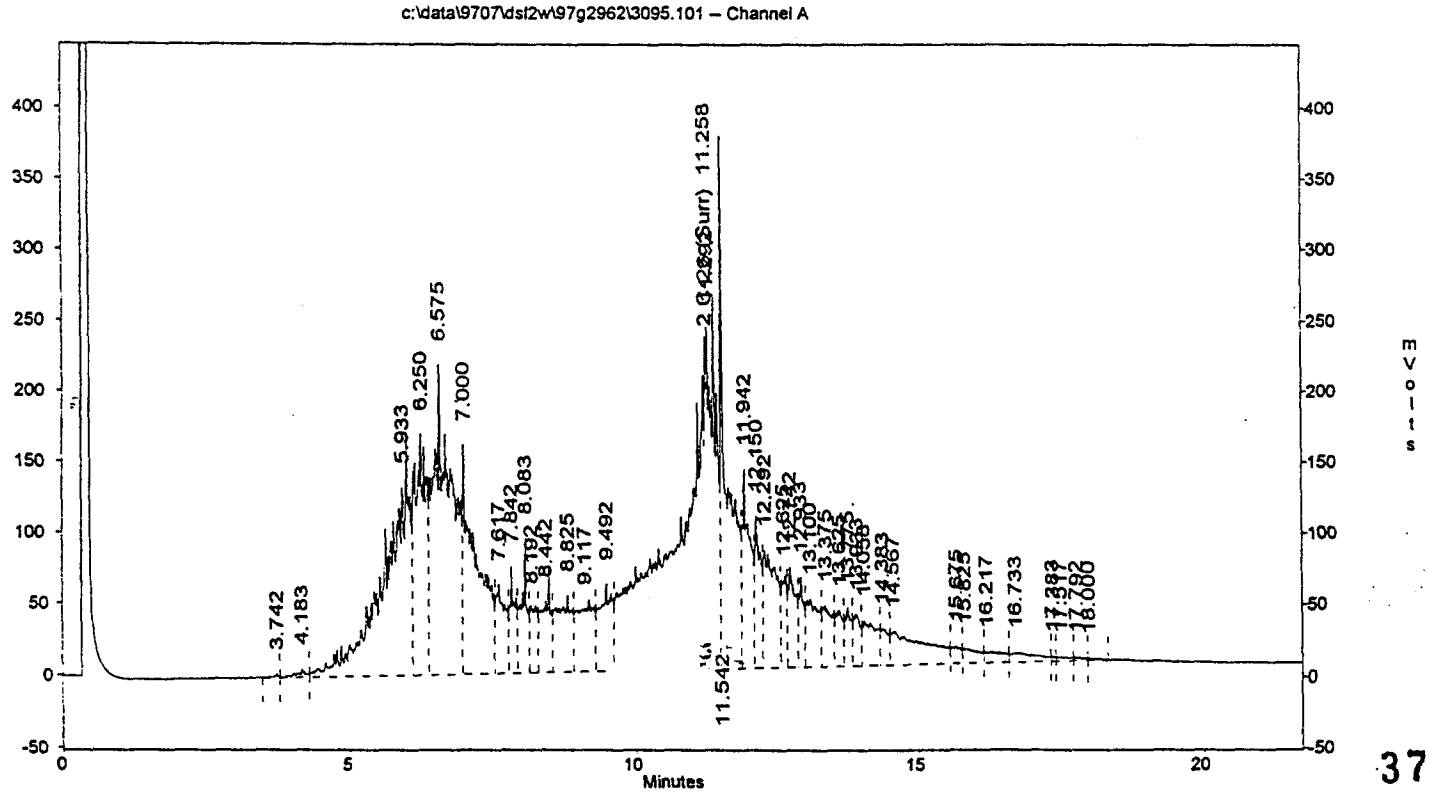
Channel A Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.26	31110	2.684
1 Diesel		17305860	2004.384

2.1 - 8.5

x25 = 50100 ppm.

Jul 7/97.



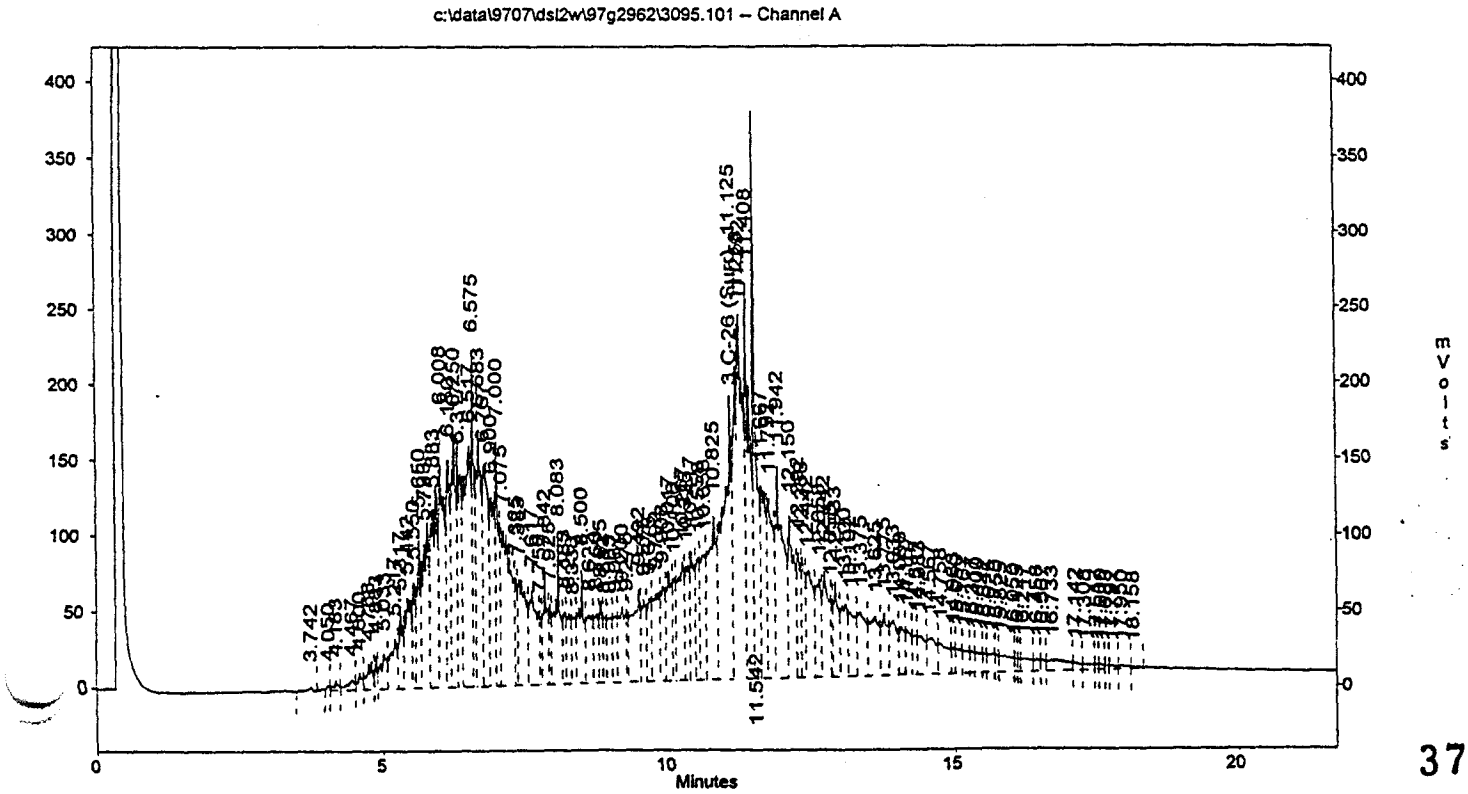
37197

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9707\dsl2w\97g2962\3095.101
Method : c:\ezchrom\methods\j5mo-003.w00
Sample ID : %97G2962 f=25
Vial : 18
Volume : 2
Acquired : Jul 06, 1997 17:00:52
Printed : Jul 07, 1997 10:22:59
User : System

Channel A Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.13	1864367	155.507
1 Jp-5		15505985	2197.434 x25
2 Motor oil		25222352	2542.763 x25



37198

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	07/02/97
Project ID:	UST 314 A & B Contents	Service ID:	973095	Collected by:	
		Lab Sample ID:	97-3095-2	Received Date:	07/02/97
Sample ID:	18609-410	Sample Matrix	Soil	Moisture %:	49.7
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	07/03/97	Anal. Date:	07/06/97
Batch No:	97G2962	Prep. No:	1 of 1	Anal. Time:	17:57
Data File Name:	3095.102	Sample Amount:	20.0 g	Dilution Factor:	500
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS JP-5	68334-30-5	mg/kg	9900	27000	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	9900	69000	

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	182000
# of out-of-control				1

[a]Corresponds to the minimum reading of the thermometer used.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

37195

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9707\dsl2w\97g2962\3095.102
Method : c:\ezchrom\methods\dsl2-003.w00
Sample ID : %97G2962 f=25
Vial : 19
Volume : 2
Acquired : Jul 06, 1997 17:57:04
Printed : Jul 06, 1997 18:22:20
User : System

Reference

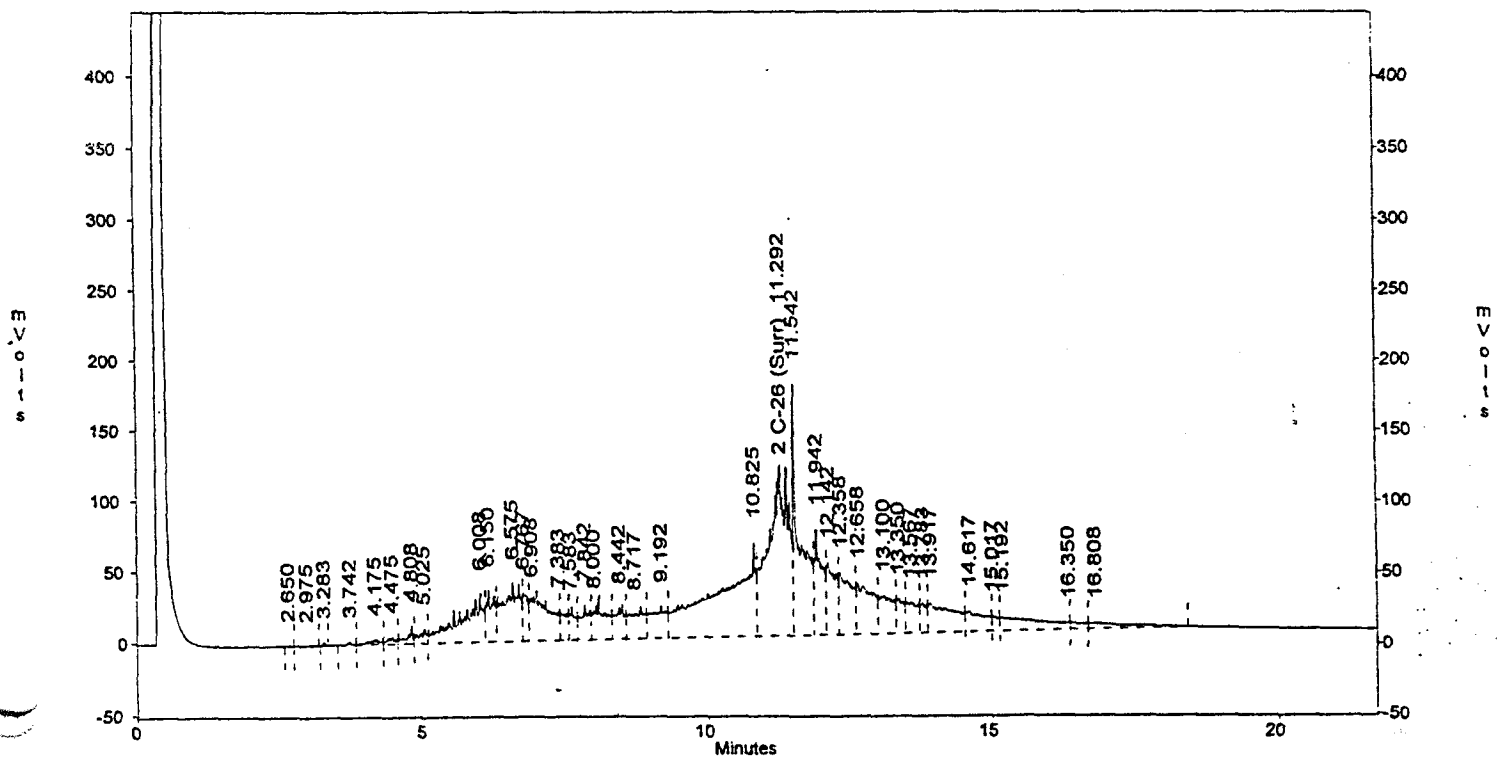
Channel A Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.29	2902163	250.426
1 Diesel		4503895	521.646 x 25 = 13000 ppm

2.6 – 8.55.

