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June 19, 2000  
Project No. 00-9460

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**Limited Soil and Groundwater Assessment  
Union Pacific Railroad Property Located between Quarantina Street  
and Calle Cesar Chavez, Lots 5-7 & 9-13, Santa Barbara, California**

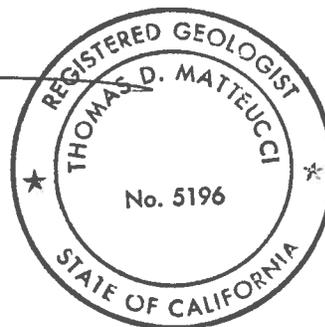
Dear Mr. Borgatello:

This report presents the findings of a Limited Soil and Groundwater Sampling Assessment completed by Rincon Consultants, Inc. (Rincon) at the above referenced property. This assessment was performed in accordance with our proposals/authorizations of April 19 and May 12, 2000.

Thank you for selecting Rincon for this project. If you have any questions or if we can be of any future assistance, please contact us.

Sincerely,  
**RINCON CONSULTANTS, INC.**

Thomas D. Matteucci, RG, REA II  
Principal



*Figures/Tables/Appendices*

*Figure 1 – Vicinity Map*

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*Table 1 – Soil Analytical Testing Summary – TEPH, VOCs, SVOCs and PCBs*

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cc: Richard Monk – Hollister & Brace  
Don Caldwell – Union Pacific Railroad  
Brian Bjorklund – Environmental Resources Management

## INTRODUCTION

This report presents the results of a limited soil and groundwater assessment conducted by Rincon Consultants, Inc. (Rincon) on behalf of Marborg Industries for the Union Pacific Railroad (UPRR) property located at the corner of Quinientos Street and Quarantina Street in Santa Barbara, California (Figure 1). This property is referenced in UPRR documents as Lots 5-7 & 9-13. Two of the lots included in the project site are leased by Love's Towing and Lash Construction, and the remainder of the site is used as storage (Figure 2). Marborg Industries is in negotiations with UPRR to purchase the property.

The following sections provide an overview of the project history; describe the scope of the project, the physical setting, and sampling and analytical testing methodologies; provide the results of the sampling and testing program; and provide conclusions and recommendations.

### Background

As part of a former evaluation of Parcel 9 (nearby UPRR parcel), we were provided various environmental documents pertaining to the subject property including:

- CH2M Hill, March 28, 1989, Technical Memorandum – *Environmental Assessment to Evaluate Possible Hazardous Substances on SPTCo Property in the City of Santa Barbara, California.*
- ERM, November 26, 1997, *Workplan for Phase II Site Investigation – Union Pacific Railroad Site, Santa Barbara – South, Santa Barbara, California.*
- ERM, April 29, 1998, Phase II Investigation Report – Union Pacific Railroad Site, Santa Barbara – South, Santa Barbara, California.
- ERM, September 11, 1998, *Supplemental Site Investigation Workplan, Union Pacific Railroad Company, Santa Barbara – South Project, Santa Barbara, CA.*
- ERM, November 16, 1998, *Supplemental Site Investigation Results, Union Pacific Railroad Company, Santa Barbara –South Project, Santa Barbara, California.*

In addition to the above referenced assessment reports, we were also provided a 'Soil Contamination Notice' (part of Title) dated June 17, 1999; historic Sanborn Fire Insurance Maps from 1930, 1950 and 1969; undated lease maps; and a Closure Letter from the County of Santa Barbara, Protection Services Division (PSD) to Union Pacific Railroad dated July 1, 1999.

Based on our review of these documents, we had the following observations and comments:

- Review of the Sanborn Fire Insurance Maps dated 1930, 1950 and 1969 and undated UP lease maps show the following onsite: several rail spurs throughout property (all maps); business entity referred to as "Western Motor Transfer Inc." or Western Transfer Truck Co."



fronting Quarantina Street (undated maps, 1930 and 1950) (area labeled “Haskell Company Engineering Contractors & Materials Dealers” by 1969); auto storage and repairing building with earth floor in northern corner of site fronting Quarantina Street (1930, 1950 and 1969); asphalt plant adjacent to auto storage and repairing building (1930, 1950 and 1969); asphalt tank (above ground) near rail spur in northern central portion of property (1930, 1950 and 1969); up to 8 small structures in southern portion of property adjacent to main rail lines – building labels include yard masters office, garage, locker room, tool house (undated maps, 1930 and 1950). Copies of these maps with site boundaries highlighted were included in our Workplan of May 1, 2000.

- The March 1989 assessment report by CH2MHill indicates that the major leaseholders of portions of the property at that time were Marcus Originals (with several subleases), Vern Caldwell, Cal-Mat, and Lash Construction. Figures, tables and text from the CH2MHill report were included with our Workplan. A site map shows the presence of a drum storage area and three areas of stained soil in the north-central portion of the property, existing above ground storage tanks in the southwest portion of the property, an area with railroad ties and uncontrolled disposal in the east portion of the property and an area of construction storage and debris in the south portion of the property.

The Marcus Originals property reportedly had up to 25 subleases at the time of the site visit. Most of the leases involved open storage of equipment. Tenants included auto salvage, auto repair, roofers, and cabinetmakers. The soil staining that was reported for this property appeared to be associated with the auto repair and auto salvage operations.

The drum storage reportedly involved the storage of thirty 55-gallon drums of toluene or polymer on a concrete slab with no berm but no visible staining.

The above ground storage tanks were on the Lash Construction site. They included a waste oil tank (size not specified) and a 5,000-gallon gasoline or diesel tank on a bermed concrete pad. The Lash Construction site reportedly also contained an asphalt crushing machine and a repair shop although the location of each was not specified. The report also indicated that Santa Barbara County Environmental Health Department reportedly had a file for this property but that the file could not be located.

The uncontrolled disposal in the east portion of the property reportedly included oil-stained soils, abandoned electrical appliances, an empty above ground tank, and trash and debris. Railroad ties were also stored in this area.

- The CH2M Hill report discusses the former presence of a marshy lagoon in the project area. The lagoon reportedly extended from De La Guerra Street to the ocean, between Santa Barbara Street and Milpas Street. The estuary has since been filled in and allegedly may have included the disposal of coal tar and municipal waste into the slough. Other than a reported reference to the possibility of some coal tar on the McNall property (north of Freeway, adjacent to former Coal Gasification site – current Southern California Gas Company site), there is no specific reference to where coal tar or municipal waste may have been disposed.

- ERM completed an assessment on the subject property, as well as on several neighboring parcels, in December 1997 (report dated April 1998). Figures, tables and boring logs from this report were included in our Workplan of May 1, 2000. Subdivision of the property is different on the ERM maps as compared to the site map provided by UP for the subject property. The UP map (Attachment 1) subdivides the property by lot number (5 through 7 and 9 through 13). The ERM maps subdivide the property by parcel number (parcels 11 through 13 and portions of parcels 10 and 15).
- Eighteen soil borings were completed on the subject property by ERM. The borings appeared to target many of the areas identified in the Phase I by CH2MHill including the historic auto repair area, historic location of asphalt plant and asphalt tank, historic drum storage area, and stained soil in vicinity of AST. In addition, a number of 'random grid samples' were collected.

The borings completed at the asphalt plant and tank area, however, are shown to be about 25 and 50 feet from these historic structures. Siting of these borings at these distances may not be adequate to evaluate impacts from these historic operations.

Only one boring was completed at the former auto repair area. Testing included petroleum hydrocarbons but did not include other contaminants that can be associated with auto repair operations including chlorinated solvents and polychlorinated biphenyls (PCBs).

It is unclear as to whether the borings completed by ERM in the east portion of the property (P14-B1 through B-3) actually targeted specific uncontrolled disposal areas as identified by CH2MHill at this location.

- Soil analytical testing by ERM included total petroleum hydrocarbons for gasoline, diesel and motor oil (TPH-G, TPH-D, and TPH-MO), and benzene, toluene, ethylbenzene, and xylenes (BTEX). Select samples were also tested for metals. The testing did not include polynuclear aromatic hydrocarbons (PAHs) (note: one soil sample was tested for PAHs during a follow-up phase of assessment - report dated November 16, 1998; low levels of two PAH compounds, below published threshold levels were detected in this sample). No TPH-G, TPH-D, TPH-MO were detected in the samples analyzed. Unknown hydrocarbons were detected in 21 of the 23 samples at concentrations ranging from 13 to 6,500 parts per million (ppm). The highest concentrations (over 1,000 ppm) were detected in P12-B4-1ft, P12-B5-1ft, P12-B6-1ft, P12-B7-1ft, and P14-B1-3.25ft. In all of these borings, the next deeper sample analyzed, from depths ranging from 2 to 4 feet below grade, had TPH levels below 1,000 ppm. This may be indicative of surface spills at the locations sampled. BTEX concentrations were low or non-detectable for all samples analyzed. Metals concentrations were below USEPA thresholds (Preliminary Remediation Goals) with the exception of beryllium, which appears to be an area-wide phenomenon.
- Groundwater was encountered in the ERM borings at depths ranging from 2 to 8 feet below grade. There is a discrepancy between the assessment that was proposed by ERM



(November 1997 workplan) and the work that was actually completed. The workplan specified the collection of four groundwater samples, however none were collected during this first phase of assessment. One groundwater sample was collected near the AST during a follow-up phase of assessment (report dated November 16, 1998). No TEPH or BTEX were detected in this sample. A low level of the gasoline additive methyl tertiary butyl ether (MTBE) was detected in this sample at a concentration of 7.6 parts per billion (ppb). One PAH compound was also detected at a low concentration. ERM reported that the detection of this compound was suspect because the same compound showed up in the laboratory quality control blank sample.

- A strong hydrocarbon-like odor was noted in the boring log for one sample (P12-B1-6ft). This sample is reported to be a 'random grid sample' but was completed near the historic asphalt plant. None of the other samples collected on the subject property were noted as having hydrocarbon odors. This sample also had the highest field PID reading – 47 ppm. The laboratory data indicated that the sample contained an unknown extractable hydrocarbon concentration of 580 ppm and an unknown purgeable hydrocarbon concentration of 40 ppm.
- ERM prepared a supplemental site investigation workplan in September 1998. The workplan was prepared to respond to 'issues of concern' as expressed by the County PSD. These included: 1) insufficient testing for polynuclear aromatic hydrocarbons (PAHs) in the site soil and groundwater, 2) insufficient testing for TPH in groundwater at areas that have elevated levels of TPH in soil, and 3) the presence of unknown purgeable hydrocarbons in some of the soil samples (specific composition has not been determined). As described previously, one additional boring (P12-B9) was completed on the subject property during this follow-up investigation (data included in our May 1, 2000 Workplan). This is insufficient data to address the County's expressed concerns.
- The Soil Contamination Notice is apparently part of the subject property Title. This document states that "The Santa Barbara County Fire Protection Services Division (PSD) is to be notified of any future contamination findings, and/or if there is a change in the use of the site and/or if construction of buildings occurs on the site." Although this document does not appear to be a Deed Restriction, it does appear to provide some possible regulatory control over any future site development. The PSD could require additional assessment during site upgrades.

**Additional Evaluation by Rincon.** Because of the uncertainties associated with current onsite tenants and site operations, additional evaluation was conducted. This included conducting a site reconnaissance and additional historical evaluation.

***Site Reconnaissance.*** A site reconnaissance was conducted on March 29, 2000. Most of the site was accessible for viewing except for the fenced area (Figure 2) currently leased by Love's Towing. Numerous parked cars were present on the Love's Towing lease area.

Areas of potential concern were noted during the site reconnaissance. These areas are described below (note: photos of these areas included in our May 1, 2000 Workplan):



- An above-ground tank (AGT) and Drum Storage Area were observed on the Lash Construction lease area. The AGT is located above a containment system that currently contains rainwater and oil. Miscellaneous pieces of equipment and drums are present throughout this area. Numerous stains were also located throughout this area.
- A stormwater drain is located to the east of the AGT and Drum Storage Area. This drain appears to collect runoff from the Lash Construction lease area and the drain appeared to be plugged.
- A Waste Oil Tank is present onsite to the south of the AGT and Drum Storage Area. The area surrounding the tank was stained.
- No onsite surface manifestations of the former auto repair shop or the asphalt plant were observed on the Love's Towing lease area. However, a former foundation (possible former asphalt plant) was observed along Quarantina Street.

A marshy area is located to the southwest of the subject property and to the northeast of the railroad tracks. The marshy area continues under Calle Cesar Chavez and along the railroad tracks to the southwest of the property.

During out site reconnaissance, we attempted to verify the locations of the former ERM sampling in the east portion of the property (reported uncontrolled disposal areas as identified by CH2MHill). However, since the property has changed, verification of boring locations could not be completed.

**Additional Historical Evaluation.** The additional historic evaluation included reviewing building permit files at the City of Santa Barbara, reviewing topographic maps from the University of California at Santa Barbara (UCSB) and reviewing City Directories. Copies of the City Directory Summary report and topographic maps were appended with our May 1, 2000 Workplan.

Based on information provided on the Fire Insurance maps, the subject property has historically included the following addresses:

- 36 South Quarantina Street
- 38 South Quarantina Street
- 102 South Quarantina Street
- 136 South Quarantina Street
- 103 South Salsipuedes Street/South Calle Cesar Chavez

Copies of the Sanborn Fire Insurance maps were appended with our May 1, 2000 Workplan.



### Building Permits

On April 5, 2000, Rincon personnel reviewed building permit files for Lash Construction at 103 Calle Cesar Chavez (formerly South Salsipuedes Street) at the City of Santa Barbara Building and Safety office. No environmentally significant documents were found in this file. Files were not available for the other addresses listed above.

### Review of Santa Barbara Protection Services Division Records

Following the site reconnaissance, we filed a request with the Santa Barbara County Protection Services Division (PSD) to review documents pertaining to the subject property. However, the PSD does not maintain records for any of the addresses listed above. Therefore, no agency files were reviewed as part of this research effort.

### City Directories

Environmental Data Resources, Inc. (EDR) was contracted to complete a records search of city business directories for all addresses associated with the subject property (as listed above). The information provided by the records search is summarized in Table 1.

**Table 1 – Historical City Business Directory Listings**

<b>Year</b>	<b>Address</b>
1926, 1930, 1935, 1943, 1948, 1953, 1958, 1962, 1967, 1972, 1977, 1982, 1985, 1990	address not listed in research source (Santa Barbara Directory, Polk's City Directory, and GTE City Directory)

### Topographic Maps

On April 10, 2000, Rincon personnel reviewed historic topographic maps from the UCSB map collection. The maps reviewed were dated 1903, 1944, 1952, 1967 and 1988. The information provided by the topographic maps is summarized below:

- **1903, Santa Barbara Quadrangle** – The map shows the presence of numerous northwest/southeast trending railroad tracks.
- **1944, Santa Barbara Quadrangle** – This map shows the presence of buildings congruent with the former asphalt plant and the former auto repair shop as shown on the 1930, 1950 and 1969 Sanborn Fire Insurance Maps. In addition, it appears that several structures related to the Cal-Mat operation are located onsite, similar to today. One railroad line, located near the center of the property, is also present onsite.
- **1952, 1967 and 1988 Santa Barbara Quadrangle** – These maps show that the subject property is located within the developed areas of Santa Barbara. One railroad line, located near the center of the property, is shown onsite.



### Information by Mario Borgatello

Based on conversations with Mr. Borgatello, we understand that the property located offsite between Love's Towing and Calmat may have historically been used as a junkyard. Mr. Borgatello was uncertain as to whether the junkyard operations may have extended onto the subject property.

