JICARILLA APACHE TRIBE Sep ITICE NATURAL RESOURCE DEPT ENVIRONMENTAL PROTECTION OFFICE P.O. BOX 507

DULCE, NEW MEXICO 87528

AND OIL & GAS ADMINISTRATION

PIT REMEDIATION AND CLOSURE REPORT

111 Kizhiiza	
	Telephone: (505) \$1639200
Operator: AMOCO PRODUCTION COMPANY	Market Committee
Address: 200 Amoco Court, Farmington, N	IM 87401
Facility or Well Name: TICARILLA APAG	TRIBAL #151-7
Location: Unit or Qtr/Qtr Sec_M_ Sec_4 T_2	60 R SW County RIO ARRIGA
n 1 1ton Other A	
Land Type: Rang E	
Pit Location: Pit dimensions: length	23', width
I it incation.	other
Footage from reference: / OC	7. Degrees X East North
Direction from reference: 8	Vest South X
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) Creater 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, trigation canals and ditches)	Less than 100 feet (20 points) 100 feet to 1000 feet (10 points) Greater than 1000 feet (0 points)
1 ·	RANKING SCORE (TOTAL POINTS):

BJ655 BWW PIT

D. D. Harris Stantadi	Date Completed:
Date Remediation Started:	Approx. cubic yards350
Remediation Method: Excavation	
sections) Landfarmed	Insitu Bioremediation
Other	
(i.e. landfarmed onsite, name and location of offsite facility)	
General Description of Remedial Action: Excavat	ion. BEDROCK BOTTOM. DISK HISTERSED.
Groundwater Encountered: No X Yes _	Depth
Final Pit: Sample location see Attach Closure Sampling: (if multiple samples,	ed Documents
	TH SIDEUALL)
locations and depths) Sample date	
Sample Results	
·	Z_S3O Water: Benzene (ppb)
Total BTEX (ppm)	
Field Headspace (ppm)	
TPH (ppm)	7 Total Xylenes (ppb)
Groundwater Sample: Yes No _×	(If yes, attach sample results)
I HEREBY CERTIFY THAT THE INFORMATION ABOUNDED AND BELIEF	OVE IS TRUE AND COMPLETE TO THE BEST OF MY
DATE 10/21/98 PRINTED 1	NAME Buddy D. Shaw
SIGNATURE BURLY S. Show AND TIT	TLE Environmental Coordinator
	ON, PIT CLOSURE IS APPROVED IN ACCORDANCE
APPROVED: YES X NO (REASON)	A. Attached
SIGNED: La CMa DATE:	11-18-98

BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	C.O.C. NO: 6303
FIELD REPORT: CLOSURE VERIFICATION	PAGE No: of
QUAD/UNIT: M SEC: 4 TWP: ZEN RNG: 5W PM:NM CNTY: RA ST: NM OTR/FOOTAGE: 790 FSL 790 FWL CONTRACTOR: PGS	SPECIALIST:
EXCAVATION APPROX. 23 FT. x 27 FT. x 24 FT. DEEP. CUBIC	YARDAGE: 350
DISPOSAL FACILITY: 00-51TE REMEDIATION METHOLAND USE: RANGE LEASE: TIC151 FOR	RMATION: DK
	CHECK ONE
SIDEWALLS - MOD. TO DK. YELL. ORANGE SAND, NOW CONESIUE, SLIGHT STAINING EUDENT ON NORTH SIDEWALL, NO APPARENT HE WILL EXCAUATION STRING HE OVOK IN NORTH SIDEWALL STRING HE OVOK IN NORTH SIDEWALL OF STAFF OF WEST SIDEWALL OF STAFF	TLY MOIST, FIRM, ODOR DETECTED THE OUM SAMPLE,
BOTTOM-BEDROCK (SANDSTONE) DK. YELL. DRANGE, WERY HARD, HC WIND OUM SAMPLE. BEDROCK (RISK ASSESSED)	
SCALE O FT	PROFILE
OVM RESULTS SAMPLE FIELD HEADSPACE PID (ppm) 1 @ 18' 227 2 @ 18' 113.9 3 @ 16' 2.5 4 @ 17' 63.8 5 @ 25' 206.8	A A SEDENCE (SS)

Well Name:

Well Site location:

Pit Type:

Producing Formation:

Pit Category:

Horizonal Distance to Surface Water:

Vicinity Groundwater Depth:

Jicarilla Apache Tribal 151 #7

Unit M, Sec. 4, T26N, R5W

Blow Pit

Basin Dakota Non Vulnerable

> 1000 ft.

> 100 ft.

RISK ASSESSMENT (non-vulnerable area)

Pit remediation activities were terminated when trackhoe encountered sandstone bedrock at 24 feet below grade.

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

- Past production fluids were contained locally by a relatively shallow sandstone bedrock located 24 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.
- 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.
- Well site located within the <u>non-vulnerable area</u> and is approximately 0.90 miles south southeast of the nearest vulnerable area boundary (Cereza Canyon wash).

(Refer to <u>Vigas Canyon Quadrangle</u>, <u>New Mexico</u> - <u>Rio Arriba County</u>, 7.5 <u>Minute Series (Topographic)</u>, <u>photorevised 1982</u>, (<u>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 lateral impact from the earthen pit is very limited and that 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.



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Blagg / AMOCO	Project #:	04034-10
	1 @ 18'	Date Reported:	10-21-98
Sample ID:	E086	Date Sampled:	10-16-98
_aboratory Number:	6303	Date Received:	10-21-98
Chain of Custody No:		Date Extracted:	10-21-98
Sample Matrix:	Soil	Date Analyzed:	10-21-98
Preservative:	Cool	•	8015 TPH
Condition:	Cool and Intact	Analysis Requested:	00101111

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Parameter		
Gasoline Range (C5 - C10)	1,510	0.2
Diesel Range (C10 - C28)	852	0.1
Total Petroleum Hydrocarbons	2,360	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 Tribal #151 - 7 Blow Pit.

