

85569 Risk-bedrock

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

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

RECEIVED
AUG 16 1999

OIL CON. DIV.
DIST. 3

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 146-16

Location: Unit or Qtr/Qtr Sec M Sec 10 T 25N R 5W County RIO ARIZONA

Pit Type: Separator Dehydrator Other BLOW

Land Type: RANGE

Pit Location: Pit dimensions: length 31', width 33', depth 5'
(Attach diagram)

Reference: wellhead X, other

Footage from reference: 132'

Direction from reference: 13 Degrees X East of North
 West of South X

Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet (20 points)	
	50 feet to 99 feet (10 points)	<u>0</u>
	Greater than 100 feet (0 points)	<u>0</u>
Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width)	Less than 100 feet (10 points)	
	Greater than 100 feet (0 points)	<u>0</u>
Distance to Nearest Lake, Playa, or Watering Pond (Downgradient lakes, playas and livestock or wildlife watering ponds)	Less than 100 feet (10 points)	
	Greater than 100 feet (0 points)	<u>0</u>
Wellhead Protection Area: (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>
Distance To Surface Water: (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

Date Remediation Started: _____ Date Completed: 6/18/98

Remediation Method: Excavation ☒ Approx. cubic yards 150
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. BEDROCK BOTTOM. RISK ASSESSED.

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 3'

Sample date 6/18/98 Sample time 1320

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 6/18/98 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: [Signature] DATE: 7-27-98

3003906065

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>8JS69</u> C.D.C. NO: _____
----------------------	--	---

FIELD REPORT: CLOSURE VERIFICATION		PAGE No: <u>1</u> of <u>1</u>
LOCATION: NAME: <u>JICA CONTR 146</u> WELL #: <u>16</u> PIT: <u>BLOW</u>		DATE STARTED: <u>6/18/98</u>
QUAD/UNIT: <u>M SEC 10</u> TWP: <u>ZSN</u> RNG: <u>5W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u>		DATE FINISHED: _____
QTR/FOOTAGE: <u>890' FSL</u> <u>1190' FWL</u> CONTRACTOR: <u>P & S</u>		ENVIRONMENTAL SPECIALIST: <u>NV</u>

EXCAVATION APPROX. <u>31</u> FT. x <u>33</u> FT. x <u>5</u> FT. DEEP.	CUBIC YARDAGE: <u>150</u>
DISPOSAL FACILITY: <u>ON-SITE</u>	REMEDIATION METHOD: <u>LANDFARM</u>
LAND USE: <u>RANGE</u>	LEASE: <u>JIC 148</u> FORMATION: <u>CK</u>

FIELD NOTES & REMARKS:	PIT LOCATED APPROXIMATELY <u>132</u> FT. <u>SISE</u> FROM WELLHEAD.
DEPTH TO GROUNDWATER: <u>>100'</u> NEAREST WATER SOURCE: <u>>1000'</u> NEAREST SURFACE WATER: <u>>1000'</u>	CHECK ONE: <input checked="" type="checkbox"/> PIT ABANDONED <input type="checkbox"/> STEEL TANK INSTALLED <input type="checkbox"/> FIBERGLASS TANK INSTALLED
NMOC D RANKING SCORE: <u>0</u> NMOC D TPH CLOSURE STD: <u>5000</u> PPM	

SOIL AND EXCAVATION DESCRIPTION:

SOIL MOSTLY PALE YELL. ORANGE SAND, LT. GRAY SAND OBSERVED ON NORTH SIDEWALL BETWEEN 3'-4' BELOW GRADE (NO APPARENT HC ODOR) NON COHESIVE SLIGHTLY MOIST, FIRM TO DENSE NO APPARENT STAINING OR HC ODOR OBSERVED, NO APPARENT HC ODOR DETECTED IN ANY OF THE OVM SAMPLES.

BOTTOM - BEDROCK (SANDSTONE), LT. TO DK. GRAY DISCOLORATION W/ HC ODOR OBSERVED MOSTLY ON WEST HALF, VERY HARD, STRONG HC ODOR IN OVM SAMPLE.