JM 7/6/97

c:\data\9707\dsl2w\97g2962\3095.102 – Channel A



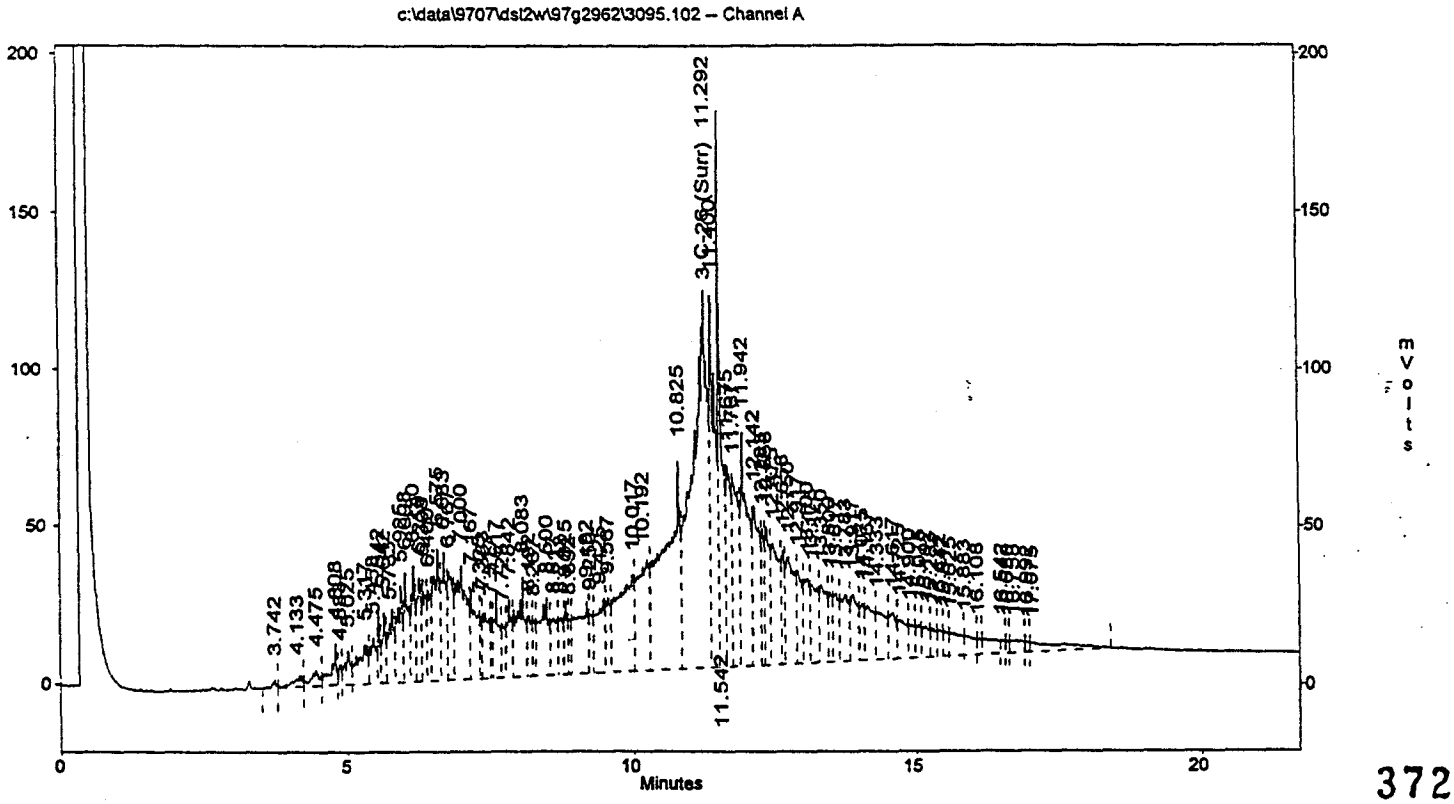
37200

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

.e	: c:\data\9707\dsl2w\97g2962\3095.102
,thod	: c:\ezchrom\methods\j5mo-003.w00
,ample ID	: %97G2962 f=25
Vial	: 19
Volume	: 2
Acquired	: Jul 06, 1997 17:57:04
Printed	: Jul 07, 1997 10:23:22
User	: System

Channel A Results

Name	Time	Area	Conc (ppm)
3 C-26 (Surr)	11.29	2176768	181.564
1 Jp-5		3769617	534.212 x25
2 Motor oil		13815361	1392.780 x25



37201

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973095
Project ID:	UST 314 A & B Contents	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G2962		

#	Client Sample No	Lab Sample ID	S1 % #	TOT OUT
1	97G2962-MB-01	97G2962-MB-01	62	0
2	97G2962-LCS-01	97G2962-LCS-01	78	0
3	97G2962-LSD-01	97G2962-LSD-01	74	0
4	97-S-Y042/044-003-MS	97-3044-3MS	77	0
5	97-S-Y042/044-003-MSD	97-3044-3MSD	83	0
6	18609-409	97-3095-1	156000D	1
7	18609-410	97-3095-2	182000D	1
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

QC Control Limit

S1 = HEXACOSANE, C_{26} 50-146

Column to be used to flag recovery values:

* - Values outside of contract required QC Limits D - Surrogate diluted out I - Matrix Interference

37202

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973095
Project ID:	UST 314 A & B Contents	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G2962		
LCS Filename:	2962G.L01	Date Analyzed:	070597	Time Analyzed:	11:19
LCSD Filename:	2962G.J01	Date Analyzed:	070597	Time Analyzed:	11:47

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/kg	50	0	48.0	96	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
TPH AS DIESEL	mg/kg	50	45.7	91	5	30	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

3720

3D

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973095
Project ID:	UST 314 A & B Contents	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G2962		
MS Filename:	2962G.M02	Date Analyzed:	070697	Time Analyzed:	11:25
MSD Filename:	2962G.N02	Date Analyzed:	070697	Time Analyzed:	11:53
MS Sample No:	**97-S-Y042/044-003**	Sample Lab ID:	97-3044-3	Moisture, %	4.0

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/kg	52.1	0	39.9	77	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
TPH AS DIESEL	mg/kg	52.1	42.7	82	6	30	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

omments: _____

37204

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	07/03/97
Project ID:	UST 314 A & B Contents	Service ID:	973095	Collected by:	
		Lab Sample ID:	97G2935-MB-01	Received Date:	07/03/97
Sample ID:	**97G2935-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	07/03/97	Anal. Date:	07/03/97
Batch No:	97G2935	Prep. No:	–	Anal. Time:	01:58
Data File Name:	2935G.K01	Sample Amount:	1 g	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	1	<1	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	70-132	82
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

37162

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	07/02/97
Project ID:	UST 314 A & B Contents	Service ID:	973095	Collected by:	
		Lab Sample ID:	97-3095-1	Received Date:	07/02/97
Sample ID:	**18609-409**	Sample Matrix	Soil	Moisture %:	42.5
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	07/03/97	Anal. Date:	07/03/97
Batch No:	97G2935	Prep. No:	–	Anal. Time:	11:36
Data File Name:	3095.101	Sample Amount:	4 g	Dilution Factor:	100
Methanol Vol.	10. mL				
Test Level:	Medium	Sparge Size:	5 mL	Heated Purge: (Y/N)	Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	170	1200	

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	70-132	109
# of out-of-control				0

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

37166

Applied P & Ch Laboratory
Gasoline/BTXE, GC analysis by FID/PID

File : C:\DATA\9707\97g2928\3095.101
Method : c:\ezchrom\methods\Lufts051.b00
Sample ID : 3095-1 s f=500
Acquired : Jul 03, 1997 11:36:56
Printed : Jul 03, 1997 11:52:38

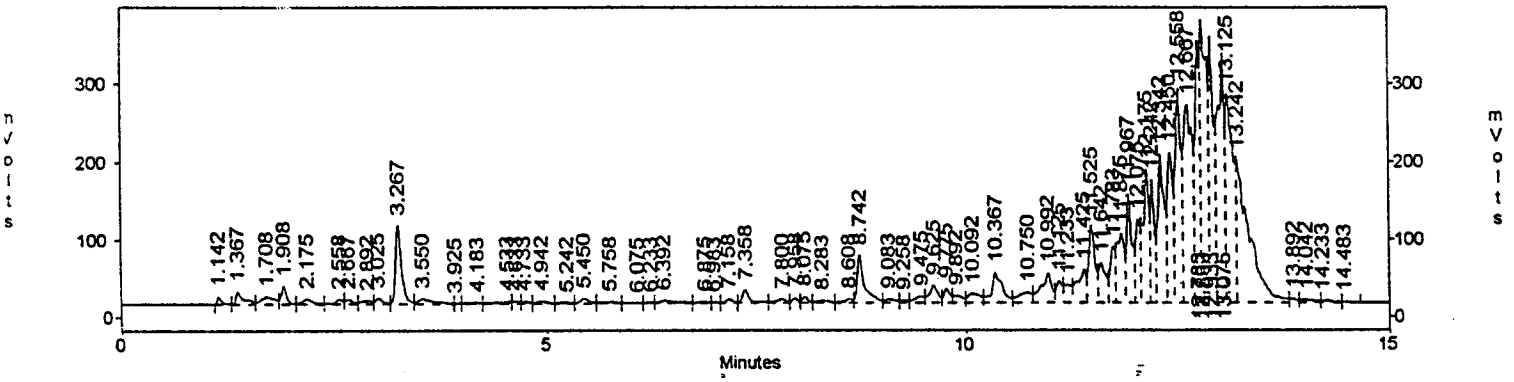
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
10	2. TFT	3.27	515277	101586	5785.04590	89.1
33	7. BFB	8.74	395661	61709	3643.39600	108.6
G1	1. Gasoline		10193260		7145.51855	1426.5

