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

BJ680

SUBMIT 1 COPY To

NATURAL RESOURCE DEP

AND OIL & GAS ADMINISTRATIO

2 pits

PIT REMEDIATION AND CLOSURE REPORT

	(505)326-9200
Operator: AMOCO PRODUCTION COMPANY	Telephone: (505)326-9200
Alluga 200 Amogo Court, Farmington, NI	M 87401 Denny & Toust
TICARILLA A	DEPUTY OIL & GAS INSPECTOR
Location: Unit or Otr/Qtr Sec_M Sec_ZO T_Ze	5λ R 5ω County Αυθ Τ΄ 8 1999
Pit Type: Separator Dehydrator Other_Pic	FINE OUE
Land Type: PANCE	- PAPER COLOR
Pit Location: Pit dimensions: length	18, width 17, depth 9,
(Attach diagram) Reference: wellhead X,	other
Footage from reference: 123	<u>'</u>
Direction from reference:64	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)
groundwater) Distance to an Ephemeral Stream (Downgradient dry wash greater than	Less than 100 feet (10 points) O Greater than 100 feet (0 points)
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) Solution (20 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)
• -	RANKING SCORE (TOTAL POINTS):

		BJ680_	PROD. TANK PIT
			11/23/98
Date Remediation Sta	rted:	oubic vards	75
Remediation Method:	Excavation <u>×</u>		
Check all appropriate ections)	Landfarmed X		1
	Other		
Remediation Location	- · · · · · · · · · · · · · · · · · · ·		
i.e. landfarmed onsite, ame and location of			
General Description	of Remedial Action: <u>Excavation</u>	on .	
Groundwater Encoun	itered: No X Yes	Depth	
Final Pit:	Sample location see Attached	d Documents	
Closure Sampling: (if multiple samples,		.2	
attach sample results and diagram of sample	Sample depth 10' (P)T	KOTTOM)	7.0
locations and depths)	Sample date $\frac{11/19/98}{}$	Sample time	
	Sample Results		(1)
	Soil: Benzene (ppm)	Water: B	
	Total BTEX (ppm)	T	Oluene (ppb)
	Field Headspace (ppm)	0.0 H	Ethylbenzene (ppb)
	TPH (ppm)		otal Xylenes (ppb)
Groundwater Samp	le: Yes No	(If yes, attach sample	results)
Groundwater Samp			
I HEREBY CERTIF KNOWLEGE AND			
vs A (IVE)	// 23 /98 / PRINTED	NAME Buddy D. S	haw
SIGNATURE SL	11/23/98 PRINTED	TLE Environmen	tal Coordinator
	OF THE PIT CLOSURE INFORMAT A APACHE TRIBE PIT CLOSURE	ION, PIT CLOSURE IS	APPROVED IN ACCORDAN
APPROVED: YES	NO (REASON)		
" SIGNED:	CMall DATE	C: 12-28-9	8

	081	37
P.O. BOX 87,	ENGINEERING, INC. BLOOMFIELD, NM 87413 005) 632-1199	
FIELD REPORT: CLOS' LOCATION: NAME: JICA. A WEI QUAD/UNIT: M SEC: 20 TWP: ZCA RNO QUER/FORDIAGE: 990/FXL/1090/FWL CO	L#: 6 PIT: PROD. G: 5W PM:NM CNTY:RP ST:NM ONTRACTOR: P+5	DATE FINISHED: ENVIRONMENTAL SPECIALIST:
EXCAVATION APPROX. 18 FT. x 17 DISPOSAL FACILITY: ON-5/TE LAND USE: RANGE LE.	REMEDIATION METHALES TO A FILE	ORMATION: DK DK PROM WELLHEAD.
DEPTH TO GROUNDWATER: >100' NEAREST WATE NMOOD PANKING SCOPE: O NMOOD THE CLE SOIL AND EXCAVATION DESCRIPTION	JSURE STD: 5000 PPM	PIT ABANDONED STEEL TANK INSTALLED FIBERGLASS TANK INSTALLED
MINNER STAINING OR I NO MPRICENT MC ODOR	IN ANY OF THE OUM 50	omples.
SCALE O FT		N DILUTION READING CALC. ppm
PIT PERIMETER N	OVM RESULTS SAMPLE FIELD HEADSPACE	A A
A 3 Popolo.	LAB SAMPLES SAMPLE ANALYSIS TIME (D E)3' TPH (418.1) 1233	
TRAVEL NOTES: CALLOUT:	ONSITE:	



