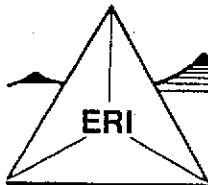


RO 356  
File 1117



**ENVIRONMENTAL RESOLUTIONS, INC.**

**Alameda County**

DEC 02 2003

November 20, 1998  
ERI 234932.R01

Ms. Tina Berry  
Tosco Marketing Company  
2000 Crow Canyon Place Suite 400  
San Ramon, California 94583

**Environmental Health**

NOV 30 1998  
BP OIL CO.  
ENVIRONMENTAL DEPT.  
WEST COAST REGION OFFICE

Subject: Underground Storage Tank and Associated Piping and Dispenser Removal at Tosco 76 Service Station 11117, 7210 Bancroft Ave, Oakland, California.

Ms. Berry:

At the request of Tosco Marketing Company (Tosco), Environmental Resolutions, Inc. (ERI) performed an environmental investigation at the subject site in conjunction with removal of one diesel and three gasoline underground storage tanks (USTs) and associated piping and dispensers. Tosco requested ERI conduct the investigation to evaluate soil conditions beneath the site.

**BACKGROUND**

The site is on the northeastern corner of Bancroft Avenue and 73rd in Oakland, California as shown on the Site Vicinity Map (Plate 1). The locations of USTs, dispenser islands, and other selected site features are shown on the Generalized Site Plan (Plate 2). Properties in the vicinity of the site are occupied by commercial developments and a school.

**FIELD WORK**

ERI performed field work at the site on August 14, 1998, in accordance with ERI's Field Procedures (Attachment A), and a site-specific Health and Safety Plan. Field work and soil sampling are discussed below.

Removal of Gasoline USTs

On August 14, 1998, ERI's representative observed Dan Brenton Construction (DBC) of San Jose, California remove one 6,000-gallon diesel UST (designated in the field as T1), one 10,000-gallon gasoline UST (designated in the field as T2), one 12,000-gallon gasoline UST (designated in the field as T3), and one 6,000-gallon gasoline UST (designated in the field as T4). All tanks were single-walled fiberglass, and were labeled "Century-Cast by Xerxes, Xerxes Corp., Minneapolis, Minnesota". Mr. LeRoy Griffin of the City of Oakland Fire Services Agency (the City) observed UST removal. Inspection of each tank upon removal revealed a hole on the northern end of tank T1, which was caused by the contractor during shoring of the UST cavity. A blemish (possibly a scratch or hairline fracture), approximately two feet long, was observed in the north end of tank T2. There was no direct evidence of leakage from tanks T1 or T2. No other visible holes, cracks, or staining

were noted in the other tanks. Trident Trucking of Hayward, California transported the tanks to the Ecology Control Industries (ECI) facility in Richmond, California for recycling.

ERI's representative collected one sample of native soil from approximately 15 feet below ground surface (ft bgs) from the bottom of the UST cavity at each end of the USTs. Mr. Griffin of the City observed the sampling. Soil sample locations are shown on Plate 2.

#### Removal of Product Lines and Dispensers

DBC removed product lines and dispensers during replacement of the UST system. On August 14, 1998, ERI's representative hand augered at locations adjacent to dispensers D1 through D6 and beneath the associated product lines. ERI's representative collected native soil samples from approximately 3 ft bgs at these locations. Mr. Griffin of the City directed but did not observe the sampling. Soil sample locations are shown on Plate 2.

### LABORATORY ANALYSES AND RESULTS

ERI submitted soil samples to Sequoia Analytical Laboratories (Sequoia [California State Certification #1210]) of Redwood City, California for analysis. The laboratory analyses, methods of testing, and analytical results are summarized in Table 1. Copies of the Chain of Custody Records and laboratory reports are included in Attachment B.

#### UST Cavity Soil Samples

Laboratory analyses of the soil samples collected from beneath each end of the USTs at approximately 15 ft bgs detected residual total purgeable petroleum hydrocarbons as gasoline (TPPHg) in 5 of 8 samples at concentrations ranging from 3.7 to 5,300 parts per million (ppm). Total extractable petroleum hydrocarbons as diesel (TEPHd) were detected in 2 of 2 samples at concentrations of up to 800 ppm. Methyl tertiary butyl ether (MTBE) was detected in 7 of 8 samples at concentrations ranging from 0.028 to 5.3 ppm. The sample collected from the north end of tank T2 was analyzed for total threshold limit concentration of lead (total lead). This analysis did not detect total lead at or above the laboratory method detection limit.

#### Product Line and Dispenser Soil Samples

Laboratory analyses detected TPPHg was detected in 9 of 18 soil samples collected from beneath former product lines and dispensers at concentrations ranging from 1.4 to 7200 ppm. TEPHd was detected in 5 of 7 samples at concentrations ranging from 4.8 to 190 ppm. MTBE was detected in 11 of 18 samples at concentrations ranging from 0.048 to 72 ppm. The sample exhibiting the highest concentration of MTBE, collected from beneath former dispenser D4, was verified for MTBE using EPA method 8260. This analysis did not detect MTBE at or above the detection limit.

### SAMPLING AND DISPOSAL OF SOIL

DBC excavated approximately 389 tons of soil and backfill from the UST cavity and product line trenches during replacement of the UST system at the site. ERI's representative collected four

composite soil samples (four brass sleeves per composite sample) from the stockpile for laboratory analyses. Results of laboratory analyses are shown in Table 1.

At Tosco's request, DenBeste Transportation of Windsor, California transported and disposed of the stockpiled soil at Forward Landfill in Manteca, California. The disposal documentation is attached (Attachment C).

**LIMITATIONS**

This report was prepared in accordance with generally accepted standards of environmental practice in California at the time this investigation was performed. This investigation was conducted solely for the purpose of evaluating environmental conditions of the soil with respect to hydrocarbons. No soil engineering or geotechnical references are implied or should be inferred. Evaluation of the geologic conditions at the site for the purpose of this investigation is made from a limited number of observation points. Subsurface conditions may vary away from the data points available.

ERI recommends copies of this report be forwarded to:

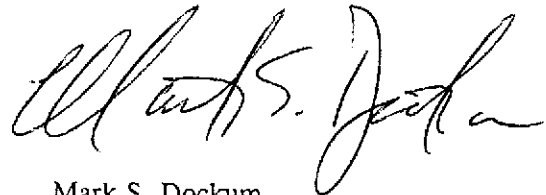
Mr. LeRoy Griffin  
City of Oakland Fire Services Agency  
505 14th Street, 7th Floor  
Oakland, California 94612

Please call me at (415) 382-9105, with any questions regarding the information in this report.

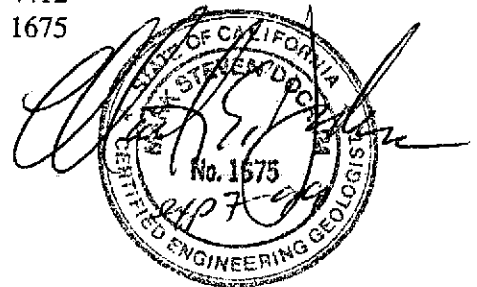
Sincerely,  
Environmental Resolutions, Inc.



Jennifer E. Schulte  
Staff Geologist



Mark S. Dockum  
R.G. 4412  
C.E.G. 1675



cc: Mr. Scott T. Hooton - BP Oil Company

Attachments: Table 1: Results of Laboratory Analysis of Soil Samples

Plate 1: Site Vicinity Map

Plate 2: Generalized Site Plan

Attachment A: Field Procedures

Attachment B: Laboratory Analyses and Chain of Custody Records

Attachment C: Stockpile Disposal Documentation

**TABLE 1**  
**RESULTS OF LABORATORY ANALYSES OF SOIL SAMPLES**  
 Tosco 76 Service Station 11117  
 7210 Bancroft Avenue  
 Oakland, California  
 (Page 1 of 2)

