ENVIRONMENTAL RESOLUTIONS, INC.

98 OCT 28 PM 4:02

ENVIRONMENTAL PROTECTION

TRANSMITTAL

TO: Mr. Robert Weston
Alameda County Health Care Services
Agency Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502

DATE: October 27, 1998
PROJECT NUMBER: 233332T1
SUBJECT: Tosco BP Service Station 11270,
3255 MeCartney Road, Alameda, California.

FROM: Glenn L. Matteucci
TITLE: Assistant Project Manager

WE ARE SENDING YOU: No release observed from vault and tank removal

COPIES	DATED	DESCRIPTION
1	October 23, 1998	Underground Storage Tank Removal Report

THESE ARE TRANSMITTED as checked below:

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[X] As requested	[ ] Approved as noted	[ ] Submit___ copies for distribution
[ ] For approval	[ ] Return for corrections	[ ] Return ___ corrected prints
[X] For your files	[ ] For distribution to regulatory agencies	

REMARKS: At the request of Tosco Marketing Company, ERI is forwarding 1 copy of the above referenced report. Please call me at (415) 392-5994 with any questions regarding on this report.

Glenn L. Matteucci, Assistant Project Manager

cc: Tina Berry, Tosco Marketing Company
1 to ERI project file 233332T1

ENVIRONMENTAL RESOLUTIONS, INC.

October 23, 1998
ERI 233332.R01

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

Subject: Underground Storage Tank Removal at Tosco BP Service Station 11270, 3255 MeCartney Road, Alameda, 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 the removal of one used-oil underground storage tank (UST). Tosco requested ERI conduct the investigation to evaluate soil conditions beneath the UST.

BACKGROUND

The site is located on the northwest corner of MeCartney Road and Island Drive in Alameda, California, as shown on the Site Vicinity Map (Plate 1). The locations of existing and former 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 residential and commercial developments.

FIELD WORK

ERI performed field work at the site on July 9, 1998, in accordance with ERI's Field Procedures (Attachment A) and Site Safety Plan. Field work and soil sampling are discussed below.

Removal of the Used-Oil UST

On July 9, 1998, ERI's representative observed Henderson Construction of Stockton, California remove one 1,000-gallon single-wall fiberglass used-oil UST. Inspection of the tank upon removal revealed that the UST was intact and had no visible holes or cracks. A black stain approximately six inches in diameter was noted on the underside of the tank. Mr. Robert Weston of the Alameda County Environmental Health Department (ACEHD), and Mr. Michael Edwards of the Alameda Fire Department observed tank removal and sampling. Ecology Control Industries (ECI) transported the tank to their Richmond, California, facility for recycling.

ERI's representative collected one native soil sample from the eastern sidewall of the UST cavity at a depth of approximately 6 feet below ground surface (ft bgs). Groundwater was noted in the UST cavity at a depth of approximately 7 ft bgs. The location of the soil sample is shown on Plate 2.

LABORATORY ANALYSES AND RESULTS

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

Laboratory analyses of the soil sample collected from the eastern sidewall of the used-oil UST cavity did not detect residual petroleum hydrocarbons at or above stated laboratory method detection limits. Soil sample laboratory results are shown in Table 1.

STOCKPILED SOIL

The soil stockpiled on-site which was generated from the tank removal activities consisted of pea gravel and was reused as backfill following tank removal and retrofit operations.

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 and groundwater with respect to hydrocarbons in soil. 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. Robert Weston
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502

Mr. Scott Hooton
BP Oil Company
295 SW 41st Street, Building 13, Suite N
Renton, Washington 98055-4931

Please call me at (415) 382-5988 with any questions regarding the information in this report.

Sincerely,
Environmental Resolutions, Inc.