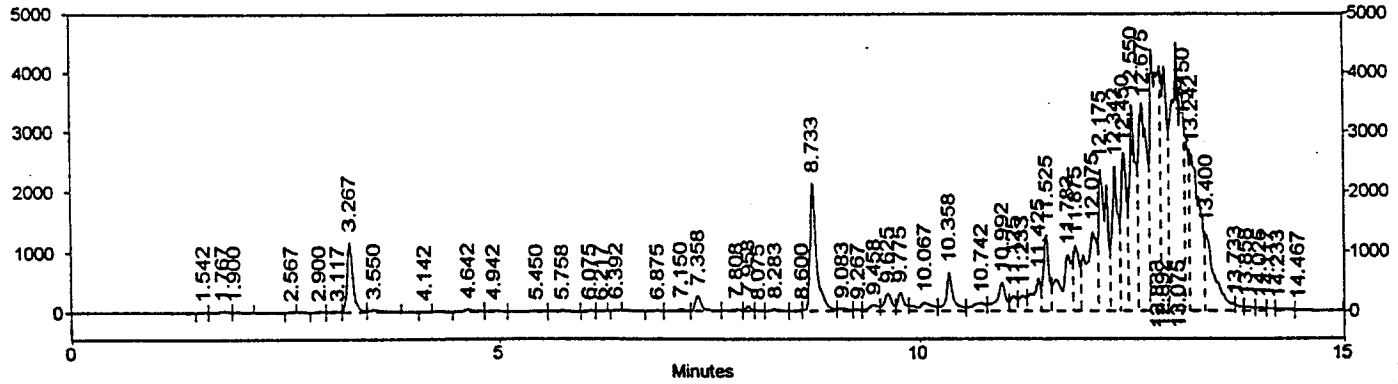
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
2	9. MTBE	1.77	188584	19271	0.70867	4.55
--	10. MEK	2.30	0	0	0.00000	0.00
4	1. Benzene W 20	2.57	34679	8076	2.66149	0.22
7	2. TFT (Int.)	3.27	5848501	1168135	1.00000	100.00
10	3. Toluene W 80	4.64	277686	42299	2.51133	1.89
18	5. Et-Bz W 19	7.15	244410	48452	2.01620	2.07
19	6. P/M xylene W 82	7.36	1439197	253267	2.51298	9.79
21	7. O-xylene W 27	7.96	395264	86924	2.14892	3.15
25	8. BFB (Surr.)	8.73	11725885	2133733	1.97965	101.28

C:\DATA\9707\97g2928\3095.101 -- Channel A



C:\DATA\9707\97g2928\3095.101 -- Channel B



37167

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	07/02/97
Project ID:	UST 314 A & B Contents	Service ID:	973095	Collected by:	
		Lab Sample ID:	97-3095-2	Received Date:	07/02/97
Sample ID:	**18609-410**	Sample Matrix	Soil	Moisture %:	49.7
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: B
Anal. Method:	M8015V	Prep. Date:	07/03/97	Anal. Date:	07/03/97
Batch No:	97G2935	Prep. No:	–	Anal. Time:	12:06
Data File Name:	3095.102	Sample Amount:	4 g	Dilution Factor:	100
Methanol Vol.	10. mL				
Test Level:	Medium	Sparge Size:	5 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE	8006-61-9	mg/kg	200	1300	

Surrogates		Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB) 460-00-4	70-132	114
# of out-of-control			0

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

37168

Applied P & Ch Laboratory
Gasoline/BTXE, GC analysis by FID/PID

File : c:\data\9707\97g2928\3095.102
Method : c:\ezchrom\methods\lufts051.b00
Sample ID : 3095-2 s f=500
Acquired : Jul 03, 1997 12:06:11
Printed : Jul 03, 1997 12:25:32

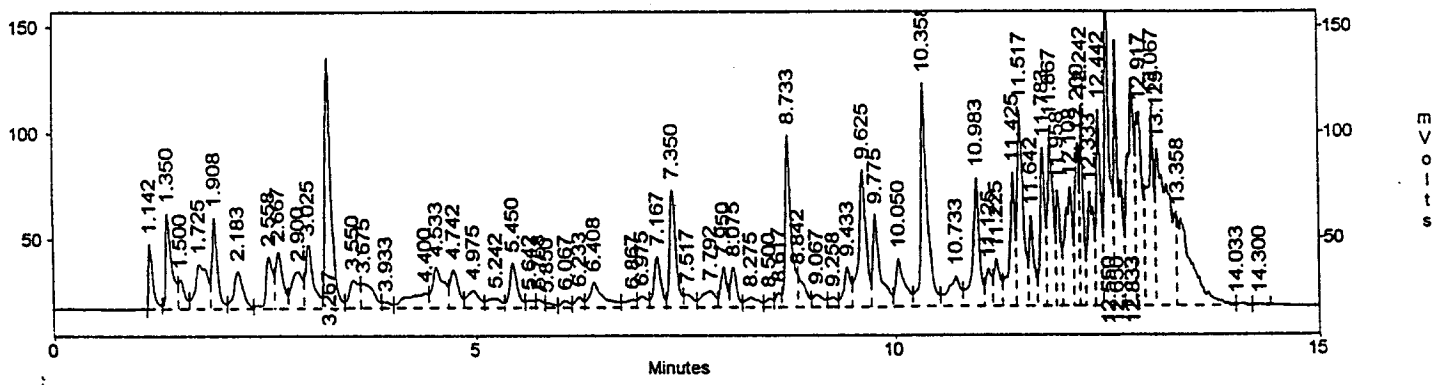
Channel A Results

No.	Name	RT,min	Area	H, V	Ave RF	ESTD (ppb)
11	2. TFT	3.27	613064	118515	5785.04590	106.0
38	7. BFB	8.73	416021	81284	3643.39600	114.2
G1	1. Gasoline		9387510		7145.51855	1313.8

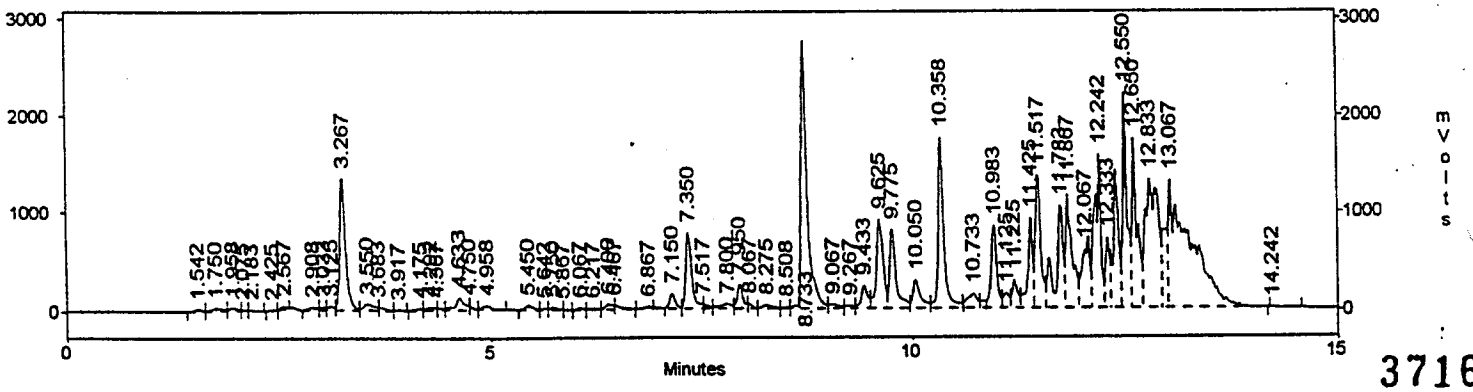
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
2	9. MTBE	1.75	302230	28652	0.70867	6.37
5	10. MEK	2.18	56975	9513	0.00000	0.00
7	1. Benzene W 20	2.57	114052	27766	2.66149	0.64
11	2. TFT (Int.)	3.27	6694136	1339677	1.00000	100.00
18	3. Toluene W 80	4.63	967743	125131	2.51133	5.76
30	5. Et-Bz W 19	7.15	748194	152789	2.01620	5.54
31	6. P/M xylene W 82	7.35	3757570	766383	2.51298	22.34
34	7. O-xylene W 27	7.95	1146035	247686	2.14892	7.97
38	8. BFB (Surr.)	8.73	14155680	2749356	1.97965	106.82

c:\data\9707\97g2928\3095.102 – Channel A



c:\data\9707\97g2928\3095.102 – Channel B



37169

2D

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973095
Project ID:	UST 314 A & B Contents	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G2935		

#	Client Sample No	Lab Sample ID	S1 % #	TOT OUT
1	97G2935-MB-01	97G2935-MB-01	82	0
2	97G2935-LCS-01	97G2935-LCS-01	103	0
3	97G2935-LSD-01	97G2935-LSD-01	107	0
4	97-S-Y042/044-001-MS	97-3044-1MS	105	0
5	97-S-Y042/044-001-MSD	97-3044-1MSD	104	0
6	18609-409	97-3095-1	109	0
7	18609-410	97-3095-2	114	0
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	QC Control Limit
S1 = 4-BROMO-FLUOROBENZENE (BFB)	70-132

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

37170

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973095
Project ID:	UST 314 A & B Contents	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G2935		
LCS Filename:	2935G.L01	Date Analyzed:	070397	Time Analyzed:	02:24
LCSD Filename:	2935G.J01	Date Analyzed:	070397	Time Analyzed:	02:51

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
GASOLINE	mg/kg	5	0	4.98	100	77-122
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/kg	5	4.96	99	1	31	77-122
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

37171

3B

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973095
Project ID:	UST 314 A & B Contents	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G2935		
MS Filename:	2935G.M01	Date Analyzed:	070397	Time Analyzed:	03:17
MSD Filename:	2935G.N01	Date Analyzed:	070397	Time Analyzed:	03:44
MS Sample No:	**97-S-Y042/044-001**	Sample Lab ID:	97-3044-1	Moisture, %	7.1

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
GASOLINE	mg/kg	5.38	0	4.93	92	65-127
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
GASOLINE	mg/kg	5.38	4.95	92	0	31	65-127
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

37172

Applied P & Ch Laboratory

Method Blank Summary for Method M8015V

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973095
Project ID:	UST 314 A & B Contents	Project No:	18609	Analysis Date:	07/03/97
		Sample Matrix:	Soil	Analysis Time:	01:58
Sample ID:	**97G2935-MB-01**	Batch No:	97G2935	Instrument ID:	GC: B
Lab Sample ID:	97G2935-MB-01	Data File Name:	2935G.K01	GC Column:	RTX-5
		Heated Purge: (Y/N)	Y	Column ID:	0.53 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	97G2935-LCS-01	97G2935-LCS-01	Lab Control Spike	2935G.L01	07/03/97	02:24
2	97G2935-LSD-01	97G2935-LSD-01	Lab Control Spike Duplicate	2935G.J01	07/03/97	02:51
3	97-S-Y042/044-001-MS	97-3044-1MS	Matrix Spike	2935G.M01	07/03/97	03:17
4	97-S-Y042/044-001-MSD	97-3044-1MSD	Matrix Spike Duplicate	2935G.N01	07/03/97	03:44
5	18609-409	97-3095-1	Field Sample	3095.101	07/03/97	11:36
6	18609-410	97-3095-2	Field Sample	3095.102	07/03/97	12:06
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37173

