JEMANY & FOUNT JICARILLA APACHE TRIBE
DEFUTION & GAS INSPECTOR ENVIRONMENTAL PROTECTION OFFICE

B1220

SUBMIT 1 COPY TO

NATURAL RESOURCE DEPT

P.O. BOX 507

AND OIL & GAS ADMINISTRATION

007 0 8 1999

DULCE, NEW MEXICO 87528

Blow-Risk-belowy

SCP-OK

PIT REMEDIATION AND CLOSURE REPORT

Paral

	(505)326-9200
Operator: AMOCO PRODUCTION COMPANY	Telephone : (505)326-9200
Address: 200 Amoco Court, Farmington, NM 8	87401
Facility or Well Name: TKARILLA CONTRACT	
Location: Unit or Qtr/Qtr Sec D Sec 13 TZ5 N	R54) County ROD ARRIBED
Location: Unit or Qtr/Qtr Sec Sec 13	
Pit Type: Separator Dehydrator Other_ Bloom	οω
Land Type:RANGE	
1 December 1	', width_30', depth_19'
	ner
Footage from reference: 165)
Direction from reference: 25	_ Degrees East North
	West South
Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of	Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 points)
high water elevation of groundwater) Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width)	
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)
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)
Distance To SurfaceWater: (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)
· RA	ANKING SCORE (TOTAL POINTS):

	4/27/98
Date Remediation Sta	Date Completed: 4/27/98
emediation Method:	Excavation Approx. cubic yards600
heck all appropriate sections)	Landfarmed
	Other
Remediation Location (i.e. landfarmed onsite, name and location of offsite facility) General Description	of Remedial Action: Excavation, BEDROCK BOTTOM, RISK
	ATTACHED
Groundwater Encoun	tered: No X 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 (5' (west tide with time) Sample date (727) 98
I HEDERY CEPTIES	Y THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY
KNOWLEGE AND H	BEFIEL
DATE	4/27/98 PRINTED NAME Buddy D. Shaw Oly J. Shaw AND TITLE Environmental Coordinator
SIGNATURE BUS	Dy S. Shaw AND TITLE Environmental Coordinator
AFTER REVIEW OF TO THE JICARILLA	F THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE A APACHE TRIBE PIT CLOSURE ORDINANCE.
APPROVED: YES_	NO (REASON)
" SIGNED: Que	Manuel DATE: 4-29-98

CLIENT: AMOCO	PO BOX 8	G ENGINEER	ELD, NM	87413	LOCATION C.D.C.	ND: <u>B7550</u>
		(505) 632-				
FIELD REPOR	RT: CLOS	SURE VE	RIFICA'	I'ION	PAGE No:	
LOCATION: NAME: JICA. C	DNTR. 148 W	ELL #: 5	PIT: BLOW	STINM	DATE STARTED	:
QUAD/UNIT: O SEC:13	TWP: 25N RI	$\frac{NG: \mathcal{I} \mathcal{O} - PM: \mathcal{O}}{CONTRACTOR: \mathcal{O}}$	2 + 2	51.10.	ENVIRONMENTA SPECIALIST:	NV
PYCAVATION ADDROY	3 _{гт х} 30	FT ×	FT. DEEP.	CUBIC	YARDAGE:	600
DISPOSAL FACILITY:	DN - 51TE	RF	MEDIATION	METHO	D: CANDER.	(MED
DEMA	DVC. OFF LECA	ATED ADDDOVIM	ATELY 165	FT.	SZSE FRI	M WELLHEAD.
DEPTH TO GROUNDWATER: _>	100' NEAREST WAT	ER SOURCE:	NEAR	SI SURFAC	CHECK	ONE :
NMOOD RANKING SCORE:	NMOCD TPH CL	OSURE STD:	<u> </u>		PIT ABANDON _ STEEL TANK _ FIBERGLASS	
moster mo	O. KELL ROS.	a Tacib	CAUETINE.	L		
NO APPERE	O. YELL. BROWN	OR HE ODOR	क्षान्त्रका अन्यस्था	110 501	L 13.07101) 0 F
SIDE. ALL	BEDROOK OBSO ON, DLIVE GRR THE SIDEWAL	LILUED FILOM	א'רן - 13' בא רוש באינאדי	zerow en Appare	was on so	ODIZ IN
ANY OF	THE SIDEWAL	LOUM 5/9my	ples.	ر را حربہ ہے۔	elv selv	He sook
Bollow -	THE SIDEWAL LT. OLIVE TO LA DETECTED IN OU	m sample.	CK (371,000)			
DEVICE	K ASSESSED	FIF!	D 418.1 CALCU	ILATIONS		
Bottom		E I.D. LAB No:	WEIGHT (g) ml	_ FREON D		NG CALC. ppm
SCALE	0830 De	15' TPH-1969	5	20	1:1 3	~9
O FT				10.100	DDOEL	T E
	METER 🖈			PIT	<u>PROFI</u>	<u>L_L</u>
	-0 :LL =aD	OVM RESULT:		-)	38'	A
	-	SAMPLE FIELD H PID 2 15 0.	EADSPACE (ppm)	_		
0		2 e 14' 0.0	<u> </u>	,		
	<u> </u>	4 e 15' 0.0 5 e 19' 181.	9 19	_		
7 9 3	(3) A				Je mil	,
3					BEDROCK	
		LAB SAMPL				
1 SINFE	r(0)	SAMPLE ANALYSIS	TIME			
<i>7</i> (C)						
TRAVEL NOTES: CALLO	UT: 4/24/98	- AFTER. 0	NSITE: <u>4/z</u>	7/98 -	MURN.	

