Denny E. Foust
DEPUTY OIL & GAS INSPECTOR

DEC 22 1997

Approved

Meter Number:94994
Location Name:JICARILLA APACHE 361 #1JV
Location:TN-23 RG-04
SC-04 UL-A
6 - Jicarilla
NMOCD Zone:OUTSIDE
Hazard Ranking Score:00

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

EPFS EL PASO FIELD SERVICES

GENERAL

Meter: 94994 Location: Jicarilla Apache 361 #1JV
Operator #: 1233 Operator Name: Chaceoil P/L District: Ojito
Coordinates: Letter: A Section 4 Township: 23N Range: 4W
Or Latitude _____ Longitude _____
Pit Type: Dehydrator ___ Location Drip: X Line Drip: ___ Other: _____
Site Assessment Date: 7-12-94 Area: 08 Run: 81

SITE ASSESSMENT

NMOCD Zone: (From NMOCD Maps)
Inside ☐ (1)
Outside ☒ (2)

Land Type:
BLM ☐ (1)
State ☐ (2)
Fee ☐ (3)
Indian Jicarilla Apache

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: 0 **POINTS**

REMARKS

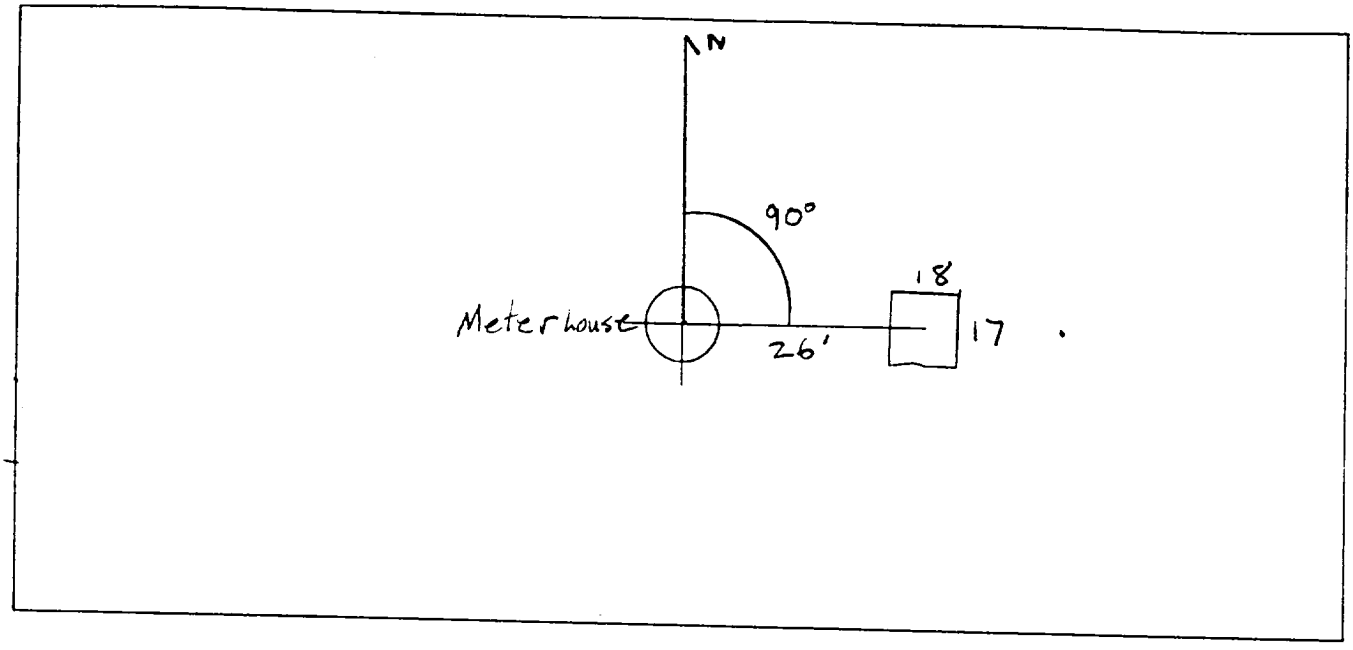
Remarks : Redline Book - outside Vulnerable Zone Topo - outside
One pit on location

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 90 Footage from ~~Wellhead~~ Meter 26

b) Length : 18 Width : 17 Depth : 4



REMARKS

Remarks :

Pictures @ 1040 #2 Roll 1

Cant find well. No dogleg in area, Measured from Meter house

Completed By:

Signature

7-12-94

Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 94994 Location: Jicarilla Apache 341 #1 JV

Coordinates: Letter: A Section 4 Township: 23N Range: 4W

Or Latitude _____ Longitude _____

Date Started : 10-9-95 Run: 08 81

FIELD OBSERVATIONS

Sample Number(s): NS110 _____ _____ _____

Sample Depth: 5 Feet

Final PID Reading 0.2 PID Reading Depth 5 Feet

	Yes	No
Groundwater Encountered	☐	☒

Approximate Depth _____ Feet

CLOSURE

Remediation Method :

Excavation ☐ Approx. Cubic Yards 0 LF 10/11/95

Onsite Bioremediation ☐ Keith From Jic E.P.O. Approved

Backfill Pit Without Excavation ☒ closure 10-16-95

Soil Disposition:

Envirotech ☐ ☐ Tierra

Other Facility ☐ Name: _____

Pit Closure Date: 10-17-95 Pit Closed By: Philip

REMARKS

Remarks : EXCAVATED PIT TO 5' SAMPLED PID READING 0.2 NO DIRT HAULED. PIT IS LISTED OUTSIDE W.U. 2006 MORE THAN 100' FROM EPHEMERAL STREAM