### **SCOPE OF WORK**

Our scope of work included the collection of soil and groundwater samples using a Geoprobe. Sampling was conducted at the following locations:

- Within the former Auto Repair Shop and former Asphalt Plant areas (Love's Towing lease area – parked cars are presently located in each of these areas)
- Areas known to have somewhat elevated levels of TPH in soil (P14-B1 and P12-B4) but have not been tested for PAHs (vacant lease areas).
- Near the former above-ground tank (vacant lease area).
- Adjacent to the stormwater drain (Lash Construction lease area).
- Adjacent to the existing waste oil tank and stained area (Lash Construction lease area).
- Adjacent to the existing above-ground tank and drum storage area (Lash Construction lease area).
- Along the property boundary between Love's Towing and the Calmat property (possible former junkyard area indicated by Mr. Borgatello).

Select soil and groundwater samples were analyzed for total extractable petroleum hydrocarbons (TEPH), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, and polychlorinated biphenyls (PCBs).

### **GEOLOGIC AND HYDROGEOLOGIC SETTING**

The project site is located within the western edge of the Transverse Ranges Geomorphic Province, which is characterized by east-west trending structural features. The site is located on the gently sloping Santa Barbara Coastal Plain, which is composed of Recent-aged alluvium, deposited along raised marine terraces. These alluvial deposits were derived from older sedimentary deposits within the Santa Ynez Mountains, north of the site, and overlie the Quaternary-aged Santa Barbara Formation.

The project site is located within the Santa Barbara Hydrologic Subarea of the South Coast Hydrologic Unit commonly known as the Santa Barbara Groundwater Basin. Groundwater in the site vicinity has historically been at depths of between 5 and 40 feet below ground surface. Regional groundwater flow in the shallow zone is toward the ocean (south to southeast). Site-specific groundwater data obtained by Rincon and ERM indicate that depth to groundwater at the site fluctuates, having been detected at depths ranging from about 2 to 10 feet below grade.



## **SAMPLING and TESTING METHODOLOGY**

### **GEOPROBE SAMPLING**

Fourteen borings were completed at the site using a Geoprobe sampling system. Borings GP-1 through GP-11 were completed on May 8 and 9, 2000. Borings GP-12 through GP-14 were completed on May 19, 2000. The boring locations are shown in Figure 2.

The probes were advanced by hydraulically driving a two-inch diameter rod equipped with a soil-sampling tool as described below. Upon completion, all probe holes were backfilled with bentonite chips. Sampling equipment was decontaminated between use by washing with a non-phosphate detergent solution followed by a potable water rinse. Decontamination fluids were contained in a labeled 55-gallon drum. This drum was stored onsite pending receipt of laboratory test results.

### **Soil Sampling**

Two or three soil samples were collected from each probe location. Samples were generally collected at depths of 0.5, 4, and 8 feet below grade. When the target sampling depth was reached, a decontaminated, stainless steel soil sampler was attached to the end of the rod. The soil sampler was lined with pre-cleaned acetate sleeves (1 inch diameter sleeves). By advancing this sampler into the soil, soil was forced into the opening of the sampling tube and a sample was obtained. Once the sampler was filled, it was retrieved and the sample sleeve removed. The sleeve was then cut at the appropriate sample interval. Care was taken to ensure no headspace was created within the sample liner. The selected samples were sealed with Teflon, capped, labeled, and stored in a cooler with blue ice pending delivery to the analytical laboratory. Soil within the sampling tip and the other liners was used for soil classification and to screen for volatile organics using a photoionization detector (PID).

### **Groundwater Sampling**

Groundwater samples were collected at borings GP-1, GP-3, GP-7, GP-9, GP-11 and GP-13. In addition, a duplicate groundwater sample was collected from GP-11.

At each location, clean PVC piping with a 5-foot screen at the bottom was placed in the open borehole. Groundwater was encountered in the boreholes from approximately 2 to 10 feet below grade. The bottom of the screen was generally placed at a depth of 12 feet below grade. A one-quarter-inch diameter polyethylene tube was then inserted into the piping and used to extract a groundwater sample. Samples were collected in containers provided by the analytical laboratory. Care was taken to ensure no headspace or bubbles were created within the vials for VOC analysis. The samples were labeled, placed in a sealable plastic bag and stored in a cooler with blue ice pending delivery to the analytical laboratory.



## Laboratory Analysis

Samples were transferred under chain-of-custody to American Scientific Laboratories of Los Angeles, California. Select soil and groundwater samples were analyzed for TEPH by EPA Method 8015 modified, VOCs by EPA method 8260, SVOCs by EPA method 8270, metals by 17 CCR methodology (EPA 6000/7000 series), and PCBs by EPA Method 8080.

## RESULTS

### Soil Sampling

Soil encountered in the Geoprobe borings was comprised of heterogeneous mixtures of sand, silt, clay and gravel with occasional man-made debris. This fill material was encountered across the site ranging from 1 to 7 feet deep. Native soils encountered below the fill were generally comprised of soft silts and clays with varying percentages of sand. PID readings of the soil samples ranged from 0 to 70 parts per million by volume (ppmv). Copies of the soil boring logs are included in Appendix 1.

Twenty four soil samples were analyzed for TEPH. Nine of the twenty four samples had detectable levels of hydrocarbons. Both diesel range hydrocarbons (TEPH-d) and heavy oil range hydrocarbons (TEPH-ho) were detected. TEPH-d range hydrocarbon concentrations were detected in five of the samples (borings GP-6, 8 and 9) at concentrations ranging from 34 mg/kg to 4,000 mg/kg. TEPH-ho range hydrocarbons were detected in five of the samples (borings 4, 6, 12 and 13) at concentrations ranging from 96 mg/kg to 1,900 mg/kg.

Eleven soil samples were analyzed for VOCs. Three of the eleven samples had detectable concentrations of various VOCs. All detected VOCs are constituents commonly found in refined hydrocarbons (such as gasoline or diesel).

Four soil samples were analyzed for SVOCs. Only one of these samples (GP-8-8) had detectable SVOC concentrations. These were as follows: 2-Methylnaphthalene at 5,750 µg/kg; Naphthalene at 5,210 µg/kg; and Phenanthrene at 6,190 µg/kg.

Three soil samples were analyzed for PCBs. No PCBs were detected in any of the samples.

Fourteen soil samples were tested for Title 17 CCR metals. Each of the samples tested had various concentrations of metals. Two of the samples (GP-13-1.5 and GP-14-1.5) had slightly elevated concentrations of antimony, arsenic, cadmium, copper, lead, molybdenum, vanadium and zinc as compared to the other samples analyzed. None of the concentrations exceeded the total threshold limit concentrations (TTLC). One of the samples (GP-14-1.5) had a lead concentration (112 mg/kg) that was more than 10 times the soluble total limit threshold (STLC). Due to this potentially elevated lead concentration, the sample was subsequently analyzed for soluble lead. Soluble lead was detected at a concentration of 1.57 mg/l, below the STLC of 5 mg/l.



A summary of the soil analytical testing program is included in Tables 1 and 2 and a copy of the laboratory analytical report is included in Appendix 2.

### **Groundwater Sampling**

Groundwater was encountered at varying depths in each boring ranging up to 9 feet below grade. Groundwater samples were collected from borings GP-1, GP-3, GP-7, GP-9, GP-11 and GP-13.

None of the groundwater samples tested had detectable concentrations of TEPH or SVOCs. Three of the six samples had detectable VOC concentrations. All of the VOCs detected were constituents commonly found in refined hydrocarbons.

Results of the groundwater analytical testing are summarized in Table 3 and a copy of the laboratory analytical report is included in Appendix 2.

## **DISCUSSION**

This section provides a discussion of the significance of the reported site contaminant concentrations relative to published thresholds and previously reported site levels. This includes the following:

- The levels of TEPH (diesel and heavy oil) reported in site soil samples
- The levels of VOCs and SVOCs reported in site soil samples.
- The levels of metals reported in site soil samples
- The levels of VOCs reported in site groundwater samples.

### **Hydrocarbons in Soil**

With the exception of the borings completed in the vicinity of the former asphalt plant (GP8 and GP9), the levels of hydrocarbons detected in site soil samples appeared to be consistent with the previous site assessment results reported by ERM. The ERM study reported 'unknown hydrocarbons' (likely equivalent to the heavy oil hydrocarbons reported in the Rincon assessment) present in many shallow (upper 1 to 3 feet) soil samples (concentrations ranging up to 6,500 mg/kg). Below these depths, concentrations decreased substantially. Santa Barbara County Protection Services Division (SBCPSD) generally uses 100 to 200 mg/kg of hydrocarbons as an initial 'investigation level'. The investigation level is not a cleanup level as evidenced by the fact that SBCPSD previously issued closure for the subject property even though hydrocarbon levels were detected at concentrations as high as 6,500 mg/kg.

In the Rincon assessment, the highest concentration of TEPH-ho was 1,900 mg/kg (GP4-4ft). GP4-8ft had no detectable levels of TEPH-ho. No VOCs or SVOCs were detected in any samples analyzed other than GP8 and GP9.



Samples from GP8 and GP9 (former asphalt plant) had TEPH-d concentrations ranging from 145 to 4,000 mg/kg, and detectable levels of various VOCs and SVOCs as shown on Table 1. For each detectable level of VOCs and SVOCs, Table 1 shows corresponding USEPA Preliminary Remediation Goals (PRGs) for both residential and industrial properties.

PRG values are risk-based thresholds used for evaluating and cleaning up contaminated sites. The PRG concentrations can be used as initial threshold values to determine whether a site needs further evaluation or remediation, or whether the levels found at the site do not pose a significant health risk to the property's occupants. The PRGs are calculated by using current EPA toxicity values with standard exposure factors (via ingestion, inhalation and dermal absorption) to estimate contaminant concentrations in environmental media (soil, air and water) that are considered protective of human health. There are two different PRGs for each chemical, a residential PRG and an industrial PRG. The USEPA recommends that residential PRGs be used for maximum beneficial use of the site, that is, the site could be used for any use in the future and would not likely need remediation if the contaminant levels found at the site are below the residential PRGs. As an alternative to this, there are the less conservative industrial PRGs, which are recommended as screening levels for sites that will only be used for industrial purposes.

As shown in Table 1, none of the VOCs or SVOCs detected in samples collected at the former asphalt plant exceeded the respective PRG values.

### Metals in Soil

Soil samples collected in the vicinity of the suspected former junkyard (GP13-1.5ft and GP14-1.5ft) had slightly elevated concentrations of metals (antimony, arsenic, cadmium, copper, lead, molybdenum, vanadium and zinc) relative to other site samples analyzed. Sample GP-14-1.5ft had a high enough concentration of total lead (112 mg/kg), that soluble testing was required to determine if the concentration was present at hazardous levels. However, follow-up testing for the soluble fraction of lead yielded a soluble lead concentration (1.57 mg/l), below the STLC of 5 mg/l. Thus, the soil at this location does not exhibit hazardous levels of lead.

In addition to TTLC/STLC values, we also compared the concentrations to PRGs. Most of the metal compounds have non-cancer endpoint PRG values but a couple of the metals (arsenic and chromium) also have cancer endpoint values assigned (see Table 2). With the exception of arsenic, none of the metals were present at concentrations in excess of their respective PRGs (residential or industrial).

For arsenic, normal background levels found in California soils are typically above the cancer endpoint PRG for both residential and industrial settings. The arithmetic mean for arsenic in California soils (non-contaminated sites) is 3.54 mg/kg and the cancer end point value PRGs for arsenic are 0.39 and 2.7 mg/kg for residential and industrial settings, respectively (Bradford et al, Background Concentrations of Trace and Major Elements in California Soils, Kearney Foundation Special Report, UC-Riverside and CAL-EPA DTSC, March 1996). In light of this fact, in our experience, regulatory agencies typically consider use of the non-cancer endpoint values (22 and 440 mg/kg, respectively) as threshold concentrations. None of the site soil



samples tested exceeded the residential or industrial non-cancer endpoint values for arsenic. The highest site concentration detected was 9.08 mg/kg in sample GP14-1.5ft.

### VOCs in Groundwater

VOCs were detected in the site groundwater at the above ground tank/drum storage area (GP1, GP3) and at the historic auto repair area (GP11). All of the VOCs detected are constituents commonly found in refined hydrocarbons (such as gasoline or diesel). The concentrations reported were all generally low. With the exception of benzene in GP3 (7.4 µg/l), none of the VOCs exceeded drinking water standard maximum contaminant levels (MCLs). The MCL for benzene is 1 µg/l. MCLs are highly conservative thresholds that apply to potable groundwater supplies. Groundwater in the vicinity of the subject property is known to be highly degraded and is not considered a potential drinking water source. Therefore, it is possible that a regulatory agency would not consider the single MCL exceedance as being significant.

## CONCLUSIONS

Rincon Consultants conducted a limited soil and groundwater sampling assessment at the UPRR property located between Quarantina Street and Calle Cesar Chavez and referred to as Lots 5-7 & 9-13 in Santa Barbara, California. The purpose of the site assessment was to evaluate the potential for soil and groundwater contamination associated with specific potential environmental liabilities as identified during our review of previous assessments at the subject property.

Fourteen Geoprobe borings were completed at the subject property. Areas sampled included the former auto repair shop, the former asphalt plant area, near a former above ground tank, adjacent to a stormwater drain, near an existing waste oil tank and stained area, adjacent to an existing above ground tank and drum storage area, and in a suspected former junkyard area. Select soil and groundwater samples were collected from these areas and analyzed for TEPH, VOCs, SVOCs, metals and PCBs.

No PCBs were detected in the soil samples. TEPH-ho was detected in site soil samples at various locations at concentrations up to 1,900 mg/kg. These levels appear to be consistent with data previously collected and reported by UPRR.

TEPH-d was reported at concentrations up to 4,000 mg/kg at the former asphalt plant (GP8 and GP9). TEPH-d had not previously been detected during the assessment by UPRR. Although the levels of TEPH-d reported at this location are slightly elevated, the absence of elevated levels of VOCs or SVOCs in corresponding samples (i.e., well below both residential and industrial PRGs) and the absence of TEPH or VOCs in groundwater diminishes the significance of this finding. Additionally, SBCPSD has previously provided site closure with reported higher levels of unknown hydrocarbons (up to 6,500 mg/kg).



None of the polynuclear aromatic hydrocarbons (PAHs) typically associated with coal gasification residues were detected in soil samples analyzed during this study. Detectable levels of the semivolatile organic compounds 2-methylnaphthalene, naphthalene and phenanthrene were reported for one sample in the former asphalt plant area (GP8-8ft). However, the levels were well below any established conservative soil threshold levels.

Metals were detected at varying concentrations throughout the property. Metal concentrations in the former suspected junkyard area appeared to be slightly elevated with respect to other site levels. However, none of the concentrations of any of the site samples exceeded hazardous waste thresholds or conservative PRGs (using more realistic non-cancer value for arsenic and taking in to account typical background levels).

VOCs were detected in the site groundwater at the above ground tank/drum storage area (GP1, GP3) and at the historic auto repair area (GP11). The concentrations generally appeared to be low. Only one compound (7.4 µg/l benzene in GP3) exceeded the highly conservative drinking water standard MCL. Because MCLs are established as drinking water thresholds and the groundwater in the vicinity of the site is known to be highly degraded, it is possible that this one exceedance might not be judged to be significant by a regulatory agency.

## RECOMMENDATIONS

We understand that Santa Barbara County Protection Services Division (SBCPSD) recently issued a closure letter for the subject property, in conjunction with several other nearby UPRR parcels, on the basis of the assessments completed by ERM. With the possible exception of some limited contamination to soil or groundwater at the former asphalt plant and above ground tank area, the data generated during Rincon's assessment appears to be fairly consistent with previous site data. The contamination detected at these areas may not be significant enough to warrant re-opening the site by SBCPSD. To confirm this, we recommend that a copy of this report be submitted to SBCPSD for review and concurrence.

