

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

*Risk  
exceeds  
standards  
defined  
extent of  
plume  
TPH 126*

Submit 1 copy to  
appropriate  
District Office  
and 1 copy to  
the Santa Fe Office

(Revised 3/9/94)

**PIT REMEDIATION AND CLOSURE REPORT**

Operator: Unocal 20-039-60092 Telephone: \_\_\_\_\_

Address: \_\_\_\_\_

Facility Or: Rincon Unit #68, Meter 71579

Well Name \_\_\_\_\_

Location: Unit or Qtr/Qtr Sec P Sec 27 T 27 R 7 County Rio Arriba

Pit Type: Separator \_\_\_\_\_ Dehydrator \_\_\_\_\_ Other Drip

Land Type: BLM X, State \_\_\_\_\_, Fee \_\_\_\_\_ Other \_\_\_\_\_

Pit Location: Pit dimensions: length 18', width 20', depth 0'

(Attach diagram)

Reference: wellhead X, other \_\_\_\_\_

Footage from reference: 101'

Direction from reference: 105 Degrees X East North \_\_\_\_\_  
of \_\_\_\_\_ West South \_\_\_\_\_

Depth To Ground Water	Less than 50 feet	(20 points)
(Vertical distance from	50 feet to 99 feet	(10 points)
contaminants to seasonal	Greater than 100 feet	( 0 points) <u>20</u>

high water elevation of  
ground water.)

Wellhead Protection Area:

(Less than 200 feet from a private  
domestic water source, or; less than  
1000 feet from all other water sources.)

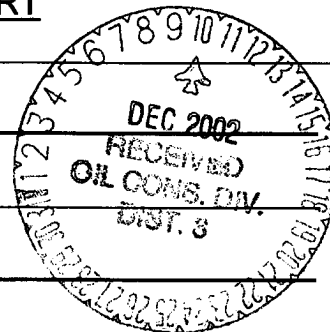
Yes (20 points)  
No ( 0 points) 0

Distance To Surface Water:

(Horizontal distance to perennial  
lakes, ponds, rivers, streams, creeks,  
irrigation canals and ditches.)

Less than 200 feet	(20 points)
200 feet to 1000 feet	(10 points)
Greater than 1000 feet	( 0 points) <u>0</u>

RANKING SCORE (TOTAL POINTS): 20



Date Remediation Started: 12/01/94 Date completed: 12/01/94

Remediation Method: Excavation X Approx. cubic yards 70

(Check all appropriate sections.)

Landfarmed \_\_\_\_\_ Insitu Bioremediation \_\_\_\_\_

Other \_\_\_\_\_

Remediation Location: Onsite \_\_\_\_\_ Offsite Envirotech  
(i.e. landfarmed onsite,  
name and location of  
offsite facility)

General Description of Remedial Action: Unocal had previously covered pit. Removed 12 yds of overburden

Excavated pit to 12', took PID sample, closed pit.

Ground Water Encountered: No X Yes \_\_\_\_\_ Depth \_\_\_\_\_

Final Pit:

Closure Sampling:  
(if multiple samples,  
attach sample results  
and diagram of sample  
locations and depths)

Sample location Four walls and center of pit composite

Sample depth 12'

Sample Date 12/01/94 Sample time 11:30

Sample Results

Benzene(ppm) 1.40

Total BTEX(ppm) 72.38

Field headspace(ppm) 369

TPH 17500

Ground Water Sample: Yes \_\_\_\_\_ No X (If yes, attach sample results)

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Date 1/8/03

Signature

Scott T. Pope

Printed Name

Scott T. Pope

and Title

Senior Env. Scientist



## PIT CLOSURE REQUEST

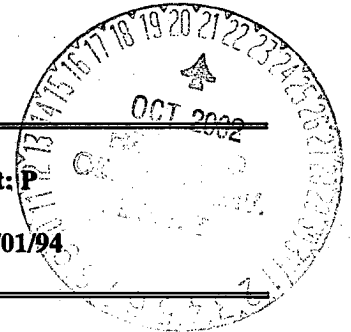
Rincon Unit #68  
Meter/Line ID 71579

### SITE DETAILS

Legals - Twn: 27N  
NMOCD Hazard Ranking: 20  
Operator: Unocal

Rng:7

Sec:27 Unit:P  
Land Type: BLM  
Pit Closure Date: 12/01/94



### RATIONALE FOR RISK-BASED CLOSURE

The pit noted above was assessed and ranked according to the criteria in the New Mexico Oil Conservation Division's (NMOCD) Unlined Surface Impoundment Closure Guidelines.

