BJ514

# JICARILLA APACHE TRIBE BOWNENTAL PROTECTION OFFICE

P.O. BOX 507

DULCE, NEW MEXICO 87528

AND OIL & GAS ADMI

SUBMIT I COPY TO

AUG 2 7 1999

### PIT REMEDIATION AND CLOSURE REPORT

Telephone: (505) 326-9200 Operator: AMOCO PRODUCTION COMPANY Address: 200 Amoco Court, Farmington, NM 87401 Facility or Well Name: TICARILLA GC 35 C#1 Unit or Qtr/Qtr Sec M Sec Z TZYN R5W County R10 ARRISA Location: Separator\_\_\_ Dehydrator\_\_\_ Other\_BLOW PIT Pit Type: KANGE Land Type:\_ length 35', width 52', depth 16' Pit Location: Pit dimensions: (Attach diagram) Reference: wellhead X , other \_\_\_\_\_ Footage from reference: 170' Direction from reference: 35 Degrees East North X South West (20 points) Less than 50 feet **Depth To Groundwater:** (10 points) 50 feet to 99 feet (Vertical distance from (0 points) Greater than 100 feet contaminants to seasonal high water elevation of groundwater) (10 points) 0 Less than 100 feet Distance to an Ephemeral Stream (0 points) Greater than 100 feet (Downgradient dry wash greater than ten feet in width) (10 points) Less than 100 feet Distance to Nearest Lake, Playa, or Watering Pond ( 0 points) Greater than 100 feet (Downgradient lakes, playas and livestock or wildlife watering ponds) (20 points) Yes Wellhead Protection Area: 0 (0 points) No (Less than 200 feet from a private domestic water source, or: less than 1000 feet from all other water sources) Less than 100 feet (20 points) Distance To SurfaceWater: 100 feet to 1000 feet (10 points) (Horizontal distance to perennial Greater than 1000 feet (0 points) lakes, ponds, rivers, streams, creeks, irrigation canals and ditches) RANKING SCORE (TOTAL POINTS):

		12/22/97
Date Remediation Sta	arted:	Date Completed:
Remediation Method:	Excavation X	Approx. cubic yards
ck all appropriate sections)	Landfarmed 🔀	Insitu Bioremediation
	Other	
Remediation Location (i.e. landfarmed onsite, name and location of offsite facility)		n BEDROCK BOTTOM. APPLIED
General Description	of Remedian Action.	
	ntered: No X Yes	Depth
Final Pit: Closure Sampling: (if multiple samples,	Sample locationsee Attached	Documents
attach sample results and diagram of sample locations and depths)	Sample depth 10 (5007) Sample date 12/22/97	Sample time
	Sample Results	
	Soil: Benzene (ppm) _	Water: Benzene (ppb)
	Total BTEX (ppm)	Toluene (ppb)
	Field Headspace (ppm)	0.0 e16'-608 Ethylbenzene (ppb)
	TPH (ppm) _	
Groundwater Sampl	e: Yes No	
I HEREBY CERTIF KNOWLEGE AND	Y THAT THE INFORMATION ABOV BELIEF	VE IS TRUE AND COMPLETE TO THE BEST OF MY
DATE	PRINTED N	AME Buddy D. Shaw
SIGNATURE Suc	Lily D. Shaw AND TITI	LE Environmental coolaina
A PERSON DESIGNATION ()	F THE PIT CLOSURE INFORMATIO A APACHE TRIBE PIT CLOSURE O	ON, PIT CLOSURE IS APPROVED IN ACCORDANCE
APPROVED: YES	X NO (REASON)	
SIGNED:	Manuel DATE:	