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	07/02/97
Project ID:	UST 314 A & B Contents	Service ID:	973095	Collected by:	
		Lab Sample ID:	97-3095-1	Received Date:	07/02/97
Sample ID:	18609-409	Sample Matrix	Soil	Moisture %:	42.5
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	8.7	< 0.065	U	P		97M1956M	07/03/97	07/03/97	1	6010
ARSENIC	7440-38-2	mg/kg	0.52	0.59		P		97M1956M	07/03/97	07/03/97	1	6010
BARIUM	7440-39-3	mg/kg	1.7	43.7		P		97M1956M	07/03/97	07/03/97	1	6010
BERYLLIUM	7440-41-7	mg/kg	0.35	< 0.011	U	P		97M1956M	07/03/97	07/03/97	1	6010
CADMIUM	7440-43-9	mg/kg	0.35	6.4		P		97M1956M	07/03/97	07/03/97	1	6010
CHROMIUM	7440-47-3	mg/kg	0.87	40.5		P	E	97M1956M	07/03/97	07/03/97	1	6010
COBALT	7440-48-4	mg/kg	0.87	< 0.033	U	P		97M1956M	07/03/97	07/03/97	1	6010
COPPER	7440-50-8	mg/kg	0.87	77.7		P	E	97M1956M	07/03/97	07/03/97	1	6010
LEAD	7439-92-1	mg/kg	0.35	170		P	E	97M1956M	07/03/97	07/03/97	1	6010
MERCURY	7439-97-6	mg/kg	0.35	< 0.055	U	CV		97M1960D	07/03/97	07/03/97	1	7470
MOLYBDENUM	7439-98-7	mg/kg	0.35	7.6		P		97M1956M	07/03/97	07/03/97	1	6010
NICKEL	7440-02-0	mg/kg	0.52	2.3		P		97M1956M	07/03/97	07/03/97	1	6010
SELENIUM	7782-49-2	mg/kg	0.87	< 0.10	U	P		97M1956M	07/03/97	07/03/97	1	6010
SILVER	7440-22-4	mg/kg	0.87	< 0.037	U	P		97M1956M	07/03/97	07/03/97	1	6010
THALLIUM	7440-28-0	mg/kg	8.7	< 0.065	U	P		97M1956M	07/03/97	07/03/97	1	6010
VANADIUM	7440-62-2	mg/kg	0.87	1.1		P	E	97M1956M	07/03/97	07/03/97	1	6010
ZINC	7440-66-6	mg/kg	0.87	1080		P		97M1956M	07/03/97	07/03/97	1	6010

Not Detected (N.D.) is shown as IDL moisture-corrected if applicable

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

37229

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	07/02/97
Project ID:	UST 314 A & B Contents	Service ID:	973095	Collected by:	
		Lab Sample ID:	97-3095-2	Received Date:	07/02/97
Sample ID:	**18609-410**	Sample Matrix	Soil	Moisture %:	49.7
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ANTIMONY	7440-36-0	mg/kg	9.9	< 0.065	U	P		97M1956M	07/03/97	07/03/97	1	6010
ARSENIC	7440-38-2	mg/kg	0.60	5.7		P		97M1956M	07/03/97	07/03/97	1	6010
BARIUM	7440-39-3	mg/kg	2.0	245		P		97M1956M	07/03/97	07/03/97	1	6010
BERYLLIUM	7440-41-7	mg/kg	0.40	< 0.011	U	P		97M1956M	07/03/97	07/03/97	1	6010
CADMIUM	7440-43-9	mg/kg	0.40	17.8		P		97M1956M	07/03/97	07/03/97	1	6010
CHROMIUM	7440-47-3	mg/kg	0.99	61.0		P	E	97M1956M	07/03/97	07/03/97	1	6010
COBALT	7440-48-4	mg/kg	0.99	1.6		P		97M1956M	07/03/97	07/03/97	1	6010
COPPER	7440-50-8	mg/kg	0.99	194		P	E	97M1956M	07/03/97	07/03/97	1	6010
LEAD	7439-92-1	mg/kg	0.40	383		P	E	97M1956M	07/03/97	07/03/97	1	6010
MERCURY	7439-97-6	mg/kg	0.40	< 0.055	U	CV		97M1960D	07/03/97	07/03/97	1	7470
MOLYBDENUM	7439-98-7	mg/kg	0.40	61.4		P		97M1956M	07/03/97	07/03/97	1	6010
NICKEL	7440-02-0	mg/kg	0.60	7.5		P		97M1956M	07/03/97	07/03/97	1	6010
SELENIUM	7782-49-2	mg/kg	0.99	< 0.10	U	P		97M1956M	07/03/97	07/03/97	1	6010
SILVER	7440-22-4	mg/kg	0.99	< 0.037	U	P		97M1956M	07/03/97	07/03/97	1	6010
THALLIUM	7440-28-0	mg/kg	9.9	< 0.065	U	P		97M1956M	07/03/97	07/03/97	1	6010
VANADIUM	7440-62-2	mg/kg	0.99	4.5		P	E	97M1956M	07/03/97	07/03/97	1	6010
ZINC	7440-66-6	mg/kg	0.99	3090		P		97M1956M	07/03/97	07/03/97	1	6010

Not Detected (N.D.) is shown as IDL moisture-corrected if applicable

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	07/02/97
Project ID:	UST 314 A & B Contents	Service ID:	973095	Collected by:	
		Lab Sample ID:	97-3095-1	Received Date:	07/02/97
Sample ID:	18609-409	Sample Matrix	Soil	Moisture %:	42.5
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD	7439-92-1	mg/L	0.005	0.060 [a]		P		97M2052L	07/14/97	07/15/97	1	6010

[a] Additional analysis requested on 07/08/97.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	07/02/97
Project ID:	UST 314 A & B Contents	Service ID:	973095	Collected by:	
		Lab Sample ID:	97-3095-1	Received Date:	07/02/97
Sample ID:	**18609-409**	Sample Matrix	Soil	Moisture %:	42.5
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC LEAD	7439-92-1	mg/L	0.005	2.4 [a]		P		97M2052L	07/14/97	07/15/97	5	6010

[a] Additional analysis requested on 07/08/97.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	07/02/97
Project ID:	UST 314 A & B Contents	Service ID:	973095	Collected by:	
		Lab Sample ID:	97-3095-2	Received Date:	07/02/97
Sample ID:	**18609-410**	Sample Matrix	Soil	Moisture %:	49.7
Sample Type:	Field Sample	Leach Method:	TCLP		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
TCLP LEAD	7439-92-1	mg/L	0.005	0.15 [a]		P		97M2052L	07/14/97	07/15/97	1	6010

[a] Additional analysis requested on 07/08/97.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	07/02/97
Project ID:	UST 314 A & B Contents	Service ID:	973095	Collected by:	
		Lab Sample ID:	97-3095-2	Received Date:	07/02/97
Sample ID:	18609-410	Sample Matrix	Soil	Moisture %:	49.7
Sample Type:	Field Sample	Leach Method:	CIT		

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
STLC LEAD	7439-92-1	mg/L	0.005	3.4 [a]		P		97M2052L	07/14/97	07/15/97	5	6010
STLC CADMIUM	7440-43-9	mg/L	0.002	<0.00019 [a]	U	P		97M2052L	07/14/97	07/15/97	5	6010
STLC CHROMIUM	7440-47-3	mg/L	0.005	0.39 [a]		P		97M2052L	07/14/97	07/15/97	5	6010
STLC ZINC	7440-66-6	mg/L	0.005	46.7 [a]		P		97M2052L	07/14/97	07/15/97	5	6010

Not Detected (N.D.) is shown as IDL moisture-corrected if applicable

[a] Additional analysis requested on 07/08/97.

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8080

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	07/03/97
Project ID:	UST 314 A & B Contents	Service ID:	973095	Collected by:	
		Lab Sample ID:	97G2963-MB-01	Received Date:	07/03/97
Sample ID:	**97G2963-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	3550	Instrument ID:	GC: R
Anal. Method:	8080	Prep. Date:	07/03/97	Anal. Date:	07/05/97
Batch No:	97G2963	Prep. No:	1 of 1	Anal. Time:	09:35
Data File Name:	2963G.K01	Sample Amount:	30.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016	12674-11-2	µg/kg	50	< 50	U
2	AROCLOR-1221	11104-28-2	µg/kg	100	< 100	U
3	AROCLOR-1232	11141-16-5	µg/kg	50	< 50	U
4	AROCLOR-1242	53469-21-9	µg/kg	50	< 50	U
5	AROCLOR-1248	12672-29-6	µg/kg	50	< 50	U
6	AROCLOR-1254	11097-69-1	µg/kg	25	< 25	U
7	AROCLOR-1260	11096-82-5	µg/kg	25	< 25	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	30-137	113
2	2,4,5,6-TETRACHLORO-M-XYLENE	877-09-8	30-149	117
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8080

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	07/02/97
Project ID:	UST 314 A & B Contents	Service ID:	973095	Collected by:	
		Lab Sample ID:	97-3095-1	Received Date:	07/02/97
Sample ID:	18609-409	Sample Matrix	Soil	Moisture %:	42.5
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: R
Anal. Method:	8080	Prep. Date:	07/03/97	Anal. Date:	07/05/97
Batch No:	97G2963	Prep. No:	1 of 1	Anal. Time:	11:40
Data File Name:	3095.001	Sample Amount:	30.0 g	Dilution Factor:	10
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016	12674-11-2	μg/kg	870	<870	U
2	AROCLOR-1221	11104-28-2	μg/kg	1700	<1700	U
3	AROCLOR-1232	11141-16-5	μg/kg	870	<870	U
4	AROCLOR-1242	53469-21-9	μg/kg	870	<870	U
5	AROCLOR-1248	12672-29-6	μg/kg	870	<870	U
6	AROCLOR-1254	11097-69-1	μg/kg	430	<430	U
7	AROCLOR-1260	11096-82-5	μg/kg	430	<430	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	30-137	88
2	2,4,5,6-TETRACHLORO-M-XYLENE	877-09-8	30-149	63
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Corresponds to the minimum reading of the thermometer used.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8080

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	07/02/97
Project ID:	UST 314 A & B Contents	Service ID:	973095	Collected by:	
		Lab Sample ID:	97-3095-2	Received Date:	07/02/97
Sample ID:	**18609-410**	Sample Matrix	Soil	Moisture %:	49.7
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: R
Anal. Method:	8080	Prep. Date:	07/03/97	Anal. Date:	07/05/97
Batch No:	97G2963	Prep. No:	1 of 1	Anal. Time:	12:05
Data File Name:	3095.002	Sample Amount:	30.0 g	Dilution Factor:	10
Extract Vol.	10. mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	AROCLOR-1016	12674-11-2	μg/kg	990	< 990	U
2	AROCLOR-1221	11104-28-2	μg/kg	2000	< 2000	U
3	AROCLOR-1232	11141-16-5	μg/kg	990	< 990	U
4	AROCLOR-1242	53469-21-9	μg/kg	990	< 990	U
5	AROCLOR-1248	12672-29-6	μg/kg	990	< 990	U
6	AROCLOR-1254	11097-69-1	μg/kg	500	< 500	U
7	AROCLOR-1260	11096-82-5	μg/kg	500	< 500	U

Surrogates			Control Limit, %	Surro. Rec.%
1	DECACHLOROBIPHENYL (DCB)	11-53-0	30-137	101
2	2,4,5,6-TETRACHLORO-M-XYLENE	877-09-8	30-149	71
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Corresponds to the minimum reading of the thermometer used.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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2D

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Surrogate Recovery Summary for Method 8080

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973095
Project ID:	UST 314 A & B Contents	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G2963		

#	Client Sample No	Lab Sample ID	S1 % #	S2 % #	TOT OUT
2	97G2963-MB-01	97G2963-MB-01	113	117	0
3	97G2963-LCS-01	97G2963-LCS-01	107	103	0
4	97G2963-LSD-01	97G2963-LSD-01	101	98	0
5	18609-409-MS	97-3095-1MS	75	123	0
6	18609-409-MSD	97-3095-1MSD	66	112	0
7	18609-409	97-3095-1	88	63	0
8	18609-410	97-3095-2	101	71	0
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

