

**Denny E. Faust**  
**DEPUTY OIL & GAS INSPECTOR**

DEC 02 1997

*Approved*

Meter Number:72377

Location Name:SAN JUAN 32-8 UNIT #7-22

Location:TN-31 RG-08

SC-22 UL-H

2 - Federal

NMOCD Zone:OUTSIDE

Hazard Ranking Score:00

RECEIVED  
APR 14 1997

OIL CON. DIV.  
DIST. 3

**RATIONALE FOR RISK-BASED CLOSURE OF PRODUCTION PITS  
LOCATED OUTSIDE OF THE VULNERABLE ZONE  
IN THE SAN JUAN BASIN**

This production pit location was ranked according to the criteria in the New Mexico Oil Conservation Division's Unlined Surface Impoundment Closure Guidelines and received a ranking score of zero. The estimated depth to groundwater is greater than 100-feet beneath ground surface (bgs), the pit is not in a well head protection area, and there are no surface water bodies within 1,000 horizontal feet of the pit location.

The primary source, discharge to the pit has been removed. There has been no discharge to the pits for at least 4 years and the pits have been closed for at least one year.

Each pit was backfilled with clean soil and graded in a manner to divert precipitation away from the excavated area. Minimal infiltration of rainfall is expected. Any rainfall that does infiltrate the ground surface must migrate through clean backfill before reaching the residual hydrocarbons.

There is no source material at the ground surface, so direct contact of hydrocarbons with livestock and the populous is not likely.

In general, outside of the vulnerable area and alluvial valleys, bedrock material is generally encountered within 20 feet of the ground surface. Bedrock material in the San Juan Basin consists of interbedded sandstones, shales and clays. According to Freeze and Cherry, 1979, the hydraulic conductivity of the bedrock material are as follows:

Sandstone	$10^{-9}$ to $10^{-13}$ cm/sec
Shale	$10^{-12}$ to $10^{-16}$ cm/sec
Clay	$10^{-12}$ to $10^{-15}$ cm/sec

Based on this information, the residual hydrocarbons should not migrate to groundwater.

Natural process (bioremediation) are degrading the residual hydrocarbon to carbon dioxide and water and will continue until the source is gone, therefore minimizing any impact to the environment.

Based on the above information, it is highly unlikely that any source material will impact groundwater or ever find an exposure pathway to affect human health and therefore El Paso Field Services Company (EPFS) requests closure of this pit location.

