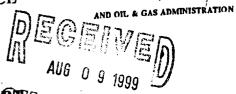
JICARILLA APACHE TRIBE ENVIRONMENTAL PROTECTION OFFICE P.O. BOX 507

DULCE, NEW MEXICO 87528



SUBMIT I COPY TO

NATURAL RESOURCE DEPT

PIT REMEDIATION AND CLOSURE REPORT GOING DOT

	Telephone: (505) 326-9200
Operator: AMOCO PRODUCTION COMPANY	Telephone
Address: 200 Amoco Court, Farmington,	NM 87401
Address: 200 Amoco Court, Farming	+ 107 - 4
Facility or Well Name: JICALUS BARCHE	# 100 Page 8A
Location: Unit or Qtr/Qtr Sec_ K Sec_ 4 T	ZEN R 760 County A7 - 175
Pit Type: Separator Dehydrator Other	Siow
Land Type: RANGE	
Dand Type.	denth 17
Pit Location: Pit dimensions: length_	37', width 40', depth 17'
(Attach diagram) Reference: wellhead X	other
Relationed.	< 1
Footage from reference: 12	Fast North X
Direction from reference:	BO Degrees East North of West South
	West South
	Leta than 50 feet (20 points)
Depth To Groundwater:	50 feet to 99 feet (10 points)
Vertical distance from	Greater than 100 feet (0 points)
contaminants to seasonal high water elevation of	
groundwater)	Less than 100 feet (10 points)
Distance to an Ephemeral Stream	Less than 100 feet (10 points) Greater than 100 feet (0 points)
(Downgradient dry wash greater than	Gleater than 100 100.
ten feet in width)	Less than 100 feet (10 points)
Distance to Nearest Lake, Playa, or Watering Pond	Greater than 100 feet (0 points)
(Downgradient lakes, playas and livestock or wildlife watering ponds)	
1	Yes (20 points)
Wellhead Protection Area: (Less than 200 feet from a private	No (0 points)
Il domestic water source, or; less than	
1000 feet from all other water sources)	Less than 100 feet (20 points)
Distance To SurfaceWater:	100 feet to 1000 feet (10 points)
(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks,	Greater than 1000 feet (0 points)
irrigation canals and ditches)	
	RANKING SCORE (TOTAL POINTS):
il .	KAMKING BOOKS (1.01.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.

			BJ649_	BUN P17
		Date Co		10/1/98
	arted:			1200
Remediation Method: Check all appropriate	Excavation 🔀			
sections)	Landfarmed ×	Insitu 1310		
	Other	, ·		7 (20 7)
Remediation Location: (i.e. landfarmed onsite, name and location of	Onsite Offsite	X (TICA : CONT) (K-4-26-4)	2- 102 - 10:	E APPENX, 600 C.Y
offsite facility)	of Remedial Action: Exca	vation Condina	NAL CLOSHRE	- TICORILLA ERO
	SESSED - NMOED.			
i				
Groundwater Encount	ered: No 🔀	Yes Deput		
Closure Sampling: (if multiple samples,	Sample location see At			
attach sample results and diagram of sample	Sample depth	PIT BOTTOM)		
l –	Sample date 9/29/	· ·	mple time <u>/</u> 0	
	Sample Results			
II	•	ppm) <u>4./20</u> V	Water: Benzene	(ppb)
	Total BTEX	F1)	Toluene	
			Ethylbenz	
	Field Headspace		•	enes (ppb)
	ТРН (ppm) <u>10,936</u>	Total Ayle	nes (ppo)
Groundwater Sample:	Yes No _	(If yes, attach	sample results)	
KNOWLEGE AND BE				TO THE BEST OF MY
DATE /	10/1/98 PRIM ly D. Show AI	TED NAME Buddy	D. Shaw	
TO THE JICARILLA	THE PIT CLOSURE INFOR APACHE TRIBE PIT CLOS	URE ORDINANCE.		
APPROVED: YES	× NO (REASON)	Conditional	/R.A. A	7 Hached
SIGNED:	male	DATE: 1/-18-	98	•

