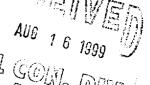
JICARILLA APACHE TRIBE ENVIRONMENTAL PROTECTION OFFICE P.O. BOX 507 DULCE, NEW MEXICO 87528 PIT REMEDIATION AND CLOSURE REPORT DUSTO 30 DU

NATURAL RESOURCE DEPT

SUBMIT 1 COPY TO

GAS ADMINISTRATION



Operator: AMOCO PRODUCTION COMPANY	Telephone: (505)326-9200
Address: 200 Amoco Court, Farmington,	NM 87401
Facility or Well Name: JI CARILLA CONT	
Location: Unit or Qtr/Qtr Sec Sec 10 T	_
Pit Type: Separator Dehydrator Other	BLOW
7 A 1.5	
(Attach diagram)	25', width 26', depth 6'
Footage from reference:	
	79 Degrees \times East North \times
	of West South
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) Greater than 100 feet (0 points)
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)
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)
	RANKING SCORE (TOTAL POINTS):

		BJ571	BLOW P	IT
Date Remediation Sta	rted:	Date Complete	ed:6 /	25/98
Remediation Method:	Excavation	Approx. cubic y		90
heck all appropriate	Landfarmed ×			
ŕ	Other			
Remediation Location: (i.e. landfarmed onsite, name and location of offsite facility)	Onsite X Offsite			
General Description o	f Remedial Action: Excavation	n. BEDROCK B	ottom.	177
Groundwater Encount	ered: No X Yes	Depth		
Final Pit: Closure Sampling: (if multiple samples,	Sample location see Attached	Documents		
	Sample depth3 (EAST	SIDEWALL)		
	Sample date6/25/98		time	
	Sample Results			
	Soil: Benzene (ppm) _	Water:	Benzene	(ppb)
	Total BTEX (ppm)		Toluene	(ppb)
	Field Headspace (ppm) _	0.0	Ethylbenzene	(ppb)
	TPH (ppm) _	~D	Total Xylenes	(ppb)
Groundwater Sample:	Yes No _X (If yes, attach sampl	e results)	
I HEREBY CERTIFY KNOWLEGE AND BE	THAT THE INFORMATION ABOV LIEF	E IS TRUE AND CO	OMPLETE TO	THE BEST OF MY
DATE 6	125/98 PRINTED NA	ME Buddy D.	Shaw	
SIGNATURE Sul	ly D. Shaw AND TITL	E Environme	ental Coord	inator
AFTER REVIEW OF TO THE JICARILLA	THE PIT CLOSURE INFORMATION APACHE TRIBE PIT CLOSURE OF	N, PIT CLOSURE IS RDINANCE.	S APPROVED I	N ACCORDANCE
	NO (REASON)			· ·
SIGNED: Low	Ma DATE:	7-27-98		

BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	C.O.C. NO:
FIELD REPORT: CLOSURE VERIFICATION LOCATION: NAME: JICH - CONTR. 146 WELL #: 9E PIT: BLOW QUAD/UNIT: I SEC: 10 TWP: 250 RNG: SW PM: NM CNTY: RAST: NM QTR/FUDTAGE: 1760 FSL 960 FEL CONTRACTOR: P & 5	PAGE No: of DATE STARTED: 6/25/98 DATE FINISHED: ENVIRONMENTAL
EXCAVATION APPROX. 25 FT x 26 FT x 6 FT DEEP. CUBIC DISPOSAL FACILITY: 00-51TE REMEDIATION METHOLAND USE: RAWGE LEASE: JIC 146 FOR	D: LANDFARM
SCIL AND EXCAVATION DESCRIPTION:	FROM WELLHEAD. E WATER: >/OOO' CHECK ONE: PIT ABANDONED STEEL TANK INSTALLED FIBERGLASS TANK INSTALLED
SIDEWALLS - OUSKY YELL. BROWN SILTY SAND TO SILTY CLAY NO MOIST, STIFF, NO APPAKENT STAINING OR HE OF APPARENT HE ODOR IN ANY OF THE OWN SA BOTTOM - BEDROCK (SANDSTONE) VERY PALE OKANGE VERY STAINING OR HE ODOR DISSECUED NO APPAKENT TIMPLE.	POOK OBSERVED NO
O FT PIT PERIMETER 12	LUTION READING CALC. ppm /: / // // // // // // // // // // // //
OVM RESULTS SAMPLE FIELD HEADSPACE PID (ppm) 1 @ 3' 0.0 2 @ 3' 0.0 4 @ 3' 0.0 4 @ 3' 0.0 5 @ 6' 0.0 DIRECTION LAB SAMPLES SAMPLE SAMPLES SAMPLE ANALYSIS TIME	BEDROCK
TRAVEL NOTES: CALLOUT: 6/24/98-morn, ONSITE: 6/25/98-m	

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:

2 @ 3'

Date Analyzed:

06-25-98

Project Location:

Jicarilla Contract 146 - 9E

Date Reported:

06-25-98

Laboratory Number:

TPH-1994

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
 Duplicate
 %

 TPH mg/kg
 TPH mg/kg
 *Diff.

 ---- 1684
 1712
 1.65

Method:

Modified Method 418.1, Petroleum Hydrocarbons, Total

Recoverable, Chemical Analysis of Water and Waste,

USEPA Storet No.4551, 1978

Comments:

Blow Pit - BJ571

Melson Vel Analyst

Review

^{*}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: 2 @ 3' Date Analyzed: 06-25-98 Project Location: Jicarilla Contract 146 - 9E Date Reported: 06-25-98

Laboratory Number: TPH-1994 Sample Matrix: Soil

Sample Weight: 5.00 grams Volume Freon: 20.00 mL

Dilution Factor: 1 (unitless) TPH Reading: 4 mg/kg

TPH Result: 16.0 mg/kg
Reported TPH Result: 16 mg/kg
Actual Detection Limit: 20.0 mg/kg
Reported Detection Limit: 20 mg/kg

QA/QC: Original Duplicate %

TPH mg/kg TPH mg/kg Diff.

----1684 1712 1.65

Comments: Blow Pit - BJ571

BJ571

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

PIT REMEDIATION AND CLOSURE REPORT

Operator: AMOCO PRODUCTION COMPANY	Telephon	e: (505)326-9	200
			
Facility or Well Name: JICAKILLA CONTR		0.24.20	
Location: Unit or Qtr/Qtr Sec I Sec 10 T25	$SN R S\omega$ County K/O	AKKIBH	
Pit Type: Separator X Dehydrator Other B	RODUCTION TANK		····-
Land Type: RANGE			
Pit Location: Pit dimensions: length	UA , width NA	_, depthNA	
(Attach diagram) Reference: wellhead X,	other		<u></u>
Footage from reference: 123	1		
Direction from reference: 23	Degrees X East	North X	
	West	of South	
		(20)	
Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet 50 feet to 99 feet Greater than 100 feet	(20 points) (10 points) (0 points)	0_
Distance to an Ephemeral Stream	Less than 100 feet	(10 points)	_
(Downgradient dry wash greater than ten feet in width)	Greater than 100 feet	(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)	0
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)	0
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) _	0
ı F	RANKING SCORE (TOTA)	L POINTS):	0

Date Remediation Started:	Date Completed: 6 / 25 / 98
Remediation Method: Excavation	Approx. cubic yards
heck all appropriate sections) Landfarmed	Insitu Bioremediation
Remediation Location: Onsite Offsite (i.e. landfarmed onsite, name and location of offsite facility)	
General Description of Remedial Action: Excavati	ion. No REMEDIATION NECESSARY.
CLOSE AS 15. BEORDER BOTTON	
Groundwater Encountered: No X Yes _	
Final Pit: Sample location see Attache Closure Sampling: (if multiple samples,	ed Documents
attach sample results and diagram of sample Sample depth 2' (EA	ST SIDEWALL
locations and depths) Sample date 6/25/98	
Sample Results	
•	Water: Benzene (ppb)
	Toluene (ppb)
Field Headspace (ppm)	
TPH (ppm)	Total Xylenes (ppb)
Groundwater Sample: Yes No	(If yes, attach sample results)
I HEREBY CERTIFY THAT THE INFORMATION ABO KNOWLEGE AND BELIEF	OVE IS TRUE AND COMPLETE TO THE BEST OF MY
DATE 6/25/98 PRINTED	NAME Buddy D. Shaw
SIGNATURE BURLY D. Show AND TI	TLE Environmental Coordinator
AFTER REVIEW OF THE PIT CLOSURE INFORMATI TO THE JICARILLA APACHE TRIBE PIT CLOSURE	ION, PIT CLOSURE IS APPROVED IN ACCORDANCE ORDINANCE.
APPROVED: YES NO (REASON)	
SIGNED: Rese C Man DATE	: <u>7-27-98</u>

3003 9 237 22

3003 725 722
CLIENT: AMOCO BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199 C.D.C. ND:
FIELD REPORT: CLOSURE VERIFICATION PAGE No: _/ of _/
LOCATION: NAME: JICA. CONTR. 146 WELL #: 9E PIT: SEP PROD. QUAD/UNIT: I SEC: 10 TWP: 25N RNG: SW PM: NM CNTY: RA ST: NM QTR/FOOTAGE: 1760 FSL 960 FEL CONTRACTOR: P+S DATE STARTED: 6/25/98 DATE STARTED: 6
EXCAVATION APPROX. NA FT. x NA FT. DEEP. CUBIC YARDAGE: NA DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: CLOSE AS IS LAND USE: RANGE LEASE: JIC 146 FORMATION: DK
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 175 FT. \$23 FROM WELLHEAD. DEPTH TO GROUNDWATER >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000' NMOCD RANKING SCORE: D NMOCD TPH CLOSURE STD. \$200 PPM SOIL AND EXCAVATION DESCRIPTION: STEEL TANK INSTALLED FIBERGLASS TANK INSTALLED
PUSKY YELL. BROWN SILTY TAND TO SILFY CLAY NON COHESIVE SLIGHTLY MOIST, FIRM TO STIFF, NO APPARENT STAINING OR HE ODOR OBSERVED WI PIT AREA NO APPARENT HE ODOR IN ANY OF THE OWN JAMPLES. BELLEK ENCOUNTERED & 6', NO STAINING OR HE ODOR OBSERVED,
FIELD 418.1 CALCULATIONS TIME SAMPLE I.D. LAB NO: WEIGHT (g) mL. FREON DILUTION READING CALC. ppm SCALE 0945 (38 2' TPH - 1995 S 20 1:1 5 ND PIT PERIMETER 10 OVM HEAD PIPE RESULTS FIELD 418.1 CALCULATIONS FIELD 418.1 CALCULATIONS PRESULTS FIELD 418.1 CALCULATIONS PRESULTIONS FIELD 418.1 CALCULATIONS PARAD PIT PROFILE A 19
SAMPLE FIELD HEADSPACE PID (ppm) 1 e z' 0.0 2 e z' 0.0 3 e z' 0.0 5 e G' 0.0 SEDROCK LAB SAMPLES
TRAVEL NOTES: CALLOUT: 6/24/98 - morn. ONSITE: 6/25/98 - morn.

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:

2 @ 2'

Date Analyzed:

06-25-98

Project Location:

Jicarilla Contract 146 - 9E

Date Reported:

06-25-98

Laboratory Number:

TPH-1995

Sample Matrix:

Soil

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

ND = Not Detectable at stated detection limits.

QA/QC:

 QA/QC Sample
 Duplicate
 %

 TPH mg/kg
 TPH mg/kg
 *Diff.

 ---- 1684
 1712
 1.65

Method:

Modified Method 418.1, Petroleum Hydrocarbons, Total

Recoverable, Chemical Analysis of Water and Waste,

USEPA Storet No.4551, 1978

Comments:

Separator / Production Tank Pit - BJ571

Mikon Vil Analyst

Beview Slag &

^{*}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

Max Characters:

Client:

AMOCO

Project #:

Sample ID:

2 @ 2'

Date Analyzed:

06-25-98

Project Location:

Jicarilla Contract 146 - 9E

Date Reported:

06-25-98

Laboratory Number:

TPH-1995

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:

Comments:

Separator / Production Tank Pit - BJ571

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: SICARILLA CONTRACT 146 9E		
Location: Unit or Qtr/Qtr Sec / Sec /O T25N R5W County R10 ABRIBA		
Land Type:		
Date Remediation Started: 6 25 98 Date Completed: 3/12/99 Remediation Method: Landfarmed		
Depth To Groundwater: (pts.) _o Final Closure Sampling:		
Distance to an Ephemeral Stream (pts.) o Sampling Date: 3.10.99 Time: 10.40		
Distance to Nearest Lake, Playa, or Watering Pond (pts.) o Sample Results: Field Headspace (ppm) o.3 TPH (ppm) 1.5 Method 8015 College Colle		
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEGE AND BELIEF		
DATE 3/12/99 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 (REASON) DATE: 3-3/-99		

AMOCO BLAGG ENGI	NEERING, INC.	LOCATION NO BJ571
BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413		_
(505)	632-1199	C.O.C. NO: <u>4579</u>
FIELD REPORT: LANDFARM/COM	POST PILE CLOSURE	VERIFICATION
LOCATION: NAME: JCARILLA CONTRACT 1410 WELL #: 9E	PITS: SEP, PROD, BLOW	DATE STARTED: 3.1099 DATE FINISHED:
QUAD/UNIT: 1 SEC: 10 TWP: 25N RNG: 5N	PM: NM CNTY: RA ST:NM	ENVIRONMENTAL SPECIALIST: REP.
QTR/FOOTAGE: NE/4 SE/4 CONTRACTOR:	PAS	SPECIALIST: KE
SOIL REMEDIATION:	and a supply v	
REMEDIATION SYSTEM: LANDFARM		ARDAGE: 90
LAND USE: RANGE	LIFT DEPTH (ft):	
FIELD NOTES & REMARKS:		
DEPTH TO GROUNDWATER > 100' NEAREST WATER SOURCE	NEAREST SURFAC	E WATER 2/000
NMOCD RANKING SCORE: NMOCD TPH CLOSURE STI		
DARK YELLOWISH BROWN SAND NON COHESIVE, SUI NO STAINING OBSERVED BE HC. ODOR DETECTED	BHTU MOIST, FIRM. SAMPLING DEPTHS RANGE	
FROM 6" - 12" TOOK A SPT COMPOSITE SAMPLE	E FOR LAB ANDLYSIS	•
CWSED	A CALCUL ATIONS	
SAMP. TIME SAMPLE I.D. LAB No: WEIGHT	3.1 CALCULATIONS (q) mL. FREON DILUTION READIN	G CALC. ppm
5/1111 5/1112 5/1112 5/1112 5/1112 5/1112 5/1112 5/1112 5/1112 5/1112 5/1112 5/1112 5/1112 5/1112 5/1112 5/1112 5/1112 5/		
SKETCH/SAMPLE LOCATIONS		
	, , , , , , , , , , , , , , , , , , ,	
1		TAR GAMPING
N	OVM NECESTA	LAB SAMPLES ANALYSIS TIME RESULTS
	SAMPLE PID (PPM) SAMPLE ID LF-1 0.3 LF-1	(BO15) 1040 1.5
0 3		
(a · o · o)		
: De Colonia de Coloni		
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		,
T		
	SCALE	
	O FT	
- Vompo		
TRAVEL NOTES: CALLOUT: N/A	ONSITE: 3.10.99	



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

te Reported: 03-12-99 te Sampled: 03-10-99 te Received: 03-11-99 te Extracted: 03-11-99 te Analyzed: 03-12-99 alysis Requested: 8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	1.1	0.2
Diesel Range (C10 - C28)	0.4	0.1
Total Petroleum Hydrocarbons	1.5	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 146 - 9E Landfarm. 5 Pt. Composite.

Stacy W Sendler

CHAIN OF CUSTODY RECORD

Client / Project Name		Project ocation / A CTAO	1 - N - N - N - N - N - N - N - N - N -						
BACK/ANDED		1	4	<u> </u>	ANALYSIS	ANALYSIS / PARAMETERS			
Campler:		Cliant Nia	Client No	_			,		
Sampler:		Client No.					Remarks		
RA		403410	10	o. of ainer					
Sample No./ Sample	ple Sample		Sample	Conta					
Identification Date	 	Lab Number	Matrix	77					
LF-1 310A	/	5 E805	5016	7		SPT: COMPOSITE	\$	pt	
						SAMRE PASSEANE	Par	828	M
						Cool	\		
									}
Relinquished by: (Signature)			Time	eived by: (Signature			Date	Time	
Ell hace		W	3.11.99 810	I hat wave	aso	Ġ	3.11.99	8:10	
Relinquished by: (Signature)			Rec	eived by: (Signature	е)				
Relinquished by: (Signature)			Rec	Received by: (Signature)	е)				
			ENVIROTECH IN	CH INC		Sample Receipt	eceipt		
							~	z	¥
			5796 U.S. Highway 64 Farmington, New Mexico 87401	ghway 64 Mexico 87401		Received Intact	2	\	
			(505) 632-0615	-0615		Cool - Ice/Blue Ice	Z		