Weil Name:

Well Site location:

Pit Type:

Producing Formation:

Pit Category:

Horizontal Distance to Surface Water:

Vicinity Groundwater Depth:

Jicarilla Contract 148 #5

Unit O, Sec. 13, T25N, R5W

Blow Pit

Pictured Cliffs

Non Vulnerable

> 1000 ft.

> 1000 ft.

RISK ASSESSMENT (non-vulnerable area)

Pit remediation activities were terminated when trackhoe encountered sandstone bedrock at 19 feet below grade.

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

- Past production fluids were contained locally by a relatively shallow sandstone bedrock located 19 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 <u>non-vulnerable area</u> and is approximately 0.11 miles north of the nearest vulnerable area boundary (Lapis Valley wash).

(Refer to <u>Lapis Point Quadrangle, New Mexico - Rio Arriba County, 7.5 Minute Series</u> (<u>Topographic</u>), 1963, (vulnerable area boundary developed by Mr. William C. Olson, <u>Hvdrogeologist, Environmental Bureau, New Mexico Oil Conservation Division</u>).

Based upon the information given, we conclude 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.

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:

Sample ID:

AMOCO

4 @ 15'

Jicarilla Contract 148 - 5

Project Location: TPH-1969 Laboratory Number:

Project #:

Date Analyzed:

04 - 27 - 9804 - 27 - 98Date Reported:

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:

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

Method:

Modified Method 418.1, Petroleum Hydrocarbons, Total

Recoverable, Chemical Analysis of Water and Waste,

USEPA Storet No.4551, 1978

Comments:

Blow Pit - BJ550

^{*}Administrative Acceptance limits set at 30%.

P.O. Box 87, Bloomfield, New Mexico 87413 Phone: (505)632-1199 Fax: (505)632-3903

Field TPH-Worksheet

Client: AMOCO Project #:

Sample ID:

Date Analyzed:

04-27-98

Project Location:

Date Analyzed:

O4-27-98

Date Reported:

O4-27-98

Date Reported:

O4-27-98

Laboratory Number: TPH-1969 Sample Matrix: Soil

Sample Weight: 5.00 grams Volume Freon: 20.00 mL

Dilution Factor: 1 (unitless)
TPH Reading: 5 mg/kg

TPH Result:

Reported TPH Result:

Actual Detection Limit:

Reported Detection Limit:

20.0 mg/kg

20 mg/kg

20.0 mg/kg

20.0 mg/kg

Comments: Blow Pit - BJ550

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

81220

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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, N	M 87401	
Facility or Well Name: JICARIUA CONT	TRACT 148-5	
Location: Unit or Qtr/Qtr Sec_ Sec_ \3 T_Z	SN R Sw County 270	ALICIE H
Pit Type: Separator Dehydrator Other		
Land Type: RANGE		
Pit Location: Pit dimensions: length		
(Attach diagram) Reference: wellhead X,		
Footage from reference:	<u>0'</u>	North X
Direction from reference: _\S\	P Degrees P East of West	South
Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of		(20 points) (10 points) (0 points)
groundwater) Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width)	Less than 100 feet Greater than 100 feet	(10 points) (0 points)
Distance to Nearest Lake, Playa, or Watering Pond (Downgradient lakes, playas and livestock or wildlife watering ponds)	Less than 100 feet Greater than 100 feet	(10 points) (0 points)
Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or: less than 1000 feet from all other water sources)	Yes No	(20 points) (0 points)
Distance To SurfaceWater: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 100 feet 100 feet to 1000 feet Greater than 1000 feet	(20 points) (10 points) (0 points)
	RANKING SCORE (TOTAL	POINTS):

8J 550 SEP. PI)