3003906664 LOCATION NO: 87649 BLAGG ENGINEERING, INC. CLIENT: AMOCO P.O. BOX 87, BLOOMFIELD, NM 87413 C.D.C. ND: 6283 (505) 632-1199 CLOSURE VERIFICATION PAGE NO: 1 of 1 FIELD REPORT: DATE STARTED: 9/29/98 LOCATION: NAME: TICA. AP. 102 WELL #: 4 PIT: BLOW DATE FINISHED: . QUAD/UNIT: K SEC: 4 TWP: ZEN RNG: 4W PM:NM CNTY: LA ST:NM ENVIRONMENTAL QTR/FOOTAGE: 1450 FSL 1450 FWL CONTRACTOR: EXCAVATION APPROX. 37 FT. x 40 FT. x 17 FT. DEEP. CUBIC YARDAGE: 1200 DISPOSAL FACILITY: ON-SITE TICA. AP. 102-10E REMEDIATION METHOD: LONDERM FORMATION: MV LAND USE: RANGE FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 125 FT. NOW FROM WELLHEAD. DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER, >1006' NMOCD RANKING SCORE: _ O NMOCD TPH CLOSURE STD: _ 5000 PPM ✓ PIT ABANDONED ____ STEEL TANK INSTALLED SOIL AND EXCAVATION DESCRIPTION: FIBERGLASS TANK INSTALLED SIDEWALLS - OK YELL BROWN JAND, CUY WITERLAL (6'THICKNESS) 6'-12' BEWW GRADE MATORITY OF EAST & SOUTH SIDEWALLS CONSISTED OF UK. YELL. BROWN SAND, STRANG HE ODER IN EAST SNEWPLL DUM BOTTOM - NORTH HALF CONSISTED OF MED. GRAY CLAY TOLTH HALF CONSISTED OF SILTY SKNO/SIETY CLAY, NO APPARENT HE OBOR DETECTED WIN EVERY -ATION, STRONG HE OVOR IN OVER TAMPLE. CONDITIONAL - JICARILLA EPO RISK ASSESSED - NMOCD FIELD 418.1 CALCULATIONS SAMPLE I.D. LAB No: WEIGHT (g) ML. FREON DILUTION READING CALC. ppm SCALE PROFILE. PIT PERIMETER OVM RESULTS Α FIELD HEADSPACE PID (ppm) 0.0 891 @ \ Z.1 12.0 \u' 13 1.7 902 40 LAB SAMPLES ANALYSIS E19' TAY BIEX 1045 ROTH FARED ONSITE: 9/29/98- MORN. TRAVEL NOTES: CALLOUT: ___

Well Name:
Well Site location:
Pit Type:
Producing Formation:
Pit Category:
Horizonal Distance to Surface Water:
Vicinity Groundwater Depth:

Jicarilla Contract 102 #4
Unit K, Sec. 4, T26N, R4W
Blow Pit
Mesa Verde
Non Vulnerable
> 1000 ft.
> 100 ft.

RISK ASSESSMENT (non-vulnerable area)

Pit remediation activities were terminated when trackhoe reached practical extent for abandoned pit (19 ft. below grade) and for safety concerns (underground piping and surface equipment).

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

- 1. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below presumed shallow sandstone bedrock (based on informal site observation of adjacent sandstone outcrop).
- 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 0.94 miles south southeast of the nearest vulnerable area boundary (Jaramillo Canyon wash).

(Refer to <u>Vigas Canyon Quadrangle, New Mexico - Rio Arriba County, 7.5 Minute Series (Topographic), photorevised 1982, (vulnerable area boundary developed by Mr. William C. Olson, Hydrogeologist, Environmental Bureau, New Mexico Oil Conservation Division).</u>

Based upon the information given, we conclude that the subsurface vertical impact to groundwater is very unlikely. AMOCO requests pit closure approval on this location.



