Denny E. Foust
DEPUTY OIL & GAS INSPECTOR
DEC 2 2 1997
Approved

Meter Number:93620
Location Name:HOWELL #1E
Location:TN-30 RG-08
SC-03 UL-C
2 - Federal
NMOCD Zone:OUTSIDE
Hazard Ranking Score:00

RECEIVED
APR 1 4 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: 93620 Location: HOWELL #1E
Operator #: 5540 Operator Name: KOCH EXPLORATION P/L District: BLOOMFIELD
Coordinates: Letter: C Section 3 Township: 30 Range: 8
Or Latitude _____ Longitude _____
Pit Type: Dehydrator X Location Drip: ___ Line Drip: ___ Other: _____
Site Assessment Date: 5.24.94 Area: 10 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: 0 **POINTS**

REMARKS

Remarks : THREE PITS ON LOCATION. WILL CLOSE ONLY ONE. PIT IS DRY. LOCATION IS ON TOP OF PUMP MESA. REDLINE AND TOPO CONFIRMED LOCATION IS OUTSIDE V.Z.

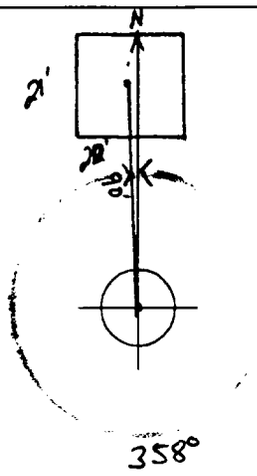
PUSH IN

ORIGINAL PIT LOCATION

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 358° Footage from Wellhead 90'

b) Length : 21' Width : 20' Depth : 4'



REMARKS

Remarks :

TOOK PICTURES AT 9:01 A.M.

END DUMP

Completed By:

Robert Thompson

Signature

5·24·94

Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 93620 Location: Howell # 1E

Coordinates: Letter: C Section 3 Township: 30 Range: 8

Or Latitude _____ Longitude _____

Date Started : 11/18/94 Run: 10 32

FIELD OBSERVATIONS

Sample Number(s): KD 370 _____ _____ _____

Sample Depth: 4' Feet

Final PID Reading KD 11/18/94 7ppm PID Reading Depth 4' Feet

	Yes	No
Groundwater Encountered	☐	☒

Approximate Depth _____ Feet

CLOSURE

Remediation Method :

- Excavation ☐ Approx. Cubic Yards _____
- Onsite Bioremediation ☐
- Backfill Pit Without Excavation ☒

Soil Disposition:

- Envirotech ☐ ☐ Tierra
- Other Facility ☐ Name: _____

Pit Closure Date: 11/18/94 Pit Closed By: BEI

REMARKS

Remarks : Dug test Hole to 4', Hit Sandstone, TOOK PID Sample, Closed pit.

Signature of Specialist: Kenny Dann

(SP3181) 03/16/94

El Paso Natural Gas Company

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

SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	KD 370	94689
MTR CODE | SITE NAME:	93620	N/A
SAMPLE DATE | TIME (Hrs):	11-18-94	1220
SAMPLED BY:	N/A	
DATE OF TPH EXT. | ANAL.:	11-22-94	11-22-94
DATE OF BTEX EXT. | ANAL.:	N/A	N/A
TYPE | DESCRIPTION:	VG	

REMARKS: _____

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS			
			DF	Q	M(g)	V(ml)
TPH (418.1)	14.0	MG/KG			1.97	28
HEADSPACE PID	7	PPM				
PERCENT SOLIDS	90.3	%				

-- TPH is by EPA Method 418.1 --

Narrative:

DF = Dilution Factor Used

Approved By: _____ Date: 12-6-94

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**********************************************************
*                    Test Method for                     *
*      Oil and Grease and Petroleum Hydrocarbons         *
*                  in Water and Soil                     *
*                                                        *
*             Perkin-Elmer Model 1600 FT-IR              *
*                   Analysis Report                      *
**********************************************************
*
 94/11/22   10:54

