DEPUTY GIL & GAS INSPECTORENVIRONMENTAL PROTECTION OFFICE P.O. BOX 507

Blow-Kisk ballock BJ564

NATURAL RESOURCE DEPT

AND OIL & GAS ADMINISTRATION

Part Sich

007 0 8 1999 DULCE, NEW MEXICO 87528

Sep-OK

PIT REMEDIATION AND CLOSURE REPORT

Operator: AMOCO PRODUCTION COMPANY	Telephone	:(505)326-9200
Address: 200 Amoco Court, Farmington, N	M 87401	
Facility or Well Name:	148-24	
Location: Unit or Qtr/Qtr Sec_D Sec_14 T_Z	SN = R SO = County = RIO	ARRIBA
Pit Type: Separator Dehydrator Other		
_		
Pit Location: Pit dimensions: length	ید' , width	_, depth3 '
(Attach diagram) Reference: wellhead X,	other	
Footage from reference: 14	7.'	
Direction from reference: 8	Degrees East	North <u>×</u>
	o West	1
		(20 1)
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)
Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width)	Less than 100 feet Greater than 100 feet	(10 points) (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) \bigcirc (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, irrigation 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	L POINTS):

BJ 564 BLOW PIT

Date Remediation Started:	Date Completed: 6/10/98
remediation Method: Excavation	Approx. cubic yards25
heck all appropriate Landfarmed	Insitu Bioremediation
Remediation Location: Onsite X Offsite (i.e. landfarmed onsite, name and location of offsite facility)	
General Description of Remedial Action: Excavat	ion. ENTIRE EXCOURTION CONSIST OF
BEDROCK THEREFORE NO TITH ANDLYSIS	WAS CONDUCTED. RISK ASSESSED,
Groundwater Encountered: No X Yes	Depth
Final Pit: Sample location see Attach Closure Sampling: (if multiple samples,	ed Documents
l :	PIT BOTTOM)
	Sample time _0840
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 AB KNOWLEGE AND BELIEF	OVE IS TRUE AND COMPLETE TO THE BEST OF MY
DATE 6/10/98 PRINTED	NAME Buddy D. Shaw
SIGNATURE BURLY D. Show AND T	ITLE Environmental Coordinator
AFTER REVIEW OF THE PIT CLOSURE INFORMAT TO THE JICARILLA APACHE TRIBE PIT CLOSURE	TION, PIT CLOSURE IS APPROVED IN ACCORDANCE CORDINANCE.
APPROVED: YES X NO (REASON)	
" <u>R</u>	.A.
SIGNED: DATI	E: <u>7-27-98</u>

CLIENT: AMOCO P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	C.D.C. ND:
FIELD REPORT: CLOSURE VERIFICATION	PAGE No: _/_ of _/_
QUAD/UNIT: D SEC: 14 TWP: 250 RNG: SW PM: NM CNTY: RA ST: NM OTR/FOOTAGE: 945 FOL 935 FWZ CONTRACTOR: P65	DATE STARTED: 6/10/98 DATE FINISHED: ENVIRONMENTAL SPECIALIST:
EXCAVATION APPROX22 FT. x _3 FT. DEEP. CUBIC DISPOSAL FACILITY:	D: LANDFARM
SOIL AND EXCAVATION DESCRIPTION: ENTIRE EXCRUPTION CONSIST OF BEDROCK (SANDSTONE)	CHECK ONE: CHECK ONE: PIT ABANDONED STEEL TANK INSTALLED FIBERGLASS TANK INSTALLED MOSTLY VELY
PALE ORDINGE HARD TO VERY HARD (PIT BOITOM) STAIN ON PIT BOTTOM VARYING COURT FROM STAYISH GLIEN TO BEDROCK, NO THA ANTILYSIS WAS CONDUCTED. RISK ASSESSED	LING EUIDENT QULY LT. GRAY) ONE TO
FIELD 418.1 CALCULATIONS SEDICOCK TIME SAMPLE I.D. LAB NO: WEIGHT (g) ml. FREON D SCALE	DILUTION READING CALC. ppm
O FT PIT PERIMETER ♠N PIT	PROFILE
OVM RESULTS SAMPLE FIELD HEADSPACE PID (ppm) 1	REDZZZ A
TRAVEL NOTES: CALLOUT: 6/9/98 - MORN. ONSITE: 6/10/98 -	

Well Name:

Well Site location:

Pit Type:

Producing Formation:

Pit Category:

Horizontal Distance to Surface Water:

Vicinity Groundwater Depth:

Jicarilla Contract 148 #24

Unit D, Sec. 14, 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 3 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 3 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 1.10 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.