		Date Completed:	4/27/98
Date Remediation Sta	rted:		/50
emediation Method: Check all appropriate	Excavation		†
sections)	Landfarmed X		
	Other		1
Remediation Location (i.e. landfarmed onsite, name and location of offsite facility)			
General Description	of Remedial Action: Excavation		
Groundwater Encoun	tered: No X Yes	Depth	
Final Pit: Closure Sampling: (if multiple samples,	Sample location see Attached I		
attach sample results and diagram of sample	Sample depth	Borrom)	
locations and depths)	Sample date $\frac{4/\sqrt{2}}{98}$	Sample time _	1320
	Sample Results		
	Soil: Benzene (ppm)	Water: Ben:	zene (ppb)
	Total BTEX (ppm)	Tolu	nene (ppb)
	Field Headspace (ppm) 🕏	Ethy	vlbenzene (ppb)
	TPH (ppm)		l Xylenes (ppb)
li .	e: Yes No (If		
I HEREBY CERTIFY KNOWLEGE AND E	Y THAT THE INFORMATION ABOVE BELIEF	E IS TRUE AND COMPI	LETE TO THE BEST OF MY
DATE	4/27/98 PRINTED NA	ME Buddy D. Sha	l W
SIGNATURE BUS	Thy D. Show AND TITLE	EEnvironmenta	1 Coordinator
AFTER REVIEW OF	F THE PIT CLOSURE INFORMATION A APACHE TRIBE PIT CLOSURE OR	N, PIT CLOSURE IS AP DINANCE.	PROVED IN ACCORDANCE
APPROVED: YES_	NO (REASON)		·
SIGNED:	DATE:	4-29-98	

BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 874 (505) 632-1199	
FIELD REPORT: CLOSURE VERIFICATIO	N PAGE No: 1 of 1
WEATION: NAME: TEA CONTR. 148 WELL #: 5 PIT: SEP	DATE STARTED: 4/17/98
QUAD/UNIT: O SEC: 13 TWP: 25N RNG: SW PM: NM CNTY: RA ST: A DTR/FOOTAGE: SW/Y SE/Y CONTRACTOR: P + 5	ENVIRONMENTAL NV
EXCAVATION APPROX. 15 FT. x 23 FT. x 18 FT. DEEP. CU	JBIC YARDAGE: _/50 THOD: _CANOFARMED FORMATION: _ PC
LEASE. LEASE.	T N87E FROM WELLHEA
TIME SAMPLE I.D. LAB NO: WEIGHT (g) ML. FRE	ON DILUTION READING CALC. PPN
SCALE O FT PIT PERIMETER AN	PIT PROFILE
OVM RESULTS SAMPLE FIELD HEADSPACE PID (ppm)	15' A
TO DELL A 9 5 3 A 7 3 4 2 14 0.0	
5 (a) 0.0 1	
SAMPLES SAMPLES ANALYSIS TIME	
LAB SAMPLES	

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 @ 19'

Date Analyzed:

04 - 27 - 98

Project Location:

Jicarilla Contract 148 - 5

Date Reported:

04 - 27 - 98

Laboratory Number:

TPH-1970

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:

Separator Pit - BJ550

Milhon Vely Analyst

P.O. Box 87, Bloomfield, New Mexico 87413 Phone: (505)632-1199 Fax: (505)632-3903

Field TPH-Worksheet

Max Characters:

Client: AMOCO

Sample ID: Project Location: 5 @ 19' Jicarilla Contract 148 - 5

Laboratory Number: TPH-1970

Project #:

Date Analyzed: 04-27-98
Date Reported: 04-27-98

Sample Matrix: Soil

Sample Weight: 5.00 grams Volume Freon: 20.00 mL

Dilution Factor: 1 (unitless)
TPH Reading: 5 mg/kg

TPH Result:

Reported TPH Result:

Actual Detection Limit:

Reported Detection Limit:

20.0 mg/kg
20 mg/kg
20.0 mg/kg
20.0 mg/kg
20.0 mg/kg

QA/QC: Original TPH mg/k

TPH mg/kg

Duplicate TPH mg/kg

1712

Diff. ---1.65

%

Comments: Separator Pit - BJ550

B5550

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AND OIL & GAS ADMINISTRATION

