Denny & Fourt JICARILLA APACHE TRIBE DEPUTY OIL & GAS INSPECTOBNVIRONMENTAL PROTECTION OFFICE

P.O. BOX 507

AUG 1 3 1999

DULCE, NEW MEXICO 87528

AND OIL & GAS ADMINISTRATION

PIT REMEDIATION AND CLOSURE REPORT

Operator: AMOCO PRODUCTION COMPANY	Telephone: (505)326-9200
Address: 200 Amoco Court, Farmington, NM	87401
Facility or Well Name: JICARILLA C	8E
Location: Unit or Qtr/Qtr Sec A Sec 13 T26 A	RSW County RIO ACRIBA
Pit Type: Separator Dehydrator Other	prod. Thirt
Land Type: RANGE	
Pit Location: (Attach diagram) Reference: wellhead X , oth Footage from reference: 135 Direction from reference: 60	ner
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, rigation 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):

Date Remediation St	tarted:	Date Completed: 9.1	0-96
"amediation Method:		Approx. cubic yards	
neck all appropriate sections)	Landfarmed	Insitu Bioremediation	
,	Other		
Remediation Location (i.e. landfarmed onsite, name and location of offsite facility)		uo soll to remove	4 te
General Description	of Remedial Action: Excavation	- TEST HOLE DU6-	<i>γ</i> ο
	CONTAIN MATION EN LOCK	Tekbo	
Groundwater Encoun	tered: No X Yes	Depth	
Final Pit: Closure Sampling: (if multiple samples,	Sample location see Attached D	ocuments .	
attach sample results and diagram of sample	Sample depth 4'		
locations and depths)	Sample date <u>9-10-96</u>	Sample time	
	Sample Results		
	Soil: Benzene (ppm)	Water: Benzene	(ppb)
	Total BTEX (ppm)	Toluene	(ppb)
	Field Headspace (ppm)S	Ethylbenzene	(ppb)
	TPH (ppm) <u>2</u>		(ppb)
Groundwater Sample	: Yes NoX (If	yes, attach sample results)	
I HEREBY CERTIFY KNOWLEGE AND B	THAT THE INFORMATION ABOVE I	IS TRUE AND COMPLETE TO	THE BEST OF MY
DATE	9-11-16 PRINTED NAM	E Buddy D. Shaw	
SIGNATURE BUD		Environmental Coord	inator
AFTER REVIEW OF	THE PIT CLOSURE INFORMATION, APACHE TRIBE PIT CLOSURE ORDI	PIT CLOSURE IS APPROVED I	
APPROVED: YES 2	NO (REASON)		
SIGNED:	DATE:	7-17-96	

CLIENT: AMOCO BLAGG ENGINEERING, INC.	LOCATION NO: 85434
P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	C.O.C. NO:
	NA I
FIELD REPORT: PIT CLOSURE VERIFICATION	
QUAD/UNIT: A SEC: 13 TWP: 26N RNG: 5W BM: NM CNTY: RA ST: NA	DATE STARTED: 9-10-96 DATE FINISHED:
DTP/FOOTAGE: 1020' FNL. 870' FEL CONTRACTOR: PAUL	ENVIRONMENTAL PED
EXCAVATION APPROX FT. × FT. × FT. DEEP. CUBI	C YARDS: _ N/A
DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD	•
LAND USE:FORMA	TION: DA HOTA
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 135 FEET S	60°W FROM WELLHEAD.
DEPTH TO GROUNDWATER: _>loo' NEAREST WATER SOURCE: NEAREST SURFACE	_
NMOCD RANKING SCORE: NMOCD TPH CLOSURE STD: PPM	
SOIL AND EXCAVATION DESCRIPTION: PIT DISPOSITION:	(භ
TEST HOLE DUG IN SMALL AT BOTTOM. NO STAW, NO OI	
FIELD 418.1 CALCULATIONS	(C(02E0)
SAMPLE I.D. LAB NO: WEIGHT (g) ml. FREON DILUTION READING CALC THICY' 1819 10.0 20.0 1 10	
SCALE	
O S OFT OVM PIT PERIMETER RESULTS PIT	PROFILE
TUBE CETTS	
N ID PID (ppm) 1 THI @ 4' 5	
Baen 1 To 2 3	
prod.	
(rawh)	24'
F.G. LAB SAMPLES	
CUPPALA	
SURPAGE GRADIEN TRAVEL NOTES: 210.9(-	

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

Sample ID:

Project Location: Laboratory Number:

Test Hole #1 @ 4' Jicarilla C #8E TPH #1819

Project #:

Date Analyzed: Date Reported:

Sample Matrix:

9-10-96

9-11-96 Soil

Result, mg/kg

Detection Limit, mg/kg

Total Recoverable

Parameter

Petroleum Hydrocarbons

20

10

ND = Not Detectable at stated detection limits.

