

**PERMIT I**  
P.O. Box 1980, Hobbs, NM  
**DISTRICT II**  
P.O. Drawer DD, Artesia, NM 88211  
**DISTRICT III**  
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

RISK - Bedrock 4745  
SUBMIT 1 COPY TO  
APPROPRIATE  
DISTRICT OFFICE,  
AND 1 COPY TO  
SANTA FE OFFICE

RECEIVED  
AUG 12 1999  
OIL CON. DIV.  
DIST. 3

**PIT REMEDIATION AND CLOSURE REPORT**

Operator: Amoco Production Company Telephone: (505) - 326-9200

Address: 200 Amoco Court, Farmington, New Mexico 87401

Facility or: STATE GC BZ #1  
Well Name

Location: Unit or Qtr/Qtr Sec I sec 32 T 29N R 10W County SAN JUAN

Pit Type: Separator ☒ Dehydrator ☐ Other ☐

Land Type: BLM ☐, State ☒, Fee ☐, Other ☐

Location: Pit dimensions: length 35', width 40', depth 12'  
(Attach diagram)

Reference: wellhead ☒, other ☐

Footage from reference: 200'

Direction from reference: 40 Degrees ☒ East North ☒

PIT PREVIOUSLY DENIED DUE TO SOIL ACTIVITY  
NOT COMPLETED - UNMOVED LETTER CORRESPONDENCE  
DATED 1/15/97. NU  
of  
West South ☐

Depth To Ground Water: Less than 50 feet (20 points)  
(Vertical distance from 50 feet to 99 feet (10 points)  
contaminants to seasonal Greater than 100 feet (0 Points) 0  
high water elevation of  
ground water)

Wellhead Protection Area: Yes (20 points)  
(Less than 200 feet from a private No (0 points) 0  
domestic water source, or; less than  
1000 feet from all other water sources)

Distance To Surface Water: Less than 200 feet (20 points) 0  
(Horizontal distance to perennial 200 feet to 1000 feet (10 points) 0  
lakes, ponds, rivers, streams, creeks, Greater than 1000 feet (0 points) 0  
irrigation canals and ditches)

RANKING SCORE (TOTAL POINTS): 0

Late Remediation Started: \_\_\_\_\_ Date Completed: 5/4/94

Remediation Method: Excavation ☒ Approx. cubic yards 625  
(Check all appropriate sections) Landfarmed ☒ Insitu Bioremediation \_\_\_\_\_

Other \_\_\_\_\_

Remediation Location: Onsite ☒ Offsite \_\_\_\_\_  
(ie. landfarmed onsite, name and location of offsite facility)

General Description of Remedial Action: EXCAVATION. BEDROCK  
BOTTOM. RISK ASSESSMENT.

Ground Water Encountered: No ☒ Yes \_\_\_\_\_ Depth \_\_\_\_\_

Final Pit:  
Closure Sampling:  
(if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location REFER TO "CLOSURE VERIFICATION" SHEET

Sample depth 12'

Sample date 5-4-94 Sample time 1425

Sample Results

Benzene(ppm) \_\_\_\_\_

Total BTEX(ppm) \_\_\_\_\_

Field headspace(ppm) 529

TPH 1680 ppm

Ground Water Sample: Yes \_\_\_\_\_ No ☒ (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE

5/6/94 5/25/98 915

SIGNATURE

B. Shaw

PRINTED NAME  
AND TITLE

Buddy D. Shaw  
ENVIRONMENTAL COORDINATOR

CLIENT: Amoco

ENVIROTECH Inc.

GL CH

PIT NO: C4945

5796 US HWY. 64, FARMINGTON, NM 87401  
(505) 632-0615

C.D.C. NO: 3567

## FIELD REPORT: CLOSURE VERIFICATION

JOB No: 92140

PAGE No: 1 of 1

LOCATION: LEASE: State BZ WELL #: 1 PIT: sep.

DATE STARTED: 5/4/94

DATE FINISHED: 5/4/04

UNIT: I SEC: 32 TWP: 29N RNG: 10W BM: NM CNTY: SJ ST: NM

CONTRACTOR: P. Velasquez

ENVIRONMENTAL  
SPECIALIST: NV

SOIL REMEDIATION: EXCAVATION APPROX. 35 FT. x 40 FT. x 12 FT. DEEP.

DISPOSAL FACILITY: land farmed on-site

LAND USE: Range

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 300 FEET N40E FROM WELLHEAD.