BJ564

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

PIT REMEDIATION AND CLOSURE REPORT

		(FOE) 22C 0200
Operator: AMOCO PRODUCTION COMPANY		(505)326-9200
Address: 200 Amoco Court, Farmington, N		
Facility or Well Name: JICARILLA CONTRAC	T 148 - 24	
Location: Unit or Qtr/Qtr Sec D Sec 14 T25	SN R SW County RIS	PRIRA
Pit Type: Separator Other		
Pit Location: Pit dimensions: length	other	
Footage from reference: 14- Direction from reference: 4	Z Degrees V Fact	North X
Direction from reference:7	of West	
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)
Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width)	Less than 100 feet Greater than 100 feet	(10 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	
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) O
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)
II	RANKING SCORE (TOTAL	L POINTS):

BJ564 SEP. PIT

D . D . Hadia Sta	rted: Date Completed: 6 / 10 /98
	A manage graphic words 30
'emediation Method: heck all appropriate	The state of the s
sections)	Landranned
	Other
Remediation Location (i.e. landfarmed onsite,	: Onsite X Offsite
name and location of offsite facility)	
General Description	of Remedial Action: Excavation, BEOROCX BOTTOM.
Groundwater Encoun	tered: No <u>X</u> Yes Depth
Final Pit: Closure Sampling: (if multiple samples,	Sample location see Attached Documents
attach sample results	Sample depth 3' (NORTH SIDEURLL)
locations and depths)	Sample date6/10 98 Sample time0910
	Sumple date
,	Sample Results Soil: Benzene (ppm) Water: Benzene (ppb)
1	Soil: Benzene (ppin)
	Total BTEA (ppin)
	Field Headspace (ppin)
	TPH (ppm) <u>DD</u> Total Xylenes (ppb)
Groundwater Sample	e: Yes No _X (If yes, attach sample results)
I HEREBY CERTIFY KNOWLEGE AND B	THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY ELIEF
DATE	PRINTED NAME Buddy D. Shaw Environmental Coordinator
SIGNATURE BLA	My D. Shaw AND TITLEENVIRONMENTAL STATE
AFTER REVIEW OF TO THE JICARILLA	THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE A APACHE TRIBE PIT CLOSURE ORDINANCE.
APPROVED: YES	NO (REASON)
SIGNED:	Ma DATE: 7-27-98

P.O. BOX 8	GG ENGINEERING, IN B7, BLOOMFIELD, NM (505) 632-1199	M 87413]:
FIELD REPORT: CLO LOCATION: NAMETICA. CONTR. 148 QUAD/UNIT: D SEC: 14 TWP: 250 OTR/FOOTAGE: NW14 NW14	WELL #: 24 PIT: SE RNG: SW PM:NM CNTY:	P	PAGE NO:	6/10/98
EXCAVATION APPROX. 13 FT x 1 DISPOSAL FACILITY: 00-5171 LAND USE: RANGE	7 ft. x _G ft. dee E REMEDIATIO LEASE: _T) < 148	N METHO	D: LANDEAK RMATION:	CK
FIELD NOTES & REMARKS: PIT LOC DEPTH TO GROUNDWATER: >100' NEAREST WA NMOCD RANKING SCORE: NMOCD TPH SOIL AND EXCAVATION DESCRIPT	CLOSURE STD: 5000 PPM		CHECK ON PIT ABANDONED STEEL TANK IN FIBERGLASS TA	STALLED
BEORXK CLOSED	ST SIDEWALLS (SMALL SLIEITLY MOIST, FIN ED WIN EXECUTION FANDSTONE) OF GIGHT OBSELVED.	LING NO A	PPARENT 5	RININE
TIME SAME	FIELD 418.1 CAI PLE I.D. LAB NO: WEIGHT (g) E 3' TPH - 1990 5	mL. FREON C	1:1 4	MD
PIT PERIMETER IN A POWPE PILESTINA A O 148- A O 132	OVM RESULTS SAMPLE FIELD HEADSPACE PID (ppm) 1	PIT A 6'	PROFIL	A'
TO SE P B B ALTURATION	LAB SAMPLES SAMPLE ANALYSIS TIME			
TRAVEL NOTES: CALLOUT: 6/9/98	-morn ONSITE:	110 /98		

BLAGG ENGINEERING, INC.

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:

1 @ 3'

Date Analyzed:

06-10-98

Project Location:

Jicarilla Contract 148 - 24

Date Reported:

06-10-98

Laboratory Number:

TPH-1990

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 TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
1684	1712	1.65

^{*}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:

Separator Pit - BJ564

97 chon Velg Analyst

Réview

BLAGG ENGINEERING, INC.

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

Field TPH-Worksheet

Max Characters:

AMOCO

Project #:

Client:

1 @ 3'

Date Analyzed:

06-10-98

Sample ID: Project Location:

Jicarilla Contract 148 - 24

Date Reported: 06-10-98

Soil

Laboratory Number:

TPH-1990

Sample Matrix:

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 TPH mg/kg Duplicate TPH mg/kg % Diff.