ELENT AMOCO  BLAGG ENGINEERING, INC.  P.O. BOX 87, BLOOMPIELD, NM 87413  (505) 632-1199  PAGE NO. / Of /  COC NO.  COCATION NAME TICA. GG 35 C WELL F. / PT. BLOW  GUADZINGT PA NO. Z. THE TANK NO. S.W. PENNE CONTY 24 SEMAN  COLLEGE NO. / OF /  COLOR TO. / PT. BLOW  DATE SHAPERS AND CONTY 24 SEMAN  COLOR TO. / OF /  COLOR TO. / PAGE NO. / OF /  COLOR TO. / PAGE NO. / OF /  COCATION APPROX. 35 PT. X 52 PT. X 16 PT. BEAP CUBIC TARDAGE. 600  DISPOSAL PACILITY. ON TITE  CENAVATION APPROX. 35 PT. X 52 PT. X 16 PT. BEAP CUBIC TARDAGE. 600  DISPOSAL PACILITY. ON TITE  LEASE SOLT 4247 PORMATION. DISPOSAL PACILITY. ON PAGE NO. /  CHECK NOTES & REMARAS. PIT LUCATED APPROXAMETELY 170. PT. N. 35.W. FROM WELLHEAD  FIELD NOTES & REMARAS. PIT LUCATED APPROXAMETELY 170. PT. N. 35.W. FROM WELLHEAD  FIELD NOTES & REMARAS. PIT LUCATED APPROXAMETELY 170. PT. N. 35.W. FROM WELLHEAD  FIELD NOTES & REMARAS. PIT LUCATED APPROXAMETELY 170. PT. N. 35.W. FROM WELLHEAD  FIELD NOTES & REMARAS. PIT LUCATED APPROXAMETELY 170. PT. N. 35.W. FROM WELLHEAD  FIELD NOTES & REMARAS. PIT LUCATED APPROXAMETELY 170. PT. N. 35.W. FROM WELLHEAD  FIELD NOTES & REMARAS. PIT LUCATED APPROXAMETELY 170. PT. N. 35.W. FROM WELLHEAD  FIELD NOTES & SUPPLY 170. PT. N. 35.W. FROM WELLHEAD  FIELD NOTES & SUPPLY 170. PT. N. 35.W. FROM WELL APPROXAMENT TARGET APPROXAMENT	300342024	
DOLATION: NAME TIP. GO 35 C WELL F. / PT BLOW  QUAD/ONT M SEC Z TWO 24A RNG 5 D PENMI CHTY 2A STAM  QUAD/ONT M SEC Z TWO 24A RNG 5 D PENMI CHTY 2A STAM  QUAD/ONT M SEC Z TWO 24A RNG 5 D PENMI CHTY 2A STAM  QUAD/ONT M SEC Z TWO 24A RNG 5 D PENMI CHTY 2A STAM  QUAD/ONT M SEC Z TWO 24A RNG 5 D PENMI CHTY 2A STAM  QUAD/ONT M SEC Z TWO 24A RNG 5 D PENMI CHTY 2A STAM  DEPTH M SECULITY:  ON - 5 TTE  REMEDIATION METHOD.  LAND USE: CAUSE  LEASE: SWI 1241 FORMATION:  DIX  FIELD NOTE: A REMARKS! PIT LOCATED APPRIXMATELY 170 FT. M351D FROM WELLHEAD  FIRM TO PARTIE TO SO SUBJECT VATE SUBRE 2000 PPN  FIRM DO PARTIES SORE O ANGLE THE COURSE STO SOO PPN  THOUGH PARTIES SORE O ANGLE THE COURSE STO SOO PPN  SIDEMBLES MOSTLY DO. YEAR. BLOWN TIME NON COMESTIC SUBRAY NOTALLED  FIRM NO APPRIXME OF THE DO. YEAR. BLOWN TIME NON COMESTIC SUBRAY RED  CAPY SALE OF THE OBJECT TO THE OWN TARREST.  RETION OUR CAMP TO MED. GET APPROX. 10'-16' SECUN SALE DISTORED.  RETION OUR CAMP TO MED. GETY SANDETONE, DEAT HARD, STROW HE DOOR  IN OUR TARRET.  TIME SAMPLE ID LAB NA WEIGHT (1) INT. FROM DUTTON READING CALC. PPM  PIT PERIMETER IN RESULTS  THE SAMPLE ID LAB NA WEIGHT (1) INT. FROM DUTTON READING CALC. PPM  RESULTS  PIT PERIMETER IN RESULTS  THE SAMPLE IS LAB NA WEIGHT (1) INT. FROM DUTTON READING CALC. PPM  RESULTS  PIT PERIMETER  A 52'  A 52'	PO BOX 87, BLOOMFIELD, NM 07413	ı
QUADATIMITA NAME TICA GC 35 C WELL # / PT BLOW  QUADATIMITA NEC 2 TWP 24N RNG: 5ND PALAM CITY 29 STAM  QUADATIMITA NEC 2 TWP 24N RNG: 5ND PALAM CITY 29 STAM  QUADATIMITA NEC 2 TWP 24N RNG: 5ND PALAM CITY 29 STAM  QUADATIMITA NEC 2 TWP 24N RNG: 5ND PALAM CITY 29 STAM  QUADATIMITA NEC 2 TWP 24N RNG: 5ND PALAM CITY 29 STAM  EXCAVATION APPROX 35 FT x 52 FT x 16 FT DEEP CUBIC YARDAGE: 600  DISPOSAL FACILITY: ON - SITE  EXCAVATION METHOD: CARDET NAME OF THE DEEP CUBIC YARDAGE: 600  LAND USE: Asked Service Service Service Service NECTOR OF PARAMETERS IN WELLHEAD  EFFICIAL SAMPLE NO. YEAR SURVEY SOOD NEAREST SURFACE VAITE SOOD!  FILED MOTE'S & REMARKS: PILOCATED APPROXIMATELY IDO FT NASSO FROM WELLHEAD  EFFICIAL SAMPLE NO. NEAREST VAITE SURVEY.  FILED MOTE'S & REMARKS: PILOCATED APPROXIMATION DESCRIPTION:  FILED MOTE'S & REMARKS: PILOCATED APPROXIMATION NEAREST SURFACE VAITE SOOD!  REPORT TO GROUP THE CLOSURE STD 5000 PPN  CITY OF PILOCATED APPROXIMATION OF THE COMM SERVICE STAME OF THE COMM SERVICE	FIELD REPORT. CHOBORE VERMITTEE	