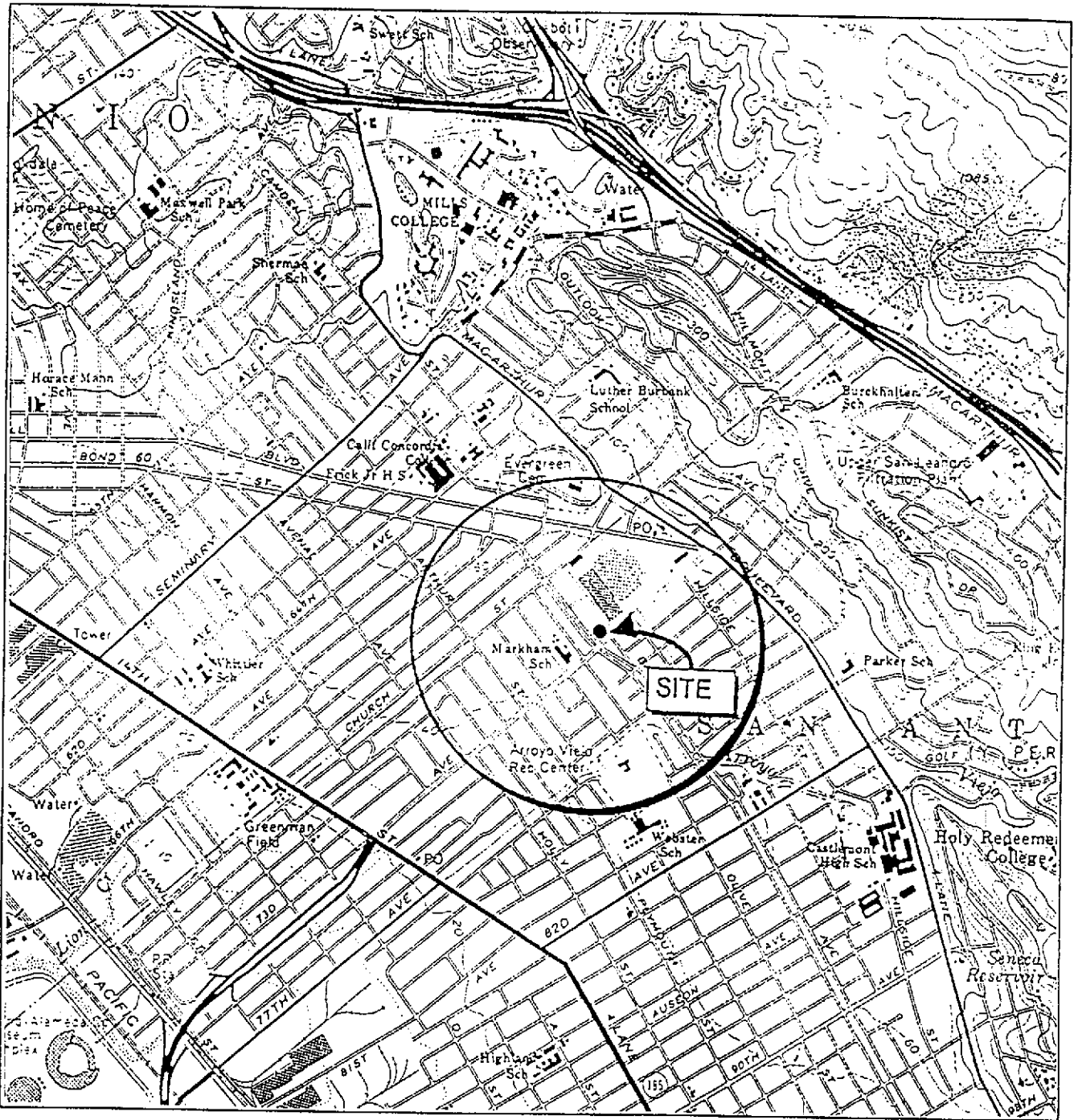
Sample #	Plate 2 Callout	Date Sampled	Depth (ft bgs)	TEPHd <.....>	TPPHg	MTBE	B	T	E	X	Total Lead
				.....ppm.....>							
<b>Underground Storage Tanks</b>											
S-15-T1N	A	8/14/98	15	630	480	1.6	0.40	0.46	2.3	1.2	NA
S-15-T1S	B	8/14/98	15	800	5,300	ND	ND	100	63	530	NA
S-15-T2N	C	8/14/98	15	NA	440	1.3	0.79	6.2	4.6	35	ND
S-14-T2S	D	8/14/98	14	NA	3.7	0.055	ND	0.019	0.060	0.52	NA
S-16-T3N	E	8/14/98	16	NA	810	5.3	0.95	4.2	16	99	NA
S-15-T3S	F	8/14/98	15	NA	ND	0.065	ND	ND	ND	0.013	NA
S-15-T4N	G	8/14/98	15	NA	ND	0.26	ND	ND	ND	ND	NA
S-14-T4S	H	8/14/98	14	NA	ND	0.028	ND	0.0090	ND	0.016	NA
<b>Product Lines and Dispensers</b>											
S-3-PL1	I	8/14/98	3	NA	240	15	ND	6.0	3.5	25	12
S-3-PL2	J	8/14/98	3	14	3.3	0.10	ND	0.026	0.018	0.18	NA
S-3-PL3	K	8/14/98	3	4.8	ND	0.86	ND	ND	ND	ND	NA
S-3-PL4	L	8/14/98	3	21	6.8	12	0.063	0.0081	0.17	0.46	NA
S-3-PL5	M	8/14/98	3	NA	ND	ND	ND	ND	ND	ND	NA
S-3-PL6	N	8/14/98	3	NA	4.8	ND	ND	0.11	0.0054	0.038	NA
S-3-PL7	O	8/14/98	3	NA	1.8	0.075	ND	0.084	0.019	0.097	NA
S-3-PL8	P	8/14/98	3	NA	ND	ND	ND	ND	ND	ND	NA
S-3-PL9	Q	8/14/98	3	18	ND	ND	ND	ND	ND	ND	NA
S-3-PL10	R	8/14/98	3	NA	ND	ND	ND	ND	ND	ND	NA
S-3-PL11	S	8/14/98	3	190	1.7	ND	ND	ND	0.0068	0.012	NA
S-3-PL12	T	8/14/98	3	ND	1.4	0.048	0.0089	0.025	0.0061	0.035	NA
S-3-D1	U	8/14/98	3	NA	72	10	ND	ND	ND	0.63	NA
S-3-D2	V	8/14/98	3	NA	ND	0.054	ND	ND	ND	ND	NA
S-3-D3	W	8/14/98	3	NA	ND	1.7	ND	0.010	ND	0.010	NA
S-3-D4	X	8/14/98	3	NA	7200	72/ND*	22	170	87	590	40
S-3-D5	Y	8/14/98	3	NA	ND	ND	ND	ND	ND	ND	NA
S-3-D6	Z	8/14/98	3	ND	ND	0.053	ND	ND	ND	ND	NA

**TABLE 1**  
**RESULTS OF LABORATORY ANALYSES OF SOIL SAMPLES**  
 Tosco 76 Service Station 11117  
 7210 Bancroft Avenue  
 Oakland, California  
 (Page 2 of 2)

Sample #	Plate 2 Callout	Date Sampled	Depth (ft bgs)	TEPHd <.....ppm.....>	TPPHg	MTBE	B	T	E	X	Total Lead
<b>Soil-Stockpile</b>											
SP-1-(1-4)	NA	8/14/98	NA	9.3	16	NA	0.011	0.016	0.039	0.23	26
SP-2-(1-4)	NA	8/14/98	NA	17	19	NA	0.022	ND	0.034	0.11	30
SP-3-(1-4)	NA	8/14/98	NA	4.6	2.0	NA	ND	ND	ND	0.011	21
SP-4-(1-4)	NA	8/14/98	NA	5.3	2.4	NA	ND	ND	ND	0.014	23

Notes:

- S-15-TIN = Soil Sample - depth - UST number/end.
- S-3-PL1 = Soil Sample - depth - product line sample number.
- S-3-D1 = Soil Sample - depth - dispenser number.
- SP-1-(1-4) = Stockpiled soil sample - stockpile number - soil sleeve number.
- TEPHd = Total extractable petroleum hydrocarbons as diesel analyzed using EPA method 8015 (modified).
- TPPHg = Total purgeable petroleum hydrocarbons as gasoline analyzed using EPA method 8015 (modified).
- MTBE = Methyl tertiary butyl ether analyzed using EPA method 8020.
- BTEX = Benzene, toluene, ethyl benzene, and total xylenes analyzed using EPA method 8020.
- Total Lead = Total threshold limit concentration of lead analyzed using EPA method 6010.
- ft bgs = Feet below ground surface.
- ppm = Parts per million.
- NA = Not analyzed/not applicable.
- ND = Not detected at or above laboratory method detection limits.
- \* = MTBE confirmed using EPA method 8260.

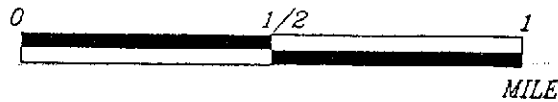


FN 23490001

**EXPLANATION**



APPROXIMATE SCALE



Source: U.S.G.S. 7.5 minute topographic quadrangle map Oakland East, California (Photorevised 1980)



PROJECT ERI 2349

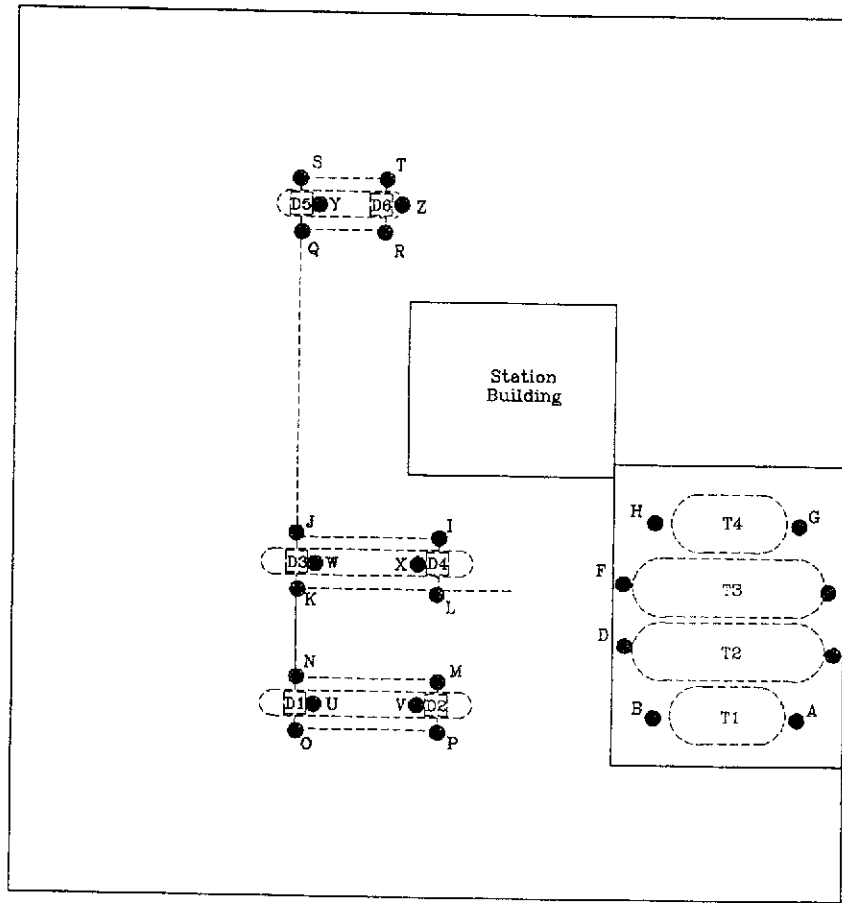
**SITE VICINITY MAP**

TOSCO BP SERVICE STATION 11117  
7210 Bancroft Avenue  
Oakland, California

**PLATE**

1

BANCROFT AVENUE



- A) S-15-T1N
- B) S-15-T1S
- C) S-15-T2N
- D) S-14-T2S
- E) S-16-T3N
- F) 2-15-T3S
- G) S-15-T4N
- H) S-14-T4S
- I) S-3-PL1
- J) 2-3-PL2
- K) S-3-PL3
- L) S-3-PL4
- M) S-3-PL5
- N) S-3-PL6
- O) S-3-PL7
- P) S-3-PL8
- Q) S-3-PL9
- R) S-3-PL10
- S) S-3-PL11
- T) S-3-PL12
- U) S-3-D1
- V) S-3-D2
- W) S-3-D3
- X) S-3-D4
- Y) S-3-D5
- Z) S-3-D6

73RD AVENUE

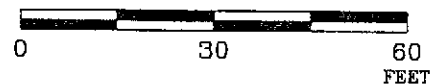
FN 23490002

**EXPLANATION**

- Soil Sample Location
- S-15-T1N — Tank/Product Line/Dispenser number
- | — Depth
- | — Soil Sample



APPROXIMATE SCALE



**GENERALIZED SITE PLAN**

TOSCO 76 SERVICE STATION 11117  
7210 Bancroft Avenue  
Oakland, California

PROJECT NO.

2349

PLATE

2

Nov. 10, 1988



ATTACHMENT A  
FIELD PROCEDURES

## FIELD PROCEDURES

### Safety Plan

This plan describes the basic safety requirements for the subsurface environmental investigation related to monitoring the removal of underground storage tanks and excavation of soil at the site. The Site Safety Plan is applicable to personnel of ERI and to subcontractors of ERI. Personnel scheduled to work at the site were briefed on the contents of the Site Safety Plan before work began. A copy of the Site Safety Plan was kept at the work site and was available for reference by appropriate parties during work at the site. The geologist from ERI was the Site Safety Officer on site.

### Sampling Under Former Dispensers, Product Lines, and Underground Storage Tanks

Soil samples were collected by driving a hand-operated percussion sampler fitted with a clean brass sleeve into the soil. The sleeve was removed from the sampler and sealed promptly with Teflon tape and plastic caps.

A photoionization detector (PID) was used to evaluate the presence of hydrocarbon vapors in soil samples. Field instruments such as the PID are useful for indicating relative levels of hydrocarbon vapors, but do not detect the concentration of hydrocarbons present with the same precision as laboratory analyses.