Analyst P. Oglewen

Stacy W Sendler



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Benzene Toluene Ethylbenzene		2,530 4,800 12,940	8.8 8.4 7.6
Parameter		centration J/Kg)	Det. Limit (ug/Kg)
Client: Sample ID: Laboratory Number: Chain of Custody: Sample Matrix: Preservative: Condition:	Blagg / Amoco 1 @ 18' E086 6303 Soil Cool Cool & Intact	Project #: Date Reported: Date Sampled: Date Received: Date Analyzed: Date Extracted: Analysis Requested:	04034- 10-21- 10-16- 10-21- 10-21- BTEX

10.8 29,600 p,m-Xylene 5.2 15,910 o-Xylene

65,780 **Total BTEX**

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 Tribal #151 - 7 Blow Pit.

Stacy W Sendler

CHAIN OF CUSTODY RECORD

Client / Project Name	Project Location	SLOW PIT	ANALYSIS / PARAMETERS	METERS
ELAGGET Amoco	JICARUM APACHE TRIBAL	TRIBAL #151-7		
Sampler:	Client No.	04034-10	of ners	Tenang
			No. onta	
Sample No./ Sample Sample Identification Date Time	Lab Number	Sample Matrix	Co 7 (8 87 (8	
000 8/ while 81 900	T (7810	5012	\ \ \	MESERV COOL
		Date Time Re	Received by: (Signature)	Date Time
Helinquisned by (Signature)		809x	Mistai Date	05.00 Sp.18.01
Relinquished by: (Signature)			Received by: (Signature)	
Relinquished by: (Signature)		Į.	Received by: (Signature)	
				Sample Receipt
ref coc. 6302-6305				Y N WA
		5796 U.S. Highway 64	lighway 64	Received Intact
		Farmington, New Mexico 87401 (505) 632-0615	(505) 632-0615	Cool - Ica/Blue Ica

BJ655

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

	(505)326-9200	
Operator: AMOCO PRODUCTION COMPANY	Telephone: (505) 326-9200	
Sourt, Farmington, N	M 87401	
TICARINA APACHE	TRIBAL #151 - 1	
Sec 4 T24	R SW County	
Location: Unit or Qtr/Qtr Sec Other	DOUCTION TRAK	
Pit Type: Separator Dehydrator Other		
Pit Type: Separator Benjaman Land Type:		
Pit I costion: Pit dimensions: length	32', width37', depth30'	
(Attach diagram) Reference: wellhead X,	other	:
5	0	
Direction from reference: 4	Degrees hast 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) Creater than 100 feet (0 points)	
Distance to Nearest Lake, Playa, or Watering Pond	Less than 100 feet (10 points) Greater than 100 feet (0 points)	
livestock or wildlife watering ponds) Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or: less than	Yes (20 points) C 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)	<u>:</u> _
d.	RANKING SCORE (TOTAL POINTS):) =====

	BIESS PROD. TANK (1)
	10/14/98
Date Remediation Started:	Approx. cubic yards900
Remediation Method: Excavation	Insitu Bioremediation
Theck all appropriate Landfarmed X	Insiti Biolemetiation
——————————————————————————————————————	
(i.e. landfarmed onsite, name and location of	
General Description of Remedial Action: Exca	vation. BEDROCK BOTTOM.
Groundwater Encountered: No	Yes Depth
Final Pit: Sample location see Att Closure Sampling: (if multiple samples,	
attach sample results	WEST SIDEWALL)
and diagram of sample Sample depth 27 Sample depth 27 Sample date 10/16/9	
Sample Results	
•	ppm) Water: Benzene (ppb)
	(ppm) Toluene (ppb)
Field Headspace (Tit II (nmh)
TPH ((p/m)
Groundwater Sample: Yes No	(If yes, attach sample results)
I HEREBY CERTIFY THAT THE INFORMATION KNOWLEGE AND BELIEF	N ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY
DATE $\frac{10/16/98}{2000}$ PRIN	NTED NAME Buddy D. Shaw ND TITLE Environmental Coordinator
SIGNATURE Dully O' O Maw AT	ND TITLE BRYTE OF ACCORDANCE
TO THE JICARILLA APACHE TRIBE PTI CLOS	
APPROVED: YES X NO (REASON)	
CNED: KEEC Man	DATE:

P.O. BOX 87, BLOOMFIELD, NM 87413 CDC. ND 6296 FIELD REPORT: CLOSURE VERIFICATION PAGE NO: L of 1 OCATION: NAME TICA APTRIBAL 151 WELL # 7 PIT PROD. QUAD/UNIT M SEC: 4 TWP 740 RNG SW PM NMCONTY 69 ST. NM OTR/FEDIAGE 270 FSL 290 FWL CONIRACIOR: P 55 EXCAVATION APPROX 32 FT. x 37 FT. x 30 FT. DEEP. CUBIC YARDAGE 900 DISPOSAL FACILITY: 02 STTE REMEDIATION METHOD. CANOFORM. LEASE: JIC 151 FORMATION: DK DEED NOTES & REMARKS: PIT LOCATED APPROXIMATELY 190 FT. N43W FROM WELLHEA DEEP H TO GEOUNDWATER. 7100 MARKEST VATES SURFACE VATES. 3000 PPH WHOCH RANKING SCHEE! 0 NACOL THAT CLOSURE STD. 5000 PPH VPIT ABADDONED STILL AND EXCAVATION DESCRIPTION TIDEWING. PAGE NO. YELL. STRUCK STRUCK STRUCK VATES. 1000 NO. COHESIUS. SUIGHTLY MOST FIRM, SOME INTERNAL DATA OF THE OWN SAMPLE. STILL AND EXCAVATION DESCRIPTION TIDEWING. PAGE NO. YELL. STRUCK STRUCK VALUE. SUIGHTLY MOST FIRM, SOME INTERNAL OF THE OWN SAMPLE. STILL AND EXCAVATION DESCRIPTION TIDEWING. PAGE NO. YELL. STRUCK STRUCK VALUE. SUIGHTLY MOST FIRM, SOME INTERNAL OF THE OWN SAMPLE. STORM. SECONDAY OF THE OWN SAMPLE. BORDON - BEORDER (SAMDSTRUK) AV SOME OFFECTED WIND EXCAUSTION OR IN APPORENT TO APPRAENT STRUCK OF THE OWN SAMPLE. BEDROCK COSED TIME SAMPLE ID LAB NO. WEIGHT (3) PML FREON DILUTON READING CALC PAGE NO. OFFE NO			·
OCATION: NAME TILD. APTRIBAL 15 (WELL # 7 PIT PROD.) QUAD/UNIT M SEC: 4 TWP 760 RNG. SW PM. NACHT AP STAM OTE/FOOTAGE 750/PSL/790-FBL CONTRACTOR: P TS EXCAVATION APPROX. 32 FT x 37 FT x 30 FT DEEP. EXCAVATION APPROX. 32 FT x 37 FT x 30 FT DEEP. EXCAVATION APPROX. 32 FT x 37 FT x 30 FT DEEP. EXCAVATION APPROX. 32 FT x 37 FT x 30 FT DEEP. DISPOSAL FACILITY: DS-5TTE REMEDIATION METHOD: CANOFARM. LEASE. TIC 151 FORMATION: DK IELD NOTES & REMARKS. PIT LOCATED APPROXIMATELY 190 FT. NY3W FROM VELLHEA REPTY TO GROUNDWATER 7100' NEAREST WATER SOURCE 71000' NEAREST SUFFACE VATER. >1000' CHICK DIN. STELL TANK INSTALLED STIELL TANK INSTALLED STELL T	CLIENT: AMOCO P.O.	BOX 87 BLOOMFIELD, NM 87	413 C.D.C. ND: 6296
DOCATION: NAME TIAL APTRIMENT IS WELL # PARTY OF THE CONTRACTOR: P & S QUAD/UNIT M SEC 4 TWP 74M RNG 5W PM NYCONTY OF STAM QUAD/UNIT M SEC 4 TWP 74M CONTRACTOR: P & S EXCAVATION APPROX. 32 FT x 37 FT x 30 FT. DEEP. CUBIC YARDAGE 900 EXCAVATION APPROX. 32 FT x 37 FT x 30 FT. DEEP. CUBIC YARDAGE 900 DISPOSAL FACILITY: 03-5TTE REMEDIATION METHOD: GANDFARM LEASE: JTC 151 FORMATION: DE LEASE	FIELD REPORT:	CLOSURE VERIFICATION	N PAGE No: of
QUAD/UNIT M SEC. 4 TWP ZEA RNO. S.S. PM MYCHILAR DISTRIBUTION OTREPORAGE 790 PSL 790 PW CONTRACTOR: P 5 SPECIALS IN SPECIALS	OCATION: NAME: JICA. AP. TRIBA	L 15 (WELL #: 7 PIT: AROD.	DATE EINISHED
DETECTION AGE 750 BEL	OUAD/UNIT: SEC: 4 TWP:	763 RNG: SW PM: NIVENTY: 104 ST	ENVIRONMENTAL SPECIALIST:
DISPOSAL FACILITY: DN-STEE REMDDIATION METHOD: CHAND USE: RANGE LEASE. J(C 15) FORMATION: DK LEAD USE: RANGE LEASE. J(C 15) FORMATION: DK TELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 190 FT. NY3W FROM VELLHEA DEPTH TO GROUNDVATER. 7100' MEAREST WATER SURGE. > 1000' MEAREST SURFACE VATER. > 000' NHOOLD BANKING SCORE: O MEDIC THY CLOSURE STID. 5000 PPM SOIL AND EXCAVATION DESCRIPTION: TIDEWILLS - MOD. YELL. BROWN SAND, NON CONESING SUIGHTLY MIST FROM, SOME INSTALLED FIRERCLASS TANK INSTALLED F	QTR/FOOTAGE: 790' FSL/ 790	FWL CONTRACTOR:	
LEAD USE: ROSE LEASE TIC 15 FORMATION. IELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 190 FT. NY3 W FROM VELLHEAD PROTECTION. DEPTH TO GROUNDVATER 7100' NEAREST VATER SOURCE 71000' NEAREST SURFACE VATER. 7000' OFFIC ONE. NOOCD PARKING SCORE: O NOOCD THE CLOSURE STO. 5000 PPH SOIL AND EXCAVATION DESCRIPTION. TIDEWALLS - MOD. YELL. BERNA SAND, NOW COMESTIVE, SLIGHTLY MOIST, FIRM, SOME INSTALLED FIBERCLASS TANK INSTALLED FIBERC	EXCAVATION APPROX. 32 FT	x 31 FT. x 30 FT. DEEP.	ETHOD: GANDFARM
DEPTH TO GROUNDWATER 700' NEAREST VATER SOURCE: 7000' NEAREST SURFACE VATER 7000' NEAR	DISPOSAL FACILITY:	LEASE: JIC 151	FORMATION: DK
DEPTH TO GROUNDVATER 7100 NEAREST VATER SOURCE 71005. NEAREST SUPERIOR CHECK DNE. NAMED RANKING SCORE: NAMED THE CLOSUPE STD 5000 PPH STELL TANK INSTALLED STDEL TANK INSTALLED STDER THE CONTROL TO APPRICATE TO APPRICATE THE CONTROL TO APPRICATE THE CONTROL TO APPRICATE TO APPRICATE THE CONTROL TO APPRICATE THE CHARGE THE CONTROL TO APPRICATE THE CONTROL TO APPRICATE THE CHARGE THE CONTROL TO APPRICATE THE CONTROL TO APPRICAT	LAND USE:	DIT LECATED APPREXIMATELY /90_	FT. N43W FROM WELLHEAD