EXCAVATION APPROX 35 FT. x 52 FT. x 16 FT. DEEP CUBIC YARDAGE: 800  DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: CADFRAMED  LEAND USE: ROSE LEASE: SOUT 4247 FORMATION: DIX  FIELD NOTES & REMARKS: PIT LOCATED APPROXMATELY 170 FT. N3SW FROM WELLHEAD.  DECENT TO GRAND PROSECULATE SURGES: 2000' NEAPEST SUFFACE VATEP. 27003'  LINGUS PAIR-THE SCORE: ON-BARDST VATER SURGES: 2000' NEAPEST SUFFACE VATEP. 27003'  LINGUS PAIR-THE SCORE: ON-BARDST VATER SURGES: 2000 PPN  SIDEMARUS POSTLY PAIR PECESURE STD 5000 PPN  SIDEMARUS POSTLY PAIR OF SERVED OFT. APPROX. 10'-16' SELIGHTLY TIREST.  FIRM NO APPREEDT HE OBOT IN ANY OF THE OWN SAMPLES.  NO APPREEDT HE OBOT IN ANY OF THE OWN SAMPLES.  ROTTON: OWN SAMPLE TO LAB NO WEIGHT (3) MIL FREIND DELITION READING CALC. PPM  SCALE ASSESSED  O FT  OVM  RESULTS  FIELD NOTES & PRIMATER  OVM  RESULTS  OVM	LOCATION: NAME: TICA. GC 35 C WELL #: / PIT: BLOW DATE STARTED: DATE STA	
DEPTH ID GPUNDWATER 200 NEAREST VATER SUBRECE 2000 NEAREST STATE ONE CHECK DNE CHECK D	EXCAVATION APPROX. 35 FT. x 52 FT. x 16 FT. DEEP. CUBIC YARDAGE:  DISPOSAL FACILITY: 00-5776 REMEDIATION METHOD: LANDFORM LAND USE: 2005 LEASE: 561 4247 FORMATION:	0K
ROTTON- OLIVE GRAY TO MED. GRAY SANDSTONE, LERY HALD, STRONG HE SOOR  REPORTER  REPORTER  FIELD 418.1 CALCULATIONS  ROTTON  TIME SAMPLE ID LAB No: WEIGHT (1) ml. FREON DILUTION READING CALC. PPM  SCALE RISK  OOO © 610' TAY-1949 5 20 1:1 4 NO  PIT PERIMETER IN RESULTS  PIT PROFILE  SAMPLE REDUCKSPREE  OUT OVM  PIT PROFILE  SAMPLE REDUCKSPREE  OUT OVM  RESULTS  A S2'  A S2	DEPTH TO GRUNDWATER: >100' NEAREST WATER SOURCE: 7000 NEAREST SORT ACE WATER  OHECK D  NMOCD PAINING SCORE: NMOCD THY CLOSURE STD: 5000 PPM  PIT ABANDONE  STEEL TANK I  FIBERGLASS T  FIRM NO APPARENT STAINING OR HC ODOR OBSERVED SOME ONSKY  ON STAINING SCORE: PIT APPROX. 10'-16' BELOW 'GROWN) SURTH	NE: D INSTALLED TANK INSTALLED TOURST, RED
PIT PERIMETER IN RESULTS  SAMPLE FIELD HEADSPACE PO (SPON)  SELECT O.O.  3 © 12' 0.O.  4 © 12' 0.O.  5 © 16' 608  LAB SAMPLES  SAMPLE ANALYSIS TIME  TO WELL HEADSPACE  LAB SAMPLES  SAMPLE ANALYSIS TIME  TO WELL HEADS  TO WELL HEADSPACE  LAB SAMPLES  SAMPLE ANALYSIS TIME  TO WELL HEADSPACE  TO WELL	ROTTON  SCALE  ROTTON  ROTTON  TIME SAMPLE I.D. LAB NO: WEIGHT (a) INL. FREON DILUTION READIN  SCALE  ROTTON  SCALE  ROTTON  SCALE  ROTTON  SCALE  ROTTON  ROTTON  TIME SAMPLE I.D. LAB NO: WEIGHT (a) INL. FREON DILUTION READIN  SCALE  ROTTON  SCALE  ROTTON  ROTTON  TIME SAMPLE I.D. LAB NO: WEIGHT (b) INL. FREON DILUTION READIN  SCALE  ROTTON  ROTTON  TIME SAMPLE I.D. LAB NO: WEIGHT (c) INL. FREON DILUTION READIN  SCALE  ROTTON  ROTTON  SCALE  ROTTON  ROTTON  ROTTON  SCALE  ROTTON  R	IG CALC. ppm
SZ' CH B DUSKY  SAMPLES  SAMPLE ANALYSIS TIME  TO WELL HEAD  TO WELL HEA	PIT PERIMETER N RESULTS  SAMPLE FIELD HEADSPACE PID (ppm)  1 @ 11' 0.0 2 0.2' 2 0.0	
SAMPLE ANALYSIS TIME  TO  WELL  HEAD  ANALYSIS TIME  ANALYSIS TIME	52 E S S S S S S S S S S S S S S S S S S	
	LAB SAMPLES  SAMPLE ANALYSIS TIME  10  TO  WELL	DUSKY KED CLAY/SHALE
	1 /- /97 - magn	