## LIMITATIONS

This report has been prepared for and is intended for the exclusive use of Marborg Industries. The contents of this report should not be relied upon by any other party without the written consent of Rincon Consultants, Inc.

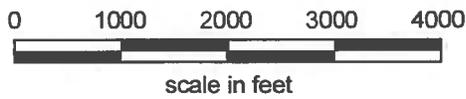
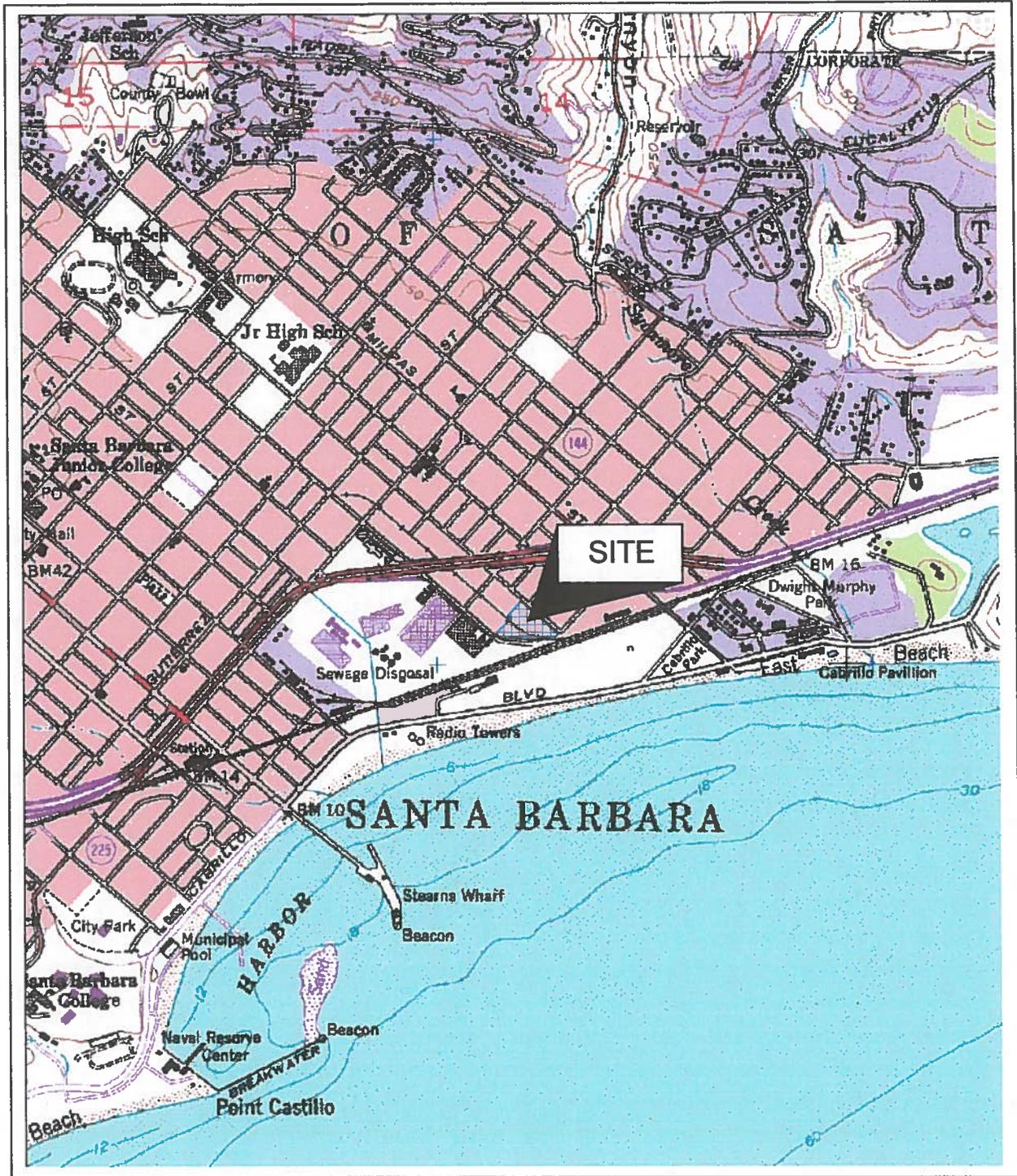
Our conclusions regarding the site are based on observations of existing site conditions and the results of a limited subsurface sampling program. The results of this evaluation are qualified by the fact that only limited sampling and analytical testing was conducted during this assessment.

This scope was not intended to completely establish the quantities and distribution of contaminants present at the site or to determine the cost to remediate the site. The concentrations of contaminants measured at any given location may not be representative of conditions at other



locations. Further, conditions may change at any particular location as a function of time in response to natural conditions, chemical reactions and other events. Conclusions regarding the condition of the site do not represent a warranty that all areas within the site are similar to those sampled.





Vicinity Map



Figure 1

**Table 1 – Soil Analytical Testing Summary**  
 Union Pacific Property – Lots 5-7 & 9-13, Santa Barbara, California

Sample Designation	Depth (feet)	TEPH-D (mg/kg)	TEPH-HO (mg/kg)	VOCs* (µg/kg)	SVOCs* (µg/kg)	PCBs (µg/kg)	
GP-1-1	1	ND	ND	-	-	-	
GP-2-1	1	ND	ND	-	-	-	
GP-2-8	8	-	-	ND	-	-	
GP-3-4	4	ND	ND	ND	-	-	
GP-3-8	8	ND	ND	ND	-	-	
GP-4-1	1	ND	ND	-	-	-	
GP-4-4	4	ND	1,900	-	-	-	
GP-4-8	8	ND	ND	-	-	-	
GP-5-4	4	ND	ND	ND	-	-	
GP-5-8	8	ND	ND	-	-	-	
GP-6-1	1	ND	668	-	-	-	
GP-6-4	4	34	204	-	-	-	
GP-6-8	8	ND	ND	-	-	-	
GP-7-4	4	ND	ND	-	ND	-	
GP-7-8	8	ND	ND	-	-	-	
GP-8-4	4	1,950	ND	45 µg/kg n-Butylbenzene (140,000 R/240,000 I) 30 µg/kg sec-Butylbenzene (110,000 R/220,000 I) 16 µg/kg Isopropylbenzene (NE R/NE I) 202 µg/kg Naphthalene (56,000 R/190,000 I) 22 µg/kg n-Propylbenzene (140,000 R/240,000 I)	-	-	-
GP-8-8	8	4,000	ND	284 µg/kg n-Butylbenzene (140,000 R/240,000 I) 227 µg/kg sec-Butylbenzene (110,000 R/220,000 I) 280 µg/kg Isopropylbenzene (NE R/NE I) 1,210 µg/kg Naphthalene (56,000 R/190,000 I) 435 µg/kg n-Propylbenzene (140,000 R/240,000 I) 90 µg/kg 1,3,5-Trimethylbenzene (21,000 R/70,000 I)	5,750 µg/kg 2-Methylnaphthalene (NE R/NE I) 5,210 µg/kg Naphthalene (56,000 R/190,000 I) 6,190 µg/kg Phenanthrene (NE R/NE I)	-	

**Table 1 – Soil Analytical Testing Summary**  
 Union Pacific Property – Lots 5-7 & 9-13, Santa Barbara, California

GP-9-4	4	145	ND	-	-	-
GP-9-8	8	1,670	ND	18 µg/kg Naphthalene (56,000 R/190,000 I)	-	-
GP-10-1	1	-	-	-	-	ND
GP-10-4	4	ND	ND	ND	ND	ND
GP-11-1	1	-	-	-	-	ND
GP-11-8	8	ND	ND	ND	-	-
GP-12-1.5	1.5	ND*	96	-	-	-
GP-12-5	5	ND	ND	-	-	-
GP-13-1.5	1.5	ND	ND	ND	ND	-
GP-14-1.5	1.5	ND	264	ND	-	-
Detection Limit	10	10	10	10-50	330-1,700	33-67

- Not Analyzed

ND - Not detected

mg/kg – milligrams per kilogram (i.e., parts per million)

µg/kg – micrograms per kilogram (i.e., parts per billion)

\* - values in parentheses (140,000 R/240,000 I) indicate USEPA Preliminary Remediation Goals for both residential (R) and industrial (I) sites; NE = no PRG established.

**Analyses:**

TEPH – total extractable petroleum hydrocarbons by EPA Method 8015 modified (D = diesel, HO = heavy oil; only those TEPH compounds detected are listed in this table; see laboratory report for complete listing of TEPH compounds)

VOCs – volatile organic compounds by EPA Method 8260 (see laboratory report for complete listing of VOC compounds)

SVOCs – semi-volatile organic compounds by EPA Method 8270 (see laboratory report for complete listing of SVOC compounds)

PCBs – polychlorinated biphenyls by EPA Method 8080

**Table 2 – Soil Analytical Testing Summary - 17 CCR Metals**  
 Union Pacific Property – Lots 5-7 & 9-13, Santa Barbara, California

Sample Designation/ Depth (ft)	17 CCR Metals																
	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molyb	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
GP-3-1ft	ND	ND	65.3	ND	ND	10.9	3.36	9.52	14.2	0.33	0.68	14.3	0.54	ND	ND	21.5	35.8
GP-3-4ft	ND	0.74	85	ND	ND	18.1	4.58	11.4	3.46	ND	0.78	28	ND	ND	ND	17.8	99.1
GP-4-1ft	ND	1.10	124	ND	ND	23.6	6.34	18.4	14.1	0.55	2.1	29.9	ND	ND	ND	36.3	52.9
GP-5-4ft	ND	ND	159	ND	ND	25.3	7.33	18.7	4.38	ND	0.64	40.8	0.81	ND	ND	25.5	50.3
GP-8-4ft	ND	ND	88	ND	ND	17.5	5.37	11.9	3.49	ND	0.81	26.3	ND	ND	ND	19.2	30.5
GP-8-8ft	ND	ND	83.1	ND	ND	16.2	5.09	11.9	3.85	ND	0.81	22.3	ND	ND	ND	20.1	28.9
GP-9-4ft	ND	ND	98.6	ND	ND	15.9	4.99	11.4	3.47	ND	ND	21.0	ND	ND	ND	17.5	30.8
GP-9-8ft	ND	1.62	80.5	ND	ND	16.8	5.65	10.4	3.49	ND	2.4	26.6	ND	ND	ND	20.4	30.7
GP-10-1ft	ND	0.52	60.7	ND	ND	9.57	2.68	9.83	15.1	ND	ND	9.71	ND	ND	ND	15.7	31
GP-10-4ft	ND	ND	93	ND	ND	14.3	4.84	10.7	3.65	ND	ND	21.8	ND	ND	ND	16.2	28.9
GP-11-8ft	ND	ND	86.7	ND	ND	16.8	5.05	11.2	3.89	ND	ND	21.2	ND	ND	ND	16.9	32.1
GP-12-5ft	0.75	1.51	74	ND	ND	20.5	5.24	13.5	3.89	ND	ND	33.4	0.88	ND	ND	22.4	33.7
GP-13-1.5ft	2.81	6.62	135	ND	1.9	22.2	2.05	40.4	47.1	ND	4.56	30.3	1.65	1.29	ND	57.1	108
GP-14-1.5ft	1.7	9.08	108	ND	1.37	8.73	2.92	24.3	112 (1.57)	ND	3.4	28.8	1.1	ND	ND	44	477
Detection Limit	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.25	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5
STLC	15	5	100	0.75	1	560	80	25	5	0.2	350	20	1	5	7	24	250
TTLC	500	500	10,000	75	100	2,500	8,000	2,500	1,000	20	3,500	2,000	100	500	700	2,400	5,000
Res. PRG (ca)	-	0.39	-	-	-	210	-	-	-	-	-	-	-	-	-	-	-
Res. PRG (non-ca)	31	22	5,400	150	9	-	4,700	2,900	400	23	390	150	390	390	-	550	23,000
Ind. PRG (ca)	-	2.7	-	-	-	450	-	-	-	-	-	-	-	-	-	-	-
Ind. PRG (non-ca)	820	440	100,000	2,200	810	-	100,000	76,000	1,000	610	10,000	41,000	10,000	10,000	-	14,000	100,000

ND - Not detected  
 - Not analyzed or not applicable  
 STLC - Soluble threshold limit concentration  
 TTLC - Total threshold limit concentration  
 (1.57) - value in parentheses for sample GP-14-1.5ft is the soluble concentration in milligrams per liter (mg/l). This value is compared directly to the STLC.  
 PRG = U.S. EPA Region 9 Preliminary Remediation Goals for both Residential and Industrial sites, October 1999, (ca) = cancer endpoint, (non-ca) = non-cancer endpoint

**Table 3 – Groundwater Analytical Testing Summary - TEPH, VOCs and SVOCs**  
 Union Pacific Property – Lots 5-7 & 9-13, Santa Barbara, California

Sample Designation	TEPH (mg/l)	VOCs (µg/L)	SVOCs (µg/l)
GP-1	ND	1.3 µg/L Toluene 2.7 µg/L 1,2,4-Trimethylbenzene 3.8 µg/L Xylenes	-
GP-3	ND	7.4 µg/L Benzene 15.2 µg/L Ethylbenzene 1.4 µg/L Isopropylbenzene 6.5 µg/L Naphthalene 4.4 µg/L n-Propylbenzene 50.6 µg/L Toluene 41.3 µg/L 1,2,4-Trimethylbenzene 13.4 µg/L 1,3,5-Trimethylbenzene 46.2 µg/L Xylenes	-
GP-7	-	-	ND
GP-9	ND	ND	-
GP-11	ND	2.2 µg/L Ethylbenzene 5.0 µg/L Toluene 1.7 µg/L 1,2,4-Trimethylbenzene 7.4 µg/L Xylenes	-
GP-13	ND	ND	-
FD-1 (duplicate, GP-11)	ND	ND	-
Trip Blank	-	ND	-
Detection Limit	1	1-5	10-20

- Not Analyzed

ND – Not detected

mg/l – milligrams per liter (i.e., parts per million)

µg/l – micrograms per liter (i.e., parts per billion)

**Analyses:**

TEPH – total extractable petroleum hydrocarbons by EPA Method 8015 modified

VOCs – volatile organic compounds by EPA Method 8260 (see laboratory report for complete listing of VOC compounds)

SVOCs – semi-volatile organic compounds by EPA Method 8270 (see laboratory report for complete listing of SVOC compounds)

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**Appendix 1**  
Soil Boring Logs



# LOG OF BORING GP-1

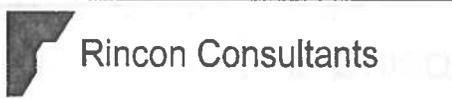
(Page 1 of 1)

MarBorg Industries Lots 5-7 and 9-13 Santa Barbara, California	Date Completed : 5/9/00	Logged By : J. Marcillac
	Depth : 9	Permit# : Exempt
Project No. : 00-9460	Location : Southwest of AGT in Lash Construction Yard.	
	Method : Geoprobe	
	Drilled By : Vironex	

Depth in Feet	PID	Lab No.	Samples	GRAPHIC	USCS	DESCRIPTION
0						Asphalt
0	GP-1@1				CL	GRAVELLY LEAN CLAY, 40% clay, 30% gravel, 20% silt, 10% fine sand, olive black (5Y2/1); moist; no odor. Fill material.
5	GP-1@4				ML	SILT, 65% silt, 30% clay, 5% fine sand; olive gray (5Y4/1) grades into light olive gray for 4" interval then back to olive gray; wet; no odor. Abundant plant material. Very soft. Possible organic soil (OL).
0	GP-1@8					SILT, 80% silt, 10% clay, 10% fine sand; olive gray (5Y4/1); wet; no odor.