SCALE O MODE PERIMETER SOURCE SANKING SCIENCE ON MODE OF CONTROLL STIDEMALLS - MOD. PELL. BROWN SAND, NOW COMESTURE, SLIGHTLY MODEST FIRM, SOME INTERNAL GRAVEL DESTRUCED IN VARIOUS INTERNS THEOREMS TO A REPORTENT TANING OFFICE ON A PROPRECT IN VARIOUS OFFICE DUTIN EXCAUNTION OR IN BOTTOM - BEDJOOCK (SANDSTONE) AC GARY IN COLEA, VERY HAND, NO APPARENT HE DONE IN OWN SAMPLE. BEDROCK CLOSED FIELD 4181 CALCULATIONS BOTTOM - BEDJOOCK (SANDSTONE) AC GARY IN COLEA, VERY HAND, NO APPARENT HE DONE IN OWN SAMPLE. BEDROCK CLOSED FIELD 4181 CALCULATIONS BOTTOM - BEDJOOCK (SANDSTONE) AC GARY IN COLEA, VERY HAND, NO APPARENT HE DONE IN OWN SAMPLE. O PT PIT PERIMETER OVM RESULTS SUPER PROPRESED TO DESTRUCE OF THE OWN DILUTION READING CALC PROPRESED TO DESTRUCE OF THE OWN DILUTION READING CALC PROPRESED TO DESTRUCE OF THE OWN DILUTION READING CALC PROPRESED TO DESTRUCE OF THE OWN DILUTION READING CALC PROPRESED TO DESTRUCE OF THE OWN DILUTION READING CALC PROPRESED TO DESTRUCE OF THE OWN DILUTION READING CALC PROPRESED TO DESTRUCE OF THE OWN DILUTION READING CALC PROPRESED TO DESTRUCE OF THE OWN DILUTION READING CALC PROPRESED TO DESTRUCE OF THE OWN DILUTION READING CALC PROPRESED TO DESTRUCE OF THE OWN DILUTION READING CALC PROPRESED TO DESTRUCE OF THE OWN DILUTION READING CALC PROPRESED TO DESTRUCE OF THE OWN DIRECTOR OF THE OWN DILUTION READING CALC PROPRESED TO DESTRUCE OF THE OWN DIRECTOR OF THE OWN DIRECTOR OF THE OWN DIRECTOR OWN DIRECTOR OF THE OWN DIRECTOR OF THE OWN DIRECTOR OWN DIRECTOR OF THE OWN DIRECTOR OWN DIRECT	DEPTH TO GROUNDWATER: 7100 NE	AREST WATER SOURCE: >1000' NEAREST	SURFACE WATER: _ > 1000 /
STELL AND EXCAVATION DESCRIPTION: STEERCLASS TAKE INSTALLE FIRERCLASS TAKE INSTALLE FIRERCLAS	NMOCD RANKING SCORE: NM	TICD THE CETIZOKE 21DE TO THE TENT	A SII ABANDUNED
BEDROCK (SONDSTONE) AT GAY IN COLOR, VERY HAND, NO OPPORENT HE OBJE IN OWN SAMPLE. BEDROCK CLOSED FIELD 418.1 CALCULATIONS BEDROCK CLOSED FIELD 418.1 CALCULATIONS SCALE DYS 4 2 24 TH - 2056 5 20 1:1 5 NO PIT PERIMETER OVM RESULTS SAMPLE PREW HANDANCE 1 2 24 0.0 3 2 24 0.0 3 2 24 0.0 3 2 24 0.0 3 2 24 0.0 3 2 24 0.0 3 2 24 0.0 3 2 24 0.0 5 3 2 25 0.0 5 3 2 2 0.0 5 3 2 2 0.0 5 3 2 2 0.0 5 4 2 2 4 0.0 5 6 2 24 0.0 5 7 7 8 2 7 8 7 8 8 8 8 8 8 8 8 8 8 8 8 8	SOIL AND EXCAVATION DE	SCRIPTION:	STEEL TANK INSTALLED FIBERGLASS TANK INSTALLE
BEDROCK (SONDSTONE) AT GAY IN COLOR, VERY HAND, NO OPPORENT HE OBJE IN OWN SAMPLE. BEDROCK CLOSED FIELD 418.1 CALCULATIONS BEDROCK CLOSED FIELD 418.1 CALCULATIONS SCALE DYS 4 2 24 TH - 2056 5 20 1:1 5 NO PIT PERIMETER OVM RESULTS SAMPLE PREW HANDANCE 1 2 24 0.0 3 2 24 0.0 3 2 24 0.0 3 2 24 0.0 3 2 24 0.0 3 2 24 0.0 3 2 24 0.0 3 2 24 0.0 5 3 2 25 0.0 5 3 2 2 0.0 5 3 2 2 0.0 5 3 2 2 0.0 5 4 2 2 4 0.0 5 6 2 24 0.0 5 7 7 8 2 7 8 7 8 8 8 8 8 8 8 8 8 8 8 8 8		SOUR WELL COHESTIVE SLIGHTLY M	LOIST FIRM, SOME INTERMIX
O FT PIT PERIMETER OVM RESULTS SAMPLE PRED HADSPACE PRID PROFILE 10 24' 0.0 2 2 24' 0.0 2 2 24' 0.0 3 2 25' 0.0 5 2 19' 1.040 5A 30' 0.0 SAMPLE PRID HADSPACE 10 1 0 0.0 2 1 2' 0.0 3 2 25' 0.0 5 2 19' 1.040 SAMPLE ANALYSIS TIME SOLICE ANALYSIS TIME TO ANALYSIS TIME SOLICE ANALYSIS TIME TO ANALYSIS TIME SOLICE ANALYSIS TIME TO	BEDROCK CLOSED BOTTOM TIM	FIELD 418.1 CALCULAT E SAMPLE I.D. LAB No: WEIGHT (g) mL. FF	IDNS REON DILUTION READING CALC. ppm
PIT PERIMETER OVM RESULTS SAMPLE PROSPACE PID (SPACE) 1		3 7 E 57 (m = 5.0)	
RESULTS SAUPLE PRED HEADSPACE PID (popm) 1 @ 24'		R •	PIT PROFILE
10 24' 0.0 2 24' 0.0 2 2 24' 0.0 3 2 25' 0.0 4 2 24' 0.0 5 2 19' 1,040 5 2 19' 1,040 5 2 19' 1,040 6 10 10 10 10 10 10 10 10 10 10 10 10 10	1	OVM RESULTS A	37 <u>'</u> A'
3 @ 25' 0.0 4 @ 24' 0.0 5 @ 19' 1.040 5A @ 3 0' 0.0 BEDROCIZ (SS) LAB SAMPLES SAMPLE ANALYSIS TIME 1D TOT. REX - FRILED TOT. REX - FRILED Ah3 OR		D PID (ppm)	
SUPE ORECT DELL HEAD LAB SAMPLES SAMPLE ANALYSIS TIME SPIQ TPH BTEX 1123 TOT. TEX-FRILED TOT. TEX-FRILED			
LAB SAMPLES : SAMPLE ANALYSIS TIME SOLIC TOT. REX-FOLLES TOT. REX-FOLLES	←	3 @ 25' 0.0 4 @ 24' 0.0 5 @ 19' 1,040	
TOT. PRISED	STUPE 3	3 @ 25' 0.0 4 @ 24' 0.0 5 @ 19' 1,040 5A @ 30' 0.0	
TRAVEL NOTES: CALLOUT: 10/15/98 - MORN. ONSITE: 10/16/98 - MORN.	SWPE 3	TO LAB SAMPLES : SAMPLE SAMPLE SAMPLES : SAMPLE SAMPLE SAMPLE SAMPLES : SAMPLE SAMPLE SAMPLE SAMPLE SAMPLES : SAMPLE SAMPL	
	DOWN SWPE (3)	3 @ 25' 0.0 4 @ 24' 0.0 5 @ 19' 1040 5A @ 30' 0.0 TO WEAD LAB SAMPLES SAMPLE ANALYSIS TIME (S) POPT PRISED TOPH - PRISED	