	QC Control Limit
S1 = DECACHLOROBIPHENYL (DCB)	30-137
S2 = 2,4,5,6-TETRACHLORO-M-XYLENE	30-149

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

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Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 8080

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973095
Project ID:	UST 314 A & B Contents	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G2963		
LCS Filename:	2963G.L01	Date Analyzed:	070597	Time Analyzed:	10:00
LCSD Filename:	2963G.J01	Date Analyzed:	070597	Time Analyzed:	10:25

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
AROCLOR-1016	μg/kg	333	0	382	115	48-129
AROCLOR-1260	μg/kg	333	0	414	124	48-129
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
AROCLOR-1016	μg/kg	333	369	111	4	37	48-129
AROCLOR-1260	μg/kg	333	395	119	4	37	48-129
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

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3D

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Matrix Spike/Matrix Spike Duplicate Recovery for Method 8080

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973095
Project ID:	UST 314 A & B Contents	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G2963		
MS Filename:	2963G.M01	Date Analyzed:	070597	Time Analyzed:	10:50
MSD Filename:	2963G.N01	Date Analyzed:	070597	Time Analyzed:	11:15
MS Sample No:	**18609-409**	Sample Lab ID:	97-3095-1	Moisture, %	42.5

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec%	#	QC Limit, % REC
AROCLOR-1016	μg/kg	579	0	3380	584	*	30-129
AROCLOR-1260	μg/kg	579	0	975	168	*	30-129
# of Out-of-control					2		

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec%	#	RPD%	#	QC Limit, % RPD	QC Limit, % REC
AROCLOR-1016	μg/kg	579	3390	585	*	0		37	30-129
AROCLOR-1260	μg/kg	579	792	137	*	20		37	30-129
# of Out-of-control				2		0			

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: MS/MSD out of control due to matrix interference.

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Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	07/03/97
Project ID:	UST 314 A & B Contents	Service ID:	973095	Collected by:	
		Lab Sample ID:	97G2948-MB-01	Received Date:	07/03/97
Sample ID:	**97G2948-MB-01**	Sample Matrix	Water	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC/MS: G
Anal. Method:	8260	Prep. Date:	07/03/97	Anal. Date:	07/03/97
Batch No:	97G2948	Prep. No:	–	Anal. Time:	13:34
Data File Name:	G2948K01	Sample Amount:	25 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	5	<5	U
2	BROMOBENZENE	108-86-1	µg/kg	5	<5	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	5	<5	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	5	<5	U
5	BROMOFORM	75-25-2	µg/kg	5	<5	U
6	BROMOMETHANE	74-83-9	µg/kg	5	<5	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	5	<5	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	5	<5	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	5	<5	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5	<5	U
11	CHLOROBENZENE	108-90-7	µg/kg	5	<5	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5	<5	U
13	CHLOROETHANE	75-00-3	µg/kg	5	<5	U
14	CHLOROFORM	67-66-3	µg/kg	5	<5	U
15	CHLOROMETHANE	74-87-3	µg/kg	5	<5	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	5	<5	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	5	<5	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	5	<5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	µg/kg	5	<5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	5	<5	U
21	DIBROMOMETHANE	74-95-3	µg/kg	5	<5	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	5	<5	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	5	<5	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	5	<5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	5	<5	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	5	<5	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	5	<5	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	5	<5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5	<5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5	<5	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5	<5	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	5	<5	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	5	<5	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	5	<5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5	<5	U
36	ETHYLBENZENE	100-41-4	µg/kg	5	<5	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	5	<5	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	5	<5	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	5	<5	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	5	<5	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	5	<5	U
42	STYRENE	100-42-5	µg/kg	5	<5	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	5	<5	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5	<5	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	5	<5	U
46	TOLUENE	108-88-3	µg/kg	5	<5	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	5	<5	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	5	<5	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5	<5	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5	<5	U
51	TRICHLOROETHENE	79-01-6	µg/kg	5	<5	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	5	<5	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	5	<5	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	5	<5	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	5	<5	U
56	VINYL CHLORIDE	75-01-4	µg/kg	5	<5	U
57	O-XYLENE	95-47-6	µg/kg	5	<5	U
58	M/P-XYLENE	108-38-3	µg/kg	5	<5	U
59	XYLENES (TOTAL)	1330-20-7	µg/kg	5	<5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	100
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	97
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	92
4	TOLUENE-D8	2037-26-5	81-116	93
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	90
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	91
3	FLUOROBENZENE	462-06-6	50-200	100
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	07/04/97
Project ID:	UST 314 A & B Contents	Service ID:	973095	Collected by:	
		Lab Sample ID:	97G2948-MB-02	Received Date:	07/04/97
Sample ID:	**97G2948-MB-02**	Sample Matrix	Water	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	5030	Instrument ID:	GC/MS: G
Anal. Method:	8260	Prep. Date:	07/04/97	Anal. Date:	07/04/97
Batch No:	97G2948	Prep. No:	–	Anal. Time:	00:51
Data File Name:	G2948K02	Sample Amount:	25 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	5	<5	U
2	BROMOBENZENE	108-86-1	µg/kg	5	<5	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	5	<5	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	5	<5	U
5	BROMOFORM	75-25-2	µg/kg	5	<5	U
6	BROMOMETHANE	74-83-9	µg/kg	5	<5	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	5	<5	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	5	<5	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	5	<5	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	5	<5	U
11	CHLOROBENZENE	108-90-7	µg/kg	5	<5	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	5	<5	U
13	CHLOROETHANE	75-00-3	µg/kg	5	<5	U
14	CHLOROFORM	67-66-3	µg/kg	5	<5	U
15	CHLOROMETHANE	74-87-3	µg/kg	5	<5	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	5	<5	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	5	<5	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	5	<5	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	µg/kg	5	<5	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	5	<5	U
21	DIBROMOMETHANE	74-95-3	µg/kg	5	<5	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	5	<5	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	5	<5	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	5	<5	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	5	<5	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	5	<5	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	5	<5	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	5	<5	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	5	<5	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	5	<5	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	5	<5	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	5	<5	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	5	<5	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	5	<5	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	5	<5	U
36	ETHYLBENZENE	100-41-4	µg/kg	5	<5	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	5	<5	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	5	<5	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	5	<5	U

#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	5	<5	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	5	<5	U
42	STYRENE	100-42-5	µg/kg	5	<5	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	5	<5	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	5	<5	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	5	<5	U
46	TOLUENE	108-88-3	µg/kg	5	<5	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	5	<5	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	5	<5	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	5	<5	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	5	<5	U
51	TRICHLOROETHENE	79-01-6	µg/kg	5	<5	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	5	<5	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	5	<5	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	5	<5	U
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	5	<5	U
56	VINYL CHLORIDE	75-01-4	µg/kg	5	<5	U
57	O-XYLENE	95-47-6	µg/kg	5	<5	U
58	M/P-XYLENE	108-38-3	µg/kg	5	<5	U
59	XYLENES (TOTAL)	1330-20-7	µg/kg	5	<5	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	93
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	91
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	84
4	TOLUENE-D8	2037-26-5	81-116	92
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	85
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	86
3	FLUOROBENZENE	462-06-6	50-200	96
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Applied P & Ch Laboratory

Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	07/02/97
Project ID:	UST 314 A & B Contents	Service ID:	973095	Collected by:	
		Lab Sample ID:	97-3095-1	Received Date:	07/02/97
Sample ID:	**18609-409**	Sample Matrix	Soil	Moisture %:	42.5
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: G
Anal. Method:	8260	Prep. Date:	07/04/97	Anal. Date:	07/04/97
Batch No:	97G2948	Prep. No:	–	Anal. Time:	07:40
Data File Name:	3095-01	Sample Amount:	4.00 g	Dilution Factor:	12500
Methanol Vol.	10 mL				
Test Level:	Medium	Sparge Size:	25 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	110000	37000	J
2	BROMOBENZENE	108-86-1	µg/kg	110000	<110000	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	110000	<110000	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	110000	<110000	U
5	BROMOFORM	75-25-2	µg/kg	110000	<110000	U
6	BROMOMETHANE	74-83-9	µg/kg	110000	<110000	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	110000	<110000	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	110000	<110000	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	110000	<110000	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	110000	<110000	U
11	CHLOROBENZENE	108-90-7	µg/kg	110000	<110000	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	110000	<110000	U
13	CHLOROETHANE	75-00-3	µg/kg	110000	<110000	U
14	CHLOROFORM	67-66-3	µg/kg	110000	<110000	U
15	CHLOROMETHANE	74-87-3	µg/kg	110000	<110000	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	110000	<110000	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	110000	<110000	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	110000	<110000	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	µg/kg	110000	<110000	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	110000	<110000	U
21	DIBROMOMETHANE	74-95-3	µg/kg	110000	<110000	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	110000	<110000	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	110000	<110000	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	110000	<110000	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	110000	<110000	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	110000	<110000	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	110000	<110000	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	110000	<110000	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	110000	<110000	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	110000	<110000	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	110000	<110000	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	110000	<110000	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	110000	<110000	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	110000	<110000	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	110000	<110000	U
36	ETHYLBENZENE	100-41-4	µg/kg	110000	<110000	U
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	110000	<110000	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	110000	<110000	U
39	METHYLENE CHLORIDE	75-09-2	µg/kg	110000	<110000	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	110000	<110000	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	110000	<110000	U
42	STYRENE	100-42-5	µg/kg	110000	<110000	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	110000	<110000	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	110000	<110000	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	110000	<110000	U
46	TOLUENE	108-88-3	µg/kg	110000	<110000	U
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	110000	<110000	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	110000	<110000	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	110000	<110000	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	110000	<110000	U
51	TRICHLOROETHENE	79-01-6	µg/kg	110000	<110000	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	110000	<110000	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	110000	<110000	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	110000	17000	J
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	110000	17000	J
56	VINYL CHLORIDE	75-01-4	µg/kg	110000	<110000	U
57	O-XYLENE	95-47-6	µg/kg	110000	<110000	U
58	M/P-XYLENE	108-38-3	µg/kg	110000	<110000	U
59	XYLENES (TOTAL)	1330-20-7	µg/kg	110000	<110000	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	90
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	105
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	107
4	TOLUENE-D8	2037-26-5	81-116	90
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	83
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	79
3	FLUOROBENZENE	462-06-6	50-200	85
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Corresponds to the minimum reading of the thermometer used.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	07/02/97
Project ID:	UST 314 A & B Contents	Service ID:	973095	Collected by:	
		Lab Sample ID:	97-3095-2	Received Date:	07/02/97
Sample ID:	**18609-410**	Sample Matrix	Soil	Moisture %:	49.7
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: G
Anal. Method:	8260	Prep. Date:	07/03/97	Anal. Date:	07/03/97
Batch No:	97G2948	Prep. No:	–	Anal. Time:	14:53
Data File Name:	3095-02	Sample Amount:	4.00 g	Dilution Factor:	12500
Methanol Vol.	10 mL				
Test Level:	Medium	Sparge Size:	25 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/kg	120000	<120000	U
2	BROMOBENZENE	108-86-1	µg/kg	120000	<120000	U
3	BROMOCHLOROMETHANE	74-97-5	µg/kg	120000	<120000	U
4	BROMODICHLOROMETHANE	75-27-4	µg/kg	120000	<120000	U
5	BROMOFORM	75-25-2	µg/kg	120000	<120000	U
6	BROMOMETHANE	74-83-9	µg/kg	120000	<120000	U
7	N-BUTYLBENZENE	104-51-8	µg/kg	120000	<120000	U
8	SEC-BUTYLBENZENE	135-98-8	µg/kg	120000	<120000	U
9	TERT-BUTYLBENZENE	98-06-6	µg/kg	120000	<120000	U
10	CARBON TETRACHLORIDE	56-23-5	µg/kg	120000	<120000	U
11	CHLOROBENZENE	108-90-7	µg/kg	120000	<120000	U
12	DIBROMOCHLOROMETHANE	124-48-1	µg/kg	120000	<120000	U
13	CHLOROETHANE	75-00-3	µg/kg	120000	<120000	U
14	CHLOROFORM	67-66-3	µg/kg	120000	<120000	U
15	CHLOROMETHANE	74-87-3	µg/kg	120000	<120000	U
16	2-CHLOROTOLUENE	95-49-8	µg/kg	120000	<120000	U
17	4-CHLOROTOLUENE	106-43-4	µg/kg	120000	<120000	U
18	ISOPROPYLBENZENE (CUMENE)	98-82-8	µg/kg	120000	<120000	U
19	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	µg/kg	120000	<120000	U
20	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/kg	120000	<120000	U
21	DIBROMOMETHANE	74-95-3	µg/kg	120000	<120000	U
22	1,2-DICHLOROBENZENE	95-50-1	µg/kg	120000	<120000	U
23	1,3-DICHLOROBENZENE	541-73-1	µg/kg	120000	<120000	U
24	1,4-DICHLOROBENZENE	106-46-7	µg/kg	120000	<120000	U
25	DICHLORODIFLUOROMETHANE	75-71-8	µg/kg	120000	<120000	U
26	1,1-DICHLOROETHANE	75-34-3	µg/kg	120000	<120000	U
27	1,2-DICHLOROETHANE	107-06-2	µg/kg	120000	<120000	U
28	1,1-DICHLOROETHENE	75-35-4	µg/kg	120000	<120000	U
29	CIS-1,2-DICHLOROETHENE	156-59-2	µg/kg	120000	<120000	U
30	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/kg	120000	<120000	U
31	1,2-DICHLOROPROPANE	78-87-5	µg/kg	120000	<120000	U
32	1,3-DICHLOROPROPANE	142-28-9	µg/kg	120000	<120000	U
33	2,2-DICHLOROPROPANE	594-20-7	µg/kg	120000	<120000	U
34	1,1-DICHLOROPROPENE	563-58-6	µg/kg	120000	<120000	U
35	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/kg	120000	<120000	U
36	ETHYLBENZENE	100-41-4	µg/kg	120000	10000	J
37	HEXACHLOROBUTADIENE	87-68-3	µg/kg	120000	<120000	U
38	P-ISOPROPYLTOLUENE	99-87-6	µg/kg	120000	18000	J
39	METHYLENE CHLORIDE	75-09-2	µg/kg	120000	<120000	U