Water level meter indicated groundwater at 10.7' bg immediately after driving hydropunch down to 12' bg. Groundwater sample GP-1 collected. All lithologic percentages are approximate.

05-11-2000 C:\mtech5\marborg\gp-1.bor



Rincon Consultants

LOG OF BORING GP-3

(Page 1 of 1)

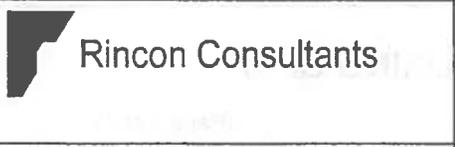
MarBorg Industries  
Lots 5-7 and 9-13  
Santa Barbara, California

Date Completed : 5/9/00  
Depth : 9  
Location : North of AGT in Lash Construction Yard.  
Method : Geoprobe  
Drilled By : Vironex

Logged By : J. Marcillac  
Permit# : Exempt

Project No.  
00-9460

Depth in Feet	PID	Lab No.	Samples	GRAPHIC	USCS	Water Levels	DESCRIPTION
0	0	GP-3@1					Asphalt
					SM		SILTY SAND, 70% fine to coarse sand, 30% silt; dark yellowish brown (10YR4/2); dry; weak asphalt odor. Fill material.
5	58	GP-3@4			GW-GM		WELL GRADED GRAVEL WITH SILT AND SAND, 60% angular gravel, 30% fine to coarse sand, 10% silt; olive black (5Y2/1); saturated; weak hydrocarbon odor. Fill material.
					CL		LEAN CLAY WITH SAND, 50% non-plastic clay, 30% silt, 20% fine sand; olive black (5Y2/1); wet; no odor.
10							
15							
							Groundwater sample GP-3 collected.
							All lithologic percentages are approximate.



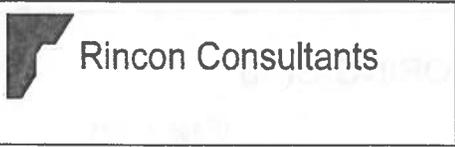
# LOG OF BORING GP-5

(Page 1 of 1)

MarBorg Industries Lots 5-7 and 9-13 Santa Barbara, California	Date Completed : 5/8/00	Logged By : J. Marcillac
	Depth : 9	Permit# : Exempt
Project No. 00-9460	Location : Southwest of stormwater drain in Lash Construction yard.	Method : Geoprobe
	Drilled By : Vironex	

Depth in Feet	PID	Lab No.	Samples	GRAPHIC	USCS	Water Levels	DESCRIPTION
0							Asphalt and Concrete
							No recovery. Sampler filled with asphalt and concrete sluff.
0		GP-5@4					SILT WITH SAND, 80% silt, 15% fine sand, 5% clay; olive black (5Y2/1); wet; faint musty odor. Very soft, easily compressed.
5					ML		
0		GP-5@8					SILT WITH SAND, as above; wet; faint musty odor.
10							
15							

All lithologic percentages are approximate.



# LOG OF BORING GP-7

(Page 1 of 1)

MarBorg Industries Lots 5-7 and 9-13 Santa Barbara, California	Date Completed : 5/8/00	Logged By : J. Marcillac
	Depth : 9	Permit# : Exempt
Project No.	Location : Adjacent to ERM boring P14-B1 east of Love's Tow yard.	
00-9460	Method : Geoprobe	
	Drilled By : Vironex	

Depth in Feet	PID	Lab No.	Samples	GRAPHIC	USCS	Water Levels	DESCRIPTION
0							Cement Pad
					CL		SANDY LEAN CLAY, 40% clay, 40% coarse sand, 20% silt; moderate brown (10YR4/4); moist; no odor. Pebbly fill material, not enough material for sample collection.
5	0	GP-7@4			ML	▼	SILT WITH SAND, 80% silt, 15% fine sand, 5% clay; dusky yellowish brown (10YR2/2); moist; faint musty odor.
	0	GP-7@8			SM		SILTY SAND, 55% rounded fine sand, 40% silt, 5% clay; light olive gray (5Y5/2), wet; no odor.
10							
15							

Groundwater level originally measured at 12.6' bg after driving hydropunch down to 13' bg. Drove down to 16' bg due to insufficient water volume for sample. After extracting over 2 liters of water (groundwater sample GP-7), the water level was measured at 4.7 feet below grade (approximately 1/2 hour after boring was completed).  
 All lithologic percentages are approximate.



MarBorg Industries Lots 5-7 and 9-13 Santa Barbara, California	Date Completed : 5/8/00	Logged By : J. Marcillac
	Depth : 9	Permit# : Exempt
Project No. 00-9460	Location : In Love's Tow yard at historic asphalt plant location.	
	Method : Geoprobe	
	Drilled By : Vironex	

Depth in Feet	PID	Lab No.	Samples	GRAPHIC	USCS	Water Levels	DESCRIPTION
0							
4	4	GP-9@1			SM		SILTY SAND, 70% fine sand, 20% silt, 10% clay; moderate yellowish brown (10YR5/4); damp; no odor. Heterogeneous fill material.
5	0	GP-9@4					BRICK
					CH		FAT CLAY, 60% plastic clay, 30% silt, 10% fine sand; olive gray (5Y4/1); moist; weak hydrocarbon odor.
52		GP-9@8			ML		SILT WITH SAND, 70% silt, 25% fine sand, 5% clay; olive black (5Y2/1) with some black splotches, wet; mild hydrocarbon odor.
10							
15							

All lithologic percentages are approximate.



MarBorg Industries  
Lots 5-7 and 9-13  
Santa Barbara, California

Date Completed : 5/8/00  
Depth : 9  
Location : In Love's Tow yard at historic auto repair shop location.  
Method : Geoprobe  
Drilled By : Vironex  
Logged By : J. Marcillac  
Permit# : Exempt

Project No.  
00-9460

Depth in Feet	PID	Lab No.	Samples	GRAPHIC	USCS	Water Levels	DESCRIPTION
0	0	GP-11@1			GW		GRAVELLY FILL MATERIAL WITH CONCRETE; dry; no odor.
5	0	GP-11@4			SM		SILTY SAND, 50% fine to coarse sand, 30% silt, 20% clay; olive gray (5Y4/1); damp; faint asphalt odor. Fill material. Brick and concrete fragments present throughout sample.
0	0	GP-11@8			CL		LEAN CLAY WITH SAND, 80% silt, 20% fine sand; white (N9) with black swirly mottling, wet; no odor. Same as GP-10@4. Looks like lime (weathered chalk??) with dark organic nodules.
10							
15							
							<p>Water level indicator measured groundwater at 6.1' bg after driving hydropunch down to 12' bg. Water sample GP-11 and Field duplicate water sample collected.</p> <p>All lithologic percentages are approximate.</p>



MarBorg Industries  
Lots 5-7 and 9-13  
Santa Barbara, California

Project No.  
00-9460

Date Completed : 5/19/00  
Depth : 9  
Location : Along west border of site between Love's yard and Calmat.  
Method : Geoprobe  
Drilled By : Vironex  
Logged By : S. English  
Permit# : Exempt

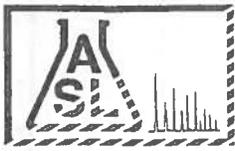
Depth in Feet	PID	Lab No.	Samples	GRAPHIC	USCS	Water Levels	DESCRIPTION
0	3	GP-13@1.5			SC		CLAYEY SAND; brown; non sticky; slightly plastic; moist; no odor. Some pebbles present.
5	0	GP-13@5			CL		CLAY; brown, sticky, plastic, very moist, no odor.
0	0	GP-13@8.5				▼	CLAY; as above.
10							
15							

Groundwater sample GP-13 collected.  
All lithologic percentages are approximate.

**Appendix 2**

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Laboratory Analytical Report



AMERICAN SCIENTIFIC LABORATORIES, LLC  
*Environmental Testing Services*

Ordered By

Rincon Consultants  
790 E. Santa Clara St.  
Ventura, CA 93001

Number of Pages 54  
Date Received 05/11/2000  
Date Reported 05/30/2000

Telephone (805) 641-1000  
Attn Tom Matteuci

Job Number	Ordered	Client
8014	05/11/2000	RINCON

Project ID: 00-9460  
Project Name: Marborg  
Site: Lots 5-7 and 9-13  
Santa Barbara

Enclosed are the results of analyses on 30 samples analyzed as specified on attached chain of custody.

Wendy Lu  
Organics Supervisor

Rojert G. Araghi  
Laboratory Director

American Scientific Laboratories, LLC (ASL) accepts sample materials from clients for analysis with the assumption that all of the information provided to ASL verbally or in writing by our clients (and/or their agents), regarding samples being submitted to ASL, is complete and accurate. ASL accepts all samples subject to the following conditions:

- 1) ASL is not responsible for verifying any client-provided information regarding any samples submitted to the laboratory.
- 2) ASL is not responsible for any consequences resulting from any inaccuracies, omissions, or misrepresentations contained in client-provided information regarding samples submitted to the laboratory.



AMERICAN SCIENTIFIC LABORATORIES, LLC  
 Environmental Testing Services  
 3225 San Fernando Road, L.A., CA 90065 • Tel: (323) 254-7700 • Fax: (323) 254-7799

ASL JOB# 8014

Company: <u>Rincon Consultants</u>		Report To: <u>Rincon</u>		ANALYSIS REQUESTED	
Address: <u>790 E. Santa Clara</u>		Address:			
Project Name: <u>Newburg</u>		Invoice To:			
Site Address: <u>LOTS 5 - 7 + 9-13,</u>		Address:			
Ventura, CA		P.O.#:			
Telephone: <u>805-641-1000/1012</u>		Project ID: <u>00-9460</u>			
Fax: <u>805-641-1000/1012</u>		Project Manager: <u>Tom Matteucci</u>			
Special Instruction: <u>*need chromatographs</u>		Container(s)			
SAMPLE DESCRIPTION		Date	Time	#	Type
LAB USE ONLY	Sample ID	Date	Time	#	Type
LAB USE ONLY	Lab ID				
8	51200	GP-4-4	5/8/00	1530	Acetate Soil
31	51649	GP-4-8	1540		
9	51201	GP-5-4	920		
10	51202	GP-5-8	940		
11	51203	GP-6-1	830		
12	51204	-4	840		
13	51205	-8	850		
14	51206	GP-7-4	900		
15	51208	GP-7-8	910		
1		GP-8-1*	1105		
Collected By:		Date	Time	Relinquished By:	
Relinquished By:		Date	Time	Received For Laboratory:	
Condition of Sample:		Date	Time	Time	

see attached for  
 TSPH  
 VOCs  
 metals  
 SVOCs  
 PCBs

Remarks

Added 5/22

TAT

Normal  Rush

Relinquished By: [Signature] ASL Date 5/16/00 Time 10:05



AMERICAN SCIENTIFIC LABORATORIES, LLC  
Environmental Testing Services

3225 San Fernando Road, L.A, CA 90065 Tel: (323) 254-7700 • Fax: (323) 254-7799

ASL JOB# 8014

Company: <u>Rincon Consultants</u>		Project Name: <u>Marbors</u>		Report To: <u>Rincon</u>		ANALYSIS REQUESTED	
Address: <u>790 E. Santa Clara</u>		Site Address: <u>Lots 5-7 + 9-13</u>		Address:		Metals	
Telephone: <u>805-641-1000</u>		Project ID: <u>00-9460</u>		Invoice To:		SVC's	
Fax: <u>805-641-1072</u>		Project Manager: <u>Ton Maffrecci</u>		Address:		VOC's	
Special Instruction: <u>*need chromatographs</u>		Container(s)		P.O.#:		TEPH	
*also see attached for QA		SAMPLE DESCRIPTION		Matrix		Preservation	
LAB USE ONLY	Sample ID	Date	Time	#	Type	Matrix	Preservation
23	51215	GP-11-8	5/8/00	1	Acetate	Soil	Exc
24	51216	GP-1	5/9/00	3	Voa/Amber	H <sub>2</sub> O	
25	51217	GP-3	5/9/00				
26	51218	GP-7	5/8/00				
27	51219	GP-9	1100				
28	51220	GP-11	1005				
29	51221	FD-1		1	Amber	H <sub>2</sub> O	
30	51222	TB-1		2	10A's	H <sub>2</sub> O	

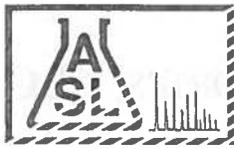
Collected By:	Date	Time	Relinquished By:	Date	Time	TAT
			<i>[Signature]</i>	5/11/00	10:05	Normal <input checked="" type="checkbox"/> Rush <input type="checkbox"/>

Condition of Sample:	Received For Laboratory	Date	Time
	<i>[Signature]</i>	5/11/00	10:05

Remarks: Need Report w/all method blanks  
Lab control samples, matrix spikes  
Sunrogate recoveries and limits  
Add: 1 oncd  
CPH/PC



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 Environmental Testing Services

ANALYTICAL RESULTS

Page: 3  
 Project ID: 00-9460  
 Project Name: Marborg

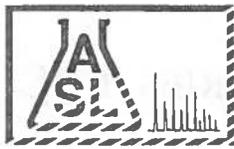
Job Number	Order Date	Client
8014	05/11/2000	RINCON

Method: 6010B/7471A, CCR Title 22 Metals

QUALITY CONTROL REPORT

Batch No:

Analytes	MS % REC	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit	LCS % REC	LCS/LCSD % Limit			
<b>AA Metals</b>										
Mercury	85	90	5.7	70-130	30	100	80-120			
<b>ICP Metals</b>										
Antimony	58	57	1.7	70-130	30	87	80-120			
Arsenic	87	87	<1	70-130	30	89	80-120			
Barium	76	77	1.3	70-130	30	97	80-120			
Beryllium	96	96	<1	70-130	30	95	80-120			
Cadmium	88	88	<1	70-130	30	91	80-120			
Chromium	83	83	<1	70-130	30	93	80-120			
Cobalt	81	80	1.2	70-130	30	91	80-120			
Copper	92	93	1.1	70-130	30	94	80-120			
Lead	66	66	<1	70-130	30	84	80-120			
Molybdenum	79	79	<1	70-130	30	84	80-120			
Nickel	70	70	<1	70-130	30	88	80-120			
Selenium	85	85	<1	70-130	30	89	80-120			
Silver	91	92	1.1	70-130	30	97	80-120			
Thallium	81	82	1.2	70-130	30	90	80-120			
Vanadium	80	80	<1	70-130	30	90	80-120			
Zinc	77	78	1.3	70-130	30	94	80-120			



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ANALYTICAL RESULTS

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Project Name: Marborg

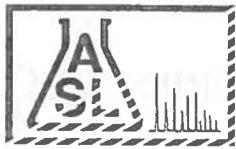
Job Number	Order Date	Client
8014	05/11/2000	RINCON

Method: 6010B/7471A, CCR Title 22 Metals

QUALITY CONTROL REPORT

Batch No:

Analytes	MS % REC	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit	LCS % REC	LCS/LCSD % Limit			
AA Metals										
Mercury	85	90	5.7	70-130	30	100	80-120			
ICP Metals										
Antimony	58	57	1.7	70-130	30	87	80-120			
Arsenic	87	87	<1	70-130	30	89	80-120			
Barium	76	77	1.3	70-130	30	97	80-120			
Beryllium	96	96	<1	70-130	30	95	80-120			
Cadmium	88	88	<1	70-130	30	91	80-120			
Chromium	83	83	<1	70-130	30	93	80-120			
Cobalt	81	80	1.2	70-130	30	91	80-120			
Copper	92	93	1.1	70-130	30	94	80-120			
Lead	66	66	<1	70-130	30	84	80-120			
Molybdenum	79	79	<1	70-130	30	84	80-120			
Nickel	70	70	<1	70-130	30	88	80-120			
Selenium	85	85	<1	70-130	30	89	80-120			
Silver	91	92	1.1	70-130	30	97	80-120			
Thallium	81	82	1.2	70-130	30	90	80-120			
Vanadium	80	80	<1	70-130	30	90	80-120			
Zinc	77	78	1.3	70-130	30	94	80-120			



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 Project ID: 00-9460  
 Project Name: Marborg

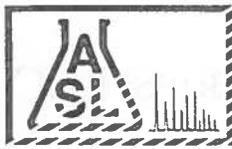
Job Number	Order Date	Client
8014	05/11/2000	RINCON

Method: 6010B/7471A, CCR Title 22 Metals  
QUALITY CONTROL REPORT

Batch No:

Analytes	MS % REC	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit	LCS % REC	LCS/LCSD % Limit			
AA Metals										
Mercury	85	90	5.7	70-130	30	100	80-120			
ICP Metals										
Antimony	58	57	1.7	70-130	30	87	80-120			
Arsenic	87	87	<1	70-130	30	89	80-120			
Barium	76	77	1.3	70-130	30	97	80-120			
Beryllium	96	96	<1	70-130	30	95	80-120			
Cadmium	88	88	<1	70-130	30	91	80-120			
Chromium	83	83	<1	70-130	30	93	80-120			
Cobalt	81	80	1.2	70-130	30	91	80-120			
Copper	92	93	1.1	70-130	30	94	80-120			
Lead	66	66	<1	70-130	30	84	80-120			
Molybdenum	79	79	<1	70-130	30	84	80-120			
Nickel	70	70	<1	70-130	30	88	80-120			
Selenium	85	85	<1	70-130	30	89	80-120			
Silver	91	92	1.1	70-130	30	97	80-120			
Thallium	81	82	1.2	70-130	30	90	80-120			
Vanadium	80	80	<1	70-130	30	90	80-120			
Zinc	77	78	1.3	70-130	30	94	80-120			

ND - Not Detected at The Detection Limit. MS - Matrix Spike. MSD - Matrix Spike Duplicate. SM - Sample. SMD - Sample Duplicate.