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

4 @ 24'

Project #:

10-16-98

Sample ID: Project Location:

Jicarilla Apache Tribal # 151 – 7

Date Analyzed:
Date Reported:

10-16-98

Laboratory Number:

TPH-2056

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.
236	220	7.02

^{*}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 - BJ665

Analyst

Review Pegg

BLAGG ENGINEERING, INC.

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

Field TPH-Worksheet

Client: Amoco Project #:

Sample ID: 4 @ 24' Date Analyzed: 10-16-98
Project Location: Jicarilla Apache Tribal # 151 - 7 Date Reported: 10-16-98

Laboratory Number: TPH-2056 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

Comments: Production Tank Pit - BJ665



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 5 @ 19' E066 6296 Soil Cool Cool and Intact	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed: Analysis Requested:	04034-10 10-14-98 10-13-98 10-14-98 10-14-98 10-14-98 8015 TPH
--	---	---	--

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	2,310	0.2
Diesel Range (C10 - C28)	558	0.1
Total Petroleum Hydrocarbons	2,860	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.

PRODUCTION TRAK PIT.

Comments:

Jicarilla Apache Tribal #151 - 7

Blow Pit:

Analyst

Stacy W Sendler
Review



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client: Blagg / AMOCO Sample ID: 5 @ 19' Laboratory Number: E066 Chain of Custody: 6296 Sample Matrix: Soil Preservative: Cool Condition: Cool & Intact	Project #: Date Reported: Date Sampled: Date Received: Date Analyzed: Date Extracted: Analysis Requested:	04034-10 10-14-98 10-13-98 10-14-98 10-14-98 10-14-98 BTEX
---	---	--

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene Toluene Ethylbenzene p,m-Xylene o-Xylene	1,250 16,230 6,590 31,260 14,470	8.8 8.4 7.6 10.8 5.2
Total BTEX	69,800	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:

Parameter

Percent Recovery

Trifluorotoluene Bromofluorobenzene 100 % 100 %

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.

PROGRETION TANK PIT.

Comments:

Jicarilla Apache Tribal #151 - 7 Blow Pit.

Deur L. Opieren

Stacy W Sendler

CHAIN OF CUSTODY RECORD

	Cool - Ice/Blue Ice	Mexico 8/401	Farmington, New Mexico 87401 (505) 632-0615				
	Received Intact	ghway 64	5796 U.S. Highway 64	_			
z	Υ]	6273	120 coc.s
ot	Sample Receipt	CE DO		196)
		Received by: (Signature)	Rece			ature)	Relinquished by: (Signature)
		Received by: (Signature)	Несе			ature)	Relinquished by: (Signature)
011098.0710	19.14.50	The Committee of the Co	0/4086/1/01			ature)	Relinquished by: (Bignature)
Time	Date	Bookings by (Signature)	Time				
						•	
1000	MESEN	\ \ \ \ \	7/02	5066	lns	10/13/98	(3) @ 191
	2	Cor	Sample Matrix	Lab Number	Sample Time	Sample Date	Sample No./
		lo. of ntaine		04034-10			NOW
	Hemans			Client No.			Sampler:
			TICORUM RAPONE TRIBOL #151-7	Jichaus Appa		moco	BLAGE / Amoco
	ETERS	ANALYSIS / PARAMETERS	V Bears PIT	Project Location % February			Client / Project Name
		P()	PRADUCTION TAIN				