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#	Component Name	CAS No	Unit	RL	Result	Qualifier
40	NAPHTHALENE	91-20-3	µg/kg	120000	<120000	U
41	N-PROPYLBENZENE	103-65-1	µg/kg	120000	<120000	U
42	STYRENE	100-42-5	µg/kg	120000	<120000	U
43	1,1,1,2-TETRACHLOROETHANE	630-20-6	µg/kg	120000	<120000	U
44	1,1,2,2-TETRACHLOROETHANE	79-34-5	µg/kg	120000	<120000	U
45	TETRACHLOROETHENE	127-18-4	µg/kg	120000	<120000	U
46	TOLUENE	108-88-3	µg/kg	120000	12000	J
47	1,2,3-TRICHLOROBENZENE	87-61-6	µg/kg	120000	<120000	U
48	1,2,4-TRICHLOROBENZENE	120-82-1	µg/kg	120000	<120000	U
49	1,1,1-TRICHLOROETHANE	71-55-6	µg/kg	120000	<120000	U
50	1,1,2-TRICHLOROETHANE	79-00-5	µg/kg	120000	<120000	U
51	TRICHLOROETHENE	79-01-6	µg/kg	120000	<120000	U
52	TRICHLOROFLUOROMETHANE	75-69-4	µg/kg	120000	<120000	U
53	1,2,3-TRICHLOROPROPANE	96-18-4	µg/kg	120000	<120000	U
54	1,2,4-TRIMETHYLBENZENE	95-63-6	µg/kg	120000	120000	J
55	1,3,5-TRIMETHYLBENZENE	108-67-8	µg/kg	120000	100000	
56	VINYL CHLORIDE	75-01-4	µg/kg	120000	<120000	U
57	O-XYLENE	95-47-6	µg/kg	120000	20000	J
58	M/P-XYLENE	108-38-3	µg/kg	120000	53000	J
59	XYLENES (TOTAL)	1330-20-7	µg/kg	120000	73000	J

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (BFB)	460-00-4	86-114	102
2	DIBROMOFLUOROMETHANE	1868-53-7	85-116	96
3	1,2-DICHLOROETHANE-D4	17060-07-0	80-119	89
4	TOLUENE-D8	2037-26-5	81-116	89
# of out-of-control				0

Internal Standard			Control Limit, %	IS Rec.%
1	CHLOROBENZENE-D5	3114-55-4	50-200	87
2	1,4-DICHLOROBENZENE-D4	3855-82-1	50-200	84
3	FLUOROBENZENE	462-06-6	50-200	97
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Corresponds to the minimum reading of the thermometer used.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

37115

Applied P & Ch Laboratory

Wet Analysis Results for Method 1010

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Anal. Method	1010
Project ID:	UST 314 A & B Contents	Service ID:	973095	Collected by:	

Component Name: Ignitability (Flashpoint)
CAS No: 9999-97

Lab ID	Sample ID	Matrix	Coll. Date	Rcv Date	Anal. Date	Batch	Unit	RL	Result	Q
97-3095-1	18609-409	Soil	07/02/97	07/02/97	07/03/97	97W3886	°C	0.5 [a]	>100	U
97-3095-2	18609-410	Soil	07/02/97	07/02/97	07/03/97	97W3886	°C	0.5 [a]	>100	U

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.
[a]Corresponds to the minimum reading of the thermometer used.

Note: Q - Qualifier.
Qualifier: U - Not Detected or less than MDL
B - Less than RL (PQL, EQL or CRDL), but greater than MDL.

37275

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710

Tel. (909) 590-1828 Fax (909) 590-1498

COPY

RECEIVED
SEP 18 1997

September 17, 1997

Ms. Mary Schneider
OHM Remediation Services (Irvine)
2031 Main St.
Irvine, CA 92714

Dear Ms. Schneider,

Enclosed please find two copies of Level C Deliverables and Electronic Data Deliverables for the project: UST 314.This package includes samples in our service ID of 97-3720.

Please contact me if you have any question.

Sincerely yours,

Kevin Xie, Ph.D.
QA Director

OHM Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

P 1/20

LAB COPY
Form 001
Field Technical Service
Rev. 08/8

182771

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME: UST 314B
PROJECT LOCATION: EL TORO M.C.A.S.
PROJ. NO.: 18609
PROJECT CONTACT: DWAYNE Ishida
PROJECT TELEPHONE NO.: (714) 263-1146 X525
CLIENT'S REPRESENTATIVE: LYNN HORNECKER - SWDIV
PROJECT MANAGER/SUPERVISOR: Bill Sedlak - OHM

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS): 418.1 | TPH-Extractable | TPH-Purgeable/BTEX | ~~8240~~ | APCL | ~~EMAX~~ CHINO, CA. | ~~TORRANCE, CA.~~

ITEM NO.	SAMPLE NUMBER (OHM)	DATE (MM/DD/YY)	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	418.1	TPH-Extractable	TPH-Purgeable/BTEX	~~8240~~	APCL	~~EMAX~~ CHINO, CA.	~~TORRANCE, CA.~~	REMARKS
1	18609-314B-419	8/22/97 ~~0830~~	0830		X	TRIP BLANK FOR 8/22/97	1			X					
2	18609-314B-420	8/22/97	0950		X	SOIL SAMPLE FROM UST 314B @ W @ 14'	1	X	X	X					
3	18609-314B-421	8/22/97	0955		X	SOIL SAMPLE FROM UST 314B @ S @ 14'	1	X	X	X					
4	18609-314B-422	8/22/97	0958		X	SOIL SAMPLE FROM UST 314B @ NE @ 13.5'	1	X	X	X					
5	18609-314B-423	8/22/97	1000		X	SOIL SAMPLE FROM UST 314B @ N @ 13'	1	X	X	X					
6	18609-314B-424	8/22/97	1002		X	SOIL SAMPLE FROM UST 314B @ NW @ 15'	1	X	X	X					
7															
8															
9															
10															

Mahesh Bommi 8/22/97

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1 TO 6	Mahesh Bommi	[illegible]	8/22/97	1440
2					
3					
4					

REMARKS: 1) 24 HRS. T.A.T.

SAMPLER'S SIGNATURE: Mahesh Bommi

15802

CHAIN OF CUSTODY
Orange County Health Care Agency
Environmental Health Division
2009 E. Edinger Ave., Santa Ana, CA 92705
Telephone: (714) 667-3700

1. ALL SAMPLES ARE TO BE HANDLED AS COURT EVIDENCE, AND ARE TO BE PROPERLY STORED IN A SECURE LOCATION.

2. PLEASE WRITE LEGIBLY.

3. ATTACH THIS FORM TO THE ORIGINAL REPORT OF THE ANALYTICAL RESULTS AND RETURN THEM TO THIS OFFICE. LABORATORY RESULTS RECEIVED WITHOUT PROPER CHAIN OF CUSTODY DOCUMENTATION WILL NOT BE ACCEPTED.

4. TO BE COMPLETED BY LABORATORY ANALYST

LAB NO.: 3720
DATE RECEIVED: 8-22-97
SAMPLE(S) CONDITION (PLEASE CHECK):
CHILLED: ✓ COUNTY SEAL(S) INTACT: ✓
CONTAINER IN GOOD CONDITION: ✓
DATE ANALYSIS COMPLETED: 8/26/97
ANALYST: Rochelle Timbang

5. TO BE COMPLETED BY SAMPLE COLLECTOR

SITE NAME/ADDRESS: MCAS El Toro Tank #314B, Santa Ana
DATE OF COLLECTION: 8-22-97
SAMPLE COLLECTOR/COMPANY: M. Barruelos OHM Remediation
TELEPHONE NO.:
HCA REPRESENTATIVE: A. Rashidi-Jaid

6.

SAMPLE NUMBER	DETERMINATION REQUESTED	SAMPLE DESCRIPTION/COMMENTS	TIME OF COLLECTION
09-314B-420	TRPH (418.1), TPH diesel (8015), BTEX (8020)		9:50am
09-314B-421	↓	↓	9:55 ↓
09-314B-422	↓	↓	9:58 ↓
09-314B-423	↓	↓	10:00 ↓
09-314B-424	↓	↓	10:02 ↓

7. CHAIN OF CUSTODY

	SIGNATURE	COMPANY/AGENCY	INCLUSIVE DATES/TIMES
1.	Afshanan Rashidi-Jaid	Haz. Waste	8-22-97 · 10:55am
2.	Mark Bonnet	OHM / Sr. Tech.	8-22-97 · 10:55 AM
3.	Denise Valerio	APCL	8-22-97 · 1440
4.			
5.			
6.			