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ANALYTICAL RESULTS

Ordered By

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 Santa Barbara

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Attn: Tom Matteuci

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Project ID: 00-9460

Project Name: Marborg

Job Number	Order Date	Client
8014	05/11/2000	RINCON

Method: 8015M/DHSLUFT, Total Petroleum Hydrocarbons

Batch No: 051600-1

Our Lab I.D.		51193	51194	51197	51198	51199
Sample ID		GP-1-1	GP-2-1	GP-3-4	GP-3-8	GP-4-1
Date Sampled		05/09/2000	05/09/2000	05/09/2000	05/09/2000	05/09/2000
Date Extracted		05/16/2000	05/16/2000	05/16/2000	05/16/2000	05/16/2000
Preparation Method						
Date Analyzed		05/16/2000	05/16/2000	05/16/2000	05/16/2000	05/16/2000
Matrix		Soil	Soil	Soil	Soil	Soil
Units		mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Detection Limit Multiplier		1	1	1	1	1
Analytes	PQL	Results	Results	Results	Results	Results
Crude Oil	10	ND	ND	ND	ND	ND
Diesel	10	ND	ND	ND	ND	ND
Fuel Oil	10	ND	ND	ND	ND	ND
Heavy Oil	10	ND	ND	ND	ND	ND
Hydraulic Oil	10	ND	ND	ND	ND	ND
Jet Fuel	10	ND	ND	ND	ND	ND
Kerosene	10	ND	ND	ND	ND	ND
Mineral Spirits	10	ND	ND	ND	ND	ND
Paint Thinner	10	ND	ND	ND	ND	ND

Our Lab I.D.		51193	51194	51197	51198	51199
Surrogates	Con. Limit	% Rec.				
Surrogate Percent Recovery						
Chlorobenzene	70-120	101	101	103	79	101

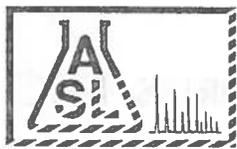
QUALITY CONTROL REPORT

Batch No: 051600-1

Analytes	MS % REC	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit	LCS % REC				
Diesel	94	94	<1	75-120	15	91				

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Project ID: 00-9460

Project Name: Marborg

Job Number	Order Date	Client
8014	05/11/2000	RINCON

Method: 8015M/DHSLUFT, Total Petroleum Hydrocarbons

Batch No: 051600-1

Our Lab I.D.		51206	51207	51208	51210	51211
Sample ID		GP-7-4	GP-7-8	GP-8-4	GP-9-4	GP-9-8
Date Sampled		05/08/2000	05/08/2000	05/08/2000	05/08/2000	05/08/2000
Date Extracted		05/16/2000	05/16/2000	05/16/2000	05/16/2000	05/16/2000
Preparation Method						
Date Analyzed		05/16/2000	05/16/2000	05/16/2000	05/16/2000	05/16/2000
Matrix		Soil	Soil	Soil	Soil	Soil
Units		mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Detection Limit Multiplier		1	1	1	1	1
Analytes	PQL	Results	Results	Results	Results	Results
Crude Oil	10	ND	ND	ND	ND	ND
Diesel	10	ND	ND	1950	145	1670
Fuel Oil	10	ND	ND	ND	ND	ND
Heavy Oil	10	ND	ND	ND	ND	ND
Hydraulic Oil	10	ND	ND	ND	ND	ND
Jet Fuel	10	ND	ND	ND	ND	ND
Kerosene	10	ND	ND	ND	ND	ND
Mineral Spirits	10	ND	ND	ND	ND	ND
Paint Thinner	10	ND	ND	ND	ND	ND

Our Lab I.D.		51206	51207	51208	51210	51211
Surrogates	Con. Limit	% Rec.				
Surrogate Percent Recovery						
Chlorobenzene	70-120	116	103	115	101	113

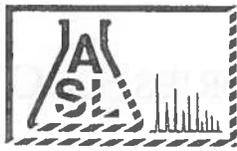
QUALITY CONTROL REPORT

Batch No: 051600-1

Analytes	MS % REC	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit	LCS % REC				
Diesel	94	94	<1	75-120	15	91				

ND - Not Detected at The Detection Limit. MS - Matrix Spike. MSD - Matrix Spike Duplicate. SM - Sample. SMD - Sample Duplicate.

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Project ID: 00-9460

Project Name: Marborg

Job Number	Order Date	Client
8014	05/11/2000	RINCON

Method: 8015M/DHSLUFT, Total Petroleum Hydrocarbons

Batch No: 051700-1

Our Lab I.D.		51200			
Sample ID		GP-44			
Date Sampled		05/08/2000			
Date Extracted		05/16/2000			
Preparation Method					
Date Analyzed		05/18/2000			
Matrix		Soil			
Units		mg/Kg			
Detection Limit Multiplier		2			
<b>Analytes</b>	<b>PQL</b>	<b>Results</b>			
Crude Oil	20	ND			
Diesel	20	ND			
Fuel Oil	20	ND			
Heavy Oil	20	1900			
Hydraulic Oil	20	ND			
Jet Fuel	20	ND			
Kerosene	20	ND			
Mineral Spirits	20	ND			
Paint Thinner	20	ND			

Our Lab I.D.		51200			
<b>Surrogates</b>	<b>Con. Limit</b>	<b>% Rec.</b>			
<b>Surrogate Percent Recovery</b>					
Chlorobenzene	70-120	109			

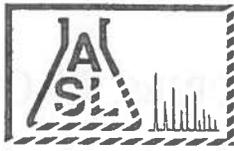
QUALITY CONTROL REPORT

Batch No: 051700-1

Analytes	MS % REC	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit	LCS % REC			
Diesel	102	96	6.1	75-120	15	105			

ND - Not Detected at The Detection Limit. MS - Matrix Spike. MSD - Matrix Spike Duplicate. SM - Sample. SMD - Sample Duplicate.

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Project ID: 00-9460

Project Name: Marborg

Job Number	Order Date	Client
8014	05/11/2000	RINCON

Method: 8015M/DHSLUFT, Total Petroleum Hydrocarbons

Batch No: 051500-1

Our Lab I.D.		51216	51217	51219	51220	51221
Sample ID		GP-1	GP-3	GP-9	GP-11	FD-1
Date Sampled		05/09/2000	05/09/2000	05/08/2000	05/08/2000	05/08/2000
Date Extracted		05/15/2000	05/15/2000	05/15/2000	05/15/2000	05/15/2000
Preparation Method						
Date Analyzed		05/15/2000	05/15/2000	05/15/2000	05/15/2000	05/15/2000
Matrix		Water	Water	Water	Water	Water
Units		mg/L	mg/L	mg/L	mg/L	mg/L
Detection Limit Multiplier		1	1	1	1	1
Analytes	PQL	Results	Results	Results	Results	Results
Crude Oil	1.0	ND	ND	ND	ND	ND
Diesel	1.0	ND	ND	ND	ND	ND
Fuel Oil	1.0	ND	ND	ND	ND	ND
Heavy Oil	1.0	ND	ND	ND	ND	ND
Hydraulic Oil	1.0	ND	ND	ND	ND	ND
Jet Fuel	1.0	ND	ND	ND	ND	ND
Kerosene	1.0	ND	ND	ND	ND	ND
Mineral Spirits	1.0	ND	ND	ND	ND	ND

Our Lab I.D.		51216	51217	51219	51220	51221
Surrogates	Con. Limit	% Rec.				
Surrogate Percent Recovery						
Chlorobenzene	70-120	102	94	110	112	114

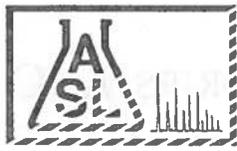
QUALITY CONTROL REPORT

Batch No: 051500-1

Analytes	MS % REC	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit	LCS % REC			
Diesel	104	104	<1	75-120	15	120			

ND - Not Detected at The Detection Limit. MS - Matrix Spike. MSD - Matrix Spike Duplicate. SM - Sample. SMD - Sample Duplicate.

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Project ID: 00-9460

Project Name: Marborg

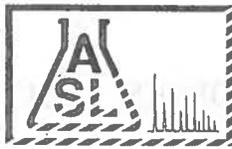
Job Number	Order Date	Client
8014	05/11/2000	RINCON

Method: 8260, Volatile Organic Compounds

Batch No: 051200-1

Our Lab I.D.		51216	51217	51219	51220	51221
Sample ID		GP-1	GP-3	GP-9	GP-11	FD-1
Date Sampled		05/09/2000	05/09/2000	05/08/2000	05/08/2000	05/08/2000
Date Extracted		05/12/2000	05/12/2000	05/12/2000	05/12/2000	05/12/2000
Preparation Method						
Date Analyzed		05/12/2000	05/12/2000	05/12/2000	05/12/2000	05/12/2000
Matrix		Water	Water	Water	Water	Water
Units		ug/L	ug/L	ug/L	ug/L	ug/L
Detection Limit Multiplier		1	1	1	1	1
Analytes	PQL	Results	Results	Results	Results	Results
Benzene	1	ND	7.4	ND	ND	ND
Bromobenzene (Phenyl bromide)	1	ND	ND	ND	ND	ND
Bromochloromethane (Chlorobromomethane)	1	ND	ND	ND	ND	ND
Bromodichloromethane (Dichlorobromomethane)	1	ND	ND	ND	ND	ND
Bromoform (Tribromomethane)	5	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	3	ND	ND	ND	ND	ND
n-Butylbenzene	1	ND	ND	ND	ND	ND
sec-Butylbenzene	1	ND	ND	ND	ND	ND
tert-Butylbenzene	1	ND	ND	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	1	ND	ND	ND	ND	ND
Chlorobenzene	1	ND	ND	ND	ND	ND
Chloroethane	3	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	1	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	3	ND	ND	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	1	ND	ND	ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	1	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	5	ND	ND	ND	ND	ND
Dibromochloromethane	1	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	1	ND	ND	ND	ND	ND
Dibromomethane	1	ND	ND	ND	ND	ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND	ND	ND	ND	ND
1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND	ND	ND	ND	ND

ND - Not Detected at The Detection Limit. MS - Matrix Spike. MSD - Matrix Spike Duplicate. SM - Sample. SMD - Sample Duplicate.



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ANALYTICAL RESULTS

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Project ID: 00-9460  
Project Name: Marborg

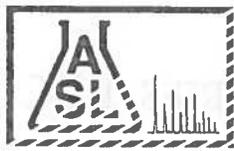
Job Number	Order Date	Client
8014	05/11/2000	RINCON

Method: 8260, Volatile Organic Compounds

Batch No: 051200-1

Our Lab I.D.		51222			
Sample ID		TB-1			
Date Sampled		05/08/2000			
Analytes	PQL	Results			
1,4-Dichlorobenzene	1	ND			
Dichlorodifluoromethane	3	ND			
1,1-Dichloroethane	1	ND			
1,2-Dichloroethane	1	ND			
1,1-Dichloroethene (1,1-Dichloroethylene)	1	ND			
cis-1,2-Dichloroethene	1	ND			
trans-1,2-Dichloroethene	1	ND			
1,2-Dichloropropane	1	ND			
1,3-Dichloropropane	1	ND			
2,2-Dichloropropane	1	ND			
1,1-Dichloropropene	1	ND			
cis-1,3-Dichloropropene	1	ND			
trans-1,3-Dichloropropene	1	ND			
Ethylbenzene	1	ND			
Hexachlorobutadiene (1,3-Hexachlorobutadiene)	3	ND			
Isopropylbenzene	1	ND			
p-Isopropyltoluene (4-Isopropyltoluene)	1	ND			
Methylene chloride (Dichloromethane, DCM)	5	ND			
Naphthalene	1	ND			
n-Propylbenzene	1	ND			
Styrene	1	ND			
1,1,1,2-Tetrachloroethane	1	ND			
1,1,2,2-Tetrachloroethane	1	ND			
Tetrachloroethene (Tetrachloroethylene)	1	ND			
Toluene (Methyl benzene)	1	ND			
1,2,3-Trichlorobenzene	1	ND			
1,2,4-Trichlorobenzene	1	ND			
1,1,1-Trichloroethane	1	ND			
1,1,2-Trichloroethane	1	ND			
Trichloroethene (Trichloroethylene)	1	ND			
Trichlorofluoromethane	1	ND			
1,2,3-Trichloropropane	1	ND			
1,2,4-Trimethylbenzene	1	ND			
1,3,5-Trimethylbenzene	1	ND			
Vinyl chloride (Chloroethene)	3	ND			
o-Xylene	1	ND			
m- & p-Xylenes	2	ND			

ND - Not Detected at The Detection Limit. MS - Matrix Spike. MSD - Matrix Spike Duplicate. SM - Sample. SMD - Sample Duplicate.