### 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** 

Sample ID:

3 @ 10'

Project #:
Date Analyzed:

12-22-97

Project Location:

Jicarilla GC 35 C # 1

Date Reported:

12-22-97

Laboratory Number:

TPH-1949

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.
608	568	6.80

<sup>\*</sup>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:

Blow Pit - BJ514

Analyst

Review

### BLAGG ENGINEERING, INC.

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

Field TPH-Worksheet

Max Characters:

\*\*\*\*\*\*

Client:

**AMOCO** 

3 @ 10'

Project #:

Sample ID: Project Location: Jicarilla GC 35 C # 1

Date Analyzed: Date Reported: 12-22-97 12-22-97

Laboratory Number:

TPH-1949

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 TPH mg/kg

Duplicate TPH mg/kg

% Diff.

608

568

6.80

Comments:

\*Max Characters\*\*\*\*\*\*\*\*\*\*\*

Comments:

Blow Pit - BJ514

Well Name:

Well Site location:

Pit Type:

Producing Formation:

Pit Category:

Horizonal Distance to Surface Water:

Vicinity Groundwater Depth:

Jicarilla GC 35 C # 1
Unit M, Sec. 2, T24N, R5W
Blow Pit
Basin Dakota
Non Vulnerable
> 1000 ft.
> 100 ft.

### RISK ASSESSMENT - (non vulnerable)

Pit remediation activities were terminated when trackhoe encountered sandstone bedrock at 16 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 16 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. Field headspace readings (OVM/PID) on Basin Dakota type locations do not reflect direct correlation to total BTEX per USEPA Method 8020 concentrations. Listed below are several typical AMOCO Basin Dakota pit soil analyses comparing headspace to Benzene and total BTEX results.

LOCATION	HEADSPACE (ppm)	BENZENE (ppm)	TOTAL BTEX (ppm)
Frost, Jack B 1E	1100	0.011	5.889
Berger A1	482	0.084	0.681
Mudge Com B 1E	684	0.017	16.438
L.C. Kelly #5	1235	0.643	13.908

The comparisons listed above demonstrates that headspace testing is not an accurate measurement to Benzene or total BTEX concentrations when above standards for Basin Dakota type pits.

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 an impermeable barrier sufficient 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.

BJ 514

# 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	<b>Telephone:</b> (505)326-9200
Address: 200 Amoco Court, Farmington, N	
Facility or Well Name: JICARILLA GC 35	
Location: Unit or Qtr/Qtr Sec_M Sec_Z TZ	HN R SW County KIO ARRIBH
Pit Type: Separator Dehydrator Other	
_	
Lana Typo.	
110 2000019111	32', width_ 45', depth_ 16'
(Attach diagram)  Reference: wellhead X,	other
Footage from reference: \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	<u>o'</u>
Direction from reference: 8	Z Degrees X East North X
	West South
	(20 points)
Depth To Groundwater: (Vertical distance from	Less than 50 feet (20 points) 50 feet to 99 feet (10 points)
contaminants to seasonal high water elevation of	Greater than 100 feet (0 points)
groundwater)	
Distance to an Ephemeral Stream	Less than 100 feet (10 points) Greater than 100 feet (0 points)
(Downgradient dry wash greater than ten feet in width)	
Distance to Nearest Lake, Playa, or Watering Pond	Less than 100 feet (10 points) Greater than 100 feet (0 points)
(