BEDROCK BOTTOM

RISK ASSESSED

SCALE

0 FT

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
1320	③ e3'	TPH-1993	5	20	1:1	5	ND

PIT PERIMETER

PIT PROFILE

OVM RESULTS		
SAMPLE ID	FIELD HEADSPACE PID (ppm)	
1 e3'	0.0	
2 e2'	0.0	
3 e3'	0.0	
4 e3'	0.0	
5 e5'	314	

LAB SAMPLES		
SAMPLE ID	ANALYSIS	TIME

TRAVEL NOTES:	CALLOUT: <u>6/18/98-AFTER.</u>	ONSITE: <u>6/18/98-AFTER.</u>
---------------	--------------------------------	-------------------------------

Well Name:

Well Site location:

Pit Type:

Producing Formation:

Pit Category:

Horizontal Distance to Surface Water:

Vicinity Groundwater Depth:

Jicarilla Contract 146 #16
Unit M, Sec. 10, T25N, R5W

Blow Pit

Chacra

Non Vulnerable

> 1000 ft.

> 100 ft.

RISK ASSESSMENT (non-vulnerable area)

Pit remediation activities were terminated when trackhoe encountered sandstone bedrock at 5 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 5 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 0.20 miles northeast of the nearest vulnerable area boundary (Gonzales Canyon wash).

(Refer to Lapis Point Quadrangle, New Mexico - Rio Arriba County, 7.5 Minute Series (Topographic), 1963, (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.

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 @ 3'	Date Analyzed:	06-18-98
Project Location:	Jicarilla Contract 146 - 16	Date Reported:	06-18-98
Laboratory Number:	TPH-1993	Sample Matrix:	Soil

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

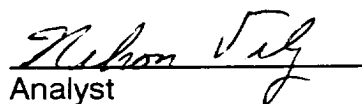
ND = Not Detectable at stated detection limits.

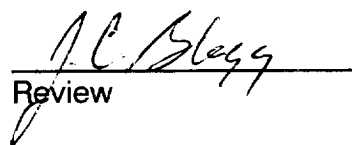
QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	-----	-----	-----
	1684	1712	1.65

*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 - BJ569


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 @ 3'

Date Analyzed:

06-18-98

Project Location:

Jicarilla Contract 146 - 16

Date Reported:

06-18-98

Laboratory Number:

TPH-1993

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 - BJ569

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

85569
SUBMIT 1 COPY TO:
NATURAL RESOURCE DEPT
AND OIL & GAS ADMINISTRATION

ON-SITE SOIL REMEDIATION REPORT

Operator: <u>AMOCO PRODUCTION COMPANY</u> Telephone: <u>(505) 326-9200</u>	
Address: <u>200 Amoco Court, Farmington, NM 87401</u>	
Facility or Well Name: <u>JICARILLA CONTRACT 146-16</u>	
Location: Unit or Qtr/Qtr Sec <u>M</u> Sec <u>10</u> T <u>25N</u> R <u>5W</u> County <u>RIO ARriba</u>	
Land Type: <u>RANGE</u>	
Date Remediation Started: <u>6-18-98</u> Date Completed: <u>4/21/99</u>	
Remediation Method: Landfarmed <input checked="" type="checkbox"/> Approx. cubic yards <u>150</u>	
Composted <input type="checkbox"/>	
Other <input type="checkbox"/>	
Depth To Groundwater: (pts.) <u>0</u>	Final Closure Sampling:
Distance to an Ephemeral Stream (pts.) <u>0</u>	Sampling Date: <u>4-19-99</u> Time: <u>0935</u>
Distance to Nearest Lake, Playa, or Watering Pond (pts.) <u>0</u>	Sample Results:
Wellhead Protection Area: (pts.) <u>0</u>	Field Headspace (ppm) <u>23.3</u>
Distance To Surface Water: (pts.) <u>0</u>	TPH (ppm) <u>147</u> Method <u>8015</u>
RANKING SCORE (TOTAL POINTS): <u>0</u>	Other <input type="checkbox"/>
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF	
DATE <u>4/21/99</u>	PRINTED NAME <u>Buddy D. Shaw</u>
SIGNATURE <u>Buddy D. Shaw</u>	AND TITLE <u>Environmental Coordinator</u>
AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.	
APPROVED: YES <input type="checkbox"/> NO <input type="checkbox"/> (REASON) _____	
SIGNED: _____ DATE: _____	