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ANALYTICAL RESULTS

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Project ID: 00-9460

Project Name: Marborg

Job Number	Order Date	Client
8014	05/11/2000	RINCON

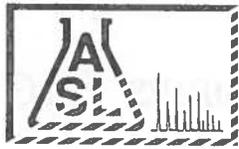
Method: 8260, Volatile Organic Compounds

Batch No: 051500-1

Our Lab I.D.		51195	51197	51198	51201	51213
Sample ID		GP-2-8	GP-3-4	GP-3-8	GP-5-4	GP-10-4
Date Sampled		05/09/2000	05/09/2000	05/09/2000	05/08/2000	05/08/2000
Date Extracted		05/15/2000	05/15/2000	05/15/2000	05/15/2000	05/15/2000
Preparation Method						
Date Analyzed		05/15/2000	05/15/2000	05/15/2000	05/15/2000	05/15/2000
Matrix		Soil	Soil	Soil	Soil	Soil
Units		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Detection Limit Multiplier		1	1	1	1	1
Analytes	PQL	Results	Results	Results	Results	Results
Benzene	10	ND	ND	ND	ND	ND
Bromobenzene (Phenyl bromide)	10	ND	ND	ND	ND	ND
Bromochloromethane (Chlorobromomethane)	10	ND	ND	ND	ND	ND
Bromodichloromethane (Dichlorobromomethane)	10	ND	ND	ND	ND	ND
Bromoform (Tribromomethane)	50	ND	ND	ND	ND	ND
Bromomethane (Methyl bromide)	30	ND	ND	ND	ND	ND
n-Butylbenzene	10	ND	ND	ND	ND	ND
sec-Butylbenzene	10	ND	ND	ND	ND	ND
tert-Butylbenzene	10	ND	ND	ND	ND	ND
Carbon tetrachloride (Tetrachloromethane)	10	ND	ND	ND	ND	ND
Chlorobenzene	10	ND	ND	ND	ND	ND
Chloroethane	10	ND	ND	ND	ND	ND
Chloroform (Trichloromethane)	10	ND	ND	ND	ND	ND
Chloromethane (Methyl chloride)	30	ND	ND	ND	ND	ND
4-Chlorotoluene (p-Chlorotoluene)	10	ND	ND	ND	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	10	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	10	ND	ND	ND	ND	ND
Dibromochloromethane	10	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB, Ethylene dibromide)	10	ND	ND	ND	ND	ND
Dibromomethane	10	ND	ND	ND	ND	ND
1,2-Dichlorobenzene (o-Dichlorobenzene)	10	ND	ND	ND	ND	ND
1,3-Dichlorobenzene (m-Dichlorobenzene)	10	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	10	ND	ND	ND	ND	ND
Dichlorodifluoromethane	10	ND	ND	ND	ND	ND

ND - Not Detected at The Detection Limit. MS - Matrix Spike. MSD - Matrix Spike Duplicate. SM - Sample. SMD - Sample Duplicate.

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 Environmental Testing Services

ANALYTICAL RESULTS

Page: 25  
 Project ID: 00-9460  
 Project Name: Marborg

Job Number	Order Date	Client
8014	05/11/2000	RINCON

Method: 8260, Volatile Organic Compounds

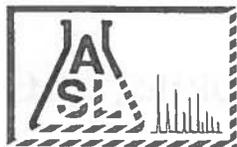
Our Lab I.D.		51195	51197	51198	51201	51213
Surrogates	Con. Limit	% Rec.				
Surrogate Percent Recovery						
Bromofluorobenzene	70-120	112	111	112	115	114
Dibromofluoromethane	70-120	110	90	108	110	110
Toluene-d8	70-120	99	99	99	99	99

QUALITY CONTROL REPORT

Batch No: 051500-1

Analytes	MS % REC	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit	LCS % REC				
Benzene	106	96	9.9	75-120	15	97				
Chlorobenzene	160	98	48.1	75-120	15	114				
1,1-Dichloroethene (1,1-Dichloroethylene)	108	102	5.7	75-120	15	84				
Toluene (Methyl benzene)	107	97	9.8	75-120	15	102				
Trichloroethene (Trichloroethylene)	107	98	8.8	75-120	15	97				

ND - Not Detected at The Detection Limit. MS - Matrix Spike. MSD - Matrix Spike Duplicate. SM - Sample. SMD - Sample Duplicate.



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 Environmental Testing Services

ANALYTICAL RESULTS

Page: 27  
 Project ID: 00-9460  
 Project Name: Marborg

Job Number	Order Date	Client
8014	05/11/2000	RINCON

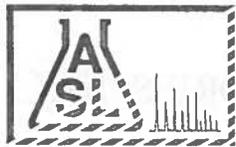
Method: 8260, Volatile Organic Compounds

Batch No: 051600

Our Lab I.D.		51208	51209	51211	51215
Sample ID		GP-8-4	GP-8-8	GP-9-8	GP-11-8
Date Sampled		05/08/2000	05/08/2000	05/08/2000	05/08/2000
Analytes	PQL	Results	Results	Results	Results
1,1-Dichloroethane	10	ND	ND	ND	ND
1,2-Dichloroethane	10	ND	ND	ND	ND
1,1-Dichloroethene (1,1-Dichloroethylene)	10	ND	ND	ND	ND
cis-1,2-Dichloroethene	10	ND	ND	ND	ND
trans-1,2-Dichloroethene	10	ND	ND	ND	ND
1,2-Dichloropropane	10	ND	ND	ND	ND
1,3-Dichloropropane	10	ND	ND	ND	ND
2,2-Dichloropropane	10	ND	ND	ND	ND
1,1-Dichloropropene	10	ND	ND	ND	ND
cis-1,3-Dichloropropene	10	ND	ND	ND	ND
trans-1,3-Dichloropropene	10	ND	ND	ND	ND
Ethylbenzene	10	ND	ND	ND	ND
Hexachlorobutadiene (1,3-Hexachlorobutadiene)	30	ND	ND	ND	ND
Isopropylbenzene	10	16	280	ND	ND
p-Isopropyltoluene (4-Isopropyltoluene)	10	ND	45	ND	ND
Methylene chloride (Dichloromethane, DCM)	50	ND	ND	ND	ND
Naphthalene	10	202	1210	18	ND
n-Propylbenzene	10	22	435	ND	ND
Styrene	10	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	10	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	10	ND	ND	ND	ND
Tetrachloroethene (Tetrachloroethylene)	10	ND	ND	ND	ND
Toluene (Methyl benzene)	10	ND	ND	ND	ND
1,2,3-Trichlorobenzene	10	ND	ND	ND	ND
1,2,4-Trichlorobenzene	10	ND	ND	ND	ND
1,1,1-Trichloroethane	10	ND	ND	ND	ND
1,1,2-Trichloroethane	10	ND	ND	ND	ND
Trichloroethene (Trichloroethylene)	10	ND	ND	ND	ND
Trichlorofluoromethane	10	ND	ND	ND	ND
1,2,3-Trichloropropane	10	ND	ND	ND	ND
1,2,4-Trimethylbenzene	10	ND	ND	ND	ND
1,3,5-Trimethylbenzene	10	ND	90	ND	ND
Vinyl chloride (Chloroethene)	30	ND	ND	ND	ND
o-Xylene	10	ND	ND	ND	ND
m- & p-Xylenes	20	ND	ND	ND	ND

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ANALYTICAL RESULTS

Ordered By

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790 E. Santa Clara St.  
Ventura, CA 93001

Site

Lots S-7 and 9-13  
Santa Barbara

Telephone: (805)641-1000

Attn: Tom Matteuci

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Project ID: 00-9460

Project Name: Marborg

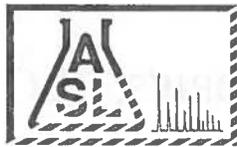
Job Number	Order Date	Client
8014	05/11/2000	RINCON

Method: 8270C, Semivolatile Organics

Our Lab I.D.		51218			
Sample ID		GP-7			
Date Sampled		05/08/2000			
Date Extracted		05/12/2000			
Preparation Method					
Date Analyzed		05/13/2000			
Matrix		Water			
Units		ug/L			
Detection Limit Multiplier		1			
Analytes	PQL	Results			
Acenaphthene	10	ND			
Acenaphthylene	10	ND			
Anthracene	10	ND			
Benz(a)anthracene (Benzo(a)anthracene)	10	ND			
Benzo(a)pyrene	10	ND			
Benzo(b)fluoranthene	10	ND			
Benzo(ghi)perylene	10	ND			
Benzo(k)fluoranthene	10	ND			
Benzoic acid	10	ND			
Benzyl alcohol	10	ND			
Bis(2-chloroethoxy)methane	10	ND			
Bis(2-chloroethyl)ether	10	ND			
Bis(2-chloroisopropyl) ether	10	ND			
Bis(2-ethylhexyl) phthalate	10	ND			
4-Bromophenyl phenyl ether	10	ND			
Butyl benzyl phthalate (Benzyl butyl phthalate)	10	ND			
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND			
4-Chloroaniline	10	ND			
2-Chloronaphthalene	10	ND			
2-Chlorophenol (o-Chlorophenol)	1	ND			
4-Chlorophenyl phenyl ether	10	ND			
Chrysene	10	ND			
Di-n-butyl phthalate	10	ND			
Di-n-octyl phthalate (Dioctyl ester)	10	ND			
Dibenz(a,h)anthracene	10	ND			

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ANALYTICAL RESULTS

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 Project ID: 00-9460  
 Project Name: Marborg

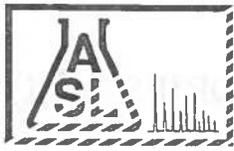
Job Number	Order Date	Client
8014	05/11/2000	RINCON

Method: 8270C, Semivolatile Organics

Our Lab I.D.	Con. Limit	% Rec.	51218
Surrogates			
Surrogate Percent Recovery			
2-Fluorophenol	21-105	55	
Phenol-d6	10-107	85	
2,4,6-Tribromophenol	10-123	96	
Nitrobenzene-d5	35-114	58	
2-Fluorobiphenyl	43-116	82	
Terphenyl-d14	33-141	89	

QUALITY CONTROL REPORT

Analytes	MS % REC	MS DUP % REC	RPD %	LCS % REC	LCS/LCSD % Limit
Acenaphthene	79	79	<1	79	46-118
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	69	69	<1	69	23-117
2-Chlorophenol (o-Chlorophenol)	79	81	2.5	79	27-113
1,4-Dichlorobenzene	78	81	3.8	78	36-105
2,4-Dinitrotoluene	70	72	2.8	70	24-120
N-Nitroso-Di-n-propylamine	92	91	1.1	92	41-116
4-Nitrophenol	70	71	1.4	70	10-133
Pentachlorophenol	95	96	1.0	95	9-118
Phenol	82	83	1.2	82	12-110
Pyrene	75	73	2.7	75	26-127
1,2,4-Trichlorobenzene	79	79	<1	79	39-98



AMERICAN SCIENTIFIC LABORATORIES, LLC  
 Environmental Testing Services

ANALYTICAL RESULTS

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 Project ID: 00-9460  
 Project Name: Marborg

Job Number	Order Date	Client
8014	05/11/2000	RINCON

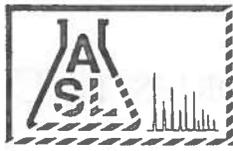
Method: 8270C, Semivolatile Organics

Batch No: 051300

Our Lab I.D.		51206	51213		
Sample ID		GP-7-4	GP-10-4		
Date Sampled		05/08/2000	05/08/2000		
Analytes	PQL	Results	Results		
Dibenz(a,h)anthracene	330	ND	ND		
Dibenzofuran	330	ND	ND		
1,3-Dichlorobenzene (m-Dichlorobenzene)	330	ND	ND		
1,2-Dichlorobenzene (o-Dichlorobenzene)	330	ND	ND		
1,4-Dichlorobenzene	330	ND	ND		
3,3'-Dichlorobenzidine	330	ND	ND		
2,4-Dichlorophenol	330	ND	ND		
Diethyl phthalate (Diethyl ester)	330	ND	ND		
2,4-Dimethylphenol	330	ND	ND		
Dimethyl phthalate (Dimethyl ester)	330	ND	ND		
2,4-Dinitrophenol	1700	ND	ND		
2,4-Dinitrotoluene	330	ND	ND		
2,6-Dinitrotoluene (2,6-DNT)	330	ND	ND		
Fluoranthene	330	ND	ND		
Fluorene	330	ND	ND		
Hexachlorobenzene	330	ND	ND		
Hexachlorobutadiene (1,3-Hexachlorobutadiene)	330	ND	ND		
Hexachlorocyclopentadiene	660	ND	ND		
Hexachloroethane	330	ND	ND		
Indeno(1,2,3-cd)pyrene	330	ND	ND		
Isophorone	330	ND	ND		
2-methyl-4,6-Dinitrophenol	330	ND	ND		
2-Methylnaphthalene	330	ND	ND		
2-Methylphenol (o-Cresol, 2-Cresol)	330	ND	ND		
4-Methylphenol (p-Cresol, 4-Cresol)	330	ND	ND		
N-Nitroso-Di-n-propylamine	330	ND	ND		
N-Nitrosodiphenylamine	330	ND	ND		
Naphthalene	330	ND	ND		
2-Nitroaniline	1700	ND	ND		
3-Nitroaniline	1700	ND	ND		
4-Nitroaniline	1700	ND	ND		
Nitrobenzene (NB)	330	ND	ND		
2-Nitrophenol (o-Nitrophenol)	330	ND	ND		
4-Nitrophenol	330	ND	ND		
Pentachlorophenol	1700	ND	ND		
Phenanthrene	330	ND	ND		
Phenol	330	ND	ND		
Pyrene	330	ND	ND		
1,2,4-Trichlorobenzene	330	ND	ND		

ND - Not Detected at The Detection Limit. MS - Matrix Spike. MSD - Matrix Spike Duplicate. SM - Sample. SMD - Sample Duplicate.

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ANALYTICAL RESULTS

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Ventura, CA 93001

Lots S-7 and 9-13  
Santa Barbara

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Attn: Tom Matteuci

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Project ID: 00-9460

Project Name: Marborg

Job Number	Order Date	Client
8014	05/11/2000	RINCON

Method: 8270C, Semivolatile Organics

Batch No: 051300

Our Lab I.D.		51209			
Sample ID		GP-8-8			
Date Sampled		05/08/2000			
Date Extracted		05/12/2000			
Preparation Method					
Date Analyzed		05/13/2000			
Matrix		Soil			
Units		ug/kg			
Detection Limit Multiplier		10			
<b>Analytes</b>	<b>PQL</b>	<b>Results</b>			
Acenaphthene	3300	ND			
Acenaphthylene	3300	ND			
Anthracene	3300	ND			
Benz(a)anthracene (Benzo(a)anthracene)	3300	ND			
Benzo(a)pyrene	3300	ND			
Benzo(b)fluoranthene	3300	ND			
Benzo(ghi)perylene	3300	ND			
Benzo(k)fluoranthene	3300	ND			
Benzoic acid	17000	ND			
Benzyl alcohol	3300	ND			
Bis(2-chloroethoxy)methane	3300	ND			
Bis(2-chloroethyl)ether	3300	ND			
Bis(2-chloroisopropyl) ether	3300	ND			
Bis(2-ethylhexyl) phthalate	3300	ND			
4-Bromophenyl phenyl ether	3300	ND			
Butyl benzyl phthalate (Benzyl butyl phthalate)	3300	ND			
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	6600	ND			
4-Chloroaniline	6600	ND			
2-Chloronaphthalene	3300	ND			
2-Chlorophenol (o-Chlorophenol)	3300	ND			
4-Chlorophenyl phenyl ether	3300	ND			
Chrysene	3300	ND			
Di-n-butyl phthalate	3300	ND			
Di-n-octyl phthalate (Dioctyl ester)	3300	ND			

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ANALYTICAL RESULTS

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 Project ID: 00-9460  
 Project Name: Marborg

Job Number	Order Date	Client
8014	05/11/2000	RINCON

Method: 8270C, Semivolatile Organics

Batch No: 051300

Our Lab I.D.		51209			
Sample ID		GP-8-8			
Date Sampled		05/08/2000			
Analytes	PQL	Results			
2,4,5-Trichlorophenol	3300	ND			
2,4,6-Trichlorophenol	3300	ND			

Our Lab I.D.		51209			
Surrogates	Con. Limit	% Rec.			
Surrogate Percent Recovery					
2-Flouorophenol	21-105	73			
Phenol-d6	10-107	97			
2,4,6-Tribromophenol	10-123	137			
Nitrobenzene-d5	35-114	114			
2-Fluorobiphenyl	43-116	121			
Terphenyl-d14	33-141	114			

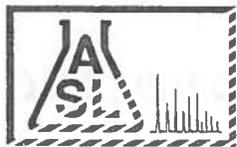
QUALITY CONTROL REPORT

Batch No: 051300

Analytes	MS % REC	MS DUP % REC	RPD %	LCS % REC	LCS/LCSD % Limit				
Accnaphthene	80	80	<1	80	46-118				
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	68	68	<1	68	23-117				
2-Chlorophenol (o-Chlorophenol)	77	79	2.6	77	27-123				
1,4-Dichlorobenzene	80	81	1.2	80	36-105				
2,4-Dinitrotoluene	71	72	1.4	71	24-120				
N-Nitroso-Di-n-propylamine	88	88	<1	88	41-116				
4-Nitrophenol	69	70	1.4	69	10-133				
Pentachlorophenol	96	96	<1	96	9-118				
Phenol	81	81	<1	81	12-110				
Pyrene	74	73	1.4	74	26-127				
1,2,4-Trichlorobenzene	78	80	2.5	78	39-98				

ND - Not Detected at The Detection Limit. MS - Matrix Spike. MSD - Matrix Spike Duplicate. SM - Sample. SMD - Sample Duplicate.