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

ON-SITE SOIL REMEDIATION REPORT

Operator: AMOCO PRODUCTION C	COMPANY	Telephone: (505) 326-9200		
Address: 200 Amoco Court, Farmington, NM 87401				
Facility or Well Name: JICARILLA	148 3 60	w passer		
Location: Unit or Qtr/Qtr Sec_ Ø	Sec_/3_ T_25	SN R SW County RIO ARRIBA		
Land Type: PANGE				
Data Ramediation Started: 4.27	98	Date Completed: 1 12 99		
Remediation Method: Landfarmed	V	Approx. cubic yards <u>750</u>		
Composted				
Other				
Depth To Groundwater:	(pts.)	Final Closure Sampling:		
Distance to an Ephemeral Stream		Sampling Date: 1.4 99 Time: 1420		
Distance to Nearest Lake, Playa, or Watering Pond	(pts.)	Sample Results: Field Headspace (ppm)		
Wellhead Protection Area:	(pts.)	TPH (ppm) 11.5 Method 8015		
Distance To SurfaceWater: (pts.) 6 Other				
RANKING SCORE (TOTAL POINTS): O COMPLETE TO THE BEST OF MY				
RANKING SCORE (TOTAL POINTS):				
DATE I 12 99 PRINTED NAME Buddy D. Shaw 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: 2= C Ma- (C DATE: 3-31-99				

BLAGG ENGINEERING, INC. LOCATION NO: 85550 CLIEFIT: AMOCO P.O. BOX 87, BLOOMFIELD, NM 87413 C.O.C. NO: 4326 (505) 632-1199 FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION CONTRACT 915 DATE STARTED: 1.4 99 LOCATION: NAME: SICAPILLA V 148 WELL #: 5 PITS: SEP. BLOW DATE FINISHED: 1/12/99 QUAD/UNIT: O SEC: 13 TWP: 25N RNG: 5W PM: NM CNTY: RA ST: NM ENVIRONMENTAL REP SPECIALIST: _ OTF/FBOTAGE: SW/4 SE/4 CONTRACTOR: P45 SOIL REMEDIATION: APPROX. CUBIC YARDAGE: 750 REMEDIATION SYSTEM: LANDFARM LIFT DEPTH (ft): BANGE LAND USE: _ FIELD NOTES & REMARKS: DEPTH TO SPOUNDWATER >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: > 1000'. NMDCD PANEING SCORE: 0 NMDCD TPH CLOSURE STD: 5000 FPM DY. YELLOW ORANGE TO BROWN SAND NON CONESIVE, SLIGHTLY MOIST, FIRM NO APPARENT STAINING OR HC ODDR SAMPLE DEPTHS RANGE FROM 6"TO 18" TOOK A 5 PT COMPOSITE SAMPLE FROM LANDFARM FOR LAB ANALYSIS CLOSED FIELD 418.1 CALCULATIONS LAB No: WEIGHT (9) MIL. FREON DILUTION READING CALC. ppm SAMPL TIME SAMPLE LD. SKETCH/SAMPLE LOCATIONS LAB SAMPLES OVM RESULTS RESULTS SAMPLE ANALYSIS FIELD HEADSPACE PID (ppm) SAMPLE \mathcal{G} 1420 11.5 LF-1 (8015) 0.0 LF. 1 SCALE

TRAVEL NOTES: CALLOUT: N/A

ONSITE: 1 4 99

FT



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client: Sample ID: Laboratory Number: Chain of Custody No: Sample Matrix: Preservative: Condition:	Blagg / AMOCO LF - 1 E451 6326 Soil Cool	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed: Analysis Requested:	04034-10 01-06-99 01-04-99 01-05-99 01-05-99 8015 TPH
--	---	---	--

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	4.6	0.2
Diesel Range (C10 - C28)	6.9	0.1
Total Petroleum Hydrocarbons	11.5	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 #148 - 5 Landfarm. 5 Pt. Composite.

Analyst Gere

Stacy W Sendler

CHAIN OF CUSTODY RECORD

Cool - Ice/Blue Ice	Mexico 87401 2-0615	Farmington, New Mexico 87401				
Received Intact	ighway 64	5796 U.S. Highway 64			•	
۲ 2				46 5577	د د م	by cocs
Sample Receipt	CHIOC			2 2	77	
	Received by: (Signature)	Rec			ure)	Relinquished by: (Signature)
	Received by: (Signature)				ure)	Relinquished by: (Signature)
1.5.99 800	Received by: (Signature)	Date Time Reco			ure)	Relinquished by: (Signature)
2000						
SAMPLE PRESERVE						
SM. contoxic	7	3011	E451	1420	1.499	LF-1
	Co	Sample Matrix	Lab Number	Sample Time	Sample Date	Sample No./ Identification
	No. of ntaine		01-45040			REP
			Client No.			Sampler:
Domoilo		SICARICLA CONTRACT 148-5	JICARICLA O		0	BLACK/AMOCO
VETERS	ANALYSIS / PARAMETERS	ANDFARM	Project Location CANDFARM			Client / Project Name
			1			