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client: Sample ID: Laboratory Number: Chain of Custody No: Sample Matrix: Preservative:	Blagg / AMOCO 5 @ 19' E007 6283 Soil Cool	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed:	04034-10 10-01-98 09-29-98 09-30-98 09-30-98
Preservative: Condition:	Cool Cool and Intact	Date Analyzed: Analysis Requested:	8015 TPH

Parameter	oncentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	9,330	0.2
Diesel Range (C10 - C28)	1,600	0.1
Total Petroleum Hydrocarbons	10,930	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 Apache #102 - 4 Blow Pit.

Analyst . Cefere

Stacy W Sendler



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Blagg / AMOCO	Project #:	04034-10
	Date Reported:	10-01-98
•	Date Sampled:	09-29-98
	Date Received:	09-30-98
	Date Analyzed:	09-30-98
	Date Extracted:	09-30-98
Cool & Intact	Analysis Requested:	BTEX
	Blagg / AMOCO 5 @ 19' E007 6283 Soil Cool Cool & Intact	5 @ 19' Date Reported: E007 Date Sampled: 6283 Date Received: Soil Date Analyzed: Cool Date Extracted:

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	4,120	8.8
Toluene	48,340	8.4
Ethylbenzene	10,680	7.6
p,m-Xylene	37,540	10.8
o-Xylene	19,230	5.2
Total BTEX	119,910	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene Bromofluorobenzene	96 % 96 %

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846,

USEPA, December 1996.

Comments:

Jicarilla Apache #102 - 4 Blow Pit.

Asec. P. Opence

Review Stacy W Sendler

CHAIN OF CUSTODY RECORD

+	Cool - Ice/Blue Ice	2-08-15	Farmington, New Mexico 67401		
7	Received Intact	ighway 64	5796 U.S. Highway 64		
Z Z					Et COCO
eipt	Sample Receipt	CH DC			77 CA-15 6280 + 6283
		Received by: (Signature)	Rec		Relinquished by: (Signature)
		Received by: (Signature)			Relinquished by: (Signature)
P38.94 0200	Date ウ ズル・೪	Received by: (Signature)	Date Time Rec		Relinquished by: (Signature)
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	2	Con	Sample Matrix	Lab Number	Sample No./ Sample Sample Identification Date Time
8	Tenan s	lo. of stainers	4-10	Client No. ク <i>よ</i> のテイ・ノ O	Sampler: \mathcal{NTV}
		ANALYSIS / PARAMETERS	TICARILLA AROCHE #102-4	TICARILLA A	Client / Project Name SLAGG / Amo co
			0. 077		

BJ649

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

SUBMIT I 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: SICARILLA APACHE 102-4					
Location: Unit or Qtr/Qtr Sec K Sec A T 29N R 4N County PIO ARRIBA					
Land Type: RANGE					
Date Remediation Started: 9.29	98	Date Completed: 4/19/99			
Remediation Method: Landfarmed		Approx. cubic yards 600			
Composted					
Other					
Pepth To Groundwater:	(pts.) <u>0</u>	Final Closure Sampling:			
Distance to an Ephemeral Stream	(pts.)	Sampling Date: 4.15.99 Time: 1055			
Distance to Nearest Lake, Playa, or Watering Pond	(pts.) _ o	Sample Results:			
Wellhead Protection Area:	(pts.)	Field Headspace (ppm) 0.0			
Distance To SurfaceWater:	(pts.)	TPH (ppm) 0.3 Method (8015) Other			
RANKING SCORE (TOTAL POIN	RANKING SCORE (TOTAL POINTS):				
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEGE AND BELIEF					
DATE 4/19/99 PRINTED NAME Buddy D. Shaw SIGNATURE REPRESENTATION PRINTED NAME Buddy D. Shaw					
SIGNATURE Duddy D. Show 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: La CM c	${\text{DATE:}}$	6-18-99			