DEPTH TO GROUNDWATER: >100 NEAREST SURFACE WATER: 25 ~~1000~~ <sup>>1000</sup> NEAREST WATER SOURCE: >1000

NMOC D RANKING SCORE: 10 NMOC D TPH CLOSURE STD: 5000 PPM

SOIL AND EXCAVATION DESCRIPTION: gray sand, slightly moist, slightly cohesive, nonplastic

bedrock at pit bottom

collected lab sample for TPH (418.1) @ 12' time: 1425

FIELD 418.1 CALCULATIONS

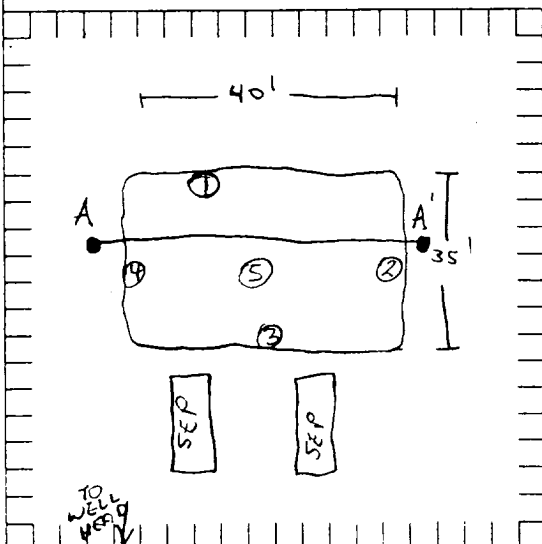
SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

SCALE



FEET

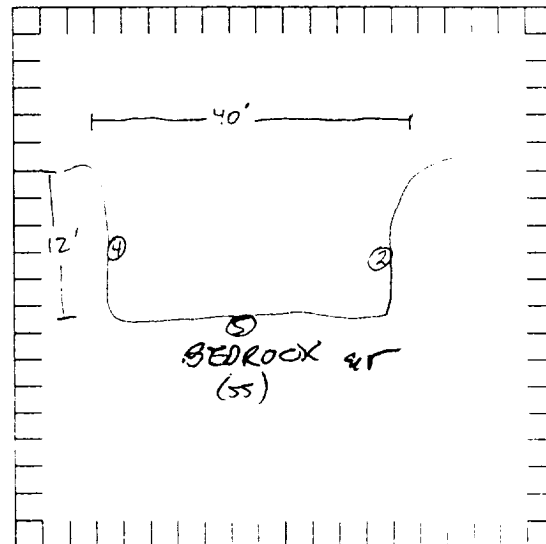
## PIT PERIMETER



## OVM RESULTS

[illegible]

# PIT PROFILE



TRAVEL NOTES: CALLOUT: 5/4/94

ONSITE: 5/4/94

**Well Name:**

Well Site location:

Pit Type:

Producing Formation:

Pit Category:

Horizontal Distance to Surface Water:

Vicinity Groundwater Depth:

**State GC BZ #1**

Unit I, Sec. 32, T29N, R10W

Separator Pit

Gallup/Otero Chacra

Non Vulnerable

> 1000 ft.

> 100 ft.

## **RISK ASSESSMENT (non-vulnerable area)**

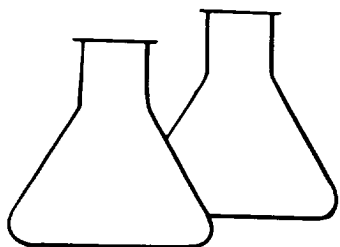
Pit remediation activities were terminated when trackhoe encountered sandstone bedrock at 12 feet below grade.

No past or future threat to surface water or groundwater is likely based on the following considerations:

1. Past production fluids were contained locally by a relatively shallow sandstone bedrock located 12 feet below grade. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below sandstone bedrock.
2. Topographic information does not indicate off site lateral fluid migration near the earthen pit.
3. Daily discharge into the earthen pit has been terminated (pit abandoned). Prior discharge into the pit is believed to be under 5 barrels per day.
4. Well site located within the **non-vulnerable area** and is approximately 0.02 miles southeast of the nearest vulnerable area boundary (Creighton Canyon wash).

**(Refer to Bloomfield Quadrangle, New Mexico - Rio Arriba County, 7.5 Minute Series (Topographic), provisional edition 1985, (vulnerable area boundary developed by Mr. William C. Olson, Hydrogeologist, Environmental Bureau, New Mexico Oil Conservation Division).**

Based upon the information given, we conclude that the subsurface lateral impact from the earthen pit is very limited and that the sandstone bottom creates enough of an impermeable barrier as to subdue impact to groundwater below it (please refer to AMOCO's report "Post Excavation Pit Closure Investigation Summary, July, 1995", with cover letter dated November 30, 1995). AMOCO requests pit closure approval on this location.