Paul D. Blank
Staff Geologist

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

Attachments:
Table 1: Soil Sample Analysis Results

Plate 1: Site Vicinity Map
Plate 2: Generalized Site Plan

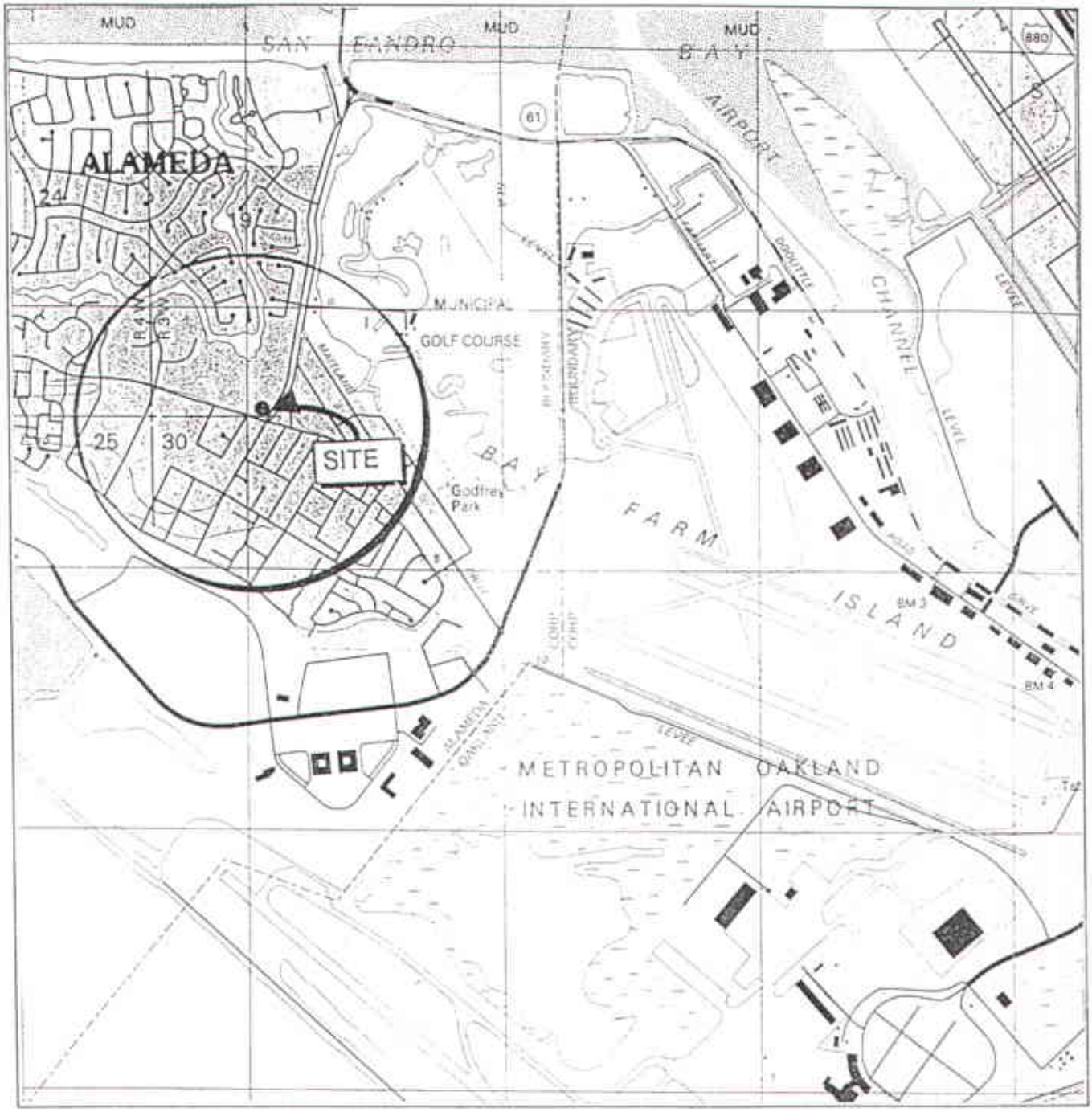
Attachment A: Field Procedures
Attachment B: Laboratory Analyses and Chain of Custody Records

TABLE 1
SOIL SAMPLE ANALYSIS RESULTS
Tosco BP Service Station 11270
3255 Mecartney Road
Alameda, California

Sample #	Depth (ft bgs)	Date	TEPHd	TPPHg	B	T	E	X	TRPH	Total Lead	SVOC's	HVOC's
S-6-TIE	6.0	7/9/98	ND*	ND	ND	ND	ND	ND	ND	ND**	ND	ND

Notes:
Depths are in feet below ground surface (ft bgs)
Soil results (S) in parts per million (ppm)

TEPHd	=	Total extractable petroleum hydrocarbons as diesel analyzed using modified EPA method 8015.
TPPHg	=	Total purgeable petroleum hydrocarbons as gasoline analyzed using modified EPA method 8015.
BTEX	=	Benzene, Toluene, Ethylbenzene, and total Xylenes analyzed using EPA method 8020.
TRPH	=	Total recoverable petroleum hydrocarbons analyzed using EPA method 5520 E&F.
Total Lead	=	Total threshold limit concentration of lead analyzed using EPA method 6010.
SVOC's	=	Semi-volatile organic compounds analyzed using EPA method 8270.
HVOC's	=	Halogenated volatile organic compounds analyzed using EPA method 8010
ND	=	Not detected
*	=	TEPHd analyses completed after 14 - day hold time.
**	=	Additional Analyses: Cadmium ND; Chromium 22 ppm; Nickel 8.9 ppm; Zinc 16 ppm analyzed using EPA method 6010



23330001

EXPLANATION

Source: USGS 7.5 minute topographic quadrangle map San Leandro, California (Photorevised 1993)

N

APPROXIMATE SCALE

0 1/2 1

MILE

ENVIRONMENTAL RESOLUTIONS, INC.

