

Approved
DEC 2 2 1997

Meter Number:89290
Location Name:CAIN #1A
Location:TN-31 RG-10
SC-20 UL-D
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

EPFS

EL PASO FIELD SERVICES

GENERAL

Meter: 89-290 Location: Cain #1A
 Operator #: 5540 Operator Name: Koch Exploration P/L District: Aztec
 Coordinates: Letter: D Section 20 Township: 31 Range: 10
 Or Latitude _____ Longitude _____
 Pit Type: Dehydrator _____ Location Drip: X Line Drip: _____ Other: _____
 Site Assessment Date: 8/24/94 Area: 04 Run: 52

SITE ASSESSMENT

NMOCD Zone:

(From NMOCD
Maps)

Inside

Outside

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 Animas River

(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

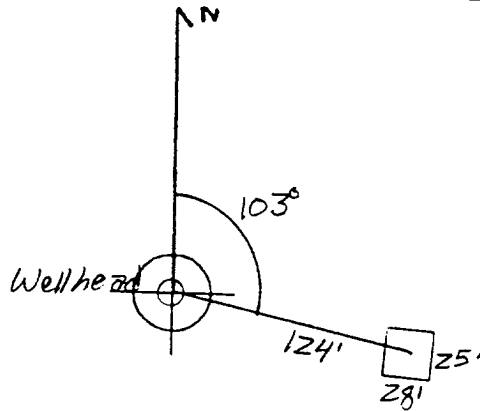
REMARKS

Remarks : Redline Book - Outside Vulnerable Zone - Outside
Four pits, location pit is dry, will close one pit.

PUSH IN

ORIGINAL PIT LOCATION

Original Pit : a) Degrees from North 103° Footage from Wellhead 124'
b) Length : 28' Width : 25' Depth : 5'



REMARKS :

Pictures @ 1555 (1-4, Roll 12)
End Dump

Completed By:

Sarah Kelly
Signature

8/24/94
Date

FIELD PIT REMEDIATION/CLOSURE FORM

GENERAL

Meter: 89290 Location: Cain # 1A

Coordinates: Letter: D Section 20 Township: 31 Range: 10

Or Latitude _____ Longitude _____

Date Started : 9-29-94 Run: 04 52

FIELD OBSERVATIONS

Sample Number(s): KP 271

Sample Depth: 8' Feet

Final PID Reading 282 PID Reading Depth 8' 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: 9-29-94

Pit Closed By: B.E.I

REMARKS

Remarks : NO Line Markers. Hit SAND STONE AT
8'

Signature of Specialist: Kelly Pichler



FIELD SERVICES LABORATORY
ANALYTICAL REPORT

PIT CLOSURE PROJECT - Soil Samples Outside the GWV Zone

SAMPLE IDENTIFICATION

SAMPLE NUMBER:

Field ID

Lab ID

MTR CODE | SITE NAME:

SAMPLE DATE | TIME (Hrs):

SAMPLED BY:

DATE OF TPH EXT. | ANAL.:

DATE OF BTEX EXT. | ANAL.:

TYPE | DESCRIPTION:

KP 271

946281

89290

N/A

9-29-94

1600

N/A

10-5-94

N/A

N/A

VG

Light Brown Coarse Sand

REMARKS:

RESULTS

PARAMETER

RESULT

UNITS

QUALIFIERS

DF

Q

M(g)

V(ml)

TPH (418.1)

2480

MG/KG

1.95 28

HEADSPACE PID

282

PPM

PERCENT SOLIDS

92.0

%

-- TPH is by EPA Method 418.1 --

Narrative:

DF = Dilution Factor Used

Approved By:

Date:

10/6/94

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

Perkin-Elmer Model 1600 FT-IR
 Analysis Report

04/10/03 17:43

Sample Identification
 746261

Initial mass of sample, g
 1.986

Volume of sample after extraction, ml
 10.000

Petroleum hydrocarbons, ppm
 1475.091

Net absorbance of hydrocarbons (2930 cm⁻¹)
 0.117