B1665

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

		200
Operator: AMOCO PRODUCTION COMPANY	Telephone: (505) 326-92	
i - ~ t - 0 n .	NM 87401	
Address: 200 Amoco Court, Farmington, Facility or Well Name: JICARIUA APROME	TRIBOL # 151-7	
Facility or Well Name:	COUNTY RIO ARRIBA	
Facility or Well Name: Sec_ 4 To Sec_ 4 To Sec_ 4 To Sec_ 4 To Sec_ 5 Sec_ 5 Sec_ 6 Sec_ 6 Sec_ 7 Sec_	LEA 16300 Cinimy	
Pit Type: Separator Dehydrator Other		
Dit dimensions: length_	37' , width 29' , depth 6'	
(Attach diagram) Reference: wellhead X	, other	<u> </u>
Footage from reference:	80' 37 Degrees X East North X	
Direction from references.	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)	0_
ten feet in width) Distance to Nearest Lake, Playa, or Watering Pond	Less than 100 feet (10 points) Greater than 100 feet (0 points)	
Wollhead Protection Area:	Yes (20 points) No (0 points)	0
(Less than 200) feet from a private domestic water source, or: less than 1000 feet from all other water sources) Distance To SurfaceWater:	Less than 100 feet (20 points) 100 feet to 1000 feet (10 points)	o ,
(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Greater than 1000 feet (0 points)	0
ni.	RANKING SCORE (TOTAL POINTS):	

01002	87665	SEP.	PIT
-------	-------	------	-----

	Date Completed: 10/16/98			
Date Remediation Sta	Approx. cubic yards			
Remediation Method:	EXCAVATIONZS_			
Check all appropriateections)	Landfarmed Insitu Bioremediation			
	Other			
Remediation Location (i.e. landfarmed onsite, name and location of offsite facility)				
1	of Remedial Action: Excavation, Excavation Mostry Realeck			
THEREFORE NO	TPH ANALYSIS WAS CONDUCTED. RISK ASSESSED.			
Groundwater Encoun	tered: No 🔀 Yes Depth			
Final Pit: Closure Sampling: (if multiple samples,	Sample location see Attached Documents			
attach sample results	Sample depth 3' (SONTH) SIDEWALL)			
and diagram of sample locations and depths)	Sample date			
	Sample Results			
	Soil: Benzene (ppm) Water: Benzene (ppb)			
N	Total BTEX (ppm) Toluene (ppb)			
	Field Headspace (ppm) 300 Ethylbenzene (ppb) TPH (ppm) NA Total Xylenes (ppb)			
Groundwater Sample	: Yes No _X (If yes, attach sample results)			
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEGE AND BELIEF				
BELLEVAL STREET, ST. 12.				
DATE	PRINTED NAME Buddy D. Shaw			
SIGNATURE Sud	My Shaw AND TITLE Environmental Coordinator			
AFTER REVIEW OF TO THE JICARILLA	THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE APACHE TRIBE PIT CLOSURE ORDINANCE.			
APPROVED: YES _	X NO (REASON) R.A. AHAChed			
" GNED:	Mall DATE: 11-18-98			

AMOCO	BLAGG ENGIN	NEERING. INC.	LOCATION NO: 81665
CLIENT: AMOCO	PO BOX 87. BLOO	MFIELD, NM 8' 32-1199	
FIELD REPOR	T: CLOSURE	VERIFICATI	ON PAGE No: 1 of 1
LOCATION: NAME: JICH. AF	. TRIBAL 151 WELL # 7	PIT: SCP.	DATE STARTED: 1016 98
QUAD/UNIT: M SEC: 4	TWP:Z60 RNG: 5w	PM: DM CNTY: N S	ENVIRONMENTAL SPECIALIST:
OTR/FOOTAGE: 790 FSL	7790 FWL CONTRACTOR	P + 2	
EXCAVATION APPROX3) FT. x 29 FT. x	6 FT. DEEP.	CUBIC YARDAGE: 150
DISPOSAL FACILITY:	ON-SITE	REMEDIATION .	FORMATION:
LAND USE: RANGE	LEASE:		
FIELD NOTES & REMAR	KS: PIT LOCATED APPR	XIMATELY (80)	FT. NSTE FROM WELLHEAD. SURFACE WATER: >/000/
DEPTH TO GROUNDWATER:	NEAREST WATER SHORES.	5000 PPM	SURFACE WATER: >/000/ CHECK DNE: Y PIT ABANDONED
NMOCD RANKING SCORE: SOIL AND EXCAVATION	N DESCRIPTION:		STEEL TANK INSTALLED
			FIBERGLASS TANK INSTALLED
באסטווויסט כסט	STORE OF MESTLY L	TO DE GRAY S	HE DOOR DETECTED
1	- N ROUGHE ODOR	DELECTED IN 2	outh spenific oum
FAMOUR, PAUL	in agentage and in	> 50.57 + west	TIDEWALL OUR SHAPES,
ALL SOMPLES	culteted from 8EC	orous Therefore	NO THA ANALYSIS WAS
EXCAUATION (RISK	ASSESSED		
MOSTLY BEDROCK		FIELD 418.1 CALCULA	TIONS FREON DILUTION READING CALC. ppm
SCALE	TIME SAMPLE I.D. LAB	110. 112.011 (9)	
	7230		
0 FT	ETED \		PIT PROFILE
PIT PERIM	0	VM	
	RES		A 37' A
37 '	1 @ 4'	PID (ppm)	——
	2 @ 4' 3 @ 3'	300	712' 2'1
TO	4 @ 3' 5 @ 6'	145.6	N-1-11-1777
29 4 5	O A'		8EDROCIZ (Sh)
SEA		SAMPLES NALYSIS TIME	
/ 10	,		
WELL			
+1FeD	10/15/98-mord.	ONSITE: _/0/16	/

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

Vicinity Groundwater Depth:

Jicarilla Apache Tribal 151 #7
Unit M, Sec. 4, T26N, R5W
Separator Pit
Basin Dakota
Non Vulnerable
> 1000 ft.
> 100 ft.

RISK ASSESSMENT (non-vulnerable area)

Pit remediation activities were terminated when trackhoe encountered shale bedrock at 6 feet below grade.

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

- Past production fluids were contained locally by a relatively shallow shale bedrock located 6 feet below grade. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below shale bedrock.
- 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 0.90 miles south southeast of the nearest vulnerable area boundary (Cereza 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 lateral impact from the earthen pit is very limited and that the shale 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.