### Sampling of Stockpiled Soil

These samples were collected and analyzed to characterize the soil for disposal. A PID was used to assist in selecting samples representative of the stockpile. Each of these soil samples was collected by driving a hand-operated percussion soil-sampling device lined with a clean brass sleeve into the soil after approximately 1 foot of soil was removed from the stockpile. Each sample sleeve was removed from the sampler and promptly sealed with Teflon tape and plastic caps. The sample was then labeled and placed in iced storage. Four samples were collected for approximately every 100 cubic yards of stockpiled soil; each group of four samples was composited into one soil sample by the analytical laboratory.

### Sample Labeling and Handling

The soil samples selected for possible laboratory analysis were removed from the sampler and quickly sealed in their brass sleeves with Teflon tape and plastic caps. The respective sample containers were labeled in the field with the job number, sample location and depth, and date, and promptly placed in iced storage for transport to the laboratory. Chain of Custody Records were initiated in the field by the geologist and accompanied the samples to a laboratory certified by the State of California to perform the analyses requested.

ATTACHMENT B

LABORATORY ANALYSES  
AND CHAIN OF CUSTODY RECORDS



**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiger Lane  
819 Striker Avenue, Suite B  
1455 McDowell Blvd, North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949

Client Proj. ID: Unocal 11117, Oakland  
Lab Proj. ID: 9808A02 *23493273*

Sampled: 08/14/98  
Received: 08/17/98  
Analyzed: see below

Attention: Mark Dockum

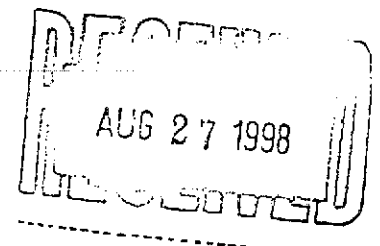
Reported: 08/21/98

### LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9808A02-01 Sample Desc: SOLID,SP1-(1-4)comp				
Lead by ICP	mg/Kg	08/19/98	5.0	26
Lab No: 9808A02-02 Sample Desc: SOLID,SP2-(1-4)comp				
Lead by ICP	mg/Kg	08/19/98	5.0	30
Lab No: 9808A02-03 Sample Desc: SOLID,SP3-(1-4)comp				
Lead by ICP	mg/Kg	08/19/98	5.0	21
Lab No: 9808A02-04 Sample Desc: SOLID,SP4-(1-4)comp				
Lead by ICP	mg/Kg	08/19/98	5.0	23

Analyses reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



*[Signature]*  
Project Manager



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiger Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd, North, Sre. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

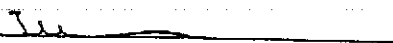
Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, Oakland Sample Descript: SP1-(1-4)comp Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808A02-01	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/19/98 Analyzed: 08/20/98 Reported: 08/21/98
QC Batch Number: GC081998BTEXEXA		
Instrument ID: GCHP18		

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas		
Benzene	1.0	16
Toluene	0.0050	0.011
Ethyl Benzene	0.0050	0.016
Xylenes (Total)	0.0050	0.039
Chromatogram Pattern:	0.0050	0.23
		Gas
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140

analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

  
Todd Granicher  
Project Manager



Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, Oakland Sample Descript: SP1-(1-4)comp Matrix: SOLID Analysis Method: EPA 8015 Mod Lab Number: 9808A02-01	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/19/98 Analyzed: 08/20/98 Reported: 08/21/98
--	--	--


QC Batch Number: GC0819980HBPEXC  
Instrument ID: GCHP5A

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern: Unidentified HC	1.0	9.3
		C9-C24
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50                      150	131

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1210

  
\_\_\_\_\_  
Tod Granicher  
Project Manager



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite B  
1455 McDowell Blvd. North. Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949

Client Proj. ID: Unocal 11117, Oakland  
Sample Descript: SP2-(1-4)comp  
Matrix: SOLID  
Analysis Method: 8015Mod/8020  
Lab Number: 9808A02-02

Sampled: 08/14/98  
Received: 08/17/98  
Extracted: 08/19/98  
Analyzed: 08/20/98  
Reported: 08/21/98

Attention: Mark Dockum


QC Batch Number: GC081998BTEXEXA  
Instrument ID: GCHP22

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas		
Benzene	1.0	19
Toluene	0.0050	0.022
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	0.034
Chromatogram Pattern:	0.0050	0.11
		Gas
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

  
Tod Granicher  
Project Manager



Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, Oakland Sample Descript: SP2-(1-4)comp Matrix: SOLID Analysis Method: EPA 8015 Mod Lab Number: 9808A02-02	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/19/98 Analyzed: 08/20/98 Reported: 08/21/98
QC Batch Number: GC0819980HBPEXC Instrument ID: GCHP5A		

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern: Unidentified HC	1.0	17
		C9-C24
Surrogates n-Pentacosane (C25)	Control Limits % 50 150	% Recovery 116

analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

\_\_\_\_\_  
od Granicher  
roject Manager





Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, Oakland Sample Descript: SP3-(1-4)comp Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808A02-03	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/19/98 Analyzed: 08/20/98 Reported: 08/21/98
QC Batch Number: GC0819988TEXEXA Instrument ID: GCHP22		

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	2.0
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	0.011
Chromatogram Pattern: Unidentified HC		>C10
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140
		89
		89

analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

\_\_\_\_\_  
Rod Granicher  
Project Manager



**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949

Client Proj. ID: Unocal 11117, Oakland  
Sample Descript: SP3-(1-4)comp  
Matrix: SOLID  
Analysis Method: EPA 8015 Mod  
Lab Number: 9808A02-03

Sampled: 08/14/98  
Received: 08/17/98  
Extracted: 08/19/98  
Analyzed: 08/20/98  
Reported: 08/21/98

QC Batch Number: GC0819980HBPEXC  
Instrument ID: GCHP5A

### Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern: Unidentified HC	1.0	4.6
		C9-C24
Surrogates n-Pentacosane (C25)	Control Limits % 50                      150	% Recovery 100

Analyses reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

  
David Granicher  
Project Manager



Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949

Client Proj. ID: Unocal 11117, Oakland  
Sample Descript: SP4-(1-4)comp  
Matrix: SOLID  
Analysis Method: 8015Mod/8020  
Lab Number: 9808A02-04

Sampled: 08/14/98  
Received: 08/17/98  
Extracted: 08/19/98  
Analyzed: 08/20/98  
Reported: 08/21/98

QC Batch Number: GC081998BTEXEXA  
Instrument ID: GCHP22

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	2.4
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	0.014
Chromatogram Pattern: Unidentified HC		>C10
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140
		87

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher  
Project Manager




Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, Oakland Sample Descript: SP4-(1-4)comp Matrix: SOLID Analysis Method: EPA 8015 Mod Lab Number: 9808A02-04	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/19/98 Analyzed: 08/20/98 Reported: 08/21/98
QC Batch Number: GC0819980HBPEXC Instrument ID: GCHP5A		

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern: Unidentified HC	1.0	5.3
		C9-C24
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50                      150	96

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL - ELAP #1210**

  
\_\_\_\_\_  
Tod Granicher  
Project Manager



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite B  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions  
74 Digital Drive, Ste. 6  
Novato, CA 94949  
Attention: Mark Dockum

Client Project ID: Unocal 11117, Oakland  
Matrix: Solid

Work Order #: 9808A02 -01-04

Reported: Aug 25, 1998

## QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME0818986010MDG	ME0818986010MDG	ME0818986010MDG	ME0818986010MDG
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050

Analyst:	C. Caoile	C. Caoile	C. Caoile	C. Caoile
MS/MSD #:	9808A0101	9808A0101	9808A0101	9808A0101
Sample Conc.:	N.D.	N.D.	39	72
Prepared Date:	8/18/98	8/18/98	8/18/98	8/18/98
Analyzed Date:	8/19/98	8/19/98	8/19/98	8/19/98
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5
Conc. Spiked:	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg
Result:	42	41	82	110
MS % Recovery:	84	82	86	76
Dup. Result:	40	40	86	120
MSD % Recov.:	80	80	94	96
RPD:	4.9	2.5	4.8	8.7
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	LCS081898	LCS081898	LCS081898	LCS081898
Prepared Date:	8/18/98	8/18/98	8/18/98	8/18/98
Analyzed Date:	8/19/98	8/19/98	8/19/98	8/19/98
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5
Conc. Spiked:	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg
LCS Result:	49	47	48	48
LCS % Recov.:	98	94	96	96

MS/MSD	80-120	80-120	80-120	80-120
LCS	80-120	80-120	80-120	80-120
Control Limits				

SEQUOIA ANALYTICAL

  
Tod Granicher  
Project Manager

**Please Note:**

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

\*\* MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9808A02.EEE <1>



Sequoia  
Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite B  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949  
Attention: Mark Dockum

Client Proj. ID: Unocal 11117, Oakland

Lab Proj. ID: 9808A02


Received: 08/17/98

Reported: 08/21/98

## LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 14 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL

  
Tod Granicher  
Project Manager

# UNOCAL 76

680 Chesapeake Drive • Redwood City, CA 94063 • (415) 364-9600  
 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600  
 404 N. Wiget Lane • Walnut Creek, CA 94598 • (510) 988-9600

18939 120th Ave., N.E., Suite 101 • Bothell, WA 98011 • (206) 481-9200  
 East 11115 Montgomery, Suite B • Spokane, WA 99206 • (509) 924-9200  
 15055 S.W. Sequoia Pkwy, Suite 110 • Portland, OR 97222 • (503) 624-9800

Consultant Company: <i>Environmental Resolutions Inc</i>			Project Name: <i>23493273</i>		
Address: <i>74 Digital Dr Suite 6</i>			UNOCAL Project Manager: <i>Tino Berry</i>		
City: <i>Novato</i>	State: <i>Ca</i>	Zip Code: <i>94949</i>	AFE #:		
Telephone: <i>415 387 9117</i>		FAX #: <i>387 1856</i>	Site #, City, State: <i>BP #1117, Oakland, Ca</i>		
Report To: <i>Mark Decker</i>		Sampler: <i>Scott Graham</i>	QC Data: <input checked="" type="checkbox"/> Level D (Standard) <input type="checkbox"/> Level C <input type="checkbox"/> Level B <input type="checkbox"/> Level A		

Turnaround: ~~4~~  2 Work Days  5 Work Days  3 Work Days  
 Time:  2 Work Days  1 Work Day  2-8 Hours

CODE:  Misc.  Detect.  Eval.  Remed.  Demol.  Closure  Other

Analyses Requested: *Asst Aoz*

Drinking Water  
 Waste Water  
 Other

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	Analyses Requested										Comments	
<i>1. SP-1-(1-4)</i>	<i>8/17/98</i>	<i>soil</i>	<i>4</i>	<i>bulk</i>	<i>1</i>	<i>TPH</i>	<i>TPH</i>	<i>TPH</i>									<i>Composite</i>
<i>2. SP-2-(1-4)</i>	<i>8/17/98</i>	<i>soil</i>	<i>1</i>	<i>bulk</i>	<i>2</i>	<i>TPH</i>	<i>TPH</i>	<i>TPH</i>									<i>Composite</i>
<i>3. SP-3-(1-4)</i>	<i>8/17/98</i>	<i>soil</i>	<i>1</i>	<i>bulk</i>	<i>3</i>	<i>TPH</i>	<i>TPH</i>	<i>TPH</i>									<i>Composite</i>
<i>4. SP-4-(1-4)</i>	<i>8/17/98</i>	<i>soil</i>	<i>1</i>	<i>bulk</i>	<i>4</i>	<i>TPH</i>	<i>TPH</i>	<i>TPH</i>									<i>Composite</i>
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

Relinquished By: <i>[Signature]</i>	Date: <i>8-17-98</i>	Time: <i>1:05</i>	Received By: <i>[Signature]</i>	Date: <i>8-17-98</i>	Time: <i>1:05</i>
Relinquished By: <i>[Signature]</i>	Date: <i>8/17</i>	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab: <i>[Signature]</i>	Date: <i>8/17/98</i>	Time: <i>15:05</i>

Were Samples Received in Good Condition?  Yes  No      Samples on Ice?  Yes  No      Method of Shipment \_\_\_\_\_      Page \_\_\_ of \_\_\_

To be completed upon receipt of report:

1) Were the analyses requested on the Chain of Custody reported?  Yes  No    If no, what analyses are still needed? \_\_\_\_\_

2) Was the report issued within the requested turnaround time?  Yes  No    If no, what was the turnaround time? \_\_\_\_\_

Approved by: \_\_\_\_\_ Signature: \_\_\_\_\_ Company: \_\_\_\_\_ Date: \_\_\_\_\_

Pink - Client  
Yellow - Laboratory  
White - Laboratory



Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949

Client Proj. ID: Unocal 11117, 234932T3

Lab Proj. ID: 9808A38

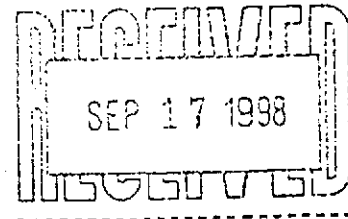
Sampled: 08/14/98  
Received: 08/17/98  
Analyzed: see below

Attention: Mark Dockum

Reported: 09/16/98

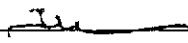
**LABORATORY ANALYSIS**

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9808A38-01 Sample Desc: SOLID,S-3-PL1				
Lead by ICP	mg/Kg	08/19/98	5.0	12
Lab No: 9808A38-05 Sample Desc: SOLID,S-3-D4				
Lead by ICP	mg/Kg	08/19/98	5.0	40
Lab No: 9808A38-21 Sample Desc: SOLID,S-15-T2N				
Lead by ICP	mg/Kg	08/19/98	5.0	N.D.



Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

  
Rod Granicher  
Project Manager





Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949

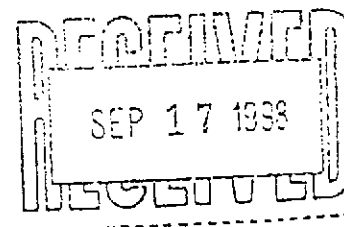
Client Proj. ID: Unocal 11117, 234932T3  
Sample Descript: S-3-PL1  
Matrix: SOLID  
Analysis Method: 8015Mod/8020  
Lab Number: 9808A38-01

Sampled: 08/14/98  
Received: 08/17/98  
Extracted: 08/21/98  
Analyzed: 08/26/98  
Reported: 09/16/98

QC Batch Number: GC082198BTEXEXA  
Instrument ID: GCHP18

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	200	240
Methyl t-Butyl Ether	5.0	15
Benzene	1.0	N.D.
Toluene	1.0	6.0
Ethyl Benzene	1.0	3.5
Xylenes (Total)	1.0	25
Chromatogram Pattern:		Gas
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140
		85
		Q



Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

  
Tod Granicher  
Project Manager



Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949

Attention: Mark Dockum

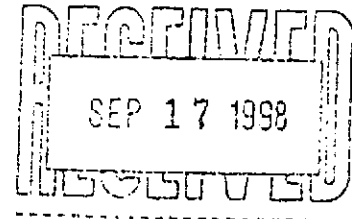
Client Proj. ID: Unocal 11117, 234932T3  
Sample Descript: S-3-PL2  
Matrix: SOLID  
Analysis Method: EPA 8015 Mod  
Lab Number: 9808A38-02

Sampled: 08/14/98  
Received: 08/17/98  
Extracted: 08/26/98  
Analyzed: 09/05/98  
Reported: 09/16/98

Instrument ID: HP3

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern: Non Diesel Mix	10	14
		>C18
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	Q



Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Tod Granicher  
Project Manager



Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949

Client Proj. ID: Unocal 11117, 234932T3  
Sample Descript: S-3-PL2  
Matrix: SOLID  
Analysis Method: 8015Mod/8020  
Lab Number: 9808A38-02

Sampled: 08/14/98  
Received: 08/17/98  
Extracted: 08/21/98  
Analyzed: 08/25/98  
Reported: 09/16/98

QC Batch Number: GC082198BTEXEXA  
Instrument ID: GCHP18

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	3.3
Methyl t-Butyl Ether	0.025	0.10
Benzene	0.0050	N.D.
Toluene	0.0050	0.026
Ethyl Benzene	0.0050	0.018
Xylenes (Total)	0.0050	0.18
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140
		101
		94

**RECEIVED**  
SEP 17 1998  
**RECEIVED**

Analyses reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tom Granicher  
Project Manager

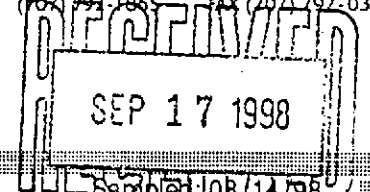


# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiger Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd, North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600 FAX (650) 364-9233  
(925) 988-9600 FAX (925) 988-9673  
(916) 921-9600 FAX (916) 921-0100  
(707) 797-1865 FAX (707) 797-0342



Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949

Attention: Mark Dockum

Client Proj. ID: Unocal 11117, 234932T3  
Sample Descript: S-3-PL3  
Matrix: SOLID  
Analysis Method: EPA 8015 Mod  
Lab Number: 9808A38-03

Sampled: 08/14/98  
Received: 08/17/98  
Extracted: 08/26/98  
Analyzed: 09/05/98  
Reported: 09/16/98

Instrument ID: HP3

## Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern: Non Diesel Mix	1.0	4.8
		> C16
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50          150	177 Q

Analyses reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

      
Tom Granicher  
Project Manager

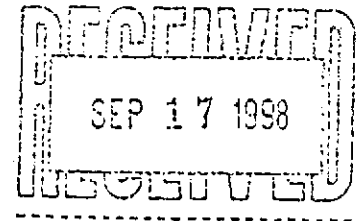


Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, 234932T3 Sample Descript: S-3-PL3 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808A38-03	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/21/98 Analyzed: 08/25/98 Reported: 09/16/98
--	---	--

QC Batch Number: GC082198BTEXEXA  
Instrument ID: GCHP18


**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	0.86
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	96
4-Bromofluorobenzene	60 140	83



Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

  
Tod Granicher  
Project Manager



**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

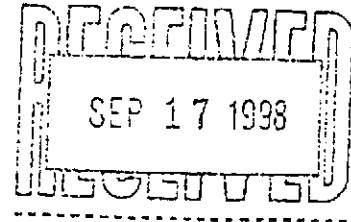
FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949 Attention: Mark Dockum	Client Proj. ID: Unocal 11117, 234932T3 Sample Descript: S-3-PL4 Matrix: SOLID Analysis Method: EPA 8015 Mod Lab Number: 9808A38-04	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/26/98 Analyzed: 09/02/98 Reported: 09/16/98
--	---	--

Instrument ID: HP3


**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern: Non Diesel Mix	1.0	21
		C9-C24
Surrogates n-Pentacosane (C25)	Control Limits % 50                      150	% Recovery 188 Q



Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** - ELAP #1271

  
Tod Granicher  
Project Manager



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North. Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

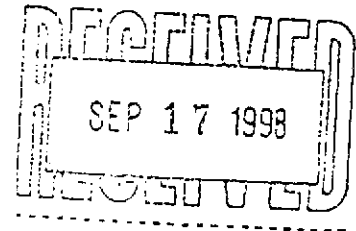
(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, 234932T3 Sample Descript: S-3-PL4 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808A38-04	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/21/98 Analyzed: 08/25/98 Reported: 09/16/98
QC Batch Number: GC082198BTEXEXA Instrument ID: GCHP18		


## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	6.8
Methyl t-Butyl Ether	0.025	12
Benzene	0.0050	0.063
Toluene	0.0050	0.0081
Ethyl Benzene	0.0050	0.17
Xylenes (Total)	0.0050	0.46
Chromatogram Pattern:		Gas
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140
		92
		90



Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

  
Tod Granicher  
Project Manager



**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiger Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

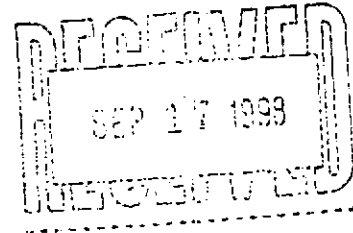
(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, 234932T3 Sample Descript: S-3-D4 Matrix: SOLID Analysis Method: EPA 8260 Lab Number: 9808A38-05	Sampled: 08/14/98 Received: 08/17/98 Extracted: 09/15/98 Analyzed: 09/15/98 Reported: 09/16/98
QC Batch Number: MS091098MTBEEEXA Instrument ID: F2		

**Methyl t-Butyl Ether (MTBE)**

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Methyl t-Butyl Ether	20000	N.D.
Surrogates	Control Limits %	% Recovery
1,2-Dichloroethane-d4	70                      121	0



Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher  
Project Manager





# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

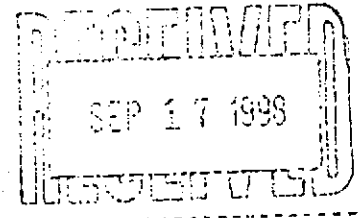
(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, 234932T3 Sample Descript: S-3-D4 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808A38-05	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/21/98 Analyzed: 08/28/98 Reported: 09/16/98
Attention: Mark Dockum		
QC Batch Number: GC082198BTEXEXA Instrument ID: GCHP7		

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	2500	7200
Methyl t-Butyl Ether	62	72
Benzene	12	22
Toluene	12	170
Ethyl Benzene	12	87
Xylenes (Total)	12	590
Chromatogram Pattern:		Gas
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140
		100
		2 Q



Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

  
Tod Granicher  
Project Manager



Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949

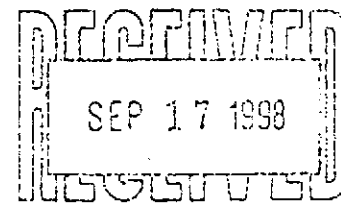
Client Proj. ID: Unocal 11117, 234932T3  
Sample Descript: S-3-D3  
Matrix: SOLID  
Analysis Method: 8015Mod/8020  
Lab Number: 9808A38-06

Sampled: 08/14/98  
Received: 08/17/98  
Extracted: 08/21/98  
Analyzed: 08/27/98  
Reported: 09/16/98

QC Batch Number: GC082198BTEXEXA  
Instrument ID: GCHP1

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	1.7
Benzene	0.0050	N.D.
Toluene	0.0050	0.010
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	0.010
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140



Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher  
Project Manager



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

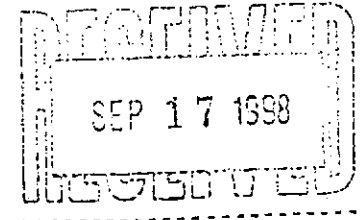
(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, 234932T3 Sample Descript: S-3-PL6 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808A38-07	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/21/98 Analyzed: 08/27/98 Reported: 09/16/98
Attention: Mark Dockum		
QC Batch Number: GC082198BTEXEXA Instrument ID: GCHP1		


## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	4.8
Methyl t-Butyl Ether	0.025	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	0.11
Ethyl Benzene	0.0050	0.0054
Xylenes (Total)	0.0050	0.038
Chromatogram Pattern:		Gas
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	121
4-Bromofluorobenzene	60 140	91



Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

  
\_\_\_\_\_  
Tod Granicher  
Project Manager



**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiger Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

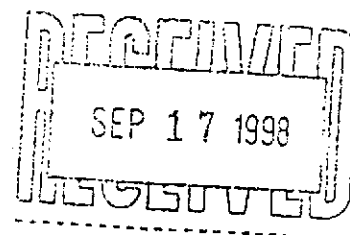
FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, 234932T3 Sample Descript: S-3-D1 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808A38-08	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/21/98 Analyzed: 08/25/98 Reported: 09/16/98
--	--	--

QC Batch Number: GC082198BTEXEXA  
Instrument ID: GCHP18

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	25	72
Methyl t-Butyl Ether	0.62	10
Benzene	0.12	N.D.
Toluene	0.12	N.D.
Ethyl Benzene	0.12	N.D.
Xylenes (Total)	0.12	N.D.
Chromatogram Pattern: Unidentified HC		0.63 C6-C12
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70	130 79
4-Bromofluorobenzene	60	140 4 Q



Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher  
Project Manager



**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

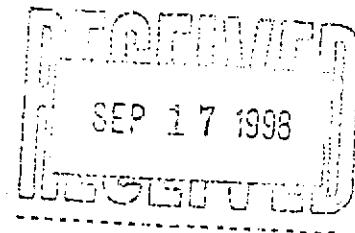
FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, 234932T3 Sample Descript: S-3-PL7 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808A38-09	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/21/98 Analyzed: 08/25/98 Reported: 09/16/98
--	---	--

QC Batch Number: GC082198BTEXEXA  
Instrument ID: GCHP1

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	1.8
Methyl t-Butyl Ether	0.025	0.075
Benzene	0.0050	N.D.
Toluene	0.0050	0.084
Ethyl Benzene	0.0050	0.019
Xylenes (Total)	0.0050	0.097
Chromatogram Pattern:		Gas
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140
		249 Q
		32 Q



Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher  
Project Manager

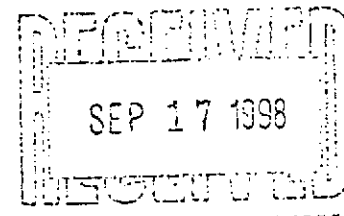


Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, 234932T3 Sample Descript: S-3-PL8 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808A38-10	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/26/98 Analyzed: 08/28/98 Reported: 09/16/98
--	---	--

QC Batch Number: GC082698BTEXEXB  
Instrument ID: GCHP7

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140
		96



Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

  
Tod Granicher  
Project Manager



**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiger Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North. Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, 234932T3 Sample Descript: S-3-PL5 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808A38-11	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/26/98 Analyzed: 08/26/98 Reported: 09/16/98
--	---	--

QC Batch Number: GC082698BTEXEXB  
Instrument ID: GCHP1

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		N.D.


  

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	114
4-Bromofluorobenzene	60 140	101

**RECEIVED**  
 SEP 17 1998  
**REGISTERED**

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

  
 \_\_\_\_\_  
 Tod Granicher  
 Project Manager



**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiger Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North. Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, 234932T3 Sample Descript: S-3-D2 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808A38-12	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/26/98 Analyzed: 08/28/98 Reported: 09/16/98
--	--	--

QC Batch Number: GC082698BTEXEXB  
Instrument ID: GCHP1

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	0.054
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	70
4-Bromofluorobenzene	60	140	84

SEP 17 1998

Analytes reported as N.D. were not present above the stated limit of detection

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher  
 Project Manager





**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiger Lane  
819 Striker Avenue, Suite B  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949

Attention: Mark Dockum

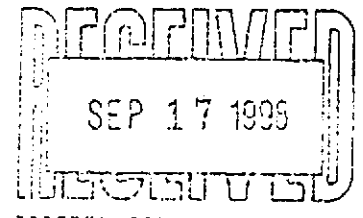
Client Proj. ID: Unocal 11117, 234932T3  
Sample Descript: S-3-PL9  
Matrix: SOLID  
Analysis Method: EPA 8015 Mod  
Lab Number: 9808A38-13

Sampled: 08/14/98  
Received: 08/17/98  
Extracted: 08/26/98  
Analyzed: 09/05/98  
Reported: 09/16/98

Instrument ID: HP3

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern: Non Diesel Mix	10	18
		>C16
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	0



Analytes reported as N.D. were not present above the stated limit of detection

SEQUOIA ANALYTICAL - ELAP #1271

Tod Granicher  
Project Manager



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiger Lane  
819 Striker Avenue, Suite B  
1455 McDowell Blvd, North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

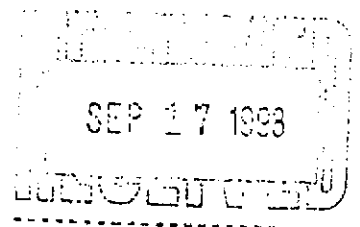
FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, 234932T3 Sample Descript: S-3-PL9 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808A38-13	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/26/98 Analyzed: 08/26/98 Reported: 09/16/98
--	---	--

QC Batch Number: GC082698BTEXEXB  
Instrument ID: GCHP1

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	99
4-Bromofluorobenzene	60 140	92



Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

  
\_\_\_\_\_  
Tod Granicher  
Project Manager



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiger Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North. Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

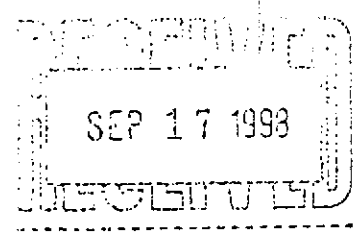
FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949 Attention: Mark Dockum	Client Proj. ID: Unocal 11117, 234932T3 Sample Descript: S-3-PL10 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808A38-14	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/26/98 Analyzed: 08/26/98 Reported: 09/16/98
--	--	--

QC Batch Number: GC082698BTEXEXB  
Instrument ID: GCHP1

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	94
4-Bromofluorobenzene	60 140	92



Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher  
Project Manager



**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiger Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949

Attention: Mark Dockum

Client Proj. ID: Unocal 11117, 234932T3  
Sample Descript: S-3-D6  
Matrix: SOLID  
Analysis Method: EPA 8015 Mod  
Lab Number: 9808A38-15

Sampled: 08/14/98  
Received: 08/17/98  
Extracted: 08/26/98  
Analyzed: 08/31/98  
Reported: 09/16/98

Instrument ID: HP3

**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	1.0	N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50 150	99

**RECEIVED**  
SEP 17 1998  
LABORATORY

Analyses reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

  
Todd Granicher  
Project Manager



Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, 234932T3 Sample Descript: S-3-D6 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808A38-15	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/26/98 Analyzed: 08/28/98 Reported: 09/16/98
QC Batch Number: GC082698BTEXEXB Instrument ID: GCHP1		


**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas		
Methyl t-Butyl Ether	1.0	N.D.
Benzene	0.025	0.053
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:	0.0050	N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140
		100
		65

**RECEIVED**  
SEP 17 1998  
**ISSUED**

analytes reported as N.D. were not present above the stated limit of detection

SEQUOIA ANALYTICAL - ELAP #1210

  
Rod Granicher  
Project Manager

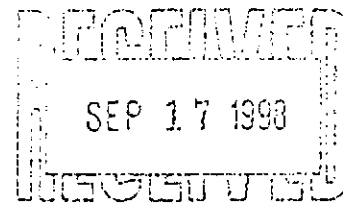


Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, 234932T3 Sample Descript: S-3-PL12 Matrix: SOLID Analysis Method: EPA 8015 Mod Lab Number: 9808A38-16	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/26/98 Analyzed: 09/01/98 Reported: 09/16/98
Attention: Mark Dockum		

Instrument ID: HP3

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	1.0	N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
n-Pentacosane (C25)	50                      150	100



analytes reported as N.D. were not present above the stated limit of detection

SEQUOIA ANALYTICAL - ELAP #1271

Tod Granicher  
Project Manager



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North. Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949

Client Proj. ID: Unocal 11117, 234932T3  
Sample Descript: S-3-PL12  
Matrix: SOLID  
Analysis Method: 8015Mod/8020  
Lab Number: 9808A38-16

Sampled: 08/14/98  
Received: 08/17/98  
Extracted: 08/26/98  
Analyzed: 08/26/98  
Reported: 09/16/98

Attention: Mark Dockum

QC Batch Number: GC082698BTEXEXB  
Instrument ID: GCHP7

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	1.4
Methyl t-Butyl Ether	0.025	0.048
Benzene	0.0050	0.0089
Toluene	0.0050	0.025
Ethyl Benzene	0.0050	0.0061
Xylenes (Total)	0.0050	0.035
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	110
4-Bromofluorobenzene	60 140	102

SEP 17 1998  
RESOLUTION

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher  
Project Manager

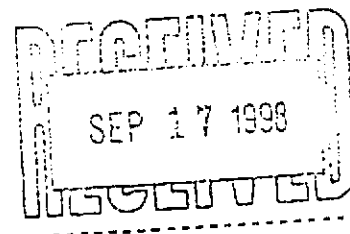


Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, 234932T3 Sample Descript: S-3-D5 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808A38-17	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/26/98 Analyzed: 08/26/98 Reported: 09/16/98
--	--	--

QC Batch Number: GC082698BTEXEXB  
Instrument ID: GCHP22

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140
		85



Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

  
Tod Granicher  
Project Manager





Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949

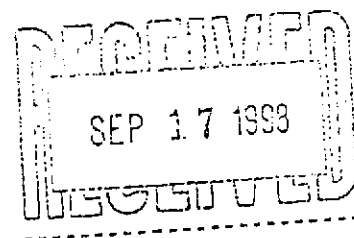
Client Proj. ID: Unocal 11117, 234932T3  
Sample Descript: S-3-PL11  
Matrix: SOLID  
Analysis Method: EPA 8015 Mod  
Lab Number: 9808A38-18

Sampled: 08/14/98  
Received: 08/17/98  
Extracted: 08/26/98  
Analyzed: 09/05/98  
Reported: 09/16/98

Instrument ID: HP3


**Total Extractable Petroleum Hydrocarbons (TEPH)**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern: Non Diesel Mix	10	190 >C14
Surrogates n-Pentacosane (C25)	Control Limits % 50 150	% Recovery 0



Analyses reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

  
Rod Granicher  
Project Manager



Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949

Client Proj. ID: Unocal 11117, 234932T3  
Sample Descript: S-3-PL11  
Matrix: SOLID  
Analysis Method: 8015Mod/8020  
Lab Number: 9808A38-18

Sampled: 08/14/98  
Received: 08/17/98  
Extracted: 08/26/98  
Analyzed: 08/26/98  
Reported: 09/16/98

GC Batch Number: GC0826988BTEXEX8  
Instrument ID: GCHP22

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	1.7
Methyl t-Butyl Ether	0.025	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	0.0068
Xylenes (Total)	0.0050	0.012
Chromatogram Pattern:		Gas
<b>Surrogates</b>		
	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140

**RECEIVED**  
SEP 17 1998  
**INTEGRATED**

Analyses reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

\_\_\_\_\_  
Rod Granicher  
Project Manager



Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949

Client Proj. ID: Unocal 11117, 234932T3  
Sample Descript: S-15-T1N  
Matrix: SOLID  
Analysis Method: EPA 8015 Mod  
Lab Number: 9808A38-19

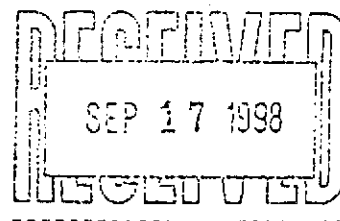
Sampled: 08/14/98  
Received: 08/17/98  
Extracted: 08/26/98  
Analyzed: 09/02/98  
Reported: 09/16/98

Attention: Mark Dockum

QC Batch Number: HP3

### Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern:	50	630 Diesel
Surrogates n-Pentacosane (C25)	Control Limits % 50 150	% Recovery Q



Analyses reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Rod Granicher  
Project Manager



Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949

Client Proj. ID: Unocal 11117, 234932T3  
Sample Descript: S-15-T1N  
Matrix: SOLID  
Analysis Method: 8015Mod/8020  
Lab Number: 9808A3B-19

Sampled: 08/14/98  
Received: 08/17/98  
Extracted: 08/26/98  
Analyzed: 08/26/98  
Reported: 09/16/98

QC Batch Number: GC082698BTEXEXB  
Instrument ID: GCHP1

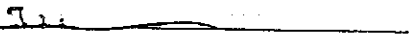
**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	25	480
Methyl t-Butyl Ether	0.62	1.6
Benzene	0.12	0.40
Toluene	0.12	0.46
Ethyl Benzene	0.12	2.3
Xylenes (Total)	0.12	1.2
Chromatogram Pattern: Gas & Unidentified HC		>C10
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140
		105
		13 Q

SEP 17 1998

analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

  
Todd Granicher  
Project Manager



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949

Attention: Mark Dockum

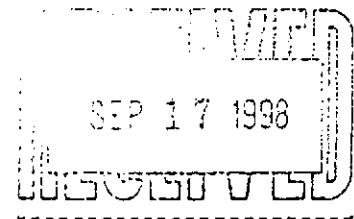
Client Proj. ID: Unocal 11117, 234932T3  
Sample Descript: S-15-T1S  
Matrix: SOLID  
Analysis Method: EPA 8015 Mod  
Lab Number: 9808A38-20

Sampled: 08/14/98  
Received: 08/17/98  
Extracted: 08/26/98  
Analyzed: 09/12/98  
Reported: 09/16/98

Instrument ID: HP3

## Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel	10	800
Chromatogram Pattern: Diesel & Non Diesel Mix		<C14
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50                      150	0



Analytes reported as N.D. were not present above the stated limit of detection

SEQUOIA ANALYTICAL - ELAP #1271

Tod Granicher  
Project Manager



Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, 234932T3 Sample Descript: S-15-T1S Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808A38-20	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/26/98 Analyzed: 08/28/98 Reported: 09/16/98
--	--	--

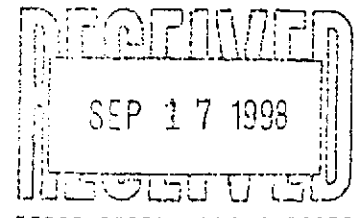
QC Batch Number: GC082698BTEXEXB  
Instrument ID: GCHP18

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1000	5300
Methyl t-Butyl Ether	25	N.D.
Benzene	5.0	N.D.
Toluene	5.0	100
Ethyl Benzene	5.0	63
Xylenes (Total)	5.0	530
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140



Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

  
Tod Granicher  
Project Manager



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiger Lane  
819 Striker Avenue, Suite B  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949

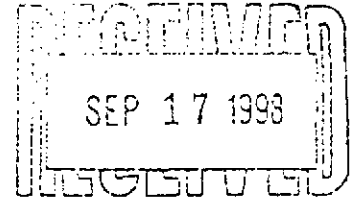
Client Proj. ID: Unocal 11117, 234932T3  
Sample Descript: S-15-T2N  
Matrix: SOLID  
Analysis Method: 8015Mod/8020  
Lab Number: 9808A38-21

Sampled: 08/14/98  
Received: 08/17/98  
Extracted: 08/26/98  
Analyzed: 08/27/98  
Reported: 09/16/98

QC Batch Number: GC082698BTEXEXB  
Instrument ID: GCHP22

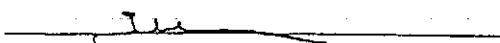
## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	25	440
Methyl t-Butyl Ether	0.62	1.3
Benzene	0.12	0.79
Toluene	0.12	6.2
Ethyl Benzene	0.12	4.6
Xylenes (Total)	0.12	35
Chromatogram Pattern:		Gas
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140
		5 Q



Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

  
Tod Granicher  
Project Manager



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions  
74 Digital Drive, Suite 6  
Novato, CA 94949

Client Proj. ID: Unocal 11117, 234932T3  
Sample Descript: S-14-T2S  
Matrix: SOLID  
Analysis Method: 8015Mod/8020  
Lab Number: 9808A38-22

Sampled: 08/14/98  
Received: 08/17/98  
Extracted: 08/26/98  
Analyzed: 08/27/98  
Reported: 09/16/98

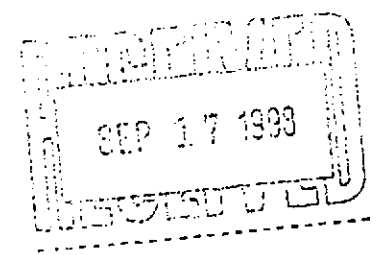
C Batch Number: GC082698BTEXEXB  
Instrument ID: GCHP22

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	2.0	3.7
Methyl t-Butyl Ether	0.050	0.055
Benzene	0.010	N.D.
Toluene	0.010	0.019
Ethyl Benzene	0.010	0.060
Xylenes (Total)	0.010	0.52
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	89
p-Bromofluorobenzene	60 140	44 Q



analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

3.1  
Rod Granicher  
Project Manager





Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, 234932T3 Sample Descript: S-16-T3N Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808A38-23	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/26/98 Analyzed: 08/27/98 Reported: 09/16/98
--	--	--

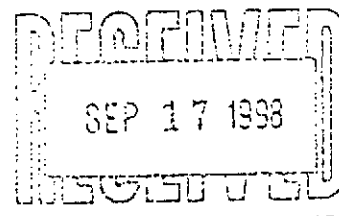
QC Batch Number: GC082698BTEXEXB  
Instrument ID: GCHP18

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	50	810
Methyl t-Butyl Ether	1.2	5.3
Benzene	0.25	0.95
Toluene	0.25	4.2
Ethyl Benzene	0.25	16
Xylenes (Total)	0.25	99
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	96
4-Bromofluorobenzene	60 140	Q



Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

  
Tod Granicher  
Project Manager



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite B  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, 234932T3 Sample Descript: S-15-T3S Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808A38-24	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/26/98 Analyzed: 08/27/98 Reported: 09/16/98
--	--	--

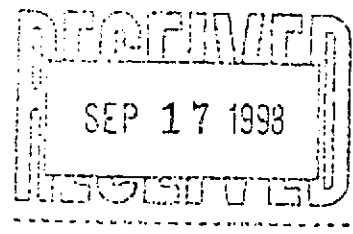
QC Batch Number: GC082698BTEXEXB  
Instrument ID: GCHP1

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	0.065
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	0.013
Chromatogram Pattern:		

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	83
4-Bromofluorobenzene	60 140	96



Analytes reported as N.D. were not present above the stated limit of detection

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher  
Project Manager



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite B  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

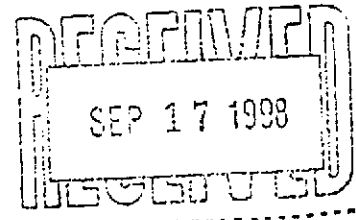
Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, 234932T3 Sample Descript: S-15-T4N Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808A38-25	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/26/98 Analyzed: 08/27/98 Reported: 09/16/98
--	--	--

QC Batch Number: GC082698BTEXEXB  
Instrument ID: GCHP1

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	0.26
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		N.D.

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	75
4-Bromofluorobenzene	60	140	88



Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher  
Project Manager



**Sequoia Analytical**

680 Chesapeake Drive  
404 N. Wiger Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600    FAX (650) 364-9233  
(925) 988-9600    FAX (925) 988-9673  
(916) 921-9600    FAX (916) 921-0100  
(707) 792-1865    FAX (707) 792-0342

Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949	Client Proj. ID: Unocal 11117, 234932T3 Sample Descript: S-14-T4S Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9808A38-26	Sampled: 08/14/98 Received: 08/17/98 Extracted: 08/26/98 Analyzed: 08/28/98 Reported: 09/16/98
--	--	--

QC Batch Number: GC082698BTEXEX8  
Instrument ID: GCHP1

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	0.028
Benzene	0.0050	N.D.
Toluene	0.0050	0.0090
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	0.016
Chromatogram Pattern:		

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70	130
4-Bromofluorobenzene	60	140

SEP 17 1998

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Todd Granicher  
Project Manager



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiger Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600  
(925) 988-9600  
(916) 921-9600  
(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Environmental Resolutions  
74 Digital Drive, Ste. 6  
Novato, CA 94949  
Attention: Mark Dockam

Client Project ID: Unocal 11117, 234932T3

QC Sample Group: 9808A38

Reported: Sep 16, 1998

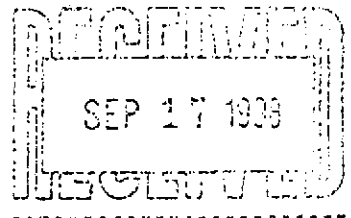
## QUALITY CONTROL DATA REPORT

Matrix: Solid  
Method: EPA 8015  
Analyst: G.PESHINA

ANALYTE Gasoline

QC Batch #: GC082198BTEXEXA

Sample No.: 9808848-4  
Date Prepared: 8/21/98  
Date Analyzed: 8/24/98  
Instrument I.D.#: GCHP1