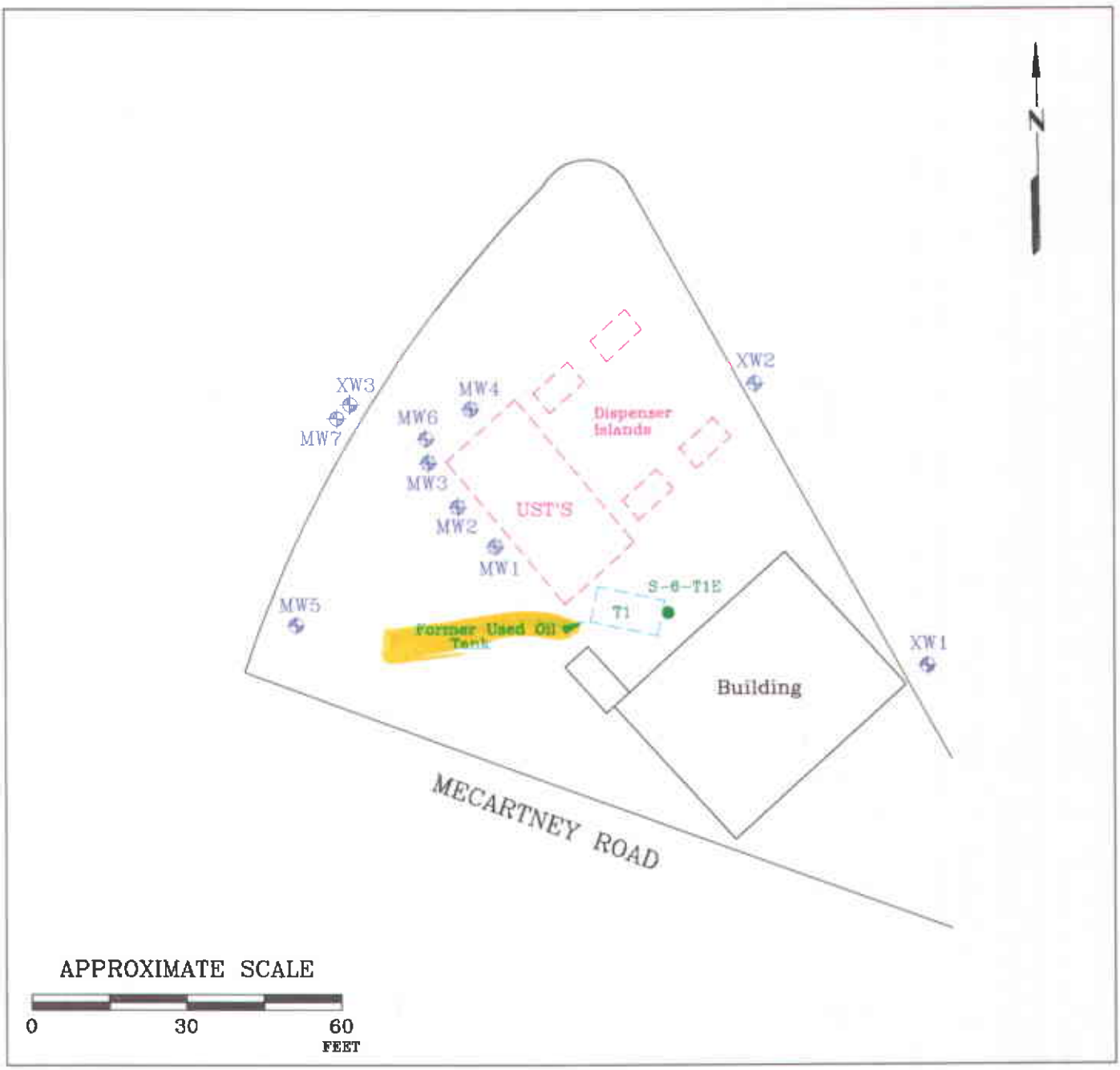
PROJECT ERI 2333

SITE VICINITY MAP

TOSCO BP SERVICE STATION 11270
3255 McCartney Road
Alameda, California

PLATE

1



FN 23330003

EXPLANATION

MW7 ⊕ Groundwater Monitoring Well

XW3 ⊕ Groundwater Monitoring Well

MW4 ⊕ Destroyed Groundwater Monitoring Well

● Soil Sample Location

S-6-T1E — Tank Number
Depth
Soil Sample

SOURCE: Modified from a map provided by TOSCO

ERI ENVIRONMENTAL RESOLUTIONS, INC.

GENERALIZED SITE PLAN

TOSCO BP SERVICE STATION 11270
3255 MeCartney Road
Alameda, California

PROJECT NO. 2333

PLATE 2

Oct. 27, 1998

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 onsite.

Sampling Under Former Underground Storage Tank

Soil samples were collected from 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, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

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

Attention: Glenn Matteucci

Client Proj. ID: Unocal BP 11270

Lab Proj. ID: 9807696

Sampled: 07/09/98
Received: 07/10/98
Analyzed: see below

Reported: 08/03/98

LABORATORY ANALYSIS

Lab No: 9807696-01
Sample Desc : SOLID,S-6-T1E

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Cadmium by ICP	mg/Kg	07/17/98	0.50	N.D.
Chromium by ICP	mg/Kg	07/17/98	0.50	22
Lead by ICP	mg/Kg	07/17/98	5.0	N.D.
Nickel by ICP	mg/Kg	07/17/98	2.5	8.9
TRPH (SM 5520 E&F)	mg/Kg	07/16/98	50	N.D.
Zinc by ICP	mg/Kg	07/17/98	0.50	16

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, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Environmental Resolutions	Client Proj. ID: Unocal BP 11270	Sampled: 07/09/98
74 Digital Drive , Suite 6	Sample Descript: S-6-T1E	Received: 07/10/98
Novato, CA 94949	Matrix: SOLID	Extracted: 07/17/98
	Analysis Method: EPA 8270	Analyzed: 07/17/98
Attention: Glenn Matteucci	Lab Number: 9807696-01	Reported: 08/03/98

QC Batch Number: MS0716988270EXA
Instrument ID: H5

Semivolatile Organics (EPA 8270)