CLIENT AMOCO	P.O. BOX 87, BI	GINEERING, LOOMFIELD, N		C.O.C. NO: 6888
	(505)	632-1199		
FIELD REPORT:	LANDFARM/CO	MPOST PILE	CLOSURE	VERIFICATION
LOCATION: NAME: SICAPUL	A APACHE 102 WELL #:	A PITS: BLO	w'	DATE STARTED: 4.15.99 DATE FINISHED:
OUAD/UNIT: K SEC: 4	TWP: 26N RNG: 4W	PM: NM CNTY:	A ST:NM	
OTP/FOOTAGE: NE/A -	•	_		ENVIRONMENTAL REP
SOL REMEDIATION:			v oudio V	ADDAGE 600
	STEM: LANDFARM			ARDAGE: 600
LAND USE:	RANGE	LIFT D	DEPTH (ft):	7-1.5
FIELD NOTES & REMA	TNO.	DCE > 1000 ' N	FAREST SURFAC	E WATER: >1000
				··
NMCCO RAW ING SCORE:			_	
DK. YELLOWISH BROW	UN CLAYEY SAND, COHE	SIVE, SLIBHTLY MU	IST, FIRM	
NO APPARENT STA	INING,NO HC OPOR DE 18" TO A SPT COMPO	SITE SAMPLE FO	OR LAS ANA	LUS15
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		2005	4. 600 c.Y. DISPUSED
(CrozED)				12A. AP. 102-10E
	FIFI	418.1 CALCULATIONS	1	
SAMP TIME S	SAMPLE I.D. LAB No: WEIG			NG CALC. ppm
		1		
SKETCH/SAMP	LE LOCATIONS			
// a				
, po//		OVM RESU	JLTS	LAB SAMPLES
//	\Z \	SAMPLE FIELD H	EADSPACE SAMPLE	E ANALYSIS TIME RESULTS
	A ON	1D PID 12F-1 00		(BOIS) 1055 0.3
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ONSITE: 4.15.99

TRAVEL NOTES:

CALLOUT:



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client: Sample ID: Laboratory Number: Chain of Custody No:	Blagg / AMOCO LF - 1 F051 6888 Soil	Project #: Date Reported: Date Sampled: Date Received: Date Extracted:	403410 04-19-99 04-15-99 04-16-99
Sample Matrix: Preservative: Condition:	Cool Cool and Intact	Date Analyzed: Analysis Requested:	04-19-99 8015 TPI

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	0.3	0.1
Total Petroleum Hydrocarbons	0.3	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 Apache 102 - 4 Landfarm. 5 Pt. Composite.

Analyst P. Openen

Macy W. Sande

CHAIN OF CUSTODY RECORD

	Cool - Ice/Blue Ice	2-0615	(505) 632-0615				
+	Received Intact	ighway 64 Mexico 87401	5796 U.S. Highway 64 Farmington, New Mexico 87401				
Z	4						
Pt.	Sample Receipt	CHINC	FOVIDOTECH IO				
		Received by: (Signature)	Rec			ture)	Relinquished by: (Signature)
		Received by: (Signature)				ture)	Relinquished by: (Signature)
99 8:10	4.16.99	Received by: (Signature)	Date Time Rec			ture)	Relinquished by: (Signature)
Time							
		1		-			
	Cool						
ESERIE	SAMPLE THE SEPTE						
23/18	SPT. COMPOSITE	7	Son	7051	1055	4.1597 1055	CF-1
		Col	Sample Matrix	Lab Number	Sample Time	Sample Date	Sample No./
		No. of intainers	4-10	64034-18			Sampler:
n	Remarks		STICARLLA APACHE 107-4	SI CARKLA F		20	BLACKS/AMOCO
	ETERS	ANALYSIS / PARAMETERS	ANDLAKT	Project Location LANDHUKT		.	Client / Project Name