

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

1010W-04  
8J578 Sep-04  
SUBMIT 1 COPY TO  
NATURAL RESOURCE DEPT  
AND OIL & GAS ADMINISTRATION

**PIT REMEDIATION AND CLOSURE REPORT**

**RECEIVED**  
AUG 16 1999

OIL CON. DIV.  
DEPT 326-9200

**Operator:** AMOCO PRODUCTION COMPANY **Telephone:** (505) 326-9200

**Address:** 200 Amoco Court, Farmington, NM 87401

**Facility or Well Name:** JICARILLA CONTRACT 146-10

**Location:** Unit or Qtr/Qtr Sec N Sec 9 T 25N R 5W County RIO ARriba

**Pit Type:** Separator ☐ Dehydrator ☐ Other BLOW

**Land Type:** RANGE

**Pit Location:** Pit dimensions: length 37', width 38', depth 15'  
(Attach diagram)

Reference: wellhead X, other \_\_\_\_\_

Footage from reference: 110'

Direction from reference: 70 Degrees \_\_\_\_\_ East of North \_\_\_\_\_  
X West South X

<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



BJS78

BLOW PIT

Date Remediation Started: \_\_\_\_\_ Date Completed: 7/2/98

Remediation Method: Excavation ☒ Approx. cubic yards 300  
check all appropriate sections) Landfarmed ☒ Insitu Bioremediation \_\_\_\_\_  
Other \_\_\_\_\_

Remediation Location: Onsite \_\_\_\_\_ Offsite ☒ JICARILLA CONTRACT 146-15  
(i.e. landfarmed onsite, name and location of offsite facility) (P + A'D)

General Description of Remedial Action: Excavation. BEDROCK BOTTOM.Groundwater Encountered: No ☒ Yes \_\_\_\_\_ Depth \_\_\_\_\_Final Pit: Sample location see Attached DocumentsClosure Sampling:  
(if multiple samples, attach sample results and diagram of sample locations and depths)Sample depth 12'Sample date 7/2/98 Sample time 0945

## 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>ND</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 7/2/98 PRINTED NAME Buddy D. ShawSIGNATURE 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: Karen C. Ma DATE: 7-27-98



3003906079

CLIENT: AMOCOBLAGG ENGINEERING, INC.  
P.O. BOX 87, BLOOMFIELD, NM 87413  
(505) 632-1199LOCATION NO: BJ578

C.D.C. NO: \_\_\_\_\_

## FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1LOCATION: NAME: JICA CONTR. 146 WELL #: 10 PIT: BLOWDATE STARTED: 7/2/98

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

QUAD/UNIT: N SEC 9 TWP: 25N RNG: 5W PM: NM CNTY: RA ST: NMQTR/FOOTAGE: 1190' FSL 1550' FSL CONTRACTOR: P & SENVIRONMENTAL  
SPECIALIST: NVEXCAVATION APPROX. 37 FT. x 38 FT. x 15 FT. DEEP. CUBIC YARDAGE: 300DISPOSAL FACILITY: JICARILLA CONTRACT 146 REMEDIATION METHOD: LANDFARMLAND USE: RANGE LEASE: JIC 146 FORMATION: DKFIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 110 FT. STOW FROM WELLHEAD.DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'NMDCD RANKING SCORE: 0 NMDCD TPH CLOSURE STD: 5000 PPM

## SOIL AND EXCAVATION DESCRIPTION:

CHECK ONE:

- ☒ PIT ABANDONED  
☐ STEEL TANK INSTALLED  
☐ FIBERGLASS TANK INSTALLED

MOSTLY LT. BROWN TO DK. YELL. ORANGE SAND TO SILTY CLAY, NON COHESIVE  
 TO COHESIVE SLIGHTLY MOIST, FIRM TO STIFF, NO APPARENT STAINING OR  
 HC ODOR OBSERVED W/IN EXCAVATION, NO APPARENT HC ODOR IN ANY OF  
 THE OUM SAMPLES.

BOTTOM - BEDROCK (SHALE) MOD. BROWN TO LT. GRAY, HARD, NO APPARENT STAINING  
 OR HC ODOR OBSERVED/DETECTED.

BEDROCK  
BOTTOM

CLOSED

## FIELD 418.1 CALCULATIONS

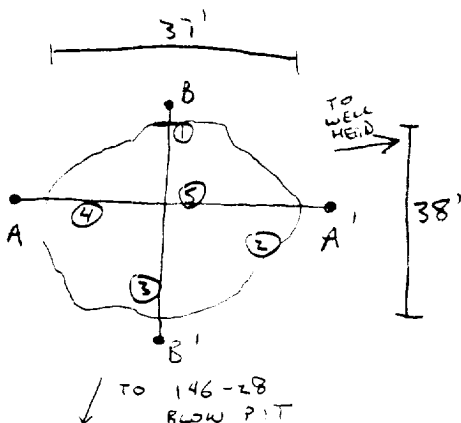
TIME	SAMPLE I.D.	LAB No.	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
0745	③ @ 12'	TPH-1999	5	20	1:1	5	ND