EPA METHOD 418.1 TOTAL PETROLEUM **HYDROCARBONS**

Client: Sample ID: Laboratory Number: Chain of Custody No: Sample Matrix: Preservative: Condition:	Blagg / AMOCO 5 @ 10' E201 6308 Soil Cool Cool and Intact	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed: Analysis Needed:	04034-10 11-23-98 11-19-98 11-20-98 11-23-98 11-23-98 TPH-418.1
--	---	--	---

		Det.
	oncentration	Limit (mg/kg)
Parameter	(mg/kg)	(9,9)

Total Petroleum Hydrocarbons

43.0

5.0

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water

and Waste, USEPA Storet No. 4551, 1978.

Comments:

Jicarilla A #6 Production Tank Pit.

Deur L. Ofenen

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

SUBMIT 1 COPY TO

NATURAL RESOURCE DEP

AND OIL & GAS ADMINISTRATIO

PIT REMEDIATION AND CLOSURE REPORT

	Telephone: (505) 326-9200	
Operator: AMOCO PRODUCTION COMPANY		
200 Amogo Court, Farmington, NM	87401	
TI-0822A H #	≥ R ^{5ω} County Ro ARRIBA	
Leastion: Unit or Otr/Otr Sec Sec 20 1 200	K Commy	
Pit Type: Separator \(\section \) Dehydrator \(\section \) Other \(\section \)		
Land Type: Separator		
Pit dimensions: length_2	9', widthZS', depth6'	-
(Attach diagram) Reference: wellhead X,	other	-
Footage from reference:	y Fact North	
Direction from reference:	Degrees East North West South	
Depth To Groundwater: (Vertical distance from contaminants to seasonal	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	Less than 100 feet (10 points) Greater than 100 feet (0 points)	>
ten feet in width) Distance to Nearest Lake, Playa, or Watering Pond	Less than 100 feet (10 points) Greater than 100 feet (0 points)	<u> </u>
(Downgradient takes, playas and livestock or wildlife watering ponds) Wellhead Protection Area: (Leve than 200 feet from a private	Yes (20 points) No (0 points)	>
domestic water source, or: less than 1000 feet from all other water sources) 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)	> .
H	RANKING SCORE (TOTAL POINTS):	0

		BIG80 SEP. PIT
		7/ 74/98
Pate Remediation Sta	rted:	Date Completed/50
Remediation Method:	Excavation	Approx. cubic yards
Theck all appropriate	Landfarmed	Insitu Bioremediation
ections)	Other	
	Offgita	
temediation Location i.e. landfarmed onsite,	Ulisito	
ame and location of		
Carred Description	of Remedial Action: Excavation	. BEUROCK BOTTOM.
Jeneral Description		
)	No X Yes	Depth
Groundwater Encoun	tered:	
	Sample location see Attached	Documents
Final Pit: Closure Sampling:		
(if multiple samples,		SIDE WALL)
attach sample results and diagram of sample	Sample depth 4 (NS/874)	1715
locations and depths)	Sample date	Sample time
	Sample Results	<i>(</i> .1)
	Soil: Benzene (ppm)	Water: Benzene (ppb)
	Total BTEX (ppm)	Toluene (ppb)
	Field Headspace (ppm)	Ethylbenzene (ppb)
	TPH (ppm) 2	Total Xylenes (ppb)
Groundwater Samp	le: Yes No <u>X</u> (If yes, attach sample results)
	TO DO CARRYON A DOV	E IS TRUE AND COMPLETE TO THE BEST OF M
I HEREBY CERTIF KNOWLEGE AND	Y THAT THE INFORMATION ABOVE BELIEF	E IS TROBITATION
KNOWLEGE) /	- Duddy D. Shaw
DATE	11/24/98 PRINTED NA	ME Buddy D. Shaw
SIGNATURE BU	Qly D. Show AND TITE	E Environmental Coordinator
	OF THE PIT CLOSURE INFORMATION A APACHE TRIBE PIT CLOSURE OF	N, PIT CLOSURE IS APPROVED IN ACCORDANG RDINANCE.
APPROVED: YES	NO (REASON)	
	DATE:	12-28-98