# ENVIROTECH LABS

5796 US HIGHWAY 64-3014 • FARMINGTON, NEW MEXICO 87401  
PHONE: (505) 632-0615 • FAX: (505) 632-1865

## EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	5 @ 12'	Date Sampled:	05-04-94
Laboratory Number:	7352	Date Received:	05-05-94
Sample Matrix:	Soil	Date Analyzed:	05-09-94
Preservative:	Cool	Date Reported:	05-09-94
Condition:	Cool and Intact	Analysis Needed:	TPH

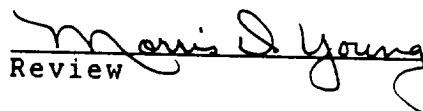
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----	-----	-----
Total Petroleum Hydrocarbons	1,680	10.0

ND = Parameter not detected at the stated detection limit.  
N/A = Not applicable

Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

Comments: State BZ #1 Separator Pit C4745

  
Analyst

  
Review



CLIENT: AMOCOBLAGG ENGINEERING, INC.  
P.O. BOX 87, BLOOMFIELD, NM 87413  
(505) 632-1199LOCATION NO: C4745C.O.C. NO: 5618

## FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: STATE GC BZ WELL #: 1 PITS: SEP.DATE STARTED: 11-24-97

DATE FINISHED: \_\_\_\_\_

QUAD/UNIT: (1) SEC: 32 TWP: 29N RNG: 10W PM: NM CNTY: SS ST: NMSITE FOOTAGE: NE 1/4 SE 1/4 CONTRACTOR: P+SENVIRONMENTAL  
SPECIALIST: NV/EP.

## SOIL REMEDIATION:

REMEDICATION SYSTEM: LANDFARMAPPROX. CUBIC YARDAGE: 625LAND USE: RANGELIFT DEPTH (ft): 12"-24"

## FIELD NOTES &amp; REMARKS:

DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'  
0' 9" 5000' 9" <1000'NMOC RAINFALL SCORE: 10 NMOC TPH CLOSURE STD: 1200 PPMSOIL IS A SLIGHTLY MOIST LIGHT GRAY CLAYISH W/ DARK YELLOW SILTY SAND  
NO STAIN OR NO ODOR

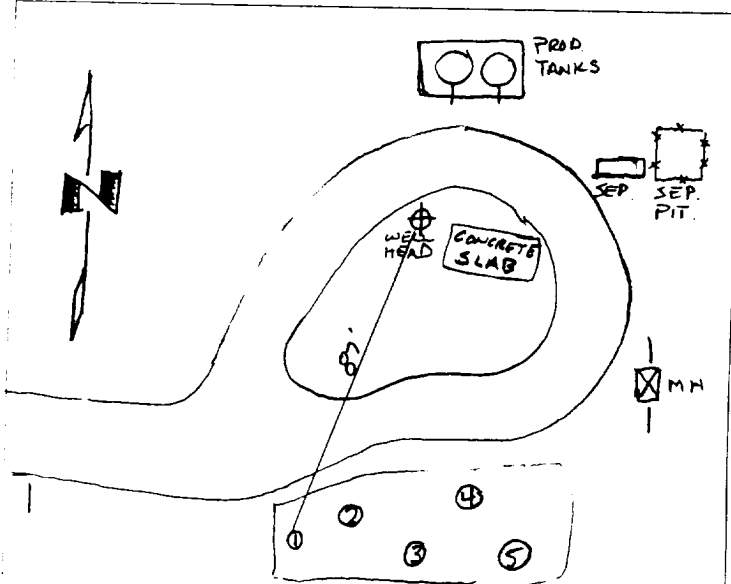
TOOK 5 PT COMPOSITE SAMPLE FOR LAB ANALYSIS.

CLOSED

## FIELD 418.1 CALCULATIONS

SAMP. TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

## SKETCH/SAMPLE LOCATIONS



## OVM RESULTS

## LAB SAMPLES

SAMPLE ID	FIELD HEADSPACE PID (ppm)	SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	0.0	LF-1	8015	10:15	38.8

## SCALE



0 FT

TRAVEL NOTES:

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

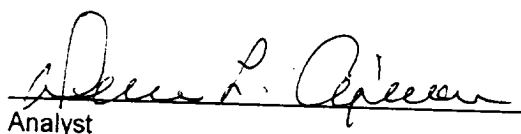
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	LF - 1	Date Reported:	12-03-97
Laboratory Number:	C590	Date Sampled:	11-24-97
Chain of Custody No:	5618	Date Received:	11-26-97
Sample Matrix:	Soil	Date Extracted:	11-26-97
Preservative:	Cool	Date Analyzed:	12-01-97
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

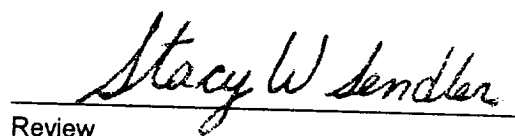
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	38.8	0.1
Total Petroleum Hydrocarbons	38.8	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **State GC B Z #1 Landfarm. 5 Pt. Composite.**

  
Analyst

  
Review



**ENVIROTECH INC.**  
5796 U.S. Highway 64-3014  
Farmingington, New Mexico 87401