SCALE



0 FT

## PIT PERIMETER

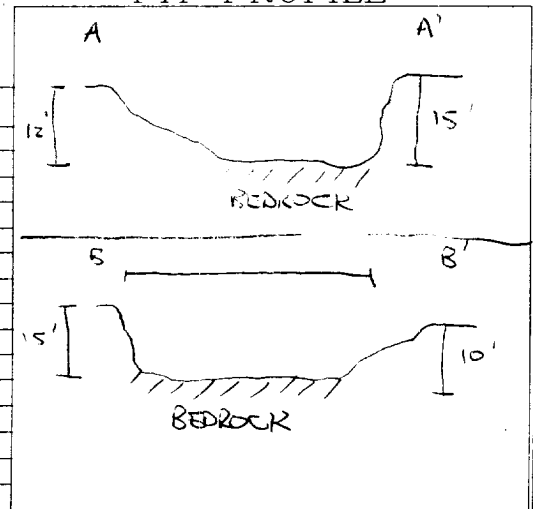
OVM  
RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 10'	0.0
2 @ 10'	0.0
3 @ 12'	0.0
4 @ 11'	0.0
5 @ 15'	0.0

## LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

## PIT PROFILE



TRAVEL NOTES:

CALLOUT. 7/1/98 - MORN. ONSITE: 7/2/98 - MORN.



**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:	3 @ 12'	Date Analyzed:	07-02-98
Project Location:	Jicarilla Contract # 146 - 10	Date Reported:	07-02-98
Laboratory Number:	TPH-1999	Sample Matrix:	Soil

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

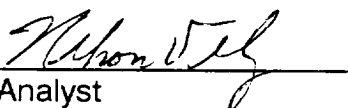
ND = Not Detectable at stated detection limits.

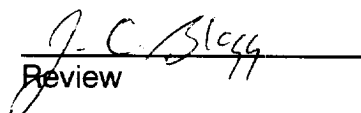
QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	-----	-----	-----
	1684	1712	1.65

\*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: Blow Pit - BJ578

  
Analyst

  
Review



**BLAGG ENGINEERING, INC.**

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

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

**Field TPH-Worksheet**

Max Characters:

\*\*\*\*\*

Client:

AMOCO

Project #:

Sample ID:

3 @ 12'

Date Analyzed:

07-02-98

Project Location:

Jicarilla Contract # 146 - 10

Date Reported:

07-02-98

Laboratory Number:

TPH-1999

Sample Matrix:

Soil

Sample Weight:

5.00 grams

Volume Freon:

20.00 mL

Dilution Factor:

1 (unitless)

TPH Reading:

5 mg/kg

TPH Result:

20.0 mg/kg

Reported TPH Result:

20 mg/kg

Actual Detection Limit:

20.0 mg/kg

Reported Detection Limit:

20 mg/kg

QA/QC:

Original  
TPH mg/kg

Duplicate  
TPH mg/kg

%  
Diff.

-----

1684

-----

1712

-----

1.65

Comments:

\*\*\*\*\*Max Characters\*\*\*\*\*

Comments:

Blow Pit - BJ578



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

8JS78

SUBMIT 1 COPY TO

NATURAL RESOURCE DEPT

AND OIL & GAS ADMINISTRATION

**PIT REMEDIATION AND CLOSURE REPORT**

**Operator:** AMOCO PRODUCTION COMPANY **Telephone:** (505) 326-9200

**Address:** 200 Amoco Court, Farmington, NM 87401

**Facility or Well Name:** JICARILLA CONTRACT #146-10

**Location:** Unit or Qtr/Qtr Sec N Sec 9 T 25N R 5W County RIO ARriba

**Pit Type:** Separator ☒ Dehydrator ☐ Other ☐

**Land Type:** RANGE

**Pit Location:** (Attach diagram) Pit dimensions: length NA, width NA, depth NA

Reference: wellhead ☒, other ☐

Footage from reference: 117'

Direction from reference: 44 Degrees ☒ East of North ☒  
West 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



BJ 578

SEP. PIT

Date Remediation Started: \_\_\_\_\_ Date Completed: 7/2/98

Remediation Method: Excavation \_\_\_\_\_ Approx. cubic yards NA  
(check all appropriate sections) Landfarmed \_\_\_\_\_ Insitu Bioremediation \_\_\_\_\_  
Other NO REMEDIATION NECESSARY.

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

General Description of Remedial Action: Excavation. PIT AREA CONSISTED OF MOSTLY BEDROCK, THEREFORE NO TAP ANALYSIS WAS CONDUCTED. CLOSE AS IS.

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

Final Pit: Sample location see Attached Documents  
Closure Sampling: \_\_\_\_\_  
(if multiple samples, attach sample results and diagram of sample locations and depths) Sample depth 7' (PIT BOTTOM)  
Sample date 7/2/98 Sample time 1250

## 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>NA</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 7/2/98 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: Kerr C. Marshall DATE: 7-27-98



TRAVEL NOTES: CALLOUT: 7/1/98 - MORN. ONSITE: 7/3/98 - MORN.



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

SUBMIT 1 COPY TO  
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 CONTRACT 146-10

**Location:** Unit or Qtr/Qtr Sec N Sec 9 T 25N R 5W County BLA DEL RIO

**Land Type:** RANGE

**Date Remediation Started:** 7-2-98

**Date Completed:** 3/12/99

**Remediation Method:** Landfarmed ☒

**Approx. cubic yards** 1000

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:** 3-10-99 **Time:** 1200

**Sample Results:**

**Field Headspace (ppm)** 33.7

**TPH (ppm)** 9.3 **Method** 8015

**Other** ☐

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

**DATE** 3/12/99 **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 ☒ NO ☐ (REASON) ☐

**SIGNED:** K-C Marshall **DATE:** 3-31-99



CLIENT: AMOCOBLAGG ENGINEERING, INC.  
P.O. BOX 87, BLOOMFIELD, NM 87413  
(505) 632-1199LOCATION NO: 35578C.O.C. NO: 6576

## FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: JCARILLA CONTRACT 146 WELL #: 10 PITS: SEP, BLOW  
QUAD/UNIT: N SEC: 9 TWP: 25N RNG: 5W PM: NM CNTY: RA ST: NM  
QTR/FOOTAGE: SE/4 SW/4 CONTRACTOR: P+SDATE STARTED: 3.10.99  
DATE FINISHED: \_\_\_\_\_ENVIRONMENTAL  
SPECIALIST: REP

## SOIL REMEDIATION:

REMEDICATION SYSTEM: LANDFARMAPPROX. CUBIC YARDAGE: 1000LAND USE: RANGELIFT DEPTH (ft): 1

## FIELD NOTES &amp; REMARKS:

DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'NMDCD RANKING SCORE: 0 NMDCD TPH CLOSURE STD: 5000 PPM

MODERATE YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST. FIRM.  
LARGE AREA OF STAINING OBSERVED IN LANDFARM AREA (SEE SKETCH BELOW)  
SOME HC ODOR DETECTED AT SAMPLING POINT ① SAMPLE DEPTHS RANGE FROM  
6" - 18" TOOK A 5FT COMPOSITE SAMPLE FOR LAB ANALYSIS.

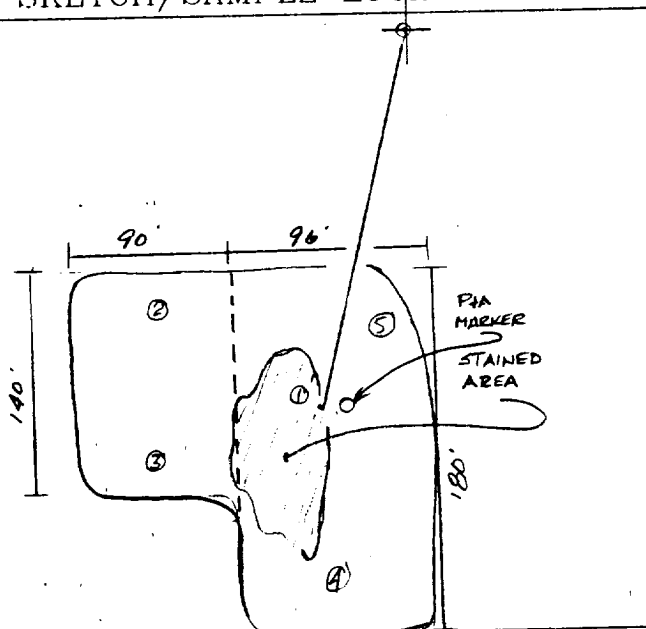
NOTE: THE SOIL WAS MOVED FROM THE 146# 28 AND COMBINED WITH  
THIS LANDFARM. (APPROX 700 C.Y.)

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	33.7	LF-1	TPH 80.5	1200	9.3

SCALE

0 FT

TRAVEL NOTES: \_\_\_\_\_

ONSITE: \_\_\_\_\_



# 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: E802  
Chain of Custody No: 6576  
Sample Matrix: Soil  
Preservative: Cool  
Condition: Cool and Intact

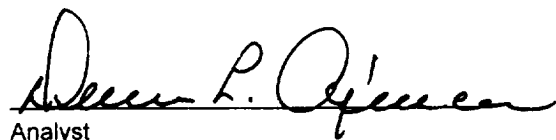
Project #: 403410  
Date Reported: 03-12-99  
Date Sampled: 03-10-99  
Date Received: 03-11-99  
Date Extracted: 03-11-99  
Date Analyzed: 03-12-99  
Analysis Requested: 8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	5.2	0.2
Diesel Range (C10 - C28)	4.1	0.1
Total Petroleum Hydrocarbons	9.3	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 Contract 146 - 10 Landfarm. 5 Pt. Composite.

  
Analyst

  
Review



## 6576

[illegible]