The pit was excavated to 12 feet (ft) below ground surface (bgs) and a soil sample was collected for field headspace analysis and laboratory analysis for BTEX and TPH. Groundwater was not encountered in the test pit. Headspace analysis indicated an organic vapor content of 625 ppm. The laboratory analyses for BTEX failed QA/QC criteria and are not considered representative. The TPH concentration in the sample was 17,500 mg/kg, exceeding its recommended remediation level for the Hazard Ranking Score of 20.

Approximately 70 cubic yards of soil were excavated and hauled to Envirotech, a commercial landfarm, for treatment and disposal. The pit was backfilled with clean soil and graded in a manner to direct surface runoff away from the pit area.

A Phase II boring was completed to 27 ft bgs. No groundwater was encountered in the soil boring. One laboratory sample was collected at 25-27 ft bgs. Headspace analysis indicated an organic vapor content of 16 pm; laboratory analysis indicated a benzene concentration of <0.5 mg/kg, a total BTEX concentration of <3 mg/kg, and a TPH concentration of 126 mg/kg. Benzene and total BTEX concentrations were below recommended remediation levels for the Hazard Ranking Score. The TPH concentration slightly exceeded its recommended remediation level of 100 mg/kg for the Hazard Ranking Score of 20.

El Paso Field Services requests closure of the above mentioned production pit location for the following reasons:

- The primary source, discharge to the pit, has been removed for over seven years.
- The impacted soil was disposed of offsite.
- The test pit was backfilled and the former pit area graded to direct surface runoff away from the former pit.
- Backfilling the pit with clean soil eliminated the potential for direct contact with hazardous constituents by livestock or the public; i.e., direct contact exposure pathways are incomplete.
- Groundwater was not encountered in the soil boring to 27 ft bgs.
- There are no water supply wells or other sources of fresh water extraction within 1,000 feet of the site.



## **PIT CLOSURE REQUEST**

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- In the soil sample from 27 ft bgs, the TPH concentration only slightly exceeded the recommended remediation level of 100 mg/kg.
- The concentration at 27 ft bgs is less than 10% of the concentration at 12 ft bgs, indicating that significant downward constituent migration is not occurring. Furthermore, this reduction in concentration with depth indicates that residual hydrocarbons in the soil will likely degrade by natural attenuation with minimal risk to the environment.

### **ATTACHMENTS**

Field Pit Assessment Form

Field Pit Remediation/Closure Form

Phase 2 Soil Boring Log

Laboratory Analytical Results

# FIELD PIT SITE ASSESSMENT FORM

GENERAL

Meter: 71579 Location: Rincon Unit # 68  
 Operator #: \_\_\_\_\_ Operator Name: UNOCEL P/L District: Blanco  
 Coordinates: Letter: P Section 27 Township: 27 Range: 7  
 Or Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
 Pit Type: Dehydrator \_\_\_\_\_ Location Drip: X Line Drip: \_\_\_\_\_ Other: \_\_\_\_\_  
 Site Assessment Date: 11/14/94 Area: 03 Run: 32

SITE ASSESSMENT

NMOCD Zone: (From NMOCD Maps) Inside ☒ (1) Outside ☐ (2)  
 Land Type: BLM ☒ (1) State ☐ (2) Fee ☐ (3) Indian \_\_\_\_\_

Depth to Groundwater  
 Less Than 50 Feet (20 points) ☒ (1)  
 50 Ft to 99 Ft (10 points) ☐ (2)  
 Greater Than 100 Ft (0 points) ☐ (3)

Wellhead Protection Area :  
 Is it less than 1000 ft from wells, springs, or other sources of fresh water extraction? , or ; Is it less than 200 ft from a private domestic water source? ☐ (1) YES (20 points) ☒ (2) NO (0 points)

## Horizontal Distance to Surface Water Body

Less Than 200 Ft (20 points) ☐ (1)  
 200 Ft to 1000 Ft (10 points) ☐ (2)  
 Greater Than 1000 Ft (0 points) ☒ (3)

Name of Surface Water Body \_\_\_\_\_

(Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)

Distance to Nearest Ephemeral Stream ☐ (1) < 100' (Navajo Pits Only)  
☐ (2) > 100'

TOTAL HAZARD RANKING SCORE: 20 POINTS

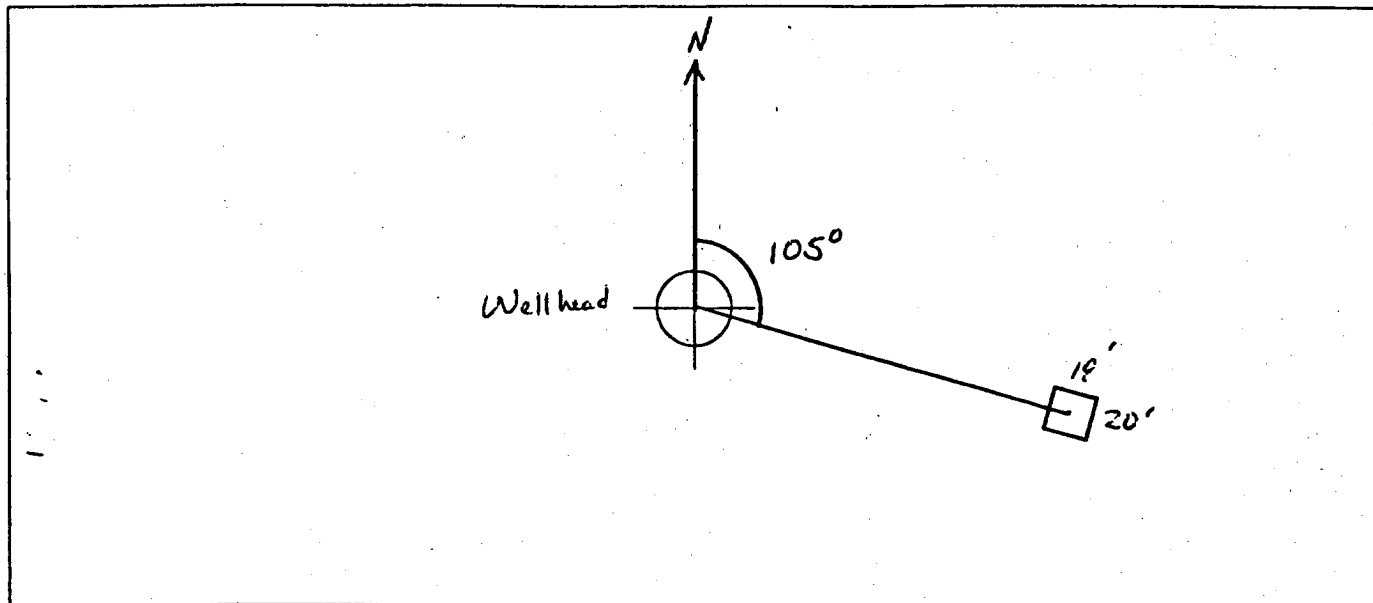
REMARKS

Remarks : Topo - Inside Redline - Outside  
On zone boundary line

ORIGINAL PIT LOCATION

## ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 105° Footage from Wellhead 101'  
b) Length : 18 Width : 20 Depth : 0



REMARKS

Remarks :

Picatas 1110 (17-20) Roll 1  
11/14/84

Pit appears to have been moved. All measurements and angles  
taken from surficial evidence of old pit location. Estimated center of  
pit marked w/ survey lath.

Completed By:

Swett T. Page

Signature

11/14/84

Date

## FIELD SERVICES LABORATORY ANALYTICAL REPORT

**PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone**

### SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KD 381	946516
MTR CODE   SITE NAME:	71579	N/A
SAMPLE DATE   TIME (Hrs):	12-1-94	1130
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	12-5-94	12-5-94
DATE OF BTEX EXT.   ANAL.:	12/5/94	12/7/94
TYPE   DESCRIPTION:	VL	Brown fine sand and clay

REMARKS: BTEX to be done at EPNG and ATI labs.

### RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS				ATT Results
			DF	Q	M(g)	V(ml)	
BENZENE	1.40	MG/KG	0.2732		3.66	20	<del>1.40</del>
TOLUENE	7.13	MG/KG	↓		↓	↓	<del>7.13</del>
ETHYL BENZENE	6.54	MG/KG	↓		↓	↓	<del>6.54</del>
TOTAL XYLENES	57.31	MG/KG	↓		↓	↓	<del>57.31</del>
TOTAL BTEX	72.38	MG/KG					<del>72.38</del>
TPH (418.1)	17500	MG/KG			0.49	28	<del>17500</del>
HEADSPACE PID	369	PPM					Surrogate %
PERCENT SOLIDS	87.3	%					Dilution Factor

OL  
 mg/kg  
 1.37  
 1  
 1.37  
 4.11

— TPH is by EPA Method 418.1 and BTEX is by EPA Method 8020 —

The Surrogate Recovery was at 177.9 for this samp All QA/QC was acceptable.

Note: toluene estimated along with o-xylene  
BFB coeluted w contaminants

DF = Dilution Factor Used ATT Results attached \* Surrogate Recovery not obtainable due to sample dilution.

Approved By: 

Date: 12/27/94

NOT USED  
 12/27/94



Analytical Technologies, Inc.

# GAS CHROMATOGRAPHY RESULTS

TEST : BTEX (EPA 8020)  
CLIENT : EL PASO NATURAL GAS CO. ATI I.D.: 412325  
PROJECT # : 24324  
PROJECT NAME : PIT CLOSURE

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	946515	NON-AQ	11/30/94	12/08/94	12/12/94	5
05	946516	NON-AQ	12/01/94	12/08/94	12/09/94	20
06	946517	NON-AQ	12/01/94	12/08/94	12/09/94	50
PARAMETER			UNITS	04	05	06
BENZENE			MG/KG	<0.13	1.7	3.5
TOLUENE			MG/KG	<0.13	10	54
ETHYLBENZENE			MG/KG	0.22	1.6	1.4
TOTAL XYLENES			MG/KG	2.4	9.8	61

## SURROGATE:

BROMOFLUOROBENZENE (%) 125 \* \*

\*SURROGATE RECOVERY NOT OBTAINABLE DUE TO SAMPLE DILUTION



## FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL	Meter: <u>71579</u> Location: <u>Rincon Unit #68</u>	
	Coordinates: Letter: <u>P</u> Section <u>27</u> Township: <u>27</u> Range: <u>7</u> Or Latitude _____ Longitude _____	
Date Started : <u>12/1/94</u> Run: <u>03</u> <u>32</u>		
FIELD OBSERVATIONS	Sample Number(s): <u>KD 381</u>	
	Sample Depth: <u>12'</u> Feet	
	Final PID Reading <u>369 ppm</u>	PID Reading Depth <u>12'</u> Feet
	Groundwater Encountered <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Approximate Depth _____ Feet
CLOSURE	Remediation Method :	
	Excavation <input checked="" type="checkbox"/>	Approx. Cubic Yards <u>70</u>
	Onsite Bioremediation <input type="checkbox"/>	
	Backfill Pit Without Excavation <input type="checkbox"/>	
REMARKS	Soil Disposition:	
	Envirotech <input checked="" type="checkbox"/>	Tierra <input type="checkbox"/>
	Other Facility <input type="checkbox"/>	Name: _____
	Pit Closure Date: <u>12/1/94</u>	Pit Closed By: <u>BET</u>
Remarks : <u>Unocal had previously covered pit, Removed 12 yds of Overburden, EXCAVATED pit to 12', TOOK PID SAMPLE, closed pit.</u>		
Signature of Specialist: <u>Thommy Deen</u>		



