# JICARILLA APACHE TRIBE DESCRIPTION OFFICE P.O. BOX 507

OCT 6 8 1999

DULCE, NEW MEXICO 87528

Blow - R&K bedrock BJ566 SUBMIT I COPY TO

NATURAL RESOURCE DEPT

AND OIL & GAS ADMINISTRATION

Sejo - Rok balack

### PIT REMEDIATION AND CLOSURE REPORT

Operator: AMOCO PRODUCTION COMPANY	Telephone: (505) 326-9200
Address: 200 Amoco Court, Farmington, NM 8	87401
Facility or Well Name: JICARCIUCA CONT	RACT 148 - 25
Location: Unit or Qtr/Qtr Sec_A Sec_15 TZSN	R SW County KIO HIKICISH
Pit Type: Separator Dehydrator Other_ &c.	>W
Land Type:	
Pit Location: Pit dimensions: length 42	', width 38', depth 4'
(Attach diagram)  Reference: wellhead X, oth	er
Footage from reference: 85'	
Direction from reference: 47	_ Degrees East NorthX
- THEM	West South
Depth 10 Groundwater.	Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 points)
Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width)	Greater than 100 lect ( o points)
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	NKING SCORE (TOTAL POINTS):

D / D disting Chartods	Date Completed:6/16/98
Date Remediation Started:	Approx. cubic yards/75
Remediation Method: Excavation	
sections) Landfarmed $\nearrow$	Insitu Bioremediation
Other	
Remediation =====	
(i.e. landfarmed onsite, name and location of	
offsite facility)	ion Excavation MOSTLY BEDROCK,
THEREFORE NO THE ANALYSIS WAS CONDUC	
Groundwater Encountered: No X Yes	Depth
Final Pit: Sample location see Attacl Closure Sampling:	ned Documents
(if multiple samples,	
attach sample results and diagram of sample Sample depth	PIT BOTTOM)
locations and depths)  Sample date 6/16/98	Sample time9/5
Sample Results	
Soil: Benzene (ppm)	Water: Benzene (ppb)
Total BTEX (ppm	Toluene (ppb)
Field Headspace (ppm	Ethylbenzene (ppb)
	NA Total Xylenes (ppb)
Groundwater Sample: Yes No _X	_ (If yes, attach sample results)
LUEDEDY CEDTIEV THAT THE INFORMATION A	BOVE IS TRUE AND COMPLETE TO THE BEST OF MY
KNOWLEGE AND BELIEF	
DATE 6/16/98 PRINTE	NAME Buddy D. Shaw
ROAL	- Lamental Coordinator
SIGNATURE ( Section )	TION, PIT CLOSURE IS APPROVED IN ACCORDANCE
TO THE JICARILLA APACHE TRIBE PIT CLOSURE	E ORDINANCE.
APPROVED: YES NO (REASON)	
10 -	N 22-91
SIGNED: DAT	E: <u>7-27-98</u>

P.O. BOX 87, BLOOMFIELD, NM 87413	LOCATION NO: 87566
(505) 632-1199	0.0.0
FIELD REPORT: CLOSURE VERIFICATION	PAGE No: of
QUAD/UNIT: A SEC: 15 TWP: ZSD RNG: 5W PM: NM CNTY: RA ST: NM	DATE STARTED: 6/16/98  DATE FINISHED
CTR/FOOTAGE: 1120 FNL /1120 FEL CONTRACTOR: P & S	ENVIRONMENTAL. SPECIALIST:
EXCAVATION APPROX. 42 FT x 38 FT x 4 FT DEEP. CUBIC DISPOSAL FACILITY: 30-5:TE REMEDIATION METHOL LAND USE: LANGE LEASE: TIC 148 FOR FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 85 FT. DEEPIH TO GROUNDWATER: > 100' NEAREST WATER SOURCE: > 1000' NEAREST SURFACE	D: LANDFARM  RMATION: CK/PC  NYTW FROM WELLHEAD.  E WATER: >1000'
NMOCD RANKING SCORE: NMOCD TPH CLOSURE STD: 5000 PPM  SOIL AND EXCAVATION DESCRIPTION:	CHECK ONE:  PIT ABANDONED  STEEL TANK INSTALLED  FIBERGLASS TANK INSTALLED
ON SIDEWALLS UNIFORMILY LT. GLOY IN COLOR PIT BOTTOM  FRINGLE ON SIDEWALLY TO VERY HARD & PIT BOTTOM,  COLLECTED CONSISTED ON BEDROCK THEREFORE NO THAT  COMPLETED, STRONG HC DOOR IN PIT BOTTOM DUM  EXCOUNTION  MOSTLY  BEDROCK  TIME SAMPLE I.D. LAB NO: WEIGHT (9) ML. FREON DI  SCALE  2915	SAMPLE ONLY
O FT  PIT PERIMETER N  OVM  RESULTS  SAMPLE FIELD HEADSPACE PID (ppm)  7/172'	PROFILE A'
1 2 3' 0.0 2 2 3' 0.0 3 2 3' 0.0 4 2 3' 0.0 5 2 4' 796 TO WELL HEAD  LAB SAMPLES  SAMPLE ANALYSIS TIME  ID  LAB SAMPLES  SAMPLE ANALYSIS TIME	3 - 1,7,7, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,
TRAVEL NOTES: CALLOUT: 6/16/98 - mora. ONSITE: 6/16/98 - mora.	en.

Well Name:

Well Site location:

Pit Type:

Producing Formation:

Pit Category:

Horizontal Distance to Surface Water:

Vicinity Groundwater Depth:

Jicarilla Contract 148 #25

Unit A, Sec. 15, 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 4 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 4 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 0.74 miles east southeast of the nearest vulnerable area boundary (Gonzales Canyon wash).

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

Based upon the information given, we conclude 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.

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

STSES SUBMIT 1 COPY TO

NATURAL RESOURCE DEPT

AND OIL & GAS ADMINISTRATION

### PIT REMEDIATION AND CLOSURE REPORT

	/50	JE ) 226 _ 9200
Operator: AMOCO PRODUCTION COMPANY	Telephone: ( 50	73/320-9200
Address: 200 Amoco Court, Farmington, M		
Facility or Well Name:		
Location: Unit or Qtr/Qtr Sec A Sec Sec TZ	-5N RSw County RIO ARK	218A
Pit Type: Separator \( \section \) Dehydrator Other		
Land Type: RANGE		•
• • •	<u>45'</u> , width <u>60'</u> , de	
	other	
Footage from reference: 16°	<u> </u>	,
Direction from reference:	$\frac{7}{1}$ Degrees $\frac{\times}{1}$ East of	orth <u>×</u>
	West So	outh
Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of groundwater)	50 feet to 99 feet (10	points) points) points)
Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width)	Greater than 100 feet	O points)
Distance to Nearest Lake, Playa, or Watering Pond (Downgradient lakes, playas and livestock or wildlife watering ponds)	Less than 100 feet (1) Greater than 100 feet (1)	0 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 (2 No (	0 points) 0 points)
Distance To SurfaceWater: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	100 feet to 1000 feet (1	0 points) 0 points) 0 points)
	RANKING SCORE (TOTAL PO	OINTS):

		n . a . i	ted: <u>6/16/98</u>
Date Remediation Sta	arted:		
'emediation Method:	Excavation		yards 705
heck all appropriate   sections)	Landfarmed	Insitu Bioreme	diation
	Other		
Remediation Location (i.e. landfarmed onsite, name and location of offsite facility)			
General Description	of Remedial Action: Exc	avation. Excauation	ow mostly bedrock,
THEREFORE NO	TAH ANALYSIS WAS C	DADLETED. RISK ASSE	:SSED ,
	tered: No 🔀		
Final Pit: Closure Sampling: (if multiple samples,	Sample locationsee At		
attach sample results and diagram of sample	Sample depth	(SOUTH SIDEWALL)	
locations and depths)	Sample date 6/16/	98 Sample	time
	Sample Results	·	
	-	(ppm) Water	r: Benzene (ppb)
		(FF)	- ( 1)
		(ppm)   Pr Bono:	Ethylbenzene (ppb)
		(ppm) 157.3 \ 0.0	Total Xylenes (ppb)
Groundwater Sample	e: Yes No _	(If yes, attach sam	ple results)
I HEREBY CERTIFY KNOWLEGE AND B	THAT THE INFORMATION ELIEF	ON ABOVE IS TRUE AND	COMPLETE TO THE BEST OF MY
DATE	6/16/98, PRI	NTED NAME Buddy D	• Shaw
SIGNATURE BLA	ily D. Show A	AND TITLE Environ	mental Coordinator
AFTER REVIEW OF TO THE JICARILLA	THE PIT CLOSURE INFO APACHE TRIBE PIT CLO	RMATION, PIT CLOSURE SURE ORDINANCE.	IS APPROVED IN ACCORDANCE
APPROVED: YES	NO (REASON	)	
SIGNED: Lew	2 man OC	DATE: <u>5-27-9</u>	8

3003922525

Well Name:
Well Site location:
Pit Type:
Producing Formation:
Pit Category:
Horizontal Distance to Surface Water:

Vicinity Groundwater Depth:

Jicarilla Contract 148 #25
Unit A. Sec. 15. T25N, R5W
Separator Pit
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:

- 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.
- 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.
- Well site located within the <u>non-vulnerable area</u> and is approximately 0.74 miles east southeast of the nearest vulnerable area boundary (Gonzales Canyon wash).

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

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.