CLIENT: AMOCO BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	C.D.C. NO: 63680
QUAD/UNITEM SEC: 20 TWP: 26N RNG: 5W PMIN CNTY: RA ST:NM	DATE STARTED: 1/19/17 5 DATE FINISHED: ENVIRONMENTAL SPECIALIST
EXCAVATION APPROX. 29 FT. x 25 FT. x 6 FT. DEEP. CUBIC DISPOSAL FACILITY: ON-SITE REMEDIATION METHO: LAND USE: LEASE: DC P FOF FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 130 FT. S DEPTH TO GROUNDWATER: 7007 NEAREST WATER SOURCE: >1000 PPM /	RMATION: OK 5746 FROM WELLHEAD.
SOIL AND EXCAVATION DESCRIPTION: SIDEWALLS - DK. YELL. ORANGE SAND, NON CONESIUE SLIGHTLY M OBSERVED ON BOTTOM Z' OF WEST SIDEWALL DN HE ODOR DETECTED WIN EXCAVATION, NO APPENDENT OF THE OWN SAMPLES. BOTTOM - PEDROCK (SANDITONE) VERY PALE ORANGE TO MED VERY HARD, HE ODOR DETECTED WIN OWN SA	FIBERGLASS TANK INSTALLED DIST FIRM STAINING LY NO APPRICINT PARENT HC DOOR
SCALE O FIELD 418.1 CALCULATIONS FIELD 418.1 CALCULATIONS FIELD 418.1 CALCULATIONS WEIGHT (g) ml. FREON D DITTERMENT OF THE SAMPLE I.D. LAB NO: WEIGHT (G) ML. FREON D DITTERMENT OF THE SAMPLE I.D. LAB NO: WEIGHT (G) ML. FREON D DITTERMENT OF THE SAMPLE I.D. LAB NO: WEIGHT (G) ML. FREON D DITTERMENT O	DILUTION READING CALC. ppm
PIT PERIMETER N OVM RESULTS SAMPLE FIELD HEADSPACE PIE (opm) 1 @ 4' Z1.5 2 @ 3' O.O 3 @ 3' O.O 4 @ 2' O.O 5 @ 6' 91.4 PIT PERIMETER N A LAB SAMPLES SAMPLE SAMPLES SAMPLE SAMPLES SAMPLE NIME OE 4' TPH (418.1) 1315 TPH (8015)	25' A' 85222K (55)
TRAVEL NOTES: CALLOUT: ONSITE:	



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Parameter Gasoline Range (C5 - C10)		(mg/Kg) 43.4	(mg/Kg)
Parameter			Limit (mg/Kg)
Client: Sample ID: Laboratory Number: Chain of Custody No: Sample Matrix: Preservative: Condition:	Blagg / AMOCO 1 @ 4' E202 6308 Soil Cool Cool and Intact	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed: Analysis Requested:	04034-10 11-24-98 11-19-98 11-20-98 11-24-98 11-24-98 8015 TPH

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 A #6 Separator Pit.

