

*Danny R. Foust*  
DEPUTY OIL & GAS INSPECTOR

JICARILLA APACHE TRIBE  
ENVIRONMENTAL PROTECTION OFFICE  
P.O. BOX 507

DULCE, NEW MEXICO 87528

AUG 13 1999

OKBJ455  
SUBMIT 1 COPY TO  
NATURAL RESOURCE DEPT.  
AND OIL & GAS ADMINISTRATION

PIT REMEDIATION AND CLOSURE REPORT

*Approved*

Operator: AMOCO PRODUCTION COMPANY Telephone: (505) 326-9200  
Address: 200 Amoco Court, Farmington, NM 87401  
Facility or Well Name: JICARILLA B #8  
Location: Unit or Qtr/Qtr Sec B Sec 15 T 26N R 5W County RIO ARriba  
Pit Type: Separator ☒ Dehydrator ☐ Other ☐  
Land Type: RANGE

Pit Location: Pit dimensions: length 28', width 23', depth 12'  
(Attach diagram) Reference: wellhead ☒, other ☐  
Footage from reference: 90'  
Direction from reference: 35 Degrees ☒ East of North ☒  
West of South ☐

<b>Depth To Groundwater:</b> (Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 points)	<u>0</u>
<b>Distance to an Ephemeral Stream</b> (Downgradient dry wash greater than ten feet in width)	Less than 100 feet (10 points) Greater than 100 feet (0 points)	<u>0</u>
<b>Distance to Nearest Lake, Playa, or Watering Pond</b> (Downgradient lakes, playas and livestock or wildlife watering ponds)	Less than 100 feet (10 points) Greater than 100 feet (0 points)	<u>0</u>
<b>Wellhead Protection Area:</b> (Less than 200 feet from a private domestic water source, or: less than 1000 feet from all other water sources)	Yes (20 points) No (0 points)	<u>0</u>
<b>Distance To Surface Water:</b> (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 100 feet (20 points) 100 feet to 1000 feet (10 points) Greater than 1000 feet (0 points)	<u>0</u>

RANKING SCORE (TOTAL POINTS): 0

BT455/ SEP. PIT

Date Remediation Started: \_\_\_\_\_ Date Completed: 10/10/96

Remediation Method: Excavation ☒ Approx. cubic yards 225  
 (check all appropriate sections) Landfarmed ☒ Insitu Bioremediation \_\_\_\_\_  
 Other \_\_\_\_\_

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

General Description of Remedial Action: Excavation

Groundwater Encountered: No ☒ Yes \_\_\_\_\_ Depth \_\_\_\_\_

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

Sample location see Attached Documents

Sample depth 16'

Sample date 10/10/96 Sample time 0910

Sample Results

Soil: Benzene	(ppm)	_____	Water: Benzene	(ppb)	_____
Total BTEX	(ppm)	_____	Toluene	(ppb)	_____
Field Headspace	(ppm)	<u>0.0</u>	Ethylbenzene	(ppb)	_____
TPH	(ppm)	<u>64</u>	Total Xylenes	(ppb)	_____

Groundwater 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 10/10/96 PRINTED NAME Buddy D. Shaw

SIGNATURE Buddy D. Shaw AND TITLE Environmental Coordinator

AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES ☒ NO \_\_\_\_\_ (REASON) \_\_\_\_\_

SIGNED: [Signature] DATE: 10/22/96

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>BJ455</u> C.O.C. NO: _____
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<b>FIELD REPORT: CLOSURE VERIFICATION</b>	PAGE No: <u>1</u> of <u>1</u>
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LOCATION: NAME: <u>JICARILLA</u> <u>B</u> WELL #: <u>8</u> PIT: <u>SEP</u> QUAD/UNIT: <u>E</u> SEC: <u>15</u> TWP: <u>26N</u> RNG: <u>5W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u> QTR/FOOTAGE: <u>NW/4</u> <u>NE/4</u> CONTRACTOR: <u>P+S</u>	DATE STARTED: <u>10/10/96</u> DATE FINISHED: _____ ENVIRONMENTAL SPECIALIST: <u>NV</u>
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EXCAVATION APPROX. <u>28</u> FT. x <u>23</u> FT. x <u>12</u> FT. DEEP.	CUBIC YARDAGE: <u>225</u>
DISPOSAL FACILITY: <u>ON-SITE</u> REMEDIATION METHOD: <u>LANDFARMED</u>	
LAND USE: <u>RANGE</u> LEASE: <u>JICA. CONTR. #109</u> FORMATION: <u>MU/DK</u>	

FIELD NOTES & REMARKS:	PIT LOCATED APPROXIMATELY <u>90</u> FT. <u>N35E</u> FROM WELLHEAD. DEPTH TO GROUNDWATER: <u>&gt;100'</u> NEAREST WATER SOURCE: <u>&gt;1000'</u> NEAREST SURFACE WATER: <u>&gt;1000'</u> NMOCB RANKING SCORE: <u>0</u> NMOCB TPH CLOSURE STD: <u>5000</u> PPM
SOIL AND EXCAVATION DESCRIPTION: <div style="float: right; border: 1px solid black; padding: 5px; width: fit-content;">           CHECK ONE:  <input checked="" type="checkbox"/> PIT ABANDONED  <input type="checkbox"/> STEEL TANK INSTALLED         </div>	

MAJORITY OF SOIL CONSIST OF SAND, CLAY, & GRAVEL INTERMIXED, VARYING COLOR FROM DK. YELL. BROWN (SAND) TO MED. DK GRAY (SOUTH SIDEWALL CLAY), NO DISTINCTION BETWEEN DISCOLORATION & HC STAINING, LARGE SANDSTONE BOULDER LOCATION @ PIT CENTER & POSSIBLY THE ENTIRE EASTERN HALF, NO APPARENT HC DOOR IN ANY OF THE OVM SAMPLES.

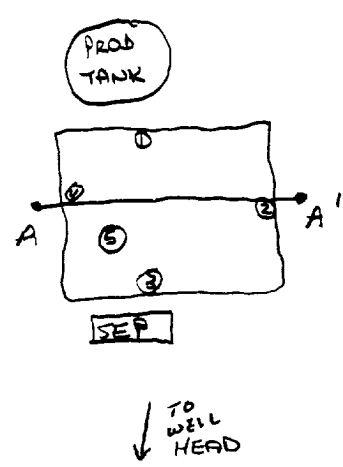
CLOSED

SCALE

0      10      FT

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
0910	3@16'	TPH-1843	5	20	1:1	16	64

### PIT PERIMETER



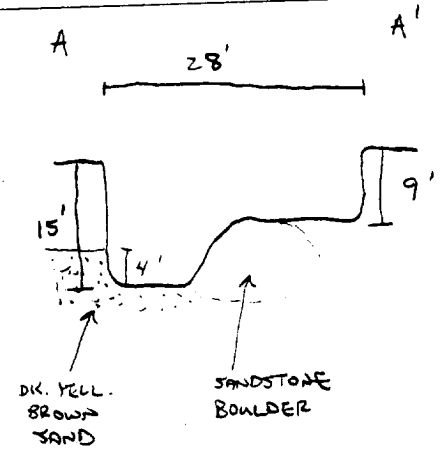
### OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 9'	0.0
2 @ 6'	0.0
3 @ 10'	0.0
4 @ 10'	0.0
5 @ 16'	0.0

SAMPLE ID	ANALYSIS	TIME

### PIT PROFILE



TRAVEL NOTES:	CALLOUT: <u>10/9/96 AFTER.</u>	ONSITE: <u>10/10/96 MORN.</u>
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# BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

## FIELD MODIFIED EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	AMOCO	Project #:	
Sample ID:	5 @ 16'	Date Analyzed:	10-10-96
Project Location:	Jicarilla B # 8	Date Reported:	10-10-96
Laboratory Number:	TPH-1843	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	64	20

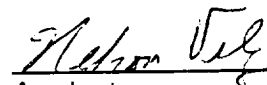
ND = Not Detectable at stated detection limits.