## Page \_\_\_\_\_ of \_\_\_\_\_

FM-08-0565 A (Rev. 05-94)

# RECORD OF SUBSURFACE EXPLORATION

PHILIP ENVIRONMENTAL

4000 Monroe Road

Farmington, New Mexico 87401

(505) 326-2262 FAX (505) 326-2388

Borehole # BH-1

Well # 1

Page 1 of 1

Project Name

EPNG PITS

Project Number

14509

Phase

6000 77

Project Location

Rincon Unit # 68 71579

Elevation

Borehole Location QP-S27-T27-R7

GWL Depth

Logged By CM CHANCE

Drilled By 9/7/95 K Padilla S. Snider

Date/Time Started 9/7/95-1414

Date/Time Completed 9/7/95-1500

Well Logged By

CM Chance

Personnel On-Site

9/7/95 K Padilla D. Roberts, 4 Kei

Contractors On-Site

Client Personnel On-Site

Drilling Method

4 1/4" ID HSA

Air Monitoring Method

PID, CGI

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery (inches)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: PPM			Drilling Conditions & Blow Counts
							BZ	BH	S HS	
0				Backfill to 12'						
5										
10										
15	1	15-17	5"	Br CLAY, soft, med plastic, dry			0	10	$\frac{83}{440}$	1430 hr
20	2	20-22	6"	AA			0	20	$\frac{180}{860}$	1435
25	3	25-27	12"	Br silty CLAY, soft, low plastic, slumpist			0	18	$\frac{28}{16}$	1438
30				TDB 27'						
35										
40										

Comments:

CMC 106(25-27) sent to lab (BTX, TPH) CMC 107 is duplicate of 106. CMC 108 is field Blank. Samples bagged & iced prior to containerization. BH grout to surface.

Geologist Signature

CM Chance





FIELD SERVICES LABORATORY  
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	CMC 106	947415
MTR CODE   SITE NAME:	71579	Rincon Unit #68
SAMPLE DATE   TIME (Hrs):	09/07/95	1438
PROJECT:	Phase II Drilling	
DATE OF TPH EXT.   ANAL.:	9-8-95	
DATE OF BTEX EXT.   ANAL.:	9/8/95	9/12/95
TYPE   DESCRIPTION:	VG	DARK BROWN SAND + CLAY

Field Remarks:

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	< 0.5	MG/KG				
TOLUENE	< 0.5	MG/KG				
ETHYL BENZENE	< 0.5	MG/KG				
TOTAL XYLENES	< 1.5	MG/KG				
TOTAL BTEX	< 3	MG/KG				
TPH (418.1)	126	MG/KG			1.97	28
HEADSPACE PID	16	PPM				
PERCENT SOLIDS	90.8	%				

-- TPH is by EPA Method 418.1 and BTEX is by EPA Method 8020 --

The Surrogate Recovery was at 97% for this sample All QA/QC was acceptable.  
Narrative:

DF = Dilution Factor Used

Approved By:

JP

Date:

9-13-95

# BTEX SOIL SAMPLE WORKSHEET

File	:	947415	Date Printed	:	9/13/95
Soil Mass (g)	:	5.04	Multiplier (L/g)	:	0.00099
Extraction vol. (mL)	:	20	DF (Analytical)	:	200
Shot Volume (uL)	:	100	DF (Report)	:	0.19841

				Det. Limit
Benzene (ug/L)	:	0.00	Benzene (mg/Kg):	0.000 0.496
Toluene (ug/L)	:	0.00	Toluene (mg/Kg):	0.000 0.496
Ethylbenzene (ug/L)	:	0.00	Ethylbenzene (mg/Kg):	0.000 0.496
p & m-xylene (ug/L)	:	0.00	p & m-xylene (mg/Kg):	0.000 0.992
o-xylene (ug/L)	:	1.29	o-xylene (mg/Kg):	0.256 0.496
			Total xylenes (mg/Kg):	0.256 1.488
			Total BTEX (mg/Kg):	0.256