15803

WHITE-RETURN THIS COPY TO ENVIRONMENTAL HEALTH, CANARY-LABORATORY COPY

F272-6 1531 1/88/89

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	08/25/97
Project ID:	UST 314	Service ID:	973720	Collected by:	
		Lab Sample ID:	97G3554-MB-01	Received Date:	08/25/97
Sample ID:	**97G3554-MB-01**	Sample Matrix	Soil	Moisture %:	
Sample Type:	Method Blank	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	08/25/97	Anal. Date:	08/25/97
Batch No:	97G3554	Prep. No:	1 of 1	Anal. Time:	12:28
Data File Name:	3554G.K01	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	10	<10	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	10	<10	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	82
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

15916

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	08/22/97
Project ID:	UST 314	Service ID:	973720	Collected by:	
		Lab Sample ID:	97-3720-2	Received Date:	08/22/97
Sample ID:	**18609-314B-420**	Sample Matrix	Soil	Moisture %:	9.0
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	08/25/97	Anal. Date:	08/25/97
Batch No:	97G3554	Prep. No:	1 of 1	Anal. Time:	16:49
Data File Name:	3720.002	Sample Amount:	20.0 g	Dilution Factor:	500
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	5500	39000	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	5500	< 5500	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	2910
# of out-of-control				1

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

15917

Applied P & Ch Lab

Total Extractable Petroleum Hydrocarbon Analysis by GC-FID

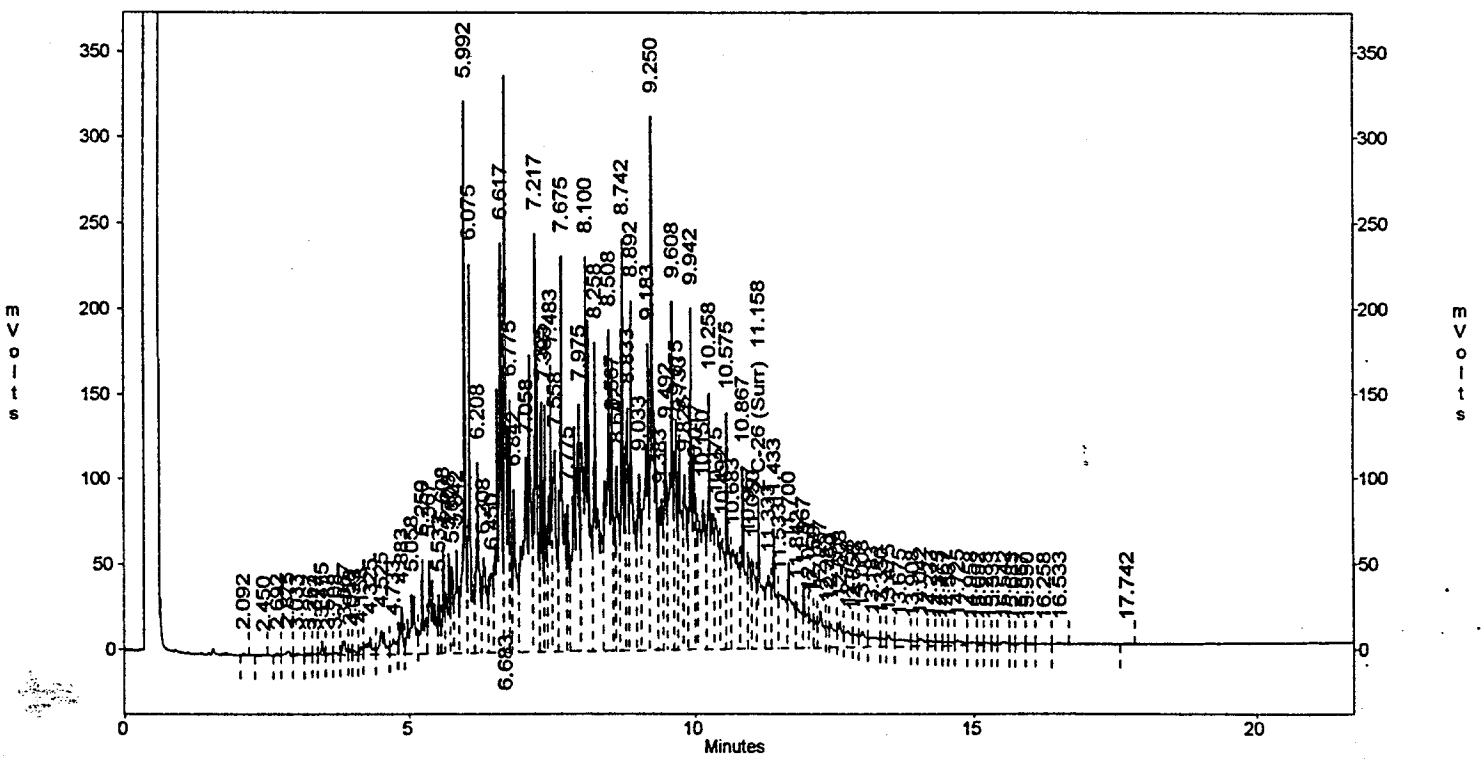
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9708\dsl2w\97g3554\3720.002
Method : c:\ezchrom\methods\dsl2-005.w00
Sample ID : 3720-2 f=25
Vial : 18
Volume : 1
Acquired : Aug 25, 1997 16:49:34
Printed : Aug 26, 1997 10:24:41
User : System

Channel A Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.16	47644	2.912
1 Diesel		28008244	1435.184

c:\data\9708\dsl2w\97g3554\3720.002 -- Channel A



15918

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	08/22/97
Project ID:	UST 314	Service ID:	973720	Collected by:	
		Lab Sample ID:	97-3720-3	Received Date:	08/22/97
Sample ID:	**18609-314B-421**	Sample Matrix	Soil	Moisture %:	9.8
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	08/25/97	Anal. Date:	08/25/97
Batch No:	97G3554	Prep. No:	1 of 1	Anal. Time:	18:13
Data File Name:	3720.003	Sample Amount:	20.0 g	Dilution Factor:	500
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	5500	20000	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	5500	< 5500	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	1700
# of out-of-control				1

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

15919

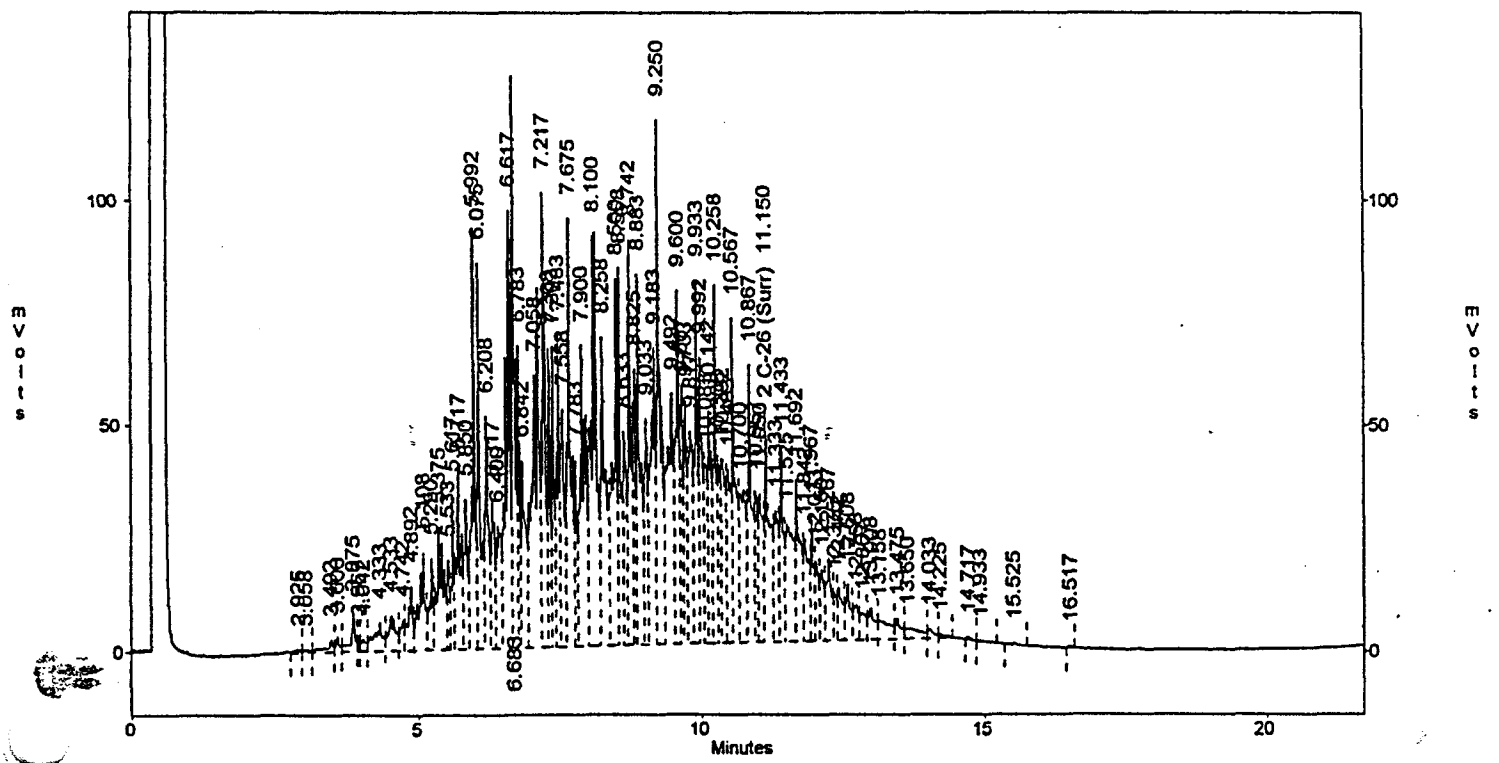
Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9708\dsl2w\97g3554\3720.003
Method : c:\ezchrom\methods\dsl2-005.w00
Sample ID : 3720-3 f=25
Vial : 19
Volume : 1
Acquired : Aug 25, 1997 18:13:43
Printed : Aug 26, 1997 10:25:08
User : System

Channel A Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.15	27857	1.703
1 Diesel		13892989	711.897

c:\data\9708\dsl2w\97g3554\3720.003 -- Channel A



15920

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	08/22/97
Project ID:	UST 314	Service ID:	973720	Collected by:	
		Lab Sample ID:	97-3720-4	Received Date:	08/22/97
Sample ID:	**18609-314B-422**	Sample Matrix	Soil	Moisture %:	17.6
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	08/25/97	Anal. Date:	08/25/97
Batch No:	97G3554	Prep. No:	1 of 1	Anal. Time:	18:41
Data File Name:	3720.004	Sample Amount:	20.0 g	Dilution Factor:	500
Extract Vol.	5.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	6100	24000	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	6100	< 6100	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	1750
# of out-of-control				1