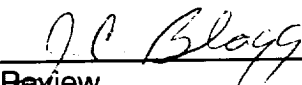
QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	4640	4400	5.31

\* Administrative Acceptance limits set at 30%.

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

Comments: Separator Pit - BJ455

  
Analyst

  
Review

JICARILLA APACHE TRIBE  
ENVIRONMENTAL PROTECTION OFFICE  
P.O. BOX 507  
DULCE, NEW MEXICO 87528

BT 455

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NATURAL RESOURCE DEPT  
AND OIL & GAS ADMINISTRATION

**ON-SITE SOIL REMEDIATION REPORT**

Operator: AMOCO PRODUCTION COMPANY Telephone: (505) 326-9200  
Address: 200 Amoco Court, Farmington, NM 87401  
Facility or Well Name: JICARILLA B #8  
Location: Unit or Qtr/Qtr Sec B Sec 15 T 26N R 5W County RIO ARIZONA  
Land Type: RANGE

Date Remediation Started: 10/10/96 Date Completed: 5/1/98  
Remediation Method: Landfarmed X Approx. cubic yards 225  
Composted \_\_\_\_\_  
Other \_\_\_\_\_

Depth To Groundwater: (pts.) 0  
Distance to an Ephemeral Stream (pts.) 0  
Distance to Nearest Lake, Playa, or Watering Pond (pts.) 0  
Wellhead Protection Area: (pts.) 0  
Distance To Surface Water: (pts.) 0  
RANKING SCORE (TOTAL POINTS): 0

**Final Closure Sampling:**

Sampling Date: 4/29/98 Time: 1225  
Sample Results:  
Field Headspace (ppm) 0.0  
TPH (ppm) 13.6 Method 8015  
Other \_\_\_\_\_

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

DATE 5/1/98 PRINTED NAME Buddy D. Shaw  
SIGNATURE Buddy D. Shaw AND TITLE Environmental Coordinator

AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES X NO \_\_\_\_\_ (REASON) use as Backfill

SIGNED: Kenn C Mammillo DATE: 5-7-98

CLIENT: AMOCOBLAGG ENGINEERING, INC.  
P.O. BOX 87, BLOOMFIELD, NM 87413  
(505) 632-1199LOCATION NO: BT 455C.O.C. NO: 5761

## FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: TICARILLA B WELL #: 8 PITS: SEP  
QUAD/UNIT: B SEC: 15 TWP: 26N RNG: 5W PM: NM CNTY: RA ST: NM  
OTP/FOOTAGE: NW/4 NE/4 CONTRACTOR: P&SDATE STARTED: 4/29/98DATE FINISHED: 5/1/98ENVIRONMENTAL  
SPECIALIST: NU

## SOIL REMEDIATION:

REMEDICATION SYSTEM: LANDFARMEDAPPROX. CUBIC YARDAGE: 225LAND USE: RANGELIFT DEPTH (ft): NA

## FIELD NOTES &amp; REMARKS:

DEPTH TO GROUNDWATER: 2100' NEAREST WATER SOURCE: 21000' NEAREST SURFACE WATER: 21000'NMOCD RANKING SCORE: 0 NMOCD TPH CLOSURE STD: 5000 PPM

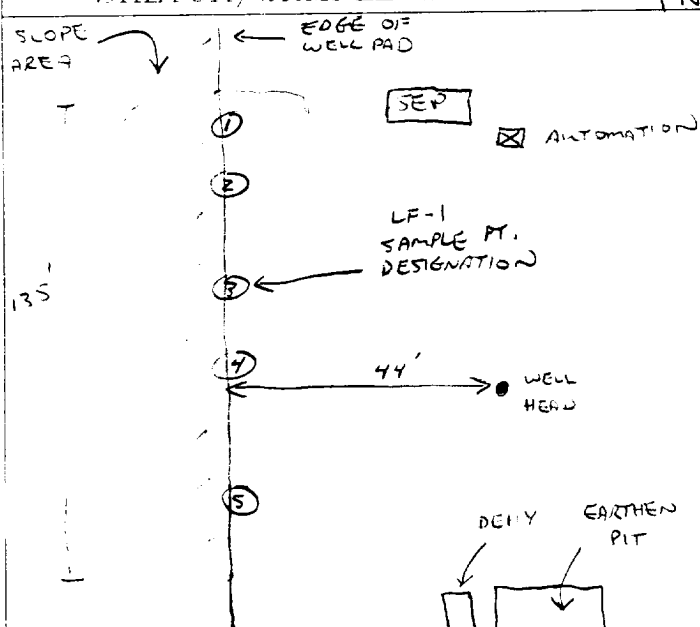
SOIL MOSTLY OK. YELL. TO DUSKY BROWN SAND w/ SOME CLAY & SMALL  
FRAGMENTS OF SHALE. NON COHESIVE. SLIGHTLY MOIST, FIRM, NO APPARENT  
HC ODOR OBSERVED w/in SAMPLE PTS. NO APPARENT STAINING OBSERVED.  
SOIL WAS ORIGINALLY LANDFARMED THEN STOCKPAILED IN AUG. '97. MATERIAL  
WAS THEN LEVELED OFF & PUSHED OFF WEST SIDE OF WELL PAD (ESTIMATED  
DROP OFF OF 15', 5 FT. COMPOSITE COLLECTED FOR LAB ANALYSIS.

## FIELD 418.1 CALCULATIONS

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

CLOSED

## SKETCH/SAMPLE LOCATIONS



## OVM RESULTS

## LAB SAMPLES

SAMPLE ID	FIELD HEADSPACE PID (ppm)	SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	0.0	LF-1	TPH (8015)	1225	13.6

## SCALE

0 FT

## TRAVEL NOTES:

CALLOUT: NAONSITE: 4/28/98

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

Client: Blagg / AMOCO  
Sample ID: LF - 1  
Laboratory Number: D202  
Chain of Custody No: 5761  
Sample Matrix: Soil  
Preservative: Cool  
Condition: Cool and Intact

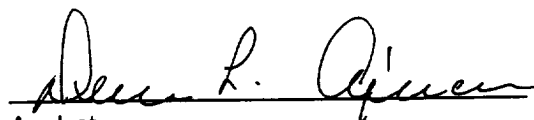
Project #: 04034-10  
Date Reported: 05-01-98  
Date Sampled: 04-29-98  
Date Received: 04-29-98  
Date Extracted: 04-30-98  
Date Analyzed: 05-01-98  
Analysis Requested: 8015 TPH

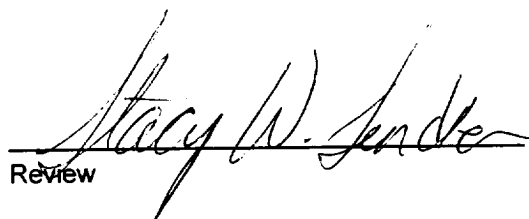
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	13.6	0.1
Total Petroleum Hydrocarbons	13.6	0.2

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: Jicarilla B #8 Landfarm 5 Pt. Composite.

  
Analyst

  
Review

## CHAIN OF CUSTODY RECORD

Client/Project Name <i>BUREG / Amoco</i>			Project Location <i>LAND FARM</i>			ANALYSIS/PARAMETERS					
Sampler: (Signature) <i>M. L. H. V. L.</i>			Chain of Custody Tape No. <i>04034-10</i>								
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	Remarks					
<i>LF-1</i>	<i>4/29/98</i>	<i>1225</i>	<i>D202</i>	<i>SOIL</i>	<i>1</i>						
						<i>5 PT. COMPOSITE</i>					
Relinquished by: (Signature) <i>M. L. H. V. L.</i>			Date <i>4/29/98</i>	Time <i>1440</i>	Received by: (Signature) <i>Alvin L. Ogle</i>	Date <i>4/29/98</i>	Time <i>1440</i>				
Relinquished by: (Signature)					Received by: (Signature)						
Relinquished by: (Signature)					Received by: (Signature)						

*Sample RECEIVED COOL & INSTANTLY*

*RA COC'S 5756, 5759 → 5762*

**ENVIROTECH INC.**  
5796 U.S. Highway 64-3014  
Farmington, New Mexico 87401  
(505) 632-0615