Deur L. Gieren



EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

	once	ntration	Det. Limit
Condition:	Cool and Intact	Analysis Needed:	TPH-418.1
Preservative:	Cool	Date Analyzed:	11-23-98
Sample Matrix:	Soil	Date Extracted:	11-23-98
Chain of Custody No:	6308	Date Received:	11-20-98
Laboratory Number:	E202	Date Sampled:	11-19-98
Sample ID:	1 @ 4'	Date Reported:	11-23-98
Client:	Blagg / AMOCO	Project #:	04034-10

Total Petroleum Hydrocarbons

5,020

(mg/kg)

50.0

Stacy W Sendler

(mg/kg)

ND = Parameter not detected at the stated detection limit.

References:

Parameter

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water

and Waste, USEPA Storet No. 4551, 1978.

Comments:

Jicarilla A #6 Separator Pit.

Analyst

Review

CHAIN OF CUSTODY RECORD

_	Cool - Ice/Blue Ice	W Mexico 67401 32-0615	Farmington, New Mexico 67401			
1	Received Intact	Highway 64	5796 U.S. Highway 64			
Z					0	Red COCS
eipt	Sample Receipt					
		Received by: (Signature)	Re			Relinquished by: (Signature)
		Received by: (Signature)	Rec		1	Relinquished by: (Signature) (
۵	10 ac.//	Received by: (Signature)	Date Time Rec		7,	Relinquished by (Signature)
e Time	Date					
1000	PRESEN -					
SES	BOTH SAMPLES					
		added 11-24		7	1111998 1315	(1) E 7 ////
PIT	SEPALATAL		2012	オしくと		
WIK FIL	Kalucries IANK FIL	<	5012	E201	11/9/98 1230	(5) @ 16' 11/10
0	3	Cor T/ (4/	Sample Matrix	Lab Number	Sample Sample Date Time	Sample No./ Sar
		io. of intainers intainers in the interest in	-10	Client No. 64034-10		Sampler: NTV
ß	Remarks		A #6	TICARINCA		BLAGG / Amoco
	AETERS	ANALYSIS / PARAMETERS		Project Location		Slient / Project Name

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 A 6		
Location: Unit or Qtr/Qtr Sec 🗠 Sec 20 T2	REN' REN' County RIO ARRIGA	
Land Type: RANGE		
Date Remediation Started: 11 19 98	!	
Remediation Method: Landfarmed	Approx. cubic yards 225	
Composted	·	
Other		
Depth To Groundwater: (pts.)	Final Closure Sampling:	
Distance to an Ephemeral Stream (pts.)	Sampling Date: 6.299 Time: 1020	
Distance to Nearest Lake, Playa, or Watering Pond (pts.) Wellhead Protection Area: (pts.) Distance To SurfaceWater: (pts.)	Sample Results: Field Headspace (ppm) 1/1/8 TPH (ppm) 3,790 Method 8021 Other BENZENE 0.312 ppm TOT. BIEN 6.100 ppm	
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY		
KNOWLEGE AND BELIEF	THE TRUE AND COME LETE TO THE BEST OF WIT	
DATE 6/4/99 PRINTED NAME Buddy D. Shaw SIGNATURE 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 DATE	6-18-99	

CLIENT __AMOCO

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

LOCATION NO 85680

C.D.C. ND: 7059

FIELD F	REPORT:	LANDFARM/	/COMPOST	PILE	CLOSURE	VERIFICATION
---------	---------	-----------	----------	------	---------	--------------

DATE STARTED: 629 LOCATION: NAME: ZICAPILLA A WELL #: C PITS: SEP. PROD DATE FINISHED: _ QUAD/UNIT: M SEC: 20 TWP: 26N RNG: EW PM: NM CNTY: RA ST:NM ENVIRONMENTAL REP SPECIALIST: DTP/FOOTAGE: SW/4 SW/4 CONTRACTOR:

SOIL REMEDIATION:

REMEDIATION SYSTEM: LANDFARM

APPROX. CUBIC YARDAGE: 225

LIFT DEPTH (ft): _______

LAND USE:

RANGE

FELD NOTES & REMARKS:

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

NMEID RANKING SCORE: 0 NMOCD TPH CLOSURE STD: 5000 PPM

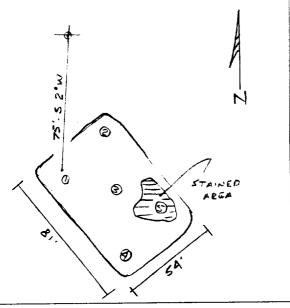
MODERLYE YELLOWISH BEOWN SAND, NON COMESIVE, SLIGHTLY MOIST, FIRM SHALL AREA OF STAINING OBSEEVED IN LANDFARM AREA (SEE SKETCH SELDIN) HE OFOR DETECTED IN SAMPLING PTE. O. 3+5, SAMPLING DEPTHS BANGE FROM 6"-12". COLLECTED A SPT COMPOSITE SAMPLE FOR LAB ANALYSIS.

CLOSED

FIELD 418.1 CALCULATIONS

SAMP. TI	ME SAME	PLE	I.D.	LAB	No:	WEIGHT	(g)	mL.	FREON	DILUTION	READING	CALC.	ppm
	-												
											ļ		
								İ.,					

SKETCH/SAMPLE LOCATIONS



OVM RESULTS LAB SAMPLES

SAMPLE ID	FIELD HEADSPACE PID (ppm)	SAMPLE ID	ANALYSIS	TIME	RESULTS
LF - 1	101.8	LF.1	TPH (8015)	1020	3,790
		11	BENZENE		312 ppb
		h	FST. BTEX	ŋ	6,100 201
					!
					<u> </u>

SCALE FΤ

TRAVEL NOTES:

CALLOUT:

ONSITE: 6 2 99



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 F449 7059 Soil Cool	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed: Analysis Requested:	403410 06-04-99 06-02-99 06-03-99 06-03-99 06-04-99 8015 TPH
--	---	---	--

Parameter	Concentration (mg/Kg)	Limit (mg/Kg)
Gasoline Range (C5 - C10)	129	0.2
Diesel Range (C10 - C28)	3,660	0.1
Total Petroleum Hydrocarbons	3,790	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 A - 6 Landfarm. 5 Pt. Composite.

Analyst



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client: Sample ID: Laboratory Number: Chain of Custody: Sample Matrix: Preservative: Condition:	Blagg / AMOCO LF - 1 F449 7059 Soil Cool Cool & Intact	Project #: Date Reported: Date Sampled: Date Received: Date Analyzed: Date Extracted: Analysis Requested:	403410 06-04-99 06-02-99 06-03-99 06-04-99 06-03-99 BTEX
---	--	---	--

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	312	8.8
Toluene	1,020	8.4
Ethylbenzene	[^] 651	7.6
p,m-Xylene	3,200	10.8
o-Xylene	916	5.2
Total BTEX	6,100	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene Bromofluorobenzene	95 % 95 %

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 A - 6 Landfarm.

5 Pt. Composite

Dere P. Ogener

CHAIN OF CUSTODY RECORD

7	Cool - Ice/Blue Ice	V Mexico 8/401	Farmington, New Mexico 87401				
1	Received Intact	lighway 64	5796 U.S. Highway 64				
Z							
eipt	Sample Receipt	CHINC	EOVIDOTECH IO				
		Received by: (Signature)	Rec			nature)	Relinquished by: (Signature)
		Received by: (Signature)				nature)	Relinquished by: (Signature)
	13.99	Received by: (Signature)	Date Time Rec			nature)	Relinquished by (Signature)
Time	Date		_				
	Cool						
36P18-	SAME PRESENTS-						
3/18	SM. COMPOSITE	7	5011	1447	9 1020	6299	LF-1
		Co	Sample Matrix	Lab Number	Sample	Sample Date	Sample No./ Identification
		No. of Intained PH		403410			REP
G	Hemans	ers		Client No.			Sampler:
			A - 60	JICARILLA		4000	BLAGG/AMOCO
	IETERS	ANALYSIS / PARAMETERS	ANDFARM	Project Location LANDFARM			Client / Project Name