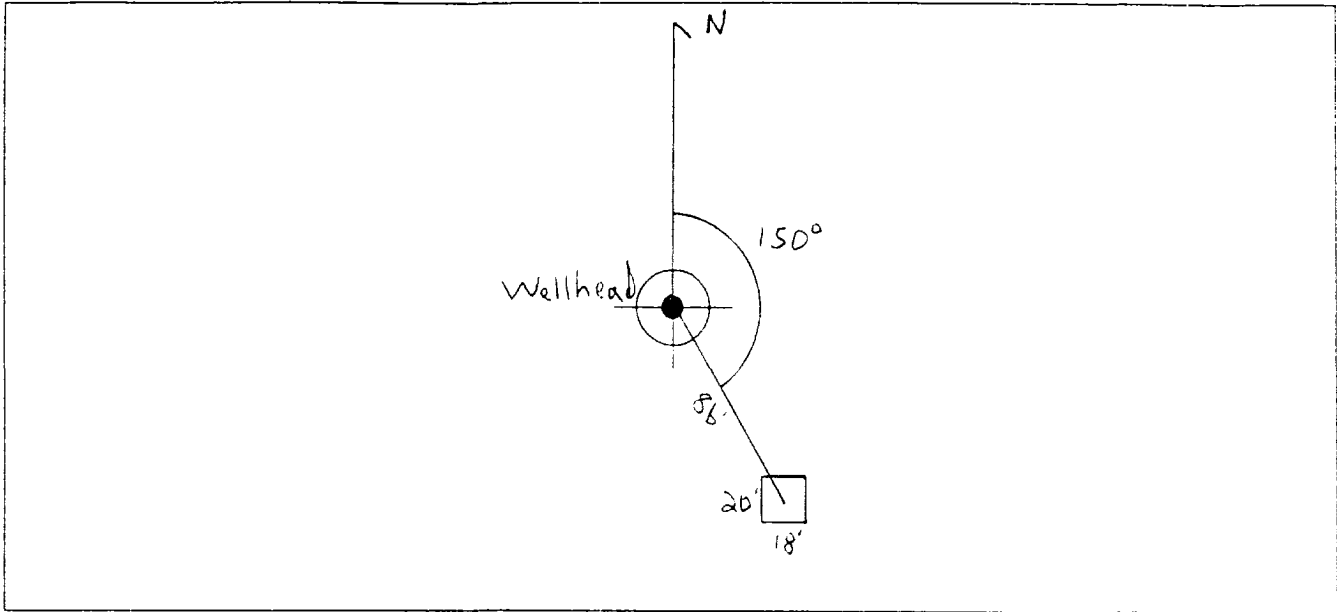
**FIELD PIT SITE ASSESSMENT FORM**

<b>GENERAL</b>	<p>Meter: <u>72377</u> Location: <u>San Juan 32-8 Unit No 7-22</u></p> <p>Operator #: <u>7235</u> Operator Name: <u>Phillips</u> P/L District: <u>Bloomfield</u></p> <p>Coordinates: Letter: <u>14</u> Section <u>22</u> Township: <u>31</u> Range: <u>8</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Pit Type: Dehydrator _____ Location Drip: <u>✓</u> Line Drip: _____ Other: _____</p> <p>Site Assessment Date: <u>1/17/95</u> Area: <u>10</u> Run: <u>63</u></p>																								
<b>SITE ASSESSMENT</b>	<p><b>NMOCD Zone:</b> (From NMOCD Maps)</p> <table style="width:100%;"> <tr> <td style="width:40%;">Inside</td><td style="width:10%;"><input type="checkbox"/></td><td style="width:10%;">(1)</td><td style="width:20%;"><b>Land Type:</b> BLM</td><td style="width:10%;"><input checked="" type="checkbox"/></td><td style="width:10%;">(1)</td></tr> <tr> <td>Outside</td><td><input checked="" type="checkbox"/></td><td>(2)</td><td>State</td><td><input type="checkbox"/></td><td>(2)</td></tr> <tr> <td></td><td></td><td></td><td>Fee</td><td><input type="checkbox"/></td><td>(3)</td></tr> <tr> <td></td><td></td><td></td><td>Indian</td><td></td><td></td></tr> </table> <p><b>Depth to Groundwater</b></p> <p>Less Than 50 Feet (20 points) <input type="checkbox"/> (1)</p> <p>50 Ft to 99 Ft (10 points) <input type="checkbox"/> (2)</p> <p>Greater Than 100 Ft (0 points) <input checked="" type="checkbox"/> (3)</p> <p><b>Wellhead Protection Area :</b></p> <p>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? <input type="checkbox"/> (1) YES (20 points) <input checked="" type="checkbox"/> (2) NO (0 points)</p> <p><b>Horizontal Distance to Surface Water Body</b></p> <p>Less Than 200 Ft (20 points) <input type="checkbox"/> (1)</p> <p>200 Ft to 1000 Ft (10 points) <input type="checkbox"/> (2)</p> <p>Greater Than 1000 Ft (0 points) <input checked="" type="checkbox"/> (3)</p> <p>Name of Surface Water Body _____</p> <p>(Surface Water Body : Perennial Rivers, Major Wash, Streams, Creeks, Irrigation Canals, Ditches, Lakes, Ponds)</p> <p>Distance to Nearest Ephemeral Stream <input type="checkbox"/> (1) &lt; 100' (Navajo Pits Only)</p> <p style="padding-left: 150px;"><input type="checkbox"/> (2) &gt; 100'</p> <p><b>TOTAL HAZARD RANKING SCORE:</b> <u>0</u> POINTS</p>	Inside	<input type="checkbox"/>	(1)	<b>Land Type:</b> BLM	<input checked="" type="checkbox"/>	(1)	Outside	<input checked="" type="checkbox"/>	(2)	State	<input type="checkbox"/>	(2)				Fee	<input type="checkbox"/>	(3)				Indian		
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Outside	<input checked="" type="checkbox"/>	(2)	State	<input type="checkbox"/>	(2)																				
			Fee	<input type="checkbox"/>	(3)																				
			Indian																						
<b>REMARKS</b>	<p>Remarks : <u>Redline Book: Inside</u> <u>Vulnerable Zone Type: Outside</u></p> <p><u>1 pit. Will close.</u></p> <p style="text-align: right; padding-right: 50px;"><u>PUSH-IN</u></p>																								

# ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 150° Footage from Wellhead 86'  
 b) Length : 20' Width : 18' Depth : 3'

ORIGINAL PIT LOCATION



## Remarks :

Pictures @ 1023 hr 10-12 roll 1

REMARKS

Completed By:

Cory Chance  
 Signature

1/17/95  
 Date

# FIELD PIT REMEDIATION/CLOSURE FORM

<b>GENERAL</b>	<p>Meter: <u>72377</u> Location: <u>SAN JUAN 32-8 Unit # 7-22</u></p> <p>Coordinates: Letter: <u>H</u> Section <u>22</u> Township: <u>31</u> Range: <u>8</u></p> <p>Or Latitude _____ Longitude _____</p> <p>Date Started : <u>2-13-95</u> Run: <u>10</u> <u>63</u></p>
<b>FIELD OBSERVATIONS</b>	<p>Sample Number(s): <u>MK 384</u></p> <p>Sample Depth: <u>7'</u> Feet</p> <p>Final PID Reading <u>446 PPM</u> PID Reading Depth <u>7'</u> Feet</p> <p style="text-align: center;">Yes No</p> <p>Groundwater Encountered <input type="checkbox"/> <input checked="" type="checkbox"/> Approximate Depth _____ Feet</p>
<b>CLOSURE</b>	<p>Remediation Method :</p> <p>Excavation <input type="checkbox"/> Approx. Cubic Yards _____</p> <p>Onsite Bioremediation <input type="checkbox"/></p> <p>Backfill Pit Without Excavation <input checked="" type="checkbox"/></p> <p>Soil Disposition:</p> <p>Envirotech <input type="checkbox"/> <input type="checkbox"/> Tierra</p> <p>Other Facility <input type="checkbox"/> Name: _____</p> <p>Pit Closure Date: <u>2-13-95</u> Pit Closed By: <u>BEI</u></p>
<b>REMARKS</b>	<p>Remarks : <u>Aug Sample Hole 1' was brown soil After</u></p> <p><u>That it turn Gray soil Had strong Hydrocarbon odor</u></p> <p><u>Hit Rock 7'</u></p>
	<p>Signature of Specialist: <u>Morgan Killian</u></p>



**FIELD SERVICES LABORATORY  
ANALYTICAL REPORT**

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

**SAMPLE IDENTIFICATION**

	Field ID	Lab ID
SAMPLE NUMBER:	mk 384	926677
MTR CODE   SITE NAME:	72377	N/A
SAMPLE DATE   TIME (Hrs):	2-13-95	1420
SAMPLED BY:	N/A	
DATE OF TPH EXT.   ANAL.:	2/17/95	2/17/95
DATE OF BTEX EXT.   ANAL.:	N/A	N/A
TYPE   DESCRIPTION:	VG	gray clay

REMARKS: TPH done at DT1

**RESULTS**

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
TPH (418.1)	1200	MG/KG				
HEADSPACE PID	446	PPM				
PERCENT SOLIDS	85.9	%				

-- TPH is by EPA Method 418.1 --

Narrative:

AT 1 Results attached

DF = Dilution Factor Used

Approved By: \_\_\_\_\_

Date: \_\_\_\_\_

3-20-95



Analytical Technologies, Inc.

# GENERAL CHEMISTRY RESULTS

CLIENT : EL PASO NATURAL GAS CO. ATI I.D. : 502381  
PROJECT # : 24324 DATE RECEIVED : 02/17/95  
PROJECT NAME : PIT CLOSURE DATE ANALYZED : 02/17/95

PARAMETER	UNITS	17	18	19	20
PETROLEUM HYDROCARBONS, IR	MG/KG	550	5100	<20	1200

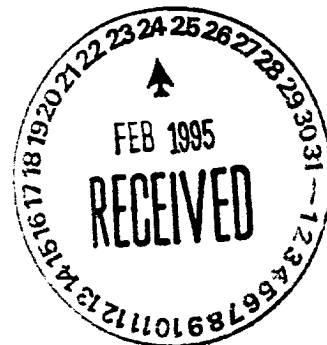
946677



Analytical **Technologies**, Inc.

2709-D Pan American Freeway, NE Albuquerque, NM 87107  
Phone (505) 344-3777 FAX (505) 344-4413

ATI I.D. 502381



February 23, 1995

El Paso Natural Gas Co.  
P. O. Box 4990  
Farmington, NM 87499

Project Name/Number: PIT CLOSURE 24324

Attention: John Lambdin

On 02/17/95, Analytical Technologies, Inc., (ADHS License No. AZ0015), received a request to analyze **non-aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

EPA Method 8020 analyses were added on February 21, 1995 for samples 946659, 946660, 946661, 946662, 946663, 946664, 94666, 946667, 946668, 946669, 946680, 946682 per John Lambdin.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Letitia Krakowski, Ph.D.  
Project Manager

H. Mitchell Rubenstein, Ph.D.  
Laboratory Manager

MR:jt

Enclosure