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Acenaphthene	250	N.D.
Acenaphthylene	250	N.D.
Anthracene	250	N.D.
Benzoic Acid	500	N.D.
Benzo(a)anthracene	250	N.D.
Benzo(b)fluoranthene	250	N.D.
Benzo(k)fluoranthene	250	N.D.
Benzo(g,h,i)perylene	250	N.D.
Benzo(a)pyrene	250	N.D.
Benzyl alcohol	250	N.D.
Bis(2-chloroethoxy)methane	250	N.D.
Bis(2-chloroethyl)ether	250	N.D.
Bis(2-chloroisopropyl)ether	250	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.
4-Bromophenyl phenyl ether	250	N.D.
Butyl benzyl phthalate	250	N.D.
4-Chloroaniline	500	N.D.
2-Chloronaphthalene	250	N.D.
4-Chloro-3-methylphenol	250	N.D.
2-Chlorophenol	250	N.D.
4-Chlorophenyl phenyl ether	250	N.D.
Chrysene	250	N.D.
Dibenzo(a,h)anthracene	250	N.D.
Dibenzofuran	250	N.D.
Di-n-butyl phthalate	500	N.D.
1,2-Dichlorobenzene	250	N.D.
1,3-Dichlorobenzene	250	N.D.
1,4-Dichlorobenzene	250	N.D.
3,3'-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	250	N.D.
Diethyl phthalate	250	N.D.
2,4-Dimethylphenol	250	N.D.
Dimethyl phthalate	250	N.D.
4,6-Dinitro-2-methylphenol	500	N.D.
2,4-Dinitrophenol	500	N.D.
2,4-Dinitrotoluene	250	N.D.
2,6-Dinitrotoluene	250	N.D.
Di-n-octyl phthalate	250	N.D.
Fluoranthene	250	N.D.

Sequoia Analytical

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Environmental Resolutions	Client Proj. ID: Unocal BP 11270	Sampled: 07/09/98
74 Digital Drive , Suite 6	Sample Descript: S-6-T1E	Received: 07/10/98
Novato, CA 94949	Matrix: SOLID	Extracted: 07/17/98
	Analysis Method: EPA 8270	Analyzed: 07/17/98
Attention: Glenn Matteucci	Lab Number: 9807696-01	Reported: 08/03/98

QC Batch Number: MS0716988270EXA
Instrument ID: H5

Analyte	Detection Limit ug/Kg	Sample Results ug/Kg
Fluorene	250	N.D.
Hexachlorobenzene	250	N.D.
Hexachlorobutadiene	250	N.D.
Hexachlorocyclopentadiene	500	N.D.
Hexachloroethane	250	N.D.
Indeno(1,2,3-cd)pyrene	250	N.D.
Isophorone	250	N.D.
2-Methylnaphthalene	250	N.D.
2-Methylphenol	250	N.D.
4-Methylphenol	250	N.D.
Naphthalene	250	N.D.
2-Nitroaniline	500	N.D.
3-Nitroaniline	500	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	250	N.D.
2-Nitrophenol	250	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	250	N.D.
N-Nitroso-di-n-propylamine	250	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	250	N.D.
Phenol	250	N.D.
Pyrene	250	N.D.
1,2,4-Trichlorobenzene	250	N.D.
2,4,5-Trichlorophenol	500	N.D.
2,4,6-Trichlorophenol	250	N.D.

Surrogates	Control Limits %		% Recovery
2-Fluorophenol	25	121	50
Phenol-d5	24	113	55
Nitrobenzene-d5	23	120	51
2-Fluorobiphenyl	30	115	48
2,4,6-Tribromophenol	19	122	45
p-Terphenyl-d14	18	137	56

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Environmental Resolutions	Client Proj. ID: Unocal BP 11270	Sampled: 07/09/98
74 Digital Drive , Suite 6	Sample Descript: S-6-T1E	Received: 07/10/98
Novato, CA 94949	Matrix: SOLID	Extracted: 07/21/98
	Analysis Method: 8015Mod/8020	Analyzed: 07/22/98
Attention: Glenn Matteucci	Lab Number: 9807696-01	Reported: 08/03/98

QC Batch Number: GC072198BTEXEXA
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	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:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	74
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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Environmental Resolutions	Client Proj. ID: Unocal BP 11270	Sampled: 07/09/98
74 Digital Drive , Suite 6	Sample Descript: S-6-T1E	Received: 07/10/98
Novato, CA 94949	Matrix: SOLID	Extracted: 07/28/98
	Analysis Method: EPA 8015 Mod	Analyzed: 07/30/98
Attention: Glenn Matteucci	Lab Number: 9807696-01	Reported: 08/03/98

QC Batch Number: GC0728980HBPEXA
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TEPH as Diesel Chromatogram Pattern	1.0	N.D.

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	82

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

SEQUOIA ANALYTICAL - ELAP #1210

Tod Granicher
Project Manager

Sequoia Analytical

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Environmental Resulutions
74 Digital Drive, Ste. 6
Novato, CA 94949
Attention: Glenn Matteucci

Client Project ID: Uncoal BP 11270

QC Sample Group: 9807696

Reported: Oct 22, 1998

QUALITY CONTROL DATA REPORT

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

QC Batch #: GC072198BTEXEXA

Sample No.:	GS9807696-1
Date Prepared:	7/21/98
Date Analyzed:	7/21/98
Instrument I.D.#:	GCHP18
Sample Conc., mg/Kg:	N.D.
Conc. Spiked, mg/Kg:	5.0
Matrix Spike, mg/Kg:	4.9
% Recovery:	98
Matrix Spike Duplicate, mg/Kg:	5.9
% Recovery:	118
Relative % Difference:	19
RPD Control Limits:	0-25

LCS Batch#: GSBLK072198A

Date Prepared:	7/21/98
Date Analyzed:	7/21/98
Instrument I.D.#:	GCHP18
Conc. Spiked, mg/Kg:	5.0
Recovery, mg/Kg:	5.5
LCS % Recovery:	110

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, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
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Environmental Resolutions
74 Digital Drive, Ste. 6
Novato, CA 94949
Attention: Glenn Matteucci

Client Project ID: Uncoal BP 11270

QC Sample Group: 9807696

Reported: Oct 22, 1998

QUALITY CONTROL DATA REPORT

Matrix:	Solid
Method:	EPA 8015M
Analyst:	G. WARDLE
ANALYTE	Diesel

QC Batch #: GC092893OHBPEXA

Sample No.:	9809D68-1
Date Prepared:	9/23/98
Date Analyzed:	9/24/98
Instrument I.D.#:	GCHP4B
Sample Conc., mg/Kg:	N.D.
Conc. Spiked, mg/Kg:	17
Matrix Spike, mg/Kg:	14
% Recovery:	82
Matrix Spike Duplicate, mg/Kg:	14
% Recovery:	82
Relative % Difference:	0.0
RPD Control Limits:	0-50

MS MSD REFERED FROM GC092398OHBPEXB

LCS Batch#: BLK092893AS

Date Prepared:	9/28/98
Date Analyzed:	9/28/98
Instrument I.D.#:	GCHP4A
Conc. Spiked, mg/Kg:	17
Recovery, mg/Kg:	17
LCS % Recovery:	100

Percent Recovery Control Limits:

MS/MSD	50-150
LCS	60-140

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

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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Environmental Resolutions	Client Project ID:	Unocal BP 11270	
74 Digital Drive, Ste. 6	Matrix:	Solid	
Novato, CA 94949			
Attention: Glenn Matteucci	Work Order #:	9807696 01	Reported: Aug 4, 1998

QUALITY CONTROL DATA REPORT

Analyte:	1,2,4-Trichloro-benzene	4-Chloro-3-Methylphenol	Acenaphthene	4-Nitrophenol
QC Batch#:	MS0716988270EXA	MS0716988270EXA	MS0716988270EXA	MS0716988270EXA
Analy. Method:	EPA 8270	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3550	EPA 3550	EPA 3550	EPA 3550
Analyst:	E. Manuel	E. Manuel	E. Manuel	E. Manuel
MS/MSD #:	980767601	980767601	980767601	980767601
Sample Conc.:	N.D.	N.D.	N.D	N.D.
Prepared Date:	7/16/98	7/16/98	7/16/98	7/16/98
Analyzed Date:	7/17/98	7/17/98	7/17/98	7/17/98
Instrument I.D.#:	F4	F4	F4	F4
Conc. Spiked:	3300 µg/Kg	3300 µg/Kg	3300 µg/Kg	3300 µg/Kg
Result:	1920	1970	2260	1910
MS % Recovery:	58	60	68	58
Dup. Result:	1610	1800	2050	1660
MSD % Recov.:	49	55	62	50
RPD:	18	9.0	9.7	14
RPD Limit:	0-40	0-40	0-40	0-40
LCS #:	LCS071798	LCS071798	LCS071798	LCS071798
Prepared Date:	7/17/98	7/17/98	7/17/98	7/17/98
Analyzed Date:	7/17/98	7/17/98	7/17/98	7/17/98
Instrument I.D.#:	H5	H5	H5	H5
Conc. Spiked:	3300 µg/Kg	3300 µg/Kg	3300 µg/Kg	3300 µg/Kg
LCS Result:	1820	1950	1520	1510
LCS % Recov.:	55	53	46	40
MS/MSD LCS Control Limits	38-107	26-103	31-137	11-114

SEQUOIA ANALYTICAL

Tod Granicher
Project Manager

Please Note:
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** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

Sequoia Analytical

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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Environmental Resolutions	Client Project ID:	Unocal BP 11270	
74 Digital Drive, Ste. 6	Matrix:	Solid	
Novato, CA 94949			
Attention: Glenn Matteucci	Work Order #:	9807696 01	Reported: Aug 4, 1998

QUALITY CONTROL DATA REPORT

Analyte:	2,4-Dinitro-toluene	Pentachloro-phenol	Pyrene
QC Batch#:	MS0716988270EXA	MS0716988270EXA	MS0716988270EXA
Analy. Method:	EPA 8270	EPA 8270	EPA 8270
Prep. Method:	EPA 3550	EPA 3550	EPA 3550
Analyst:	E. Manuel	E. Manuel	E. Manuel
MS/MSD #:	980767601	980767601	980767601
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	7/16/98	7/16/98	7/16/98
Analyzed Date:	7/17/98	7/17/98	7/17/98
Instrument I.D.#:	F4	F4	F4
Conc. Spiked:	3300 µg/Kg	3300 µg/Kg	3300 µg/Kg
Result:	2200	2340	3080
MS % Recovery:	67	71	93
Dup. Result:	1990	2160	2810
MSD % Recov.:	60	65	85
RPD:	10	8.0	9.2
RPD Limit:	0-40	0-40	0-40
LCS #:	LCS071798	LCS071798	LCS071798
Prepared Date:	7/17/98	7/17/98	7/17/98
Analyzed Date:	7/17/98	7/17/98	7/17/98
Instrument I.D.#:	H5	H5	H5
Conc. Spiked:	3300 µg/Kg	3300 µg/Kg	3300 µg/Kg
LCS Result:	1520	1340	1990
LCS % Recov.:	46	41	60
MS/MSD LCS Control Limits	28-89	17-109	35-142

SEQUOIA ANALYTICAL

Tod Granicher
Project Manager

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Environmental Resolutions
74 Digital Drive, Ste. 6
Novato, CA 94949
Attention: Glenn Matteucci

Client Project ID: Unocal BP 11270
Matrix: Liquid
Work Order #: 9807696 01

Reported: Aug 4, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME071698601OMDF	ME071698601OMDF	ME071698601OMDF	ME071698601OMDF
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 #:	980788602	980788602	980788602	980788602
Sample Conc.:	N.D.	N.D.	2.6	N.D.
Prepared Date:	7/16/98	7/16/98	7/16/98	7/16/98
Analyzed Date:	7/16/98	7/16/98	7/16/98	7/16/98
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5
Conc. Spiked:	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg
Result:	42	43	46	42
MS % Recovery:	84	86	87	84
Dup. Result:	46	46	48	46
MSD % Recov.:	92	92	91	92
RPD:	9.1	6.7	4.3	9.1
RPD Limit:	0-20	0-20	0-20	0-20
LCS #:	BLK071698	BLK071698	BLK071698	BLK071698
Prepared Date:	7/16/98	7/16/98	7/16/98	7/16/98
Analyzed Date:	7/16/98	7/16/98	7/16/98	7/16/98
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5
Conc. Spiked:	50 mg/Kg	50 mg/Kg	50 mg/Kg	50 mg/Kg
LCS Result:	53	52	51	50
LCS % Recov.:	106	104	102	100
MS/MSD Control Limits	80-120	80-120	80-120	80-120
LCS Control Limits	80-120	80-120	80-120	80-120