QA/QC:

QA/QC Sample TPH mg/kg

Duplicate TPH mg/kg %

1,420

1,344

*Diff.

5

*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:

Production Tank Pit - BJ434

R. E. O'rall Analyst

Melion Velgeriew

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

Field TPH-Worksheet

Max Characters:

Client:

Amoco

9-10-96

Sample ID:

Test Hole #1 @ 4'

9-10-96

Project Location:

Jicarilla C #8E

Date Analyzed: Date Reported: 9-11-96

Laboratory Number:

TPH #1819

Sample Matrix:

Date Sampled:

Soil

Sample Weight:

10.00 grams

Volume Freon:

20.00 mL

Dilution Factor:

1 (unitless)

TPH Reading:

10 mg/kg

TPH Result:

20.0 mg/kg

Reported TPH Result:

20.0 mg/kg

Actual Detection Limit: Reported Detection Limit 10.0 mg/kg 10 mg/kg

QA/QC:

Original TPH mg/kg Duplicate TPH mg/kg

% Diff.

1420

1344

5

Comments:

Comments:

Production Tank Pit - BJ434

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

PIT REMEDIATION AND CLOSURE REPORT

Operator: AMOCO PRODUCTION COMPANY	Telephone:_	(505)326-9200
Address: 200 Amoco Court, Farmington, N	NM 87401	
Facility or Well Name: JICAPILLA C	8E	
Location: Unit or Qtr/Qtr Sec A Sec (3 T2	BN R54 County R10	Areiba Areiba
Pit Type: Separator Dehydrator Other		
Land Type: PAP 6E		
(Attach diagram) Reference: wellhead X,	35', width 16',	
Footage from reference:		NI d
Direction from reference:	Degrees East of West	North South
	west	South
Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of groundwater)	50 feet to 99 feet ((20 points) (10 points) (0 points)
Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width)	Less than 100 feet Greater than 100 feet	(10 points) O
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, inigation 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 I	POINTS):O

Date Remediation St	arted:	Date Completed:	9-10-86
mediation Method: aeck all appropriate sections)	Excavation X Landfarmed X Other	Approx. cubic yards Insitu Bioremediation	
Remediation Location (i.e. landfarmed onsite, name and location of offsite facility)	1: Onsite X Offsite		
General Description	of Remedial Action: Excavat	cion	
Groundwater Encoun	ntered: No <u>X</u> Yes	Depth	
Final Pit: Closure Sampling: (if multiple samples,	Sample location see Attach	ned Documents	
attach sample results and diagram of sample locations and depths)	Sample depth 15' Sample date 9-10.		
	Sample Results		
	Soil: Benzene (ppm)	Water: Benzene	• • • • • • • • • • • • • • • • • • • •
	Total BTEX (ppm)		•
	Field Headspace (ppm)		nzene (ppb)
	TPH (ppm)	3060 Total Xy	ylenes (ppb)
Groundwater Sample	:: Yes No	_ (If yes, attach sample results)	
I HEREBY CERTIFY KNOWLEGE AND B	THAT THE INFORMATION AB	OVE IS TRUE AND COMPLET	E TO THE BEST OF MY
DATE 9	- ((- 96	NAME Buddy D. Shaw	
SIGNATURE BLO		ITLEEnvironmental (Coordinator
AFTER REVIEW OF TO THE JICARILLA	THE PIT CLOSURE INFORMAT APACHE TRIBE PIT CLOSURE	TION, PIT CLOSURE IS APPRO CORDINANCE.	VED IN ACCORDANCE
APPROVED: YES	X no (reason)		
SIGNED:	CMan DATE	E: 9-17-96	