CLIENT: <u>Amoco</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>85569</u> C.D.C. NO: <u>6892</u>
----------------------	--	---

FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: <u>JICARILLA CONTRACT 146 WELL # 16</u>	PITS: <u>BLOW</u>	DATE STARTED: <u>4.19.99</u>
QUAD/UNIT: <u>M</u> SEC: <u>10</u> TWP: <u>25N</u> RNG: <u>5W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u>		DATE FINISHED: _____
STR/FOOTAGE: <u>SW/4 SW/4</u>	CONTRACTOR: <u>PJS</u>	ENVIRONMENTAL SPECIALIST: <u>REP</u>

SOIL REMEDIATION:

REMEDICATION SYSTEM: <u>LANDFARM</u>	APPROX. CUBIC YARDAGE: <u>160</u>
LAND USE: <u>RANGE</u>	LIFT DEPTH (ft): <u>2-2.5</u>

FIELD NOTES & REMARKS:

DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'

WELL PAVING SCORE 0 NMCD TPH CLOSURE STD: 5000 PPM

LT. OLIVE GRAY SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM.

NO APPARENT STAINING, NO HC ODOR DETECTED, SAMPLING DEPTHS RANGE FROM 6" - 12". COLLECTED A SPT COMPOSITE SAMPLE FOR LAB ANALYSIS

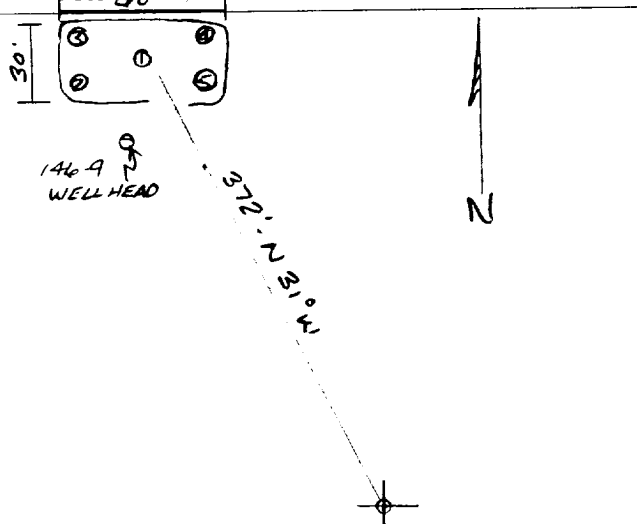
NOTE: SOIL FROM THE JIC. CONT 146-16 WAS MOVED TO THE JIC. CONT. 146-9. DISTANCE + BEARING WAS TAKEN FROM THE 146-16 WELL HEAD

FIELD 418.1 CALCULATIONS

CLOSED

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	23.3	LF-1	TPH (8015)	0935	147

SCALE

0  FT

TRAVEL NOTES

CALLOUT: NA

ONSITE: 4.19.99

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

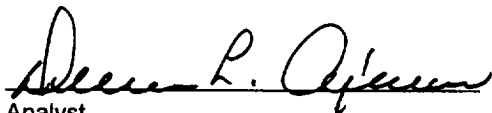
Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	LF - 1	Date Reported:	04-21-99
Laboratory Number:	F058	Date Sampled:	04-19-99
Chain of Custody No:	6892	Date Received:	04-20-99
Sample Matrix:	Soil	Date Extracted:	04-21-99
Preservative:	Cool	Date Analyzed:	04-21-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH


Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	34.9	0.2
Diesel Range (C10 - C28)	112	0.1
Total Petroleum Hydrocarbons	147	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 - 16 Landfarm. 5 Pt. Composite.


Analyst


Review