SEQUOIA ANALYTICAL

Tod Granicher
Project Manager

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Environmental Resolutions	Client Project ID:	Unocal BP 11270	
74 Digital Drive, Ste. 6	Matrix:	Solid	
Novato, CA 94949			
Attention: Glenn Matteucci	Work Order #:	9807696 01	Reported: Aug 4, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Total Recoverable Petroleum Hydrocarbons
QC Batch#:	SP0715985520ECA
Analy. Method:	SM5520EF
Prep. Method:	SM5520EF

Analyst:	H. Olonan
MS/MSD #:	980769601
Sample Conc.:	N.D.
Prepared Date:	7/15/98
Analyzed Date:	7/16/98
Instrument I.D.#:	MANUAL
Conc. Spiked:	150 mg/Kg
Result:	140
MS % Recovery:	93
Dup. Result:	140
MSD % Recov.:	93
RPD:	0.0
RPD Limit:	0-30

LCS #:	BLK071598
Prepared Date:	7/15/98
Analyzed Date:	7/16/98
Instrument I.D.#:	MANUAL
Conc. Spiked:	150 mg/Kg
LCS Result:	140
LCS % Recov.:	93

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

SEQUOIA ANALYTICAL

Tod Granicher
Project Manager

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Environmental Resolutions
74 Digital Drive , Suite 6
Novato, CA 94949
Attention: Glenn Matteucci

Client Proj. ID: Unocal BP 11270

Lab Proj. ID: 9807696

Received: 07/10/98

Reported: 08/03/98

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

od Granicher
roject Manager

UNOCAL 76

4807646

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East 11115 Montgomery, Suite B • Spokane, WA 99206 • (509) 924-9200
19055 S.W. Sequoia Pkwy, Suite 110 • Portland, OR 97222 • (503) 624-9800

Company Name: ENVIRONMENTAL RESOLUTIONS, INC.	Project Name:
Address: 74 DIGITAL DR., SUITE 6	UNOCAL Project Manager: TINA BERRY
City: NOVATO State: CA Zip Code: 94949	Release #:
Telephone: (415) 382-5994 FAX #: (415) 382-1856	Site #: BP 11270
Report To: GLENN MITTELSTADT Sampler: PAUL BLANC	QC Data: ☒ Level D (Standard) ☐ Level C ☐ Level B ☐ Level A

Turnaround Time: ☐ 10 Work Days ☐ 5 Work Days ☐ 3 Work Days ☐ 2 Work Days ☐ 1 Work Day ☐ 2-8 Hours

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

☐ Drinking Water ☐ Waste Water ☒ Other

Analyses Requested

	Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	TPHG	BTEX	TRPH	8010	8270	Total Cadmium Chromium Lead	Comments
1.	S-6-TIE	7-9-98	1030	1	SOIL SLEEVE	01	X	X	X	X	X	X	
2.													
3.													
4.													
5.													
6.													
7.													
8.													
9.													
10.													

Relinquished By: Paul D Blanc	Date: 7-10-98	Time: 10:10	Received By: Jeff Bonneville	Date: 7-10-98	Time: 10:10
Relinquished By: Jeff Bonneville	Date: 7-10-98	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab:	Date: 7/10/98	Time: 1309

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:

Were the analyses requested on the Chain of Custody reported? ☐ Yes ☐ No If no, what analyses are still needed?

Was the report issued within the requested turnaround time? ☐ Yes ☐ No If no, what was the turnaround time?

Signature: Comments: Date:

Pink - Client

Yellow - Laboratory

White - Laboratory