CLIENT: Am		BLA			•			ATION NO: 85434
		O.O. BOX		LOOMFTE 632-1		M 874	13	C.O.C. NO:
	FIELD	REPORT	: PIT	CLOSUI	RE VE	RIFICA	ATION	
location:Quad/unit: A	erc. 13 mm	5. 26 N DN	10. EW	DW. NM	CNTV. R	A	m DAIL	STARTED: 9-10-96 FINISHED:
QTR/FOOTAGE:	1020' FNL	., 870' FEL	. CON	NTRACTOR:	PAUL		ENVIR SPEC	CONMENTAL PES
EXCAVATION A	APPROX3	5 FT. x	16 FT.	× 14	FT. DEE	IP. C	UBIC YA	ARDS: ~ 300
DISPOSAL FAC	ILITY:	ON -	SITE	F	REMEDIA	TION ME	гнор:	LANDFARM
LAND USE:								
								✓ FR□M WELLHEAD.
DEPTH TO GROUNDW	ATER: <u>>100</u>	_ NEAREST \	√ATER SOUR	CE: >100	0 NE	AREST SU	RFACE WAT	ER:
NMOCD RANKING SCO								
SOIL AND EXCA	VATION DES	CRIPTION	PIT DIS	SPOSITION:	A	3 ANDONE	٥	
		,	, SILTY	SAMO TO	, cure	CMAZ Y.	→ S/	HM BOTTOM.
SLIGHT BOT	tom open) ,						
								(1250)
	CAMPLE LD			1 CALCULA		DEADING	CALC	((020)
	NBOIS	LAB No:		20,0				
SCALE		73.3						
								
O 10 20FT PIT F	PERIME	ΓER	RE	OVM ESULTS		Р	IT PR	OFILE
	↑ TO	A	SAMPLE ID	PID (p	DSPACE pm)			
	1 2500	N/	2 ES	8	2			
]	5EA		4 Ws -		2			
			- 10 B	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			1	
4	3						14	•)
IRER.	9 ©						<u></u>	
			L	AB SAMPLE	28			
Ľ	(3)							
		SURFACE						
		GUNG IENT				_		
TRAVEL NOTES:	CALLOUT: _	9-9-9	6	ONSIT	E:9	-10-96	11,	FORM REVISED 7/95

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

Sample ID:

North Bottom @ 15'

Project Location: Laboratory Number: Jicarilla C #8E

TPH #1818

Project #:

Date Analyzed:

9-10-96 9-11-96

Date Reported: Sample Matrix:

Soil

1		Detection
Parameter	Result, mg/kg	Limit, mg/kg

Total Recoverable		
Petroleum Hydrocarbons	3,100	100

ND = Not Detectable at stated detection limits.

QA/QC:

QA/QC Sample TPH mg/kg

Duplicate TPH mg/kg % *Diff.

1,420

1,344

5

Method:

Modified Method 418.1, Petroleum Hydrocarbons, Total

Recoverable, Chemical Analysis of Water and Waste,

USEPA Storet No.4551, 1978

Comments:

Separator Pit - BJ434

R. E. O rall Analyst

Melson Isl

^{*}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

9-10-96

Sample ID:

North Bottom @ 15'

9-10-96

Project Location:

Jicarilla C #8E

9-10-96 9-11-96

Laboratory Number:

TPH #1818

Date Reported: Sample Matrix:

Date Sampled:

Date Analyzed:

9-11-9 Soil

Sample Weight:

10.00 grams

Volume Freon:

20.00 mL

Dilution Factor:

10 (unitless)

TPH Reading:

153 mg/kg

TPH Result:

3060.0 mg/kg

Reported TPH Result: Actual Detection Limit:

3100.0 mg/kg

Reported Detection Limit:

100.0 mg/kg 100 mg/kg

QA/QC:

Original TPH mg/kg

Duplicate TPH mg/kg % Diff.

1420

1344

.

5

Comments:

Comments:

Separator Pit - BJ434

BJ434

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 C #8E
Location: Unit or Qtr/Qtr Sec_A Sec_/3 T_26N R_5W County_RIO ARRIBA
Land Type: RANGE
Date Remediation Started: $9/10/96$ Date Completed: $5/7/98$
Remediation Method: Landfarmed \(\square \) Approx. cubic yards \(\frac{300}{} \)
Composted
Other
th To Groundwater: (pts.) 7 Final Closure Sampling:
ptil 10 di oulidwater. (pm)
Distance to Nearest Lake, Playa, or Watering Pond (pts.)
Field Headspace (ppm)
Distance To SurfaceWater: (pts.)
Other
RANKING SCORE (TOTAL POINTS):
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEGE AND BELIEF
DATE 5/7/98 , PRINTED NAME Buddy D. Shaw
SIGNATURE Buddy S. 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:

BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	C.O.C. NO: <u>5772</u>
FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE	VERIFICATION
LOCATION: NAME: JICARILA C WELL #: 8E PITS:	DATE STARTED: 5/6/98 DATE FINISHED:
QUAD/UNIT: A SEC: /3 TWP: ZEN RNG: 5W PM:NM CNTY: RA ST:NM QTR/FOOTAGE: NE/4 NE/4 CONTRACTOR: PLS	ENVIRONMENTAL NV
SOIL REMEDIATION:	
REMEDIATION SYSTEM: LANDFRAM APPROX. CUBIC Y.	ARDAGE: 300
LAND USE: RANGE LIFT DEPTH (ft):	
FIELD NOTES & REMARKS: DEPTH TO GROUNDWATER: >100 NEAREST WATER SOURCE: >1000 NEAREST SURFACE	WATER: 2/000)
NMOCD RANKING SCORE: NMOCD TPH CLOSURE STD: 5000 PPM	CLAY NON COHESIVE,
SOIL VARYS FROM DR. YELL BROWN SAND TO DUSKY BROWN TO SLIGHTLY MOIST FIRM TO SLIGHTLY MOIST FOR USE OFFIC OBSERVED FROM 6" TO COLLECTED 5 PT. COMPOSITE FOR LAB ANALYSIS.	TLY STIFF (CLAY)
SAMPLE PTS, SAMPLING DEPTH RANGED FROM 6" TO	172 DEEP
COLLECTED 5 PT. COMPOSITE FOR LAB ANALYSIS.	·
FIELD 418.1 CALCULATIONS	
SAMP. TIME SAMPLE I.D. LAB No: WEIGHT (g) mL. FREON DILUTION READING	G CALC. ppm
SKETCH/SAMPLE LOCATIONS \	
OVM RESULTS	LAB SAMPLES
SAMPLE FIELD HEADSPACE SAMPLE	ANALYSIS TIME RESULTS
10 PID (ppm) 10 LF-1 0.0 LF-1	(8015) 0955 94.6
63 N38E FROM	
45 war HAD	
SCALE	
WELL O FT	
V -	

CALLOUT: NA



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

Client: Sample ID: Laboratory Number: Chain of Custody No:	Blagg / Amoco LF - 1 D231 5772	Project #: Date Reported: Date Sampled: Date Received: Date Extracted:	04034-10 05-07-98 05-06-98 05-06-98 05-07-98
Sample Matrix: Preservative: Condition:	Soil Cool Cool and Intact	Date Extracted. Date Analyzed: Analysis Requested:	05-07-98 8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	85.8	0.2
Diesel Range (C10 - C28)	8.8	0.1
Total Petroleum Hydrocarbons	94.6	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 C #8E Landfarm. 5 Pt. Composite.

Stacy W Sendler

CHAIN OF CUSTODY RECORD

	20	20	30	_ ··		<u> </u>						T	ω		Ω
bf cocs	Relinquished by: (Signature)	Relinquished by: (Signature)	Relinquished by: (Signature) Hoon							LF-1	Sample No./ Identification	Mehon	Sampler: (Signature)	BURGE 1	Client/Project Name
5721 7	ге)	re) <i>O</i>							•	5/6/98	Sample Date	Vill		Amoco	`
\$ 527										0955	Sample Time				
ř			S							D23	Lab Number	01-7E070	Chain of Custody Tape No.	JICARILUM	Project Location
ENVIROTECH INC. 57% U.S. Highway 64-3014 Farmington, New Mexico 87401 (505) 632-0615			Date Time 5/6/98 1426	Ų						50/2	Sample Matrix	0 1.		C #8E	LANDFALM
ROTECH IC J.S. Highway 64-30 on, New Mexico 8 (505) 632-0615	Received by: (Signature)	Received by: (Signature)	Received by: (Signature)	SAMPLE						,	No Cont	o. of			
14 C.	(Signature)	(Signature)	(Signature)	KECE VED)					<	TF (80				
			7								<u> </u>				
		,	5	Cax										ANAET SIS/FARAMETERS	
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				7						5	à	<i>y</i>	 -	5	
			7)	1						PT.	(C) ekr.		æ		
			Date 5~2-9F							COMPOSITE	600		Remarks		
			744							<i>\$77€</i>	7	3			