   Sample identification
 S16489

   Initial mass of sample, g
  .970

   Volume of sample after extraction, ml
 50.000

   Petroleum hydrocarbons, ppm
 14,045
   Net absorbance of hydrocarbons (2930 cm-1)
  0.012
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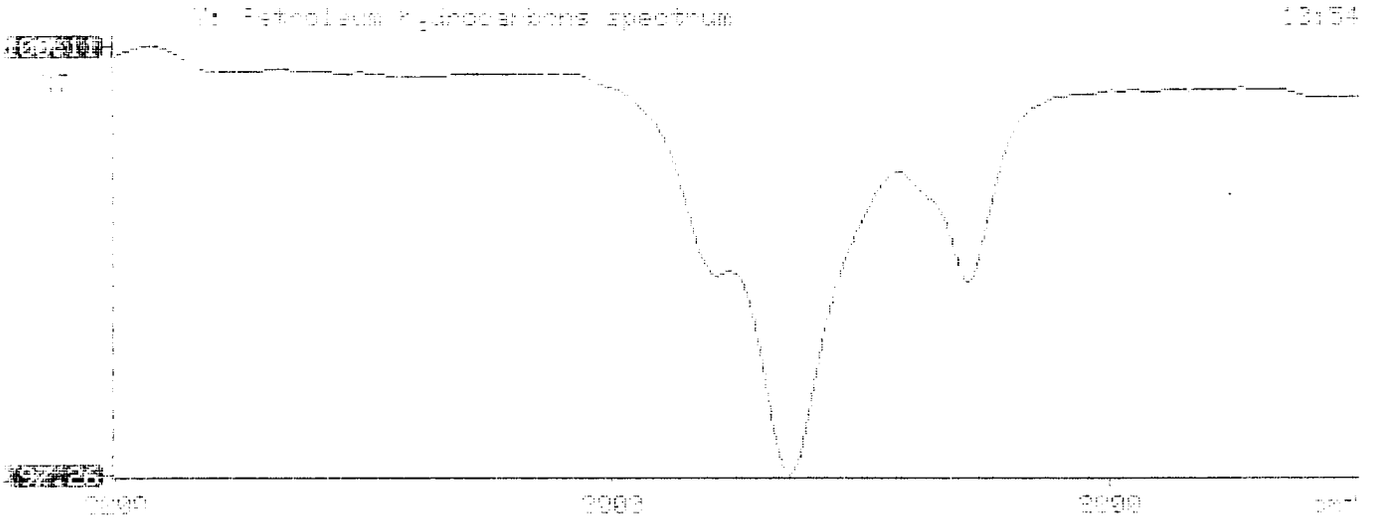
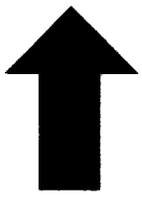




LTR

Job separation sheet

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

Form C-104B
March 19, 2001

Submit 1 copy of the final affected wells list along with 1 copy of this form per number of wells on that list to appropriate District Office

Change of Operator Name

OGRID: 12807
Effective Date: 01/02/2002

Previous Operator Name and Information:

Name: **Koch Exploration Company**
Address: **PO Box 489**
Address:
City, State, Zip: **Aztec, NM 87410**

New Operator Name and Information:

New Name: **Koch Exploration Company, LLC**
Address: **PO Box 489**
Address:
City, State, Zip: **Aztec, NM 87410**

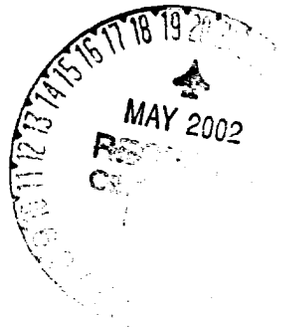
I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given on this form and the attached list of wells is true and complete to the best of my knowledge and belief.

Signature: Donald L. Johnson

Printed name: **Donald L. Johnson**

Title: **Operations Manager**

Date: 5/16/02 Phone: (505) 334-9111



NMOCD Approval

Signature:

Printed Name:

District:

Date: