DEPUTY OIL & GAS INSPECTOR

DEC 20 1997

Approved

Meter Number:73543
Location Name:Jicarilla Contract 146 #16
Location:TN-25 RG-05
SC-10 UL-M
6 - Jicarilla
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

EPFS
EL PASO FIELD SERVICES

GENERAL

Meter: 73543 Location: JICARILLA CONTRACT 146 #16
Operator #: 0203 Operator Name: AMOCO P/L District: OJITO
Coordinates: Letter: M Section 10 Township: 25 Range: 5
Or Latitude _____ Longitude _____
Pit Type: Dehydrator ___ Location Drip: X Line Drip: ___ Other: _____
Site Assessment Date: 8·21·95 Area: 06 Run: 63

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 SHOWS INSIDE BUT TOPO SHOWS LOCATION OUTSIDE V.2. TWO PITS ON LOCATION. LOCATION DRIP PIT BELONGS TO EPNG. WILL CLOSE PIT. OTHER PIT IS A COMPRESSOR PIT AND BELONGS TO THE OPERATOR. PUSH IN

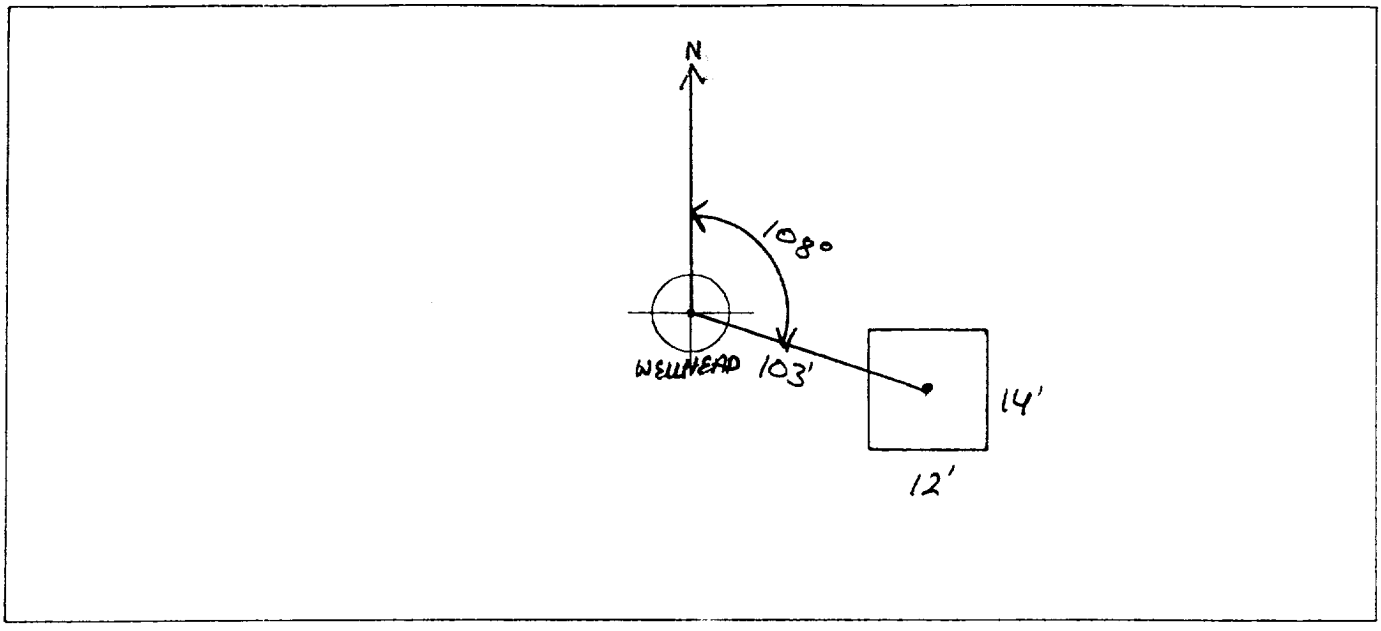
(SP3100) 04/08/94

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 108° Footage from Wellhead 103'

b) Length : 14' Width : 12' Depth : 1'



REMARKS

Remarks :

PHOTOS - 1145

Completed By:

Robert Thompson
Signature

8.21.95
Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 73543 Location: Jicarilla contract 146 #16

Coordinates: Letter: M Section 10 Township: 25 Range: 5

Or Latitude _____ Longitude _____

Date Started : 8/31/95 Run: 06 63

FIELD OBSERVATIONS

Sample Number(s): JK67 _____ _____ _____

Sample Depth: 4' Feet

Final PID Reading 5190 PID Reading Depth 4' Feet

	Yes	No
Groundwater Encountered	☐	☒

Approximate Depth _____ Feet

CLOSURE

Remediation Method :

Excavation ☒ Approx. Cubic Yards 20 @ 9/12/95

Onsite Bioremediation ☐ Gabrial From Jicarilla E.P.O. approved closure 9-6-95

Backfill Pit Without Excavation ☐

Soil Disposition:

Envirotech ☒ ☐ Tierra

Other Facility ☐ Name: _____

Pit Closure Date: 9-8-95 Pit Closed By: Phil P

REMARKS

Remarks : Pit Pid Readings (W-419)(S-168.3)(E-569)(W-296.2)
Pit Size: 8x9x4 Hit Rock at 4 Foot All walls are Rock
Fence Size: 16x14x3 SPRAYED PIT with soil enhancer 9-6-95
More Than 100' From Ephemral Strem

Signature of Specialist: Jas L Kelly

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:	AK67	947374
MTR CODE | SITE NAME:	73543	Jic Contract 146 #16
SAMPLE DATE | TIME (Hrs):	08-31-95	1031
PROJECT:	JicPits	
DATE OF TPH EXT. | ANAL.:	9-5-95	
DATE OF BTEX EXT. | ANAL.:	9/1/95	9/5/95
TYPE | DESCRIPTION:	VG	LIGHT BROWN SAND & CLAY

Field Remarks: (N-419)(S-168.3)(E-569)(W-296.2)

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
BENZENE	< 1	MG/KG	2	D		
TOLUENE	< 1	MG/KG	2	D		
ETHYL BENZENE	< 1	MG/KG	2	D		
TOTAL XYLENES	< .3	MG/KG	2	D		
TOTAL BTEX	< 6	MG/KG	2	D		
TPH (418.1)	645	MG/KG			1.99	28
HEADSPACE PID	519.0	PPM				
PERCENT SOLIDS	92.4	%				

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

The Surrogate Recovery was at 93% for this sample All QA/QC was acceptable.

Narrative:

DF = Dilution Factor Used

Approved By: Date: 9-7-95

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

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

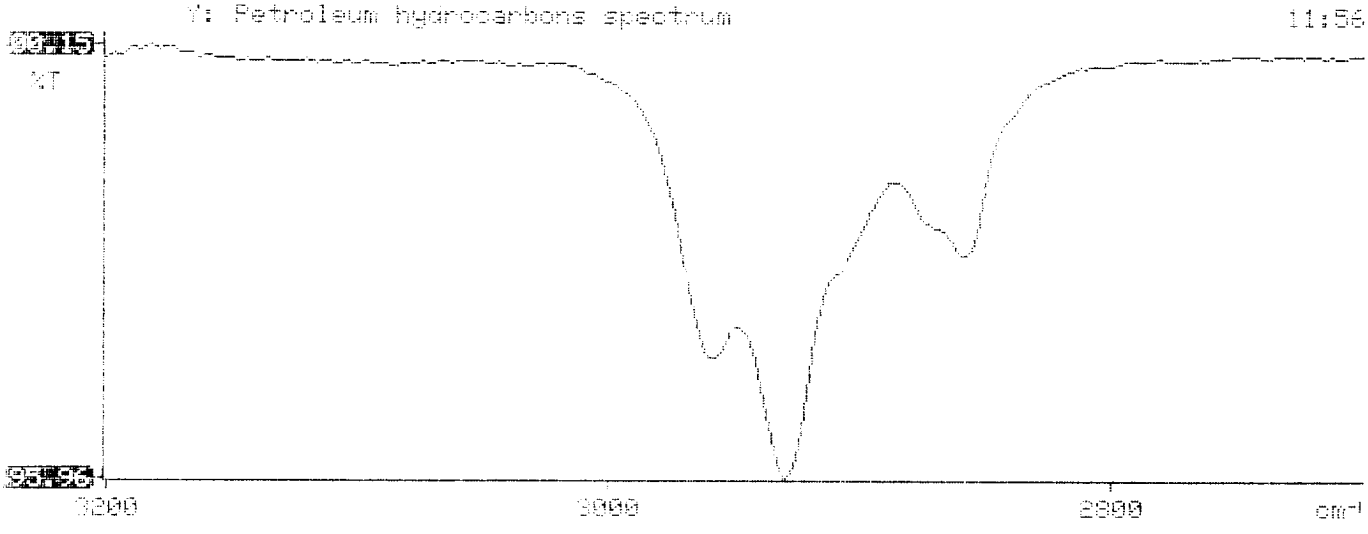
95/09/05 11:56

Sample identification
347374

Initial mass of sample, g
1.990

Volume of sample after extraction, ml
28.000

Petroleum hydrocarbons, ppm
94.492
Net absorbance of hydrocarbons (2930 cm-1)
0.018



BTEX SOIL SAMPLE WORKSHEET

File	: 947374	**Date Printed**	: 9/6/95		
Soil Mass (g)	: 5.16	**Multiplier (L/g)**	: 0.00097		
Extraction vol. (mL)	: 20	**DF (Analytical)**	: 400		
Shot Volume (uL)	: 50	**DF (Report)**	: 0.38760		
					Det. Limit
Benzene (ug/L)	: 0.00	**Benzene (mg/Kg):**		**0.000**	0.969
Toluene (ug/L)	: 0.00	**Toluene (mg/Kg):**		**0.000**	0.969
Ethylbenzene (ug/L)	: 0.00	**Ethylbenzene (mg/Kg):**		**0.000**	0.969
p & m-xylene (ug/L)	: 0.00	p & m-xylene (mg/Kg):		0.000	1.938
o-xylene (ug/L)	: 0.00	o-xylene (mg/Kg):		0.000	0.969
		Total xylenes (mg/Kg):		**0.000**	2.907
		Total BTEX (mg/Kg):		**0.000**	

EL PASO NATURAL GAS
EPA METHOD 8020 - BTEX SOILS

File : C:\LABQUEST\CHROM001\090595-1.022
Method : C:\LABQUEST\METHODS\9001.MET
Sample ID : 947374,5.16G,50U
Acquired : Sep 04, 1995 23:58:33
Printed : Sep 05, 1995 00:24:51
User : MARLON

Channel A Results

COMPONENT	RET TIME	AREA	CONC (ug/L)
BENZENE	3.390	0	0.0000
a,a,a TFT	4.960	1950428	81.9539
TOLUENE	6.793	155763	-0.5363
ETHYLBENZENE	10.540	0	0.0000
M & P XYLENE	10.920	385548	-2.0649
O XYLENE	11.877	0	0.0000
BFB	13.467	32526402	92.6026