1684

1712

1.65

Comments:

Comments:

Separator Pit - BJ564

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

	(705) 226 0200
Operator: AMOCO PRODUCTION C	OMPANY Telephone: (505) 326-9200
Address: 200 Amoco Court,	Farmington, NM 87401
Facility or Well Name: SICAPILLA	CONTRACT 148:24
Location: Unit or Qtr/Qtr Sec_D	Sec 14 T 25N R SW County PIO ARRIBA
Land Type:	
5 of Stanfold (2 9 9)	Date Completed: 1 20 99
Date Remediation Started:	Approx. cubic yards //80
Composted	
Other	
	(pts.) _c Final Closure Sampling:
epth To Groundwater:	(pts.) <u>o</u> Sampling Date: <u>/ 18 99</u> Time: <u>/305</u>
Distance to an Ephemeral Stream	Sample Results: (LF-1)
Distance to Nearest Lake, Playa, or Watering Pond	(pts.) Field Headspace (ppm)
Wellhead Protection Area:	(pis.) TPH (ppin) Wethou
Distance To SurfaceWater:	(pts.) 6 Other MULTIPLE SAMPLES - SEE ATTACHED
RANKING SCORE (TOTAL POIN	TS): 6 FORM
I HEREBY CERTIFY THAT THE INFO KNOWLEGE AND BELIEF	TS): DRMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY
DATE 1/20/99	PRINTED NAME Buddy D. Shaw
SIGNATURE Buddy S. S	AND TITLE Environmental Coordinates
	EDIATION INFORMATION, ON-SITE REMEDIATION IS APPROVED IN APACHE TRIBE PIT CLOSURE ORDINANCE.
APPROVED: YES NO	(REASON)
SIGNED: 1770	DATE: 3-31-79

CLIENT: <u>AMOCO</u>	BL.	OX 87.	BLOOM	EERING IFIELD, 2-1199	NM 87	413	DCATION C.O.C.	NO: <u>£</u>	
FIELD REPORT:	LAND]	FARM/	СОМРО	ST PILI	E CLOS	URE	VERIF	[CAT]	ion
LOCATION: NAME: TCARILLA	CONTRACT 14	& WELL	#: 24	PITS: 5	EP, BLOW	D.	ATE STARTE ATE FINISHE	:D: <u>/ · / 2</u>	3.99
QUAD/UNIT: D SEC: 14		RNG: CONTRA	SW PM ACTOR: 1	. NW CNI	1. KA 51.	El Si	NVIRONMENT PECIALIST:	TAL REF	>
SOIL REMEDIATION: REMEDIATION SYS		udfarm NGE			ROX. CUI				<u> </u>
LAND USE: FIELD NOTES & REMA	DIKC.								
PIELD NOTES & REMA DEPTH TO GROUNDWATER: 2/ NMOC!! PANKING SCORE:	NMOCI - BROWN S D. SLIGHT SPT COMP WAS MOVED E 148-24, (TPH CLOS AND. NON H C . ODOR OSITE SAM FROM THE DISTANCE A	URE STD: S. COMESIVE, AT SAMPL UPLE FROM TICARILLA NO BEARN ELD 418.1	ODD PPM SLIGHTLY E POINTS 1 FACH LAN CONTRACT I G WEZE TAI	MOIST FIRM	Y. MPUNG I REA FOI COMBINE -24 WEU	DEPTHS E 2 LAB A, ED WITH T LHEAD.	PANGE NALUS/ HÉ	
SKETCH/SAMF	PLE>LOCA	ATIONS							
LANGFARM DE AND	3		~ ~						

SCALE 0

TRAVEL NOTES

CALLOUT: N/A

ONSITE: ____

FT



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 E539 6555 Soil Cool Cool and Intact	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed: Analysis Requested:	04034-10 01-20-99 01-18-99 01-19-99 01-20-99 8015 TPH
--	--	---	--

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	2.6	0.2
Diesel Range (C10 - C28)	74.0	0.1
Total Petroleum Hydrocarbons	76.6	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 Contract 148 - 24 Landfarm. 5 Pt. Composite.

Deur P. Ogereen

Stacy W Sendler
Review



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 - 2 E540 6555 Soil Cool Cool and Intact	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed: Analysis Requested:	04034-10 01-20-99 01-18-99 01-19-99 01-20-99 01-20-99 8015 TPH
--	--	---	--

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)		
Gasoline Range (C5 - C10)	ND	0.2		
Diesel Range (C10 - C28)	12.2	0.1		
Total Petroleum Hydrocarbons	12.2	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 148 - 24 Landfarm. 5 Pt. Composite.

Analyst R. Queun

Stacy W Sendler
Review

CHAIN OF CUSTODY RECORD

			0000 6552-6559	Relinquished by: (Signature)	Relinquished by: (Signature)	Relinquished by (Signature)						LF-2 1-18.99 1335 ES40	15-1 1.1899 1305 ES39	Sample No./ Sample Sample Lab Number		BLACKS/AMOCO SICARILL	Client / Project Name Project Locat
Farmington, New Mexico 67401 (505) 632-0615	5796 U.S. Highway 64		EOVIDOTECH IO		0440	Date Time Received						0 5011	SOIL	Sample Matrix	lo. of	SICAPILLA CONTRACT 148-24	Project Location LANDFARM
315	vay 64			Received by: (Signature)	Received by: (Signature)	Received by Signature)									ntainers H		ANALYSIS / PARAMETERS
Cool - Ice/Blue Ice	Received Intact	۲ 2	Sample Receipt		4050 58.81.1	Date Time 1/19/99 07/0		-	coor	SAMPLES HERELIKE	3	SPT COMPOSITE	SPT COHPOSITE		Ligitativo	Demarks	METERS