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ANALYTICAL RESULTS

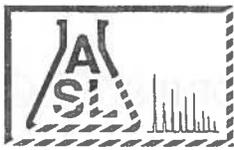
Page: 39  
Project ID: 00-9460  
Project Name: Marborg

Job Number	Order Date	Client
8014	05/11/2000	RINCON

Method: 6010B/7471A, CCR Title 22 Metals  
QUALITY CONTROL REPORT

Batch No:

Analytes	MS % REC	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit	LCS % REC	LCS/LCSD % Limit			
AA Metals										
Mercury	85	90	5.7	70-130	30	100	80-120			
ICP Metals										
Antimony	58	57	1.7	70-130	30	87	80-120			
Arsenic	87	87	<1	70-130	30	89	80-120			
Barium	76	77	1.3	70-130	30	97	80-120			
Beryllium	96	96	<1	70-130	30	95	80-120			
Cadmium	88	88	<1	70-130	30	91	80-120			
Chromium	83	83	<1	70-130	30	93	80-120			
Cobalt	81	80	1.2	70-130	30	91	80-120			
Copper	92	93	1.1	70-130	30	94	80-120			
Lead	66	66	<1	70-130	30	84	80-120			
Molybdenum	79	79	<1	70-130	30	84	80-120			
Nickel	70	70	<1	70-130	30	88	80-120			
Selenium	85	85	<1	70-130	30	89	80-120			
Silver	91	92	1.1	70-130	30	97	80-120			
Thallium	81	82	1.2	70-130	30	90	80-120			
Vanadium	80	80	<1	70-130	30	90	80-120			
Zinc	77	78	1.3	70-130	30	94	80-120			



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ANALYTICAL RESULTS

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Project ID: 00-9460

Project Name: Marborg

Job Number	Order Date	Client
8014	05/11/2000	RINCON

Method: 8015M/DHSLUFT, Total Petroleum Hydrocarbons

Batch No: 051500-1

Our Lab I.D.					
Sample ID		Method Blank			
Date Sampled		05/09/2000			
Date Extracted		05/15/2000			
Preparation Method					
Date Analyzed		05/15/2000			
Matrix		Water			
Units		mg/L			
Detection Limit Multiplier		1			
Analytes	PQL	Results			
Crude Oil	1.0	ND			
Diesel	1.0	ND			
Fuel Oil	1.0	ND			
Heavy Oil	1.0	ND			
Hydraulic Oil	1.0	ND			
Jet Fuel	1.0	ND			
Kerosene	1.0	ND			
Mineral Spirits	1.0	ND			

Our Lab I.D.					
Surrogates	Con. Limit	% Rec.			
Surrogate Percent Recovery					
Chlorobenzene	70-120	102			

QUALITY CONTROL REPORT

Batch No: 051500-1

Analytes	MS % REC	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit	LCS % REC			
Diesel	104	104	<1	75-120	15	120			

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ANALYTICAL RESULTS

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Project ID: 00-9460

Project Name: Marborg

Job Number	Order Date	Client
8014	05/11/2000	RINCON

Method: 8260, Volatile Organic Compounds

Batch No: 051200-1

Our Lab I.D.					
Sample ID		Method Blank			
Date Sampled		05/09/2000			
Date Extracted		05/12/2000			
Preparation Method					
Date Analyzed		05/12/2000			
Matrix		Water			
Units		ug/L			
Detection Limit Multiplier		1			
Analytes	PQL	Results			
Benzene	1	ND			
Bromobenzene (Phenyl bromide)	1	ND			
Bromochloromethane (Chlorobromomethane)	1	ND			
Bromodichloromethane (Dichlorobromomethane)	1	ND			
Bromoform (Tribromomethane)	5	ND			
Bromomethane (Methyl bromide)	3	ND			
n-Butylbenzene	1	ND			
sec-Butylbenzene	1	ND			
tert-Butylbenzene	1	ND			
Carbon tetrachloride (Tetrachloromethane)	1	ND			
Chlorobenzene	1	ND			
Chloroethane	3	ND			
Chloroform (Trichloromethane)	1	ND			
Chloromethane (Methyl chloride)	3	ND			
4-Chlorotoluene (p-Chlorotoluene)	1	ND			
2-Chlorotoluene (o-Chlorotoluene)	1	ND			
1,2-Dibromo-3-chloropropane (DBCP)	5	ND			
Dibromochloromethane	1	ND			
1,2-Dibromoethane (EDB, Ethylene dibromide)	1	ND			
Dibromomethane	1	ND			
1,2-Dichlorobenzene (o-Dichlorobenzene)	1	ND			
1,3-Dichlorobenzene (m-Dichlorobenzene)	1	ND			

ND - Not Detected at The Detection Limit. MS - Matrix Spike. MSD - Matrix Spike Duplicate. SM - Sample. SMD - Sample Duplicate.



AMERICAN SCIENTIFIC LABORATORIES, LLC  
Environmental Testing Services

ANALYTICAL RESULTS

Page: 45  
Project ID: 00-9460  
Project Name: Marborg

Job Number	Order Date	Client
8014	05/11/2000	RINCON

Method: 8260, Volatile Organic Compounds

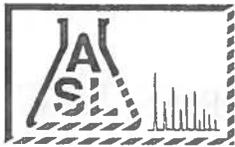
Our Lab I.D.	Con. Limit	% Rec.				
Surrogates						
Surrogate Percent Recovery						
Bromofluorobenzene	70-120	103				
Dibromofluoromethane	70-120	108				
Toluene-d8	70-120	96				

QUALITY CONTROL REPORT

Batch No: 051200-1

Analytes	MS % REC	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit	LCS % REC				
Benzene	106	96	9.9	75-120	15	80				
Chlorobenzene	106	98	7.8	75-120	15	80				
1,1-Dichloroethene (1,1-Dichloroethylene)	108	102	5.7	75-120	15	81				
Toluene (Methyl benzene)	107	97	9.8	75-120	15	81				
Trichloroethene (Trichloroethylene)	107	98	8.8	75-120	15	83				

ND - Not Detected at The Detection Limit. MS - Matrix Spike. MSD - Matrix Spike Duplicate. SM - Sample. SMD - Sample Duplicate.



AMERICAN SCIENTIFIC LABORATORIES, LLC  
Environmental Testing Services  
ANALYTICAL RESULTS

Page: 47  
Project ID: 00-9460  
Project Name: Marborg

Job Number	Order Date	Client
8014	05/11/2000	RINCON

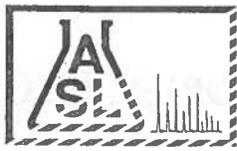
Method: 8260, Volatile Organic Compounds

Batch No: 051500-1

Our Lab I.D.					
Sample ID		Method Blank			
Date Sampled		05/09/2000			
Analytes	PQL	Results			
1,1-Dichloroethane	10	ND			
1,2-Dichloroethane	10	ND			
1,1-Dichloroethene (1,1-Dichloroethylene)	10	ND			
cis-1,2-Dichloroethene	10	ND			
trans-1,2-Dichloroethene	10	ND			
1,2-Dichloropropane	10	ND			
1,3-Dichloropropane	10	ND			
2,2-Dichloropropane	10	ND			
1,1-Dichloropropene	10	ND			
cis-1,3-Dichloropropene	10	ND			
trans-1,3-Dichloropropene	10	ND			
Ethylbenzene	10	ND			
Hexachlorobutadiene (1,3-Hexachlorobutadiene)	30	ND			
Isopropylbenzene	10	ND			
p-Isopropyltoluene (4-Isopropyltoluene)	10	ND			
Methylene chloride (Dichloromethane, DCM)	50	ND			
Naphthalene	10	ND			
n-Propylbenzene	10	ND			
Styrene	10	ND			
1,1,1,2-Tetrachloroethane	10	ND			
1,1,2,2-Tetrachloroethane	10	ND			
Tetrachloroethene (Tetrachloroethylene)	10	ND			
Toluene (Methyl benzene)	10	ND			
1,2,3-Trichlorobenzene	10	ND			
1,2,4-Trichlorobenzene	10	ND			
1,1,1-Trichloroethane	10	ND			
1,1,2-Trichloroethane	10	ND			
Trichloroethene (Trichloroethylene)	10	ND			
Trichlorofluoromethane	10	ND			
1,2,3-Trichloropropane	10	ND			
1,2,4-Trimethylbenzene	10	ND			
1,3,5-Trimethylbenzene	10	ND			
Vinyl chloride (Chloroethene)	30	ND			
o-Xylene	10	ND			
m- & p-Xylenes	20	ND			

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AMERICAN SCIENTIFIC LABORATORIES, LLC  
Environmental Testing Services

ANALYTICAL RESULTS

Ordered By

Rincon Consultants  
790 E. Santa Clara St.  
Ventura, CA 93001

Site

Lots S-7 and 9-13  
Santa Barbara

Telephone: (805)641-1000

Attn: Tom Matteuci

Page: 49

Project ID: 00-9460

Project Name: Marborg

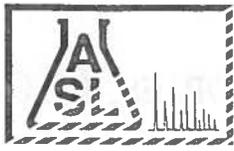
Job Number	Order Date	Client
8014	05/11/2000	RINCON

Method: 8270C, Semivolatile Organics

Our Lab I.D.					
Sample ID		Method Blank			
Date Sampled		05/09/2000			
Date Extracted		05/12/2000			
Preparation Method					
Date Analyzed		05/13/2000			
Matrix		Water			
Units		ug/L			
Detection Limit Multiplier		1			
Analytes	PQL	Results			
Acenaphthene	10	ND			
Acenaphthylene	10	ND			
Anthracene	10	ND			
Benz(a)anthracene (Benzo(a)anthracene)	10	ND			
Benzo(a)pyrene	10	ND			
Benzo(b)fluoranthene	10	ND			
Benzo(ghi)perylene	10	ND			
Benzo(k)fluoranthene	10	ND			
Benzoic acid	10	ND			
Benzyl alcohol	10	ND			
Bis(2-chloroethoxy)methane	10	ND			
Bis(2-chloroethyl)ether	10	ND			
Bis(2-chloroisopropyl) ether	10	ND			
Bis(2-ethylhexyl) phthalate	10	ND			
4-Bromophenyl phenyl ether	10	ND			
Butyl benzyl phthalate (Benzyl butyl phthalate)	10	ND			
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	1	ND			
4-Chloroaniline	10	ND			
2-Chloronaphthalene	10	ND			
2-Chlorophenol (o-Chlorophenol)	1	ND			
4-Chlorophenyl phenyl ether	10	ND			
Chrysene	10	ND			
Di-n-butyl phthalate	10	ND			
Di-n-octyl phthalate (Dioctyl ester)	10	ND			
Dibenz(a,h)anthracene	10	ND			

ND - Not Detected at The Detection Limit. MS - Matrix Spike. MSD - Matrix Spike Duplicate. SM - Sample. SMD - Sample Duplicate.

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AMERICAN SCIENTIFIC LABORATORIES, LLC  
 Environmental Testing Services

ANALYTICAL RESULTS

Page: 51  
 Project ID: 00-9460  
 Project Name: Marborg

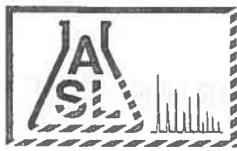
Job Number	Order Date	Client
8014	05/11/2000	RINCON

Method: 8270C, Semivolatile Organics

Our Lab I.D.	Con. Limit	% Rec.
Surrogates		
Surrogate Percent Recovery		
2-Flourophanol	21-105	55
Phenol-d6	10-107	85
2,4,6-Tribromophenol	10-123	96
Nitrobenzene-d5	35-114	58
2-Fluorobiphenyl	43-116	82
Terphenyl-d14	33-141	89

QUALITY CONTROL REPORT

Analytes	MS % REC	MS DUP % REC	RPD %	LCS % REC	LCS/LCSD % Limit
Acenaphthene	79	79	<1	79	46-118
4-Chloro-3-methylphenol (p-Chloro-m-cresol)	69	69	<1	69	23-117
2-Chlorophenol (o-Chlorophenol)	79	81	2.5	79	27-113
1,4-Dichlorobenzene	78	81	3.8	78	36-105
2,4-Dinitrotoluene	70	72	2.8	70	24-120
N-Nitroso-Di-n-propylamine	92	91	1.1	92	41-116
4-Nitrophenol	70	71	1.4	70	10-133
Pentachlorophenol	95	96	1.0	95	9-118
Phenol	82	83	1.2	82	12-110
Pyrene	75	73	2.7	75	26-127
1,2,4-Trichlorobenzene	79	79	<1	79	39-98