Sample Conc., mg/Kg: N.D.  
Conc. Spiked, mg/Kg: 5.0

Matrix Spike, mg/Kg: 4.0  
% Recovery: 80

Matrix  
Spike Duplicate, mg/Kg: 4.5  
% Recovery: 90

Relative % Difference: 12

RPD Control Limits: 0-25

LCS Batch#: GC082198BTEXEXA

Date Prepared: 8/21/98  
Date Analyzed: 8/24/98  
Instrument I.D.#: GCHP1

Conc. Spiked, mg/Kg: 5.0

Recovery, mg/Kg: 4.8  
LCS % Recovery: 96

Percent Recovery Control Limits:

MS/MSD	60-140
LCS	70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Tod Granicher  
Project Manager

Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite B  
1455 McDowell Blvd, North. Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600 FAX (650) 364-9233  
(925) 988-9600 FAX (925) 988-9673  
(916) 921-9600 FAX (916) 921-0100  
(707) 792-1865 FAX (707) 792-0712

RECEIVED  
SEP 17 1998  
Reported: Sep 16, 1998

Environmental Resolutions  
74 Digital Drive, Ste. 6  
Novato, CA 94949  
Attention: Mark Dockam

Client Project ID: Unocal 11117, 234932T3

QC Sample Group: 9808A38

## QUALITY CONTROL DATA REPORT

Matrix: Solid  
Method: EPA 8020  
Analyst: G.GAMBOA

ANALYTE	Benzene	Toluene	Ethylbenzene	Xylenes
---------	---------	---------	--------------	---------

QC Batch #: GC082698BTEXEXB

Sample No.: 9808A38-10

	8/26/98	8/26/98	8/26/98	8/26/98
Date Prepared:	8/26/98	8/26/98	8/26/98	8/26/98
Date Analyzed:	8/26/98	8/26/98	8/26/98	8/26/98
Instrument I.D.#:	GCHP18	GCHP18	GCHP18	GCHP18

Sample Conc., mg/Kg:	N.D.	N.D.	N.D.	N.D.
Conc. Spiked, mg/Kg:	0.20	0.20	0.20	0.60

Matrix Spike, mg/Kg:	0.22	0.22	0.23	0.68
% Recovery:	110	110	115	113

Matrix				
Spike Duplicate, mg/Kg:	0.28	0.28	0.28	0.84
% Recovery:	140	140	140	140

Relative % Difference:	24	24	20	21
------------------------	----	----	----	----

RPD Control Limits:	0-25	0-25	0-25	0-25
---------------------	------	------	------	------

LCS Batch#: GC082698BTEXEXB

	8/26/98	8/26/98	8/26/98	8/26/98
Date Prepared:	8/26/98	8/26/98	8/26/98	8/26/98
Date Analyzed:	8/26/98	8/26/98	8/26/98	8/26/98
Instrument I.D.#:	GCHP18	GCHP18	GCHP18	GCHP18

Conc. Spiked, mg/Kg:	0.20	0.20	0.20	0.60
----------------------	------	------	------	------

Recovery, mg/Kg:	0.22	0.22	0.22	0.66
LCS % Recovery:	110	110	110	110

Percent Recovery Control Limits:

MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

  
Tod Granicher  
Project Manager

Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

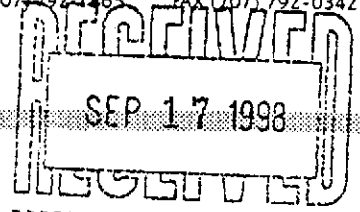


**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiger Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petalinga, CA 94954

(650) 364-9600 FAX (650) 364-9233  
(925) 988-9600 FAX (925) 988-9673  
(916) 921-9600 FAX (916) 921-0100  
(707) 792-1865 FAX (707) 792-0342



Environmental Resolutions  
74 Digital Drive, Ste. 6  
Novato, CA 94949  
Attention: Mark Dockum

Client Project ID: Unocal 11117, 234932T3  
Matrix: Solid  
Work Order #: 9808A38 01-26

Reported: Sep 16, 1998

**QUALITY CONTROL DATA REPORT**

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME0818986010MDG	ME0818986010MDG	ME0818986010MDG	ME0818986010MDG
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050

Analyst:	C. Caoile	C. Caoile	C. Caoile	C. Caoile
MS/MSD #:	9808A0101	9808A0101	9808A0101	9808A0101
Sample Conc.:	N.D.	N.D.	39	72
Prepared Date:	8/18/98	8/18/98	8/18/98	8/18/98
Analyzed Date:	8/18/98	8/18/98	8/18/98	8/18/98
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5
Conc. Spiked:	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg
Result:	42	41	82	110
MS % Recovery:	84	82	86	76
Dup. Result:	40	40	86	120
MSD % Recov.:	80	80	86	96
RPD:	4.9	2.5	4.8	8.7
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	BLK081898	BLK081898	BLK081898	BLK081898
Prepared Date:	8/18/98	8/18/98	8/18/98	8/18/98
Analyzed Date:	8/18/98	8/18/98	8/18/98	8/18/98
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5
Conc. Spiked:	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg
LCS Result:	49	47	48	48
LCS % Recov.:	98	94	96	96

MS/MSD	80-120	80-120	80-120	80-120
LCS	80-120	80-120	80-120	80-120
Control Limits				

**Please Note:**

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

Tod Granicher  
Project Manager

\*\* MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9808A38.EEE <1>

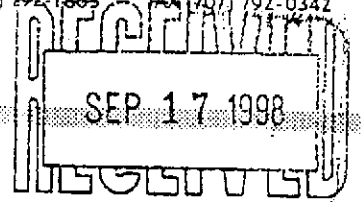


**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600 FAX (650) 364-9233  
(925) 988-9600 FAX (925) 988-9673  
(916) 921-9600 FAX (916) 921-0100  
(707) 792-1865 FAX (707) 792-0342



Environmental Resolutions  
74 Digital Drive, Ste. 6  
Novato, CA 94949  
Attention: Mark Dockum

Client Project ID: Unocal 11117, 234932T3  
Matrix: Solid

Work Order #: 9808A38 01-26

Reported: Sep 16, 1998

**QUALITY CONTROL DATA REPORT**

<b>Analyte:</b>	Diesel
<b>QC Batch#:</b>	GC0826980HBPEXB
<b>Analy. Method:</b>	EPA 8015
<b>Prep. Method:</b>	EPA 3550

**Analyst:** K. Grubb  
**MS/MSD #:** 9808A3804  
**Sample Conc.:** 21  
**Prepared Date:** 8/26/98  
**Analyzed Date:** 9/2/98  
**Instrument I.D.#:** HP3B  
**Conc. Spiked:** 17 mg/Kg

**Result:** 32  
**MS % Recovery:** 65

**Dup. Result:** 22  
**MSD % Recov.:** 6.0

**RPD:** 37  
**RPD Limit:** 0-50

MS/MD affected by non-target  
compounds in the matrix.

**LCS #:** LCS082698  
**Prepared Date:** 8/26/98  
**Analyzed Date:** 8/31/98  
**Instrument I.D.#:** HP3B  
**Conc. Spiked:** 17 mg/Kg  
**LCS Result:** 13  
**LCS % Recov.:** 76

<b>MS/MSD</b>	50-150
<b>LCS</b>	60-140
<b>Control Limits</b>	

**SEQUOIA ANALYTICAL  
ELAP #1271**

*TJ*  
Tod Granicher  
Project Manager

**Please Note:**  
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

\*\* MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9808A38.EEE <2>



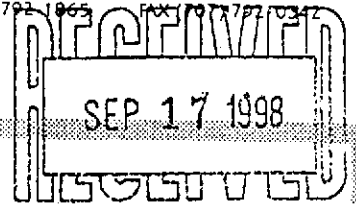


**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600 FAX (650) 364-9233  
(925) 988-9600 FAX (925) 988-9673  
(916) 921-9600 FAX (916) 921-0100  
(707) 792-1965 FAX (707) 792-1034



Environmental Resolutions  
74 Digital Drive, Ste. 6  
Novato, CA 94949  
Attention: Mark Dockum

Client Project ID: Unocal 11117, 234932T3  
Matrix: Solid  
Work Order #: 9808A38 01-26

Reported: Sep 16, 1998

**QUALITY CONTROL DATA REPORT**

Analyte:	MTBE
QC Batch#:	MS091598MTBEF2A
Analy. Method:	EPA 8260
Prep. Method:	

Analyst: L. Zhu  
MS/MSD #:  
Sample Conc.:  
Prepared Date:  
Analyzed Date:  
Instrument I.D.#:  
Conc. Spiked:

Result:  
MS % Recovery:

Dup. Result:  
MSD % Recov.:

RPD:  
RPD Limit:

LCS #: LCS091598  
Prepared Date: 9/15/98  
Analyzed Date: 9/15/98  
Instrument I.D.#: F2  
Conc. Spiked: 2500 µg/Kg  
LCS Result: 2500  
LCS % Recov.: 100

MS/MSD	60-140
LCS	70-130
<b>Control Limits</b>	

**SEQUOIA ANALYTICAL**

Tod Granicher  
Project Manager

Please Note:  
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

\*\* MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9808A38.EEE <3>

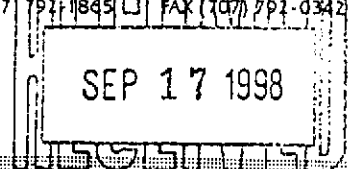


**Sequoia  
Analytical**

680 Chesapeake Drive  
404 N. Wiger Lane  
819 Striker Avenue, Suite B  
1455 McDowell Blvd. North. Ste. D

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
Petaluma, CA 94954

(650) 364-9600 FAX (650) 364-9233  
(925) 988-9600 FAX (925) 988-9673  
(916) 721-9600 FAX (916) 921-9100  
(707) 791-1845 FAX (707) 791-0322



Environmental Resolutions 74 Digital Drive, Suite 6 Novato, CA 94949 Attention: Mark Dockum	Client Proj. ID: Unocal 11117, 234932T3  Lab Proj. ID: 9808A38	Received: 08/17/98  Reported: 09/16/98
--	--	--

### LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 46 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

Note: MTBE confirmation was run outside the recommended 14-day holding time.