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

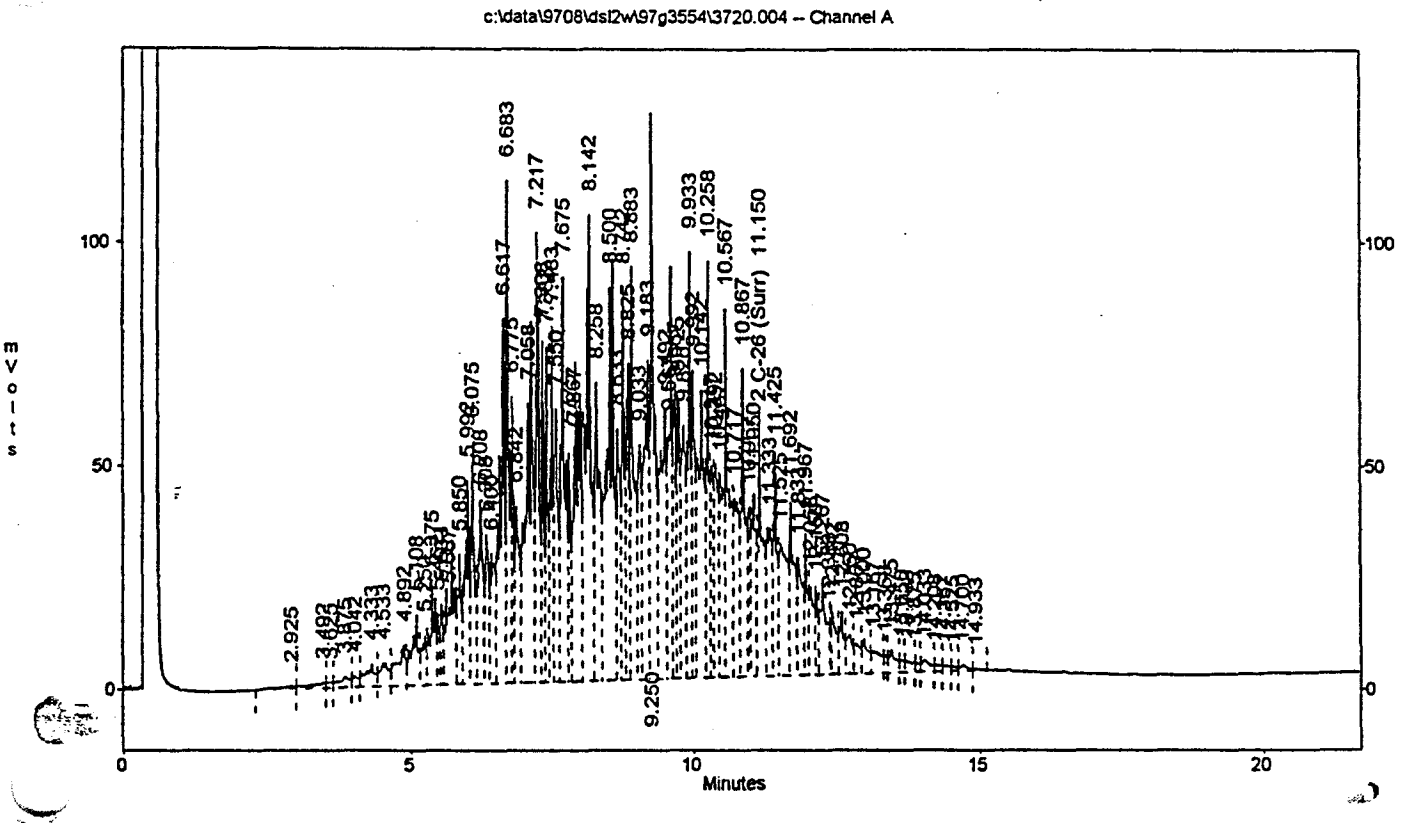
15521

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

File : c:\data\9708\dsl2w\97g3554\3720.004
thod : c:\ezchrom\methods\dsl2-005.w00
Sample ID : 3720-4 f=25
Vial : 20
Volume : 1
Acquired : Aug 25, 1997 18:41:47
Printed : Aug 26, 1997 10:26:08
User : System

Channel A Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.15	28548	1.745
1 Diesel		15386642	788.434



15922

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	08/22/97
Project ID:	UST 314	Service ID:	973720	Collected by:	
		Lab Sample ID:	97-3720-5	Received Date:	08/22/97
Sample ID:	**18609-314B-423**	Sample Matrix	Soil	Moisture %:	15.3
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	08/25/97	Anal. Date:	08/25/97
Batch No:	97G3554	Prep. No:	1 of 1	Anal. Time:	23:27
Data File Name:	3720.005	Sample Amount:	20.0 g	Dilution Factor:	100
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	1200	3000	
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	1200	< 1200	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	134
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

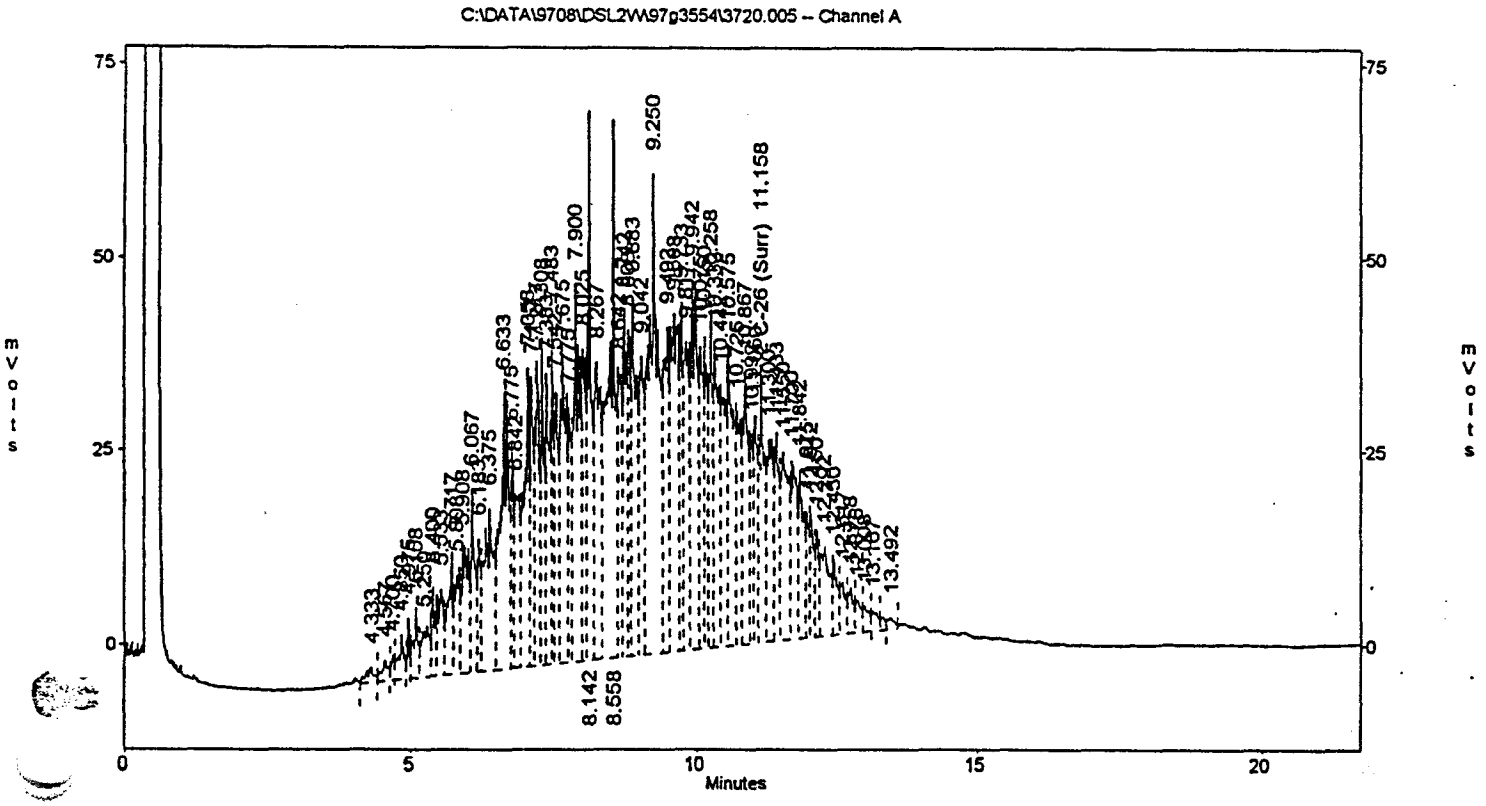
15923

Applied P & Ch Lab
Total Extractable Petroleum Hydrocarbon Analysis by GC-FID
Instrument ID: GC-W, Column: DB-1 (0.32mm x 15m x 0.25 um), 1ul

le	: C:\DATA\9708\DSL2W\97g3554\3720.005
ethod	: c:\ezchrom\methods\dsl2-005.w00
Sample ID	: 3720-5 f=5
Vial	: 21
Volume	: 1
Acquired	: Aug 25, 1997 23:27:49
Printed	: Aug 26, 1997 10:33:02
User	: System

Channel A Results

Name	Time	Area	Conc (ppm)
2 C-26 (Surr)	11.16	10937	0.669
1 Diesel		10060108	515.495



15924

Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Project No:	18609	Collection Date:	08/22/97
Project ID:	UST 314	Service ID:	973720	Collected by:	
		Lab Sample ID:	97-3720-6	Received Date:	08/22/97
Sample ID:	18609-314B-424	Sample Matrix	Soil	Moisture %:	6.9
Sample Type:	Field Sample	Prep. Method:	3550	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	08/25/97	Anal. Date:	08/25/97
Batch No:	97G3554	Prep. No:	1 of 1	Anal. Time:	23:55
Data File Name:	3720.006	Sample Amount:	20.0 g	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	TPH AS DIESEL	68334-30-5	mg/kg	11	<11	U
2	TPH AS MOTOR OIL	TBD-0002	mg/kg	11	<11	U

Surrogates			Control Limit, %	Surro. Rec.%
1	HEXACOSANE, C_{26}	630-01-3	50-146	84
# of out-of-control				0

Not Detected (N.D.) is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973720
Project ID:	UST 314	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3554		

#	Client Sample No	Lab Sample ID	S1 %	#	TOT OUT
1	97G3554-MB-01	97G3554-MB-01	82		0
2	97G3554-LCS-01	97G3554-LCS-01	98		0
3	18609-314B-420	97-3720-2	2909	D	1
4	18609-314B-421	97-3720-3	1704	D	1
5	18609-314B-422	97-3720-4	1746	D	1
6	18609-314B-423	97-3720-5	134		0
7	18609-314B-424	97-3720-6	84		0
8	97G3554-LSD-01	97G3554-LSD-01	90		0
9	2404-EXC-417-MS	97-3704-4MS	70		0
10	2404-EXC-417-MSD	97-3704-4MSD	69		0
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

QC Control Limit

S1 = HEXACOSANE, C_{26} 50-146

Column to be used to flag recovery values:

* – Values outside of contract required QC Limits D – Surrogate diluted out I – Matrix Interference

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	973720
Project ID:	UST 314	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3554		
LCS Filename:	3554G.L01	Date Analyzed:	082597	Time Analyzed:	13:24
LCSD Filename:	3554G.J01	Date Analyzed:	082697	Time Analyzed:	00:24

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/kg	50	0	51.2	102	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
TPH AS DIESEL	mg/kg	50	50.6	101	1	35	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

15927

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method M8015E

Client Name:	OHM Remediation Services (Irvine)	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	3720
Project ID:	UST 314	Project No:	18609	Sample Matrix:	Soil
		Batch No:	97G3554		
MS Filename:	3554G.M01	Date Analyzed:	082697	Time Analyzed:	00:52
MSD Filename:	3554G.N01	Date Analyzed:	082697	Time Analyzed:	01:20
MS Sample No:	2404-EXC-417	Sample Lab ID:	97-3704-4	Moisture, %	13.3

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
TPH AS DIESEL	mg/kg	57.7	0	41.0	71	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
TPH AS DIESEL	mg/kg	57.7	41.3	72	1	30	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____