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

SJ65S SIBMIT 1 COPY TO

NATURAL RESOURCE DEPT

AND OIL & GAS ADMINISTRATION

PIT REMEDIATION AND CLOSURE REPORT

	>
Operator: AMOCO PRODUCTION COMPANY	Telephone: (505)326-9200
court Farmington, N	M 87401
Facility or Well Name: JICARIUM APACHE TE	BAL #151 -7
Facility or Well Name:	SN R SW County RID ARRIBA
Location: Unit or Qtr/Qtr Sec_M Sec_4	
Pit Type: Separator Dehydrator Other	unknown
Land Type:	
Pit Location: Pit dimensions: length	(8' , width 17' , depth 17'
(Attach diagram) Reference: wellhead X,	other
Footage from reference: 24	10'
Direction from reference:	Degrees _X East North _Z
	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 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)
и .	RANKING SCORE (TOTAL POINTS):

		Date Com	pleted:	16/98
Date Remediation S	~		ic yards	
Remediation Method: Theck all appropriate				
sections)	Landfarmed X	Insitu Biorer	nediation	
	Other	•		
Remediation Location (i.e. landfarmed onsite, name and location of	n: Onsite X Offsite			
offsite facility)	Erro	avation.		
General Description	of Remedial Action: Exc	avacion.		
Groundwater Encoun	ntered: No <u>×</u>	Yes Depth		
Final Pit: Closure Sampling: (if multiple samples,	Sample location see At			
attach sample results and diagram of sample	Sample depth(8)	(PIT BOTTOM)		
locations and depths)	Sample date		le time /33c	
	Sample Results			
	•	(ppm) Wat	ter: Benzene	(ppb)
		(ppm)	Toluene	(ppb)
	Field Headspace (-	Ethylhenzene	(ppb)
		ppm) <u>ND</u>	Total Xylenes	
	1111	[7]m)	•	
Groundwater Sample	: Yes No _>	(If yes, attach sau	mple results)	
I HEREBY CERTIFY KNOWLEGE AND B	THAT THE INFORMATION	N ABOVE IS TRUE AND	COMPLETE TO	THE BEST OF MY
DATE	10/16/98 _ PRIN	TED NAME Buddy I). Shaw	
SIGNATURE BLD	ly S. Shaw AM	ND TITLE Environ	nmental Coord	linator
AFTER REVIEW OF	THE PIT CLOSURE INFOR APACHE TRIBE PIT CLOS	MATION, PIT CLOSURI		
APPROVED: YES 👤	NO (REASON)			
JIGNED:	c mall i	DATE: 11-18-	98	·

CLIENT: AMOCO	O BOX 87, BLC	INEERING, IN OMFIELD, NM 632-1199	C. 87413	C.O.C. NO:	
FIELD REPOR	r: closure	VERIFICA	ATION	PAGE No:	
OCATION: NAME: TICE AS	TRIRAL 151 WELL #:	7 PIT: UNKA	NWA	DATE STARTED:	
QUAD/UNIT: M SEC: 4	TWP: 268 RNG: 5W	PM: NM CNTY: 1	st:um	ENVIRONMENTAL SPECIALIST:	V
QTR/FOOTAGE: 740 FSL			CURIC		
EXCAVATION APPROX. 18 DISPOSAL FACILITY:	FT. x <u>_1</u> FT. x	REMEDIATIO	N METHO	D: LANDFAR	~
LAND USE: RADEE	LEASE:	TIC 151	FOF	RMATION: O	<u> </u>
DELIA DE	(C DIT DOATED AD	DOUVINATELY Z.	10 FT. /	VZOE FROM V	VELLHEAD.
DEPTH TO GROUNDWATER: >101	NEAREST WATER SOURCE	- >/900 NE	AREST SURFAC	CHECK DNE	
NMOCD RANKING SCORE:	NMOCD TPH CLOSURE ST v. NESCRIPTIAN:	D <u>5000</u> PPM		_ PIT ABANDONED _ STEEL TANK INST	
			L	_ FIBERGLASS TANK	
NOD. TO DK. YELL	orange sand, nod we observed no	CONESIVE, SHE	, אם משידון ב מ אם מספס	ST FIRM N	,o ,∼
APPAREST STRINI EXCOUNTIEN OF	NO ANY OF THE	E OUM SAMP	.E.S.,	E/EU/ (3)	
costa		FIELD 418.1 CAL	CULATIONS_		
		B No: WEIGHT (g)	mL. FREON D	ILUTION READING (CALC. ppm
SCALE	1330 (S C18' TF	H-2057 5	28	7., 4	
0 FT			TIG	PROFILE	
PIT PERIMI		OVM	<u>1_1_1</u> A	11011111	۸)
18	SAMPLE	SULTS FIELD HEADSPACE PID (ppm)	π	18'	A '
	1 0 13 1 2 0 12 1	0.0	~~~		
0	3 @ 13'	0.0	}		10'
e 650	A' 5 @ 18'	0.0	Ì		
DOWN A 3)				
DIRECT.	J =				·
	LAB	SAMPLES ANALYSIS TIME			
TO W6	الله الله	A.L.1.55			
A HE	- Ca				
TRAVEL NOTES: CALLOUT	10/15/98 -mary	ONSITE:	116/98 -1	model.	

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:

5 @ 18'

Date Analyzed:

10-16-98

Project Location:

Jicarilla Apache Tribal # 151 - 7

Date Reported:

10-16-98

Laboratory Number:

TPH-2057

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.
236	220	7.02

^{*}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:

Unknown Pit - BJ665

Mehon Vil Analyst

Review

BLAGG ENGINEERING, INC.