## 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: IICARILLA	CONTRACT 1	48 - 25					
Location: Unit or Qtr/Qtr Sec_A_	Sec_ <i>/S</i> T	SN RSW County PIO AIZEIBA					
Land Type: <u>RANGE</u>		ľ					
	•	Date Completed:					
Remediation Method: Landfarmed		Approx. cubic yards 875					
Composted							
Other							
th To Groundwater:	(pts.) <u>0</u>	Final Closure Sampling:					
Distance to an Ephemeral Stream		Sampling Date: 1.1899 Time: 1030					
Distance to Nearest Lake, Playa, or Watering Pond	(pts.)	Sample Results:  Field Headspace (ppm)					
Wellhead Protection Area:	(pts.) <u>0</u>	TPH (ppm) 168 Method 8015					
Distance To SurfaceWater:	(pts.)	Other					
RANKING SCORE (TOTAL POINTS): 6							
I HEREBY CERTIFY THAT THE INFO	DRMATION ABOVE	E IS TRUE AND COMPLETE TO THE BEST OF MY					
DATE  1/20/99  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 NO	APPROVED: YES NO (REASON)						
SIGNED:	DATE	E: <u>3-31-99</u>					

BLAGG ENGINEERING, INC. CLIENT: \_AMOCO P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199

LOCATION NO: BSSUL

C.O.C. NO: 6553

131131 D	DEDODE.	LANDFARM/COMPOST	PILE	CLOSURE	VERIFICATION
FIELD	REPORT:	LANDI ARM/ COMI ODI	1 1111	02000	

LOCATION: NAME: SICARILLA CONTRACT 148 WELL #: 26 PITS: SEP, BLOW! QUAD/UNIT: A SEC: 15 TWP: 25N RNG: 5W PM: NM CNTY: ZA ST:NM DATE STARTED: 1.18 99 DATE FINISHED: 1 20 99

ENVIRONMENTAL REP

OTF/FOOTAGE: NE/4 NE/4

CONTRACTOR:

SOIL REMEDIATION:

REMEDIATION SYSTEM: LONDFARM

APPROX. CUBIC YARDAGE: 875

LAND USE:

RANGE \_\_\_\_

LIFT DEPTH (ft): 1-2

SPECIALIST:

FIELD NOTES & REMARKS:

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

NMBCI FIANKING SCBRE: \_\_\_\_ NMBCD TPH CLBSURE STD: 5000 PPM

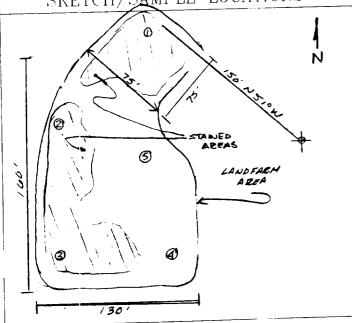
PALE VELLOWISH BROWN SAND NON CONESIVE, SLIGHTLY MOIST, FIRM TWO LARGE AREAS OF STAINING OBSERVED IN LANDFARM FREA. (SEE SKETCH BELOW) NO HE ODER DETECTED, SAMPLING DEPIKE RANGE FROM 6"-18". TOOK & 5 PT COMPOSITE SAMPLE FOR LAB. ANALYSIS

CLOSED

FIELD 418.1 CALCULATIONS

000					FI	ELD 418	.1 U	4LLU	LATION	<u> </u>			
SAMP. TI	IME	SAMPLE	i.D.	<del></del>	No:	WEIGHT	(g)	mL.	FREON	DILUTION	READING	CALC	ppm
ļ	$-\dagger$												
						<del> </del>		-					
						<del> </del>		<del> </del>					
						-				-			
	į									l		l	

SKETCH/SAMPLE LOCATIONS



OVM RESULTS LAB SAMPLES

OVIVI IV	CILOCLIO.	_			
SAMPLE ID	FIELD HEADSPACE PID (ppm)	SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	0.0	LF-1	(8015)	1030	168
			-		
		] [			

SCALE

FT

CALLOUT: N/A TRAVEL NOTES:

ONSITE: 1 . 18 . 99



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

0.1

0.2

Gasoline Range (C5 - C	:10)	2.1	0.2
Parameter		Concentration (mg/Kg)	Det. Limit (mg/Kg)
Condition:	Cool and Intact	Analysis Requested:	8015 TPH
Preservative:	Cool	Date Analyzed:	01-20-99
Sample Matrix:	Soil	Date Extracted:	01-20-99
Chain of Custody No:	6553	Date Received:	01-19-99
Laboratory Number:	E536	Date Sampled:	01-18-99
Sample ID:	LF - 1	Date Reported:	01-20-99
Client:	Blagg / AMOCO	Project #:	04034-10

ND - Parameter not detected at the stated detection limit.

References:

Diesel Range (C10 - C28)

**Total Petroleum Hydrocarbons** 

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

166

168

SW-846, USEPA, December 1996.

Comments:

Jicarilla Contract 148 - 25 Landfarm. 5 Pt. Composite.

Analyst P. Operen

Stacy W Sendler