SEQUOIA ANALYTICAL

Tod Granicher  
Tod Granicher  
Project Manager

Company Name: Environmental Resolutions Inc    Project Name: 23493213  
 Address: 74 Digital Dr Suite 6    UNOCAL Project Manager: Tina Berry  
 City: Novato    State: Ca    Zip Code: 94949    Release #:  
 Telephone: 415 382 9105    FAX #: 382 1856    Site #: BP# 11117, Oakland, Ca  
 Report To: Mark Dockum    Sampler: Scott Graham    QC Data:  Level D (Standard)     Level C     Level B     Level A

Turnaround  10 Work Days     5 Work Days     3 Work Days  
 Time:     2 Work Days     1 Work Day     2-8 Hours  
 CODE:  Misc.     Detect.     Eval.     Remed.     Demol.     Closure

Drinking Water     Waste Water     Other  
 Analyses Requested: 9808438

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	TPPHg/BTEX/MPPE	TEP/PAH/COALS	total lead	6010	Comments
X1. S-3-PL1	8/14/98 1310	Soil	1	Brass	01	X	X			
X2. S-3-PL2	1325				02	X	X			
X3. S-3-PL3	1340				03	X	X			
X4. S-3-PL4	1350				04	X	X			
X5. S-3-D4	1405				05	X		X		
X6. S-3-D3	1420				06	X				
X7. S-3-PL6	1440				07	X				
X8. S-3-D1	1450				08	X				
X9. S-3-PL7	1525				09	X				
X10. S-3-PL8	1540				10	X				

Relinquished By: <u>[Signature]</u>	Date: <u>8/17/98</u>	Time: <u>1:05</u>	Received By: <u>[Signature]</u>	Date: <u>8/17/98</u>	Time: <u>6:05</u>
Relinquished By: <u>[Signature]</u>	Date: <u>8/17</u>	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab: <u>[Signature]</u>	Date: <u>8/17/98</u>	Time: <u>1442</u>

Were Samples Received in Good Condition?  Yes  No   
 Samples on Ice?  Yes  No   
 Method of Shipment: \_\_\_\_\_   
 Page \_\_\_ of \_\_\_

To be completed upon receipt of report:  
 1) Were the analyses requested on the Chain of Custody reported?  Yes  No    If no, what analyses are still needed? \_\_\_\_\_  
 2) Was the report issued within the requested turnaround time?  Yes  No    If no, what was the turnaround time? \_\_\_\_\_  
 Approved by: \_\_\_\_\_    Signature: \_\_\_\_\_    Company: \_\_\_\_\_    Date: \_\_\_\_\_

Pink - Client  
 Yellow - Laboratory  
 White - Laboratory

# UNOCAL 76

819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600   
  1833 120th Ave., N.E., Suite 101 • Bothell, WA 98011 • (206) 481-9200  
 1900 Bates Ave., Suite LM • Concord, CA 94520 • (510) 686-9600   
  East 11115 Montgomery, Suite B • Spokane, WA 99206 • (509) 924-9200  
 15055 S.W. Sequoia Pkwy, Suite 110 • Portland, OR 97222 • (503) 624-9800

Company Name: <i>Environmental Resolutions Inc</i>	Project Name: <i>234932T3</i>
Address: <i>74 Digital Dr Suite G</i>	UNOCAL Project Manager: <i>Tina Berry</i>
City: <i>Novato</i> State: <i>Ca</i> Zip Code: <i>94949</i>	Release #:
Telephone: <i>415 382 9125</i> FAX #: <i>382 1856</i>	Site #: <i>BPT# 11117, Oakland, Ca</i>
Report To: <i>Mark Dockum</i> Sampler: <i>Scott Graham</i>	QC Data: <input checked="" type="checkbox"/> Level D (Standard) <input type="checkbox"/> Level C <input type="checkbox"/> Level B <input type="checkbox"/> Level A
Turnaround <input checked="" type="checkbox"/> 10 Work Days <input type="checkbox"/> 5 Work Days <input type="checkbox"/> 3 Work Days Time: <input type="checkbox"/> 2 Work Days <input type="checkbox"/> 1 Work Day <input type="checkbox"/> 2-8 Hours	<input type="checkbox"/> Drinking Water <input type="checkbox"/> Waste Water <input checked="" type="checkbox"/> Other
CODE: <input type="checkbox"/> Misc. <input type="checkbox"/> Detect. <input type="checkbox"/> Eval. <input type="checkbox"/> Remed. <input type="checkbox"/> Demol. <input type="checkbox"/> Closure	Analyses Requested: <i>9808A38</i> <i>TPH9/10/EX</i> <i>MTBE</i> <i>TEPH2015</i>

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	Analyses Requested										Comments		
<i>1. S-3-PL5</i>	<i>8/14/98 1550</i>	<i>SOIL</i>	<i>1</i>	<i>Brass Sleeve</i>	<i>11</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>2. S-3-D2</i>	<i>1600</i>				<i>12</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>3. S-3-PL9</i>	<i>1615</i>				<i>13</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>4. S-3-PL10</i>	<i>1630</i>				<i>14</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>5. S-3-D6</i>	<i>1650</i>				<i>15</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>6. S-3-PL12</i>	<i>1710</i>				<i>16</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>7. S-3-D5</i>	<i>1725</i>				<i>17</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>8. S-3-PL11</i>	<i>1740</i>				<i>18</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>9.</i>																		
<i>10.</i>																		

Relinquished By: <i>Scott Graham</i>	Date: <i>8-17-98</i>	Time: <i>1:05</i>	Received By: <i>Jeff Bannwille</i>	Date: <i>8-17-98</i>	Time: <i>1:05</i>
Relinquished By: <i>Jeff Bannwille</i>	Date: <i>8/17</i>	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab: <i>[Signature]</i>	Date: <i>8/17/98</i>	Time: <i>1442</i>

Were Samples Received in Good Condition?  Yes  No   
 Samples on Ice?  Yes  No   
 Method of Shipment: \_\_\_\_\_   
 Page \_\_\_ of \_\_\_

To be completed upon receipt of report:

1) Were the analyses requested on the Chain of Custody reported?  Yes  No If no, what analyses are still needed? \_\_\_\_\_

2) Was the report issued within the requested turnaround time?  Yes  No If no, what was the turnaround time? \_\_\_\_\_

Approved by: \_\_\_\_\_ Signature: \_\_\_\_\_ Company: \_\_\_\_\_ Date: \_\_\_\_\_

Pink - Client  
Yellow - Laboratory  
White - Laboratory

# UNOCAL 76

- 819 Striker Ave., Suite B • Sacramento, CA 95834 • (916) 921-9600
- 18939 120th Ave., N.E., Suite 101 • Bothell, WA 98011 • (206) 481-9200
- 1900 Bates Ave., Suite LM • Concord, CA 94520 • (510) 686-9600
- East 11115 Montgomery, Suite B • Spokane, WA 99206 • (509) 924-9200
- 15055 S.W. Sequoia Pkwy, Suite 110 • Portland, OR 97222 • (503) 624-9800

SEP 17 1998

Company Name: Environmental Resolutions Inc Project Name: 23493273  
 Address: 74 Digital Dr Suite 6 UNOCAL Project Manager: Tina Berry  
 City: Novato State: Ca Zip Code: 94949 Release #:  
 Telephone: 415 382 9105 FAX #: 382 1856 Site #: BP# 11117, Oakland, Ca  
 Report To: Mark Dockum Sampler: Scott Graham QC Data:  Level D (Standard)  Level C  Level B  Level A

Turnaround  10 Work Days  5 Work Days  3 Work Days  
 Time:  2 Work Days  1 Work Day  2-8 Hours  
 CODE:  Misc.  Detect.  Eval.  Remed.  Demol.  Closure  
 Drinking Water  Waste Water  Other  
 Analyses Requested: 9808A38

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	TPH	TPHg/BTEX	MTBE 2015/2012	TEPHd 2015	TTL C level 6010	Comments
X 1. S-15-T1N	8/14/98 1140	Soil	1	Brass sleeve	19	X	X				
X 2. S-15-T1S	1145				20	X	X				please run MTBE on sample with
X 3. S-15-T2N	1147				21	X		X			highest MTBE result
X 4. S-14-T2S	1152				22	X					
X 5. S-16-T3N	1205				23	X					
X 6. S-15-T3S	1159				24	X					
X 7. S-15-T4N	1210				25	X					
X 8. S-14-T4S	1212				26	X					
9.											
10.											

Relinquished By: <u>[Signature]</u>	Date: <u>8-17-98</u>	Time: <u>1:05</u>	Received By: <u>[Signature]</u>	Date: <u>8-17-98</u>	Time: <u>1:05</u>
Relinquished By: <u>[Signature]</u>	Date: <u>8/17</u>	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab: <u>[Signature]</u>	Date: <u>8/17/98</u>	Time: <u>1442</u>

Were Samples Received in Good Condition?  Yes  No      Samples on Ice?  Yes  No      Method of Shipment \_\_\_\_\_ Page \_\_\_ of \_\_\_

To be completed upon receipt of report:  
 1) Were the analyses requested on the Chain of Custody reported?  Yes  No If no, what analyses are still needed? \_\_\_\_\_  
 2) Was the report issued within the requested turnaround time?  Yes  No If no, what was the turnaround time? \_\_\_\_\_  
 Approved by: \_\_\_\_\_ Signature: \_\_\_\_\_ Company: \_\_\_\_\_ Date: \_\_\_\_\_

Pink - Client  
Yellow - Laboratory  
White - Laboratory

ATTACHMENT C  
STOCKPILE DISPOSAL DOCUMENTATION

Date 10/21/98  
Time 16:48:16

FORWARD, INC.

MATERIAL ANALYSIS REPORT BY ACCOUNT

For the period 08/14/98 - 08/14/98  
Detailed report for sites 00 - 99

Accounts 733022 - 733022 Customer Types - 2 Materials - 2222222222 Material Types - 2

Date	Material	Type	Customer	Type	Tickets	Count	Est. Vol.	Act. Vol.	Est. Wt.	Actual Wt.	
08/14/98	STOCKPILE	P	733022	B	01-096701	0	18	18	25.91	25.91	
08/14/98	STOCKPILE	P	733022	B	01-096703	0	18	18	26.51	26.51	
08/14/98	STOCKPILE	P	733022	B	01-096710	0	18	18	23.85	23.85	
08/14/98	STOCKPILE	P	733022	B	01-096713	0	18	18	24.20	24.20	
08/14/98	STOCKPILE	P	733022	B	01-096724	0	18	18	25.59	25.59	
08/14/98	STOCKPILE	P	733022	B	01-096727	0	18	18	20.66	20.66	
08/14/98	STOCKPILE	P	733022	B	01-096733	0	18	18	24.48	24.48	
08/14/98	STOCKPILE	P	733022	B	01-096738	0	18	18	26.60	26.60	
08/14/98	STOCKPILE	P	733022	B	01-096741	0	18	18	30.64	30.64	
08/14/98	STOCKPILE	P	733022	B	01-096743	0	18	18	21.40	21.40	
08/14/98	STOCKPILE	P	733022	B	01-096745	0	18	18	20.52	20.52	
08/14/98	STOCKPILE	P	733022	B	01-096750	0	18	18	19.03	19.03	
08/14/98	STOCKPILE	P	733022	B	01-096754	0	18	18	15.00	15.00	
08/14/98	STOCKPILE	P	733022	B	01-096761	0	18	18	27.19	27.19	
08/14/98	STOCKPILE	P	733022	B	01-096762	0	18	18	29.55	29.55	
08/14/98	STOCKPILE	P	733022	B	01-096765	0	18	18	27.64	27.64	
TOSCO MARKETING (T. BERRY)						16	0	288	288	388.77	388.77
Average							0	18	18	24.00	24.00
Report Total						16	0	288	288	388.77	388.77
Report Average							0	18	18	24.00	24.00

OCT 21 1998

707-838-7947

Melissa