# AMERICAN SCIENTIFIC LABORATORIES, LLC

Environmental Testing Services

## ANALYTICAL RESULTS

Page: 53  
 Project ID: 00-9460  
 Project Name: Marborg

Job Number	Order Date	Client
8014	05/11/2000	RINCON

Method: 8270C, Semivolatile Organics

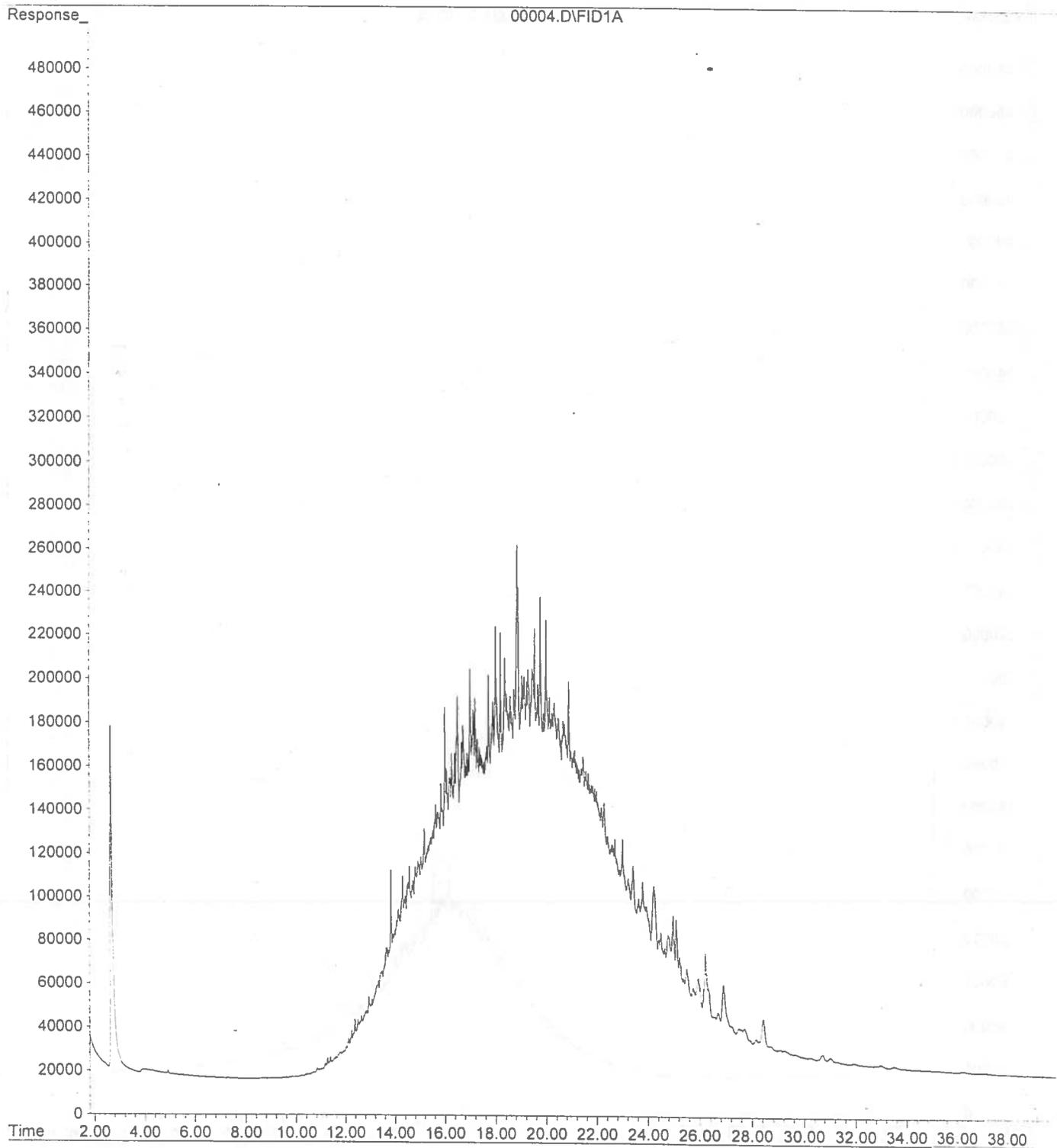
Batch No: 051300

Our Lab I.D.					
Sample ID		Method Blank			
Date Sampled		05/09/2000			
Analytes	PQL	Results			
Dibenz(a,h)anthracene	330	ND			
Dibenzofuran	330	ND			
1,3-Dichlorobenzene (m-Dichlorobenzene)	330	ND			
1,2-Dichlorobenzene (o-Dichlorobenzene)	330	ND			
1,4-Dichlorobenzene	330	ND			
3,3'-Dichlorobenzidine	330	ND			
2,4-Dichlorophenol	330	ND			
Diethyl phthalate (Diethyl ester)	330	ND			
2,4-Dimethylphenol	330	ND			
Dimethyl phthalate (Dimethyl ester)	330	ND			
2,4-Dinitrophenol	1700	ND			
2,4-Dinitrotoluene	330	ND			
2,6-Dinitrotoluene (2,6-DNT)	330	ND			
Fluoranthene	330	ND			
Fluorene	330	ND			
Hexachlorobenzene	330	ND			
Hexachlorobutadiene (1,3-Hexachlorobutadiene)	330	ND			
Hexachlorocyclopentadiene	660	ND			
Hexachloroethane	330	ND			
Indeno(1,2,3-cd)pyrene	330	ND			
Isophorone	330	ND			
2-methyl-4,6-Dinitrophenol	330	ND			
2-Methylnaphthalene	330	ND			
2-Methylphenol (o-Cresol, 2-Cresol)	330	ND			
4-Methylphenol (p-Cresol, 4-Cresol)	330	ND			
N-Nitroso-Di-n-propylamine	330	ND			
N-Nitrosodiphenylamine	330	ND			
Naphthalene	330	ND			
2-Nitroaniline	1700	ND			
3-Nitroaniline	1700	ND			
4-Nitroaniline	1700	ND			
Nitrobenzene (NB)	330	ND			
2-Nitrophenol (o-Nitrophenol)	330	ND			
4-Nitrophenol	330	ND			
Pentachlorophenol	1700	ND			
Phenanthrene	330	ND			
Phenol	330	ND			
Pyrene	330	ND			
1,2,4-Trichlorobenzene	330	ND			

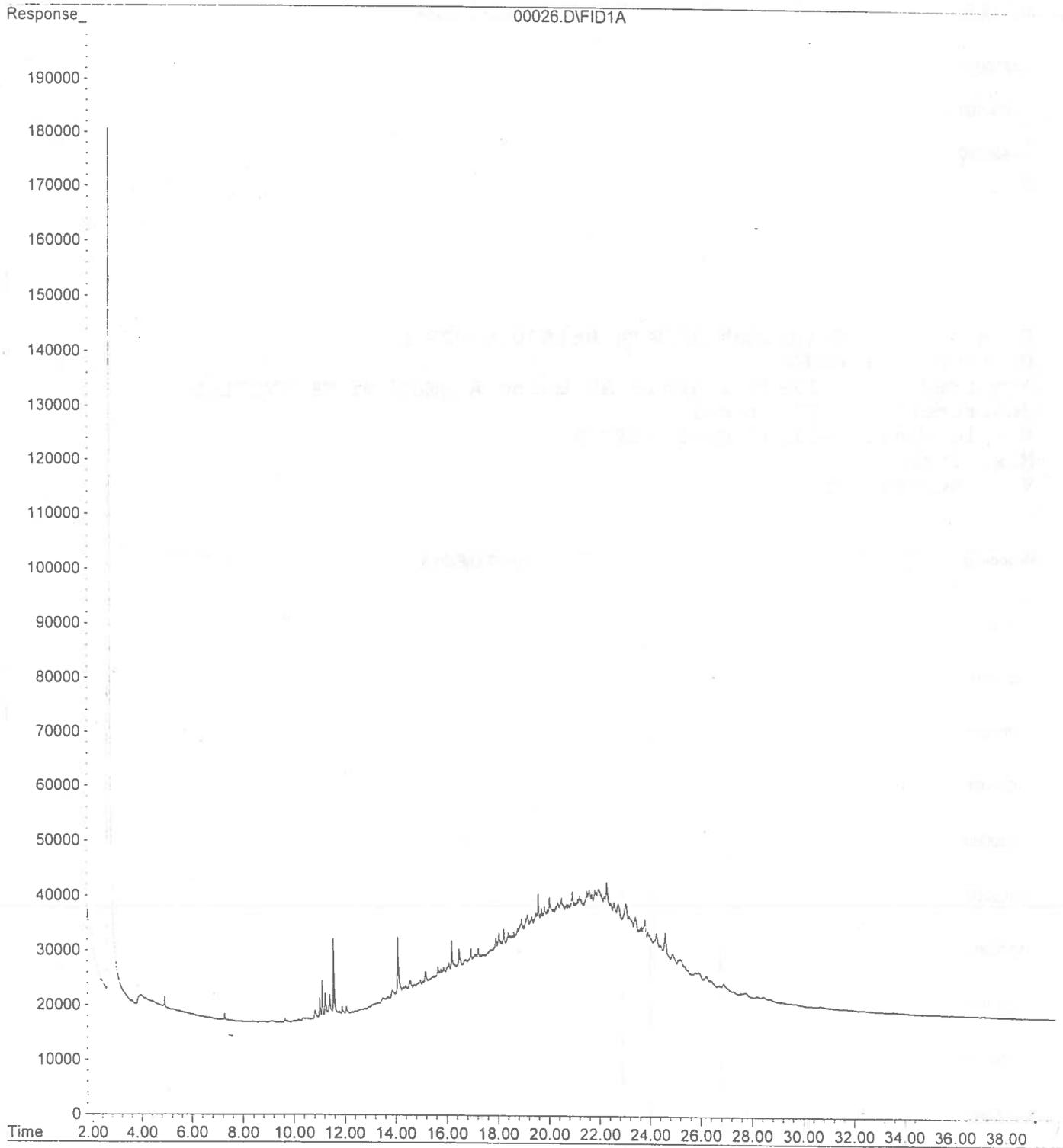
ND - Not Detected at The Detection Limit. MS - Matrix Spike. MSD - Matrix Spike Duplicate. SM - Sample. SMD - Sample Duplicate.

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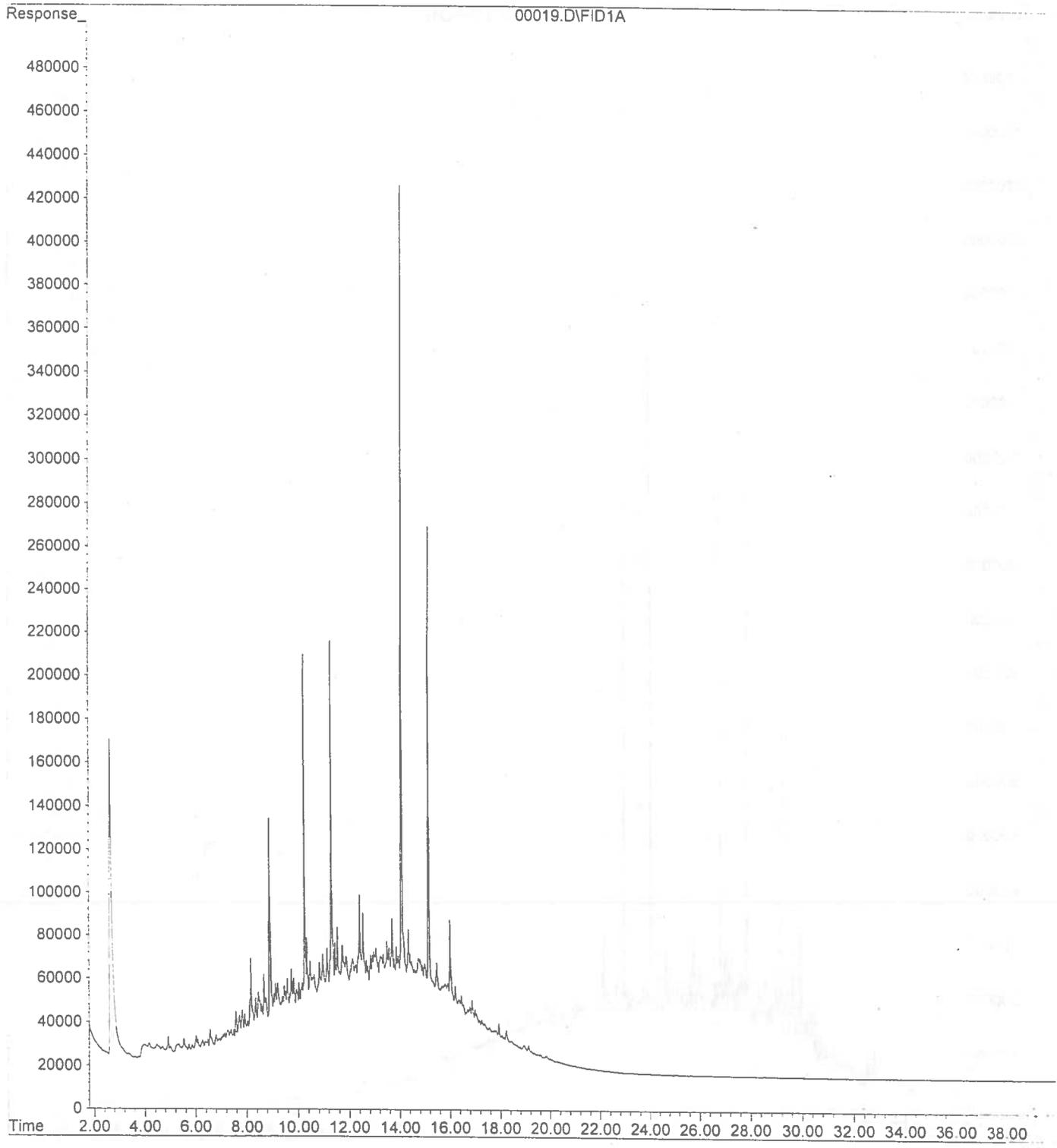
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Operator : WENDY  
Acquired : 5-18-99 10:55:24 AM using AcqMethod HEAVYOIL.M  
Instrument : GC Diesel  
Sample Name: S-51200 DL=2 RINCON R  
Misc Info :  
Vial Number: 4

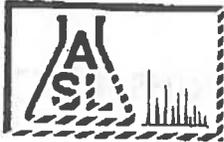


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Operator : WENDY  
Acquired : 5-17-99 2:52:22 AM using AcqMethod HEAVYOIL.M  
Instrument : GC Diesel  
Sample Name: S-51204 DL=2 RINCON  
Misc Info :  
Vial Number: 24



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Operator : WENDY  
Acquired : 5-16-99 9:17:29 PM using AcqMethod HEAVYOIL.M  
Instrument : GC Diesel  
Sample Name: S-51210 DL=1 RINCON  
Misc Info :  
Vial Number: 17





AMERICAN SCIENTIFIC LABORATORIES, LLC  
Environmental Testing Services

# Fax

To: Tom Maffucci

From: Molky

Fax: 805/641-1072

Pages: ~~15~~ 3

Company: Rivcon

Date: 06-08-00 Time: 5:00p.m.

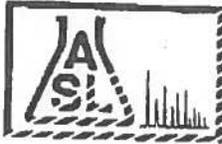
Re: #8075 (Flycatcher)

CC: \_\_\_\_\_

Urgent  For Review  Please Comment  Please Reply

• **Comments:** Please check the report and call us with any additional request as soon as possible.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



# AMERICAN SCIENTIFIC LABORATORIES, LLC

## Environmental Testing Services

### ANALYTICAL RESULTS

Ordered By

Site

Rincon Consultants  
790 E. Santa Clara St.  
Ventura, CA 93001

Union Pacific Property

Telephone: (805)641-1000

Attn: Tom Matteuci

Page: 6

Project ID: 00-9460

Project Name: Marborg

Job Number	Order Date	Client
8075	05/19/2000	RINCON

Method: 8015M/DHSLUFT, Total Petroleum Hydrocarbons

Batch No: 052400-1

Our Lab ID	51560		
Sample ID	Method Blank	GP13	
Date Sampled	05/19/2000	05/19/2000	
Date Extracted	05/24/2000	05/24/2000	
Preparation Method			
Date Analyzed	05/24/2000	05/24/2000	
Matrix	Soil	Water	
Units	mg/L	mg/l.	
Detection Limit Multiplier	1	1	
Analytes	PQL	Results	Results
Crude Oil	1.0	ND	ND
Diesel	1.0	ND	ND
Fuel Oil	1.0	ND	ND
Heavy Oil	1.0	ND	ND
Hydraulic Oil	1.0	ND	ND
Jet Fuel	1.0	ND	ND
Kerosene	1.0	ND	ND
Mineral Spirits	1.0	ND	ND

Our Lab ID	51560		
Surrogates	Con. Limit	% Rec.	% Rec.
Surrogate Percent Recovery			
Chlorobenzene	70-120	100	110

### QUALITY CONTROL REPORT

Batch No: 052400-1

Analytes	MS % REC	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit	LCS % REC
Diesel	102	99	3.0	75-120	15	103

ND - Not Detected at The Detection Limit. MS - Matrix Spike. MSD - Matrix Spike Duplicate. SM - Sample. SMD - Sample Duplicate.

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