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

Field TPH-Worksheet

Client: Amoco Project #:

Sample ID: 5 @ 18' Date Analyzed: 10-16-98
Project Location: Jicarilla Apache Tribal # 151 - 7 Date Reported: 10-16-98

Laboratory Number: TPH-2057 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.
----- 236 220 7.02

Comments: Unknown Pit - BJ665

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

SUBMIT 1 COPY TO

NATURAL RESOURCE DEP1

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 TRIBAL 151-7 Location: Unit or Qtr/Qtr Sec_M Sec_4 TZON RSW County RIO ARRIBA Land Type: Remediation Started: 10 10 98 Date Completed: 52499 Remediation Method: Landfarmed V Approx. cubic yards 1500
Facility or Well Name: SICARILLA APACHE TRIBAL 151-7 Location: Unit or Qtr/Qtr Sec_MSec_4T_ZGNR_SWCountyR_IO_ARRIBA Land Type:RANGE Date Remediation Started:
Location: Unit or Qtr/Qtr Sec_M Sec_4 T26N R5W County BIO ARRIBA Land Type: PANGE Date Remediation Started: 10.16.98 Date Completed: 5/24/99
Land Type: Particle Date Remediation Started: 10.16.98 Date Completed: 5 24 99
Date Remediation Started: 10.16.98 Date Completed: 5 24 99
Remediation Method: Landfarmed \checkmark Approx. cubic yards $\frac{7500}{}$
Composted
Other
epth To Groundwater: (pts.) o Final Closure Sampling:
Distance to an Ephemeral Stream (pts.) o Sampling Date: 5.21.99 Time: 1050
Distance to Nearest Lake, Playa, or Watering Pond (pts.) O Sample Results:
Wellhead Protection Area: (pts.) o Field Headspace (ppm) 59.7 TPH (ppm) 6.5 Method (8015)
Distance To SurfaceWater: (pts.) 0 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 5/24/99 , PRINTED NAME Buddy D. Shaw
SIGNATURE Bully J. 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: DATE:

CLIENT: _AMOCO BLAGG ENGINEERING, INC. LOCATION NO: BS655 P.O. BOX 87, BLOOMFIELD, NM 87413 C.D.C. ND: <u>6935</u> (505) 632-1199LANDFARM/COMPOST PILE CLOSURE VERIFICATION FIELD REPORT: LOCATION: NAME: APACHE TEIBAL 151 WELL #: 7 PITS: SEP, BLOW, PROP, UNKNOWN DATE STARTED: 5-21-99 DATE FINISHED: QUAD/UNIT: M SEC: 4 TWP: 20N RNG: 5W PM:NM CNTY: RA ST: NM ENVIRONMENTAL REP DIP/FOOTAGE:SW/4 SW/4 CONTRACTOR: P+5 SPECIALIST: SOIL REMEDIATION: APPROX. CUBIC YARDAGE: 1500 REMEDIATION SYSTEM: LANDFACK BANGE LAND USE: ____ LIFT DEPTH (ft): 2 FELD NOTES & REMARKS: DEPTH ID GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000' : NMBSI RANKING SCORE: ___O NMBCD TPH CLOSURE STD:5000 PPM DK. YELLOWISH BROWN SAND, NON COHESIVE SLIGHTLY MOIST FIRM NO APPARENT STAINING. H.C. O DOR DETECTED IN SAMPLING PT. (3) SAMPLING DEPTHS RANGE FROM 6"-12" COLLECTED A SPT COMPOSITE SAMPLE FOR LAB ANALYSIS CLOSED FIELD 418.1 CALCULATIONS LAB No: WEIGHT (g) ml. FREON DILUTION READING CALC. ppm SAMP, TIME SAMPLE I.D. SKETCH/SAMPLE LOCATIONS 入人。

	18'5-30'W N	OVM I	RESULTS	I	LAB SA	AMPL	ES	
N /	// B \Y	SAMPLE	FIED HEADSPACE	SAMPLE	ANALYSIS	TIME	RESULTS	7
		2F-1	59.7	LF-1	(8015)	1050	6.5	- -
//								-
	/ \							-
								_
• (•	•							-
<i>\$</i> ?.								_
X		SCAL	Æ					
	(n)							
		0	FT					
TRAVEL NOTES:	CALLOUT: MA	ONSITE	5.219	19				-



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

•	•		
Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	LF - 1	Date Reported:	05-24-99
Laboratory Number:	F375	Date Sampled:	05-21-99
Chain of Custody No:	6935	Date Received:	05-24-99
Sample Matrix:	Soil	Date Extracted:	05-24-99
Preservative:	Cool	Date Analyzed:	05-24-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	4.4	0.2
Diesel Range (C10 - C28)	2.1	0.1
Total Petroleum Hydrocarbons	6.5	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 Apache Tribal 151 - 7 Landfarm. 5 Pt. Composite.

Append. (decen

Stacy W Sendler

yBlue ice	Cool - Ice/Blue Ice			0615	(505) 632-0615			i		
ad Intact	Received Intact		4 01	jhway 64 Mexico 87	5796 U.S. Highway 64 Farmington, New Mexico 87401	Farn				
Y Z										
Sample Receipt			C	유 문	ENVIROTECH IC	EO				
			nature)	Received by: (Signature)	Rece				nature)	Relinquished by: (Signature)
			nature)	Received by: (Signature)	Rece				nature)	Relinquished by: (Signature)
Date Time	[Piece	nature) $ otag{ } $	Received by: (Signature)	7ime	Date \$ 24.99			(alghature)	Relinquished by: (Sig
SPT. CO-PRESTOR	8 2					375	050		<u> </u>	
			(301		Sample Matrix		Sample Lab		Sample Date	Sample No./ Identification
Remarks			ಶ			403410	Client No.			Sampler:
	ANALYSIS / PARAMETERS	ANALYSIS / P			12101 12151-7	Project Location CANDFAD TICABULA APACHE TEBAL 151-7	Projec		000	Client / Project Name BLAGG / AHOCO
Remarks	ARAMETERS	ANALYSIS / P	क्र	lo. of hainers	1280 151-7	Project Location LANDTALE TOBAL Client No. 403410	<u> </u>	-	0	000