Fencing 28 X 28 X 3 Netting Y — N X

Signature of Specialist: Nicholas Schmaltz

(SP3191) 03/16/94

El Paso Natural Gas Company

FIELD SERVICES LABORATORY
ANALYTICAL REPORT
PIT CLOSURE PROJECT - Soil Samples Inside the GWV Zone

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	NS110	947609
MTR CODE | SITE NAME:	94994	Jic. Apache 361 #1 J.V.
SAMPLE DATE | TIME (Hrs):	10-09-95	1500
PROJECT:	Jic Pits	
DATE OF TPH EXT. | ANAL.:	10/11/95	
DATE OF BTEX EXT. | ANAL.:	10/10/95	10/10/95
TYPE | DESCRIPTION:	VG	Light brown Sand

Field Remarks: (No wall PID readings)

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)	< 0	MG/KG			1.98	28
HEADSPACE PID	0.2	PPM				
PERCENT SOLIDS	94	%				

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

The Surrogate Recovery was at 96% for this sample All QA/QC was acceptable.

Narrative:

DF = Dilution Factor Used

Approved By: J.P. Date: 10-13-95

****
Test Method for
Oil and Grease and Petroleum Hydrocarbons
in Water and Soil

Perkin-Elmer Model 1600 FT-IR
Analysis Report
****

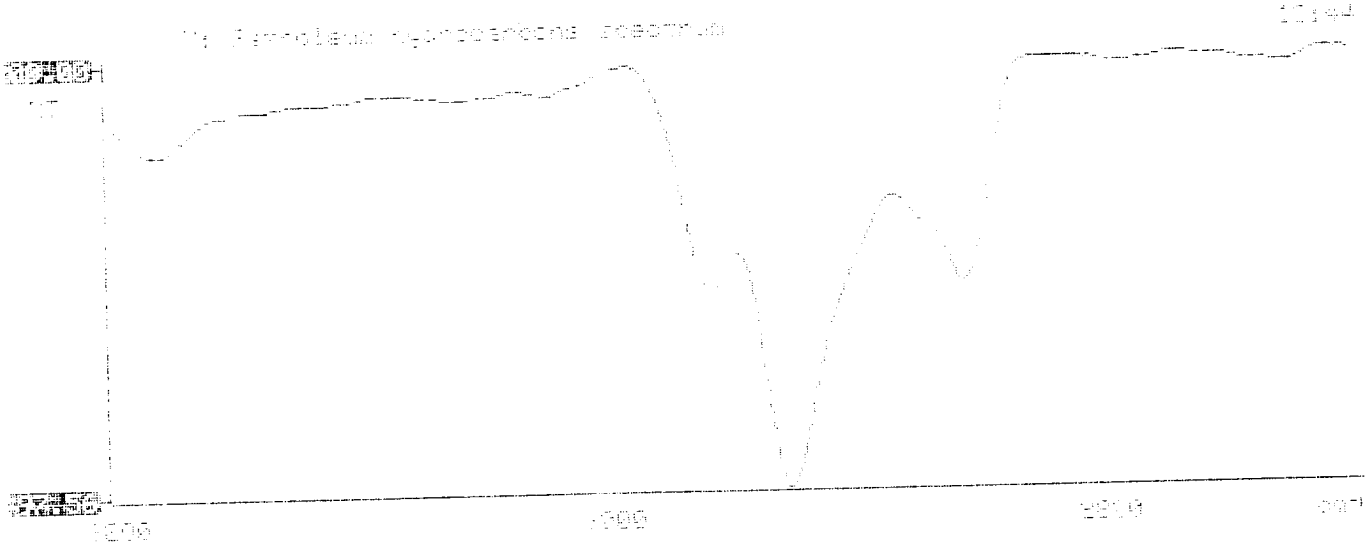
25/10/11 13:44

Sample identification
267609

Initial mass of sample, g
1.980

Volume of sample after extraction, ml
13.000

Petroleum hydrocarbons, ppm
2.656
Net absorbance of hydrocarbons (2930 cm-1)
0.013



BTEX SOIL SAMPLE WORKSHEET

File :	947609	**Date Printed** :	10/11/95
Soil Mass (g) :	5.07	**Multiplier (L/g)** :	0.00099
Extraction vol. (mL) :	10	**DF (Analytical)** :	200
Shot Volume (uL) :	50	**DF (Report)** :	0.19724

				Det. Limit
Benzene (ug/L) :	0.19	**Benzene (mg/Kg):**	**0.037**	0.493
Toluene (ug/L) :	0.31	**Toluene (mg/Kg):**	**0.061**	0.493
Ethylbenzene (ug/L) :	0.00	**Ethylbenzene (mg/Kg):**	**0.000**	0.493
p & m-xylene (ug/L) :	0.46	p & m-xylene (mg/Kg):	0.091	0.986
o-xylene (ug/L) :	0.00	o-xylene (mg/Kg):	0.000	0.493
		Total xylenes (mg/Kg):	**0.091**	1.479
		Total BTEX (mg/Kg):	**0.189**	

EL PASO NATURAL GAS
EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM000\101095-0.010
Method : C:\LABQUEST\METHODS\0-092095.MET
Sample ID : 947609,5.07G,50U
Acquired : Oct 10, 1995 17:57:41
Printed : Oct 10, 1995 18:28:07
User : MARLON

Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	8.167	70498	0.1884
a,a,a-TFT	10.533	9380650	107.2248
TOLUENE	12.953	111628	0.3067
ETHYLBENZENE	17.170	0	0.0000
M,P-XYLENES	17.687	184473	0.4598
O-XYLENE	18.710	0	0.0000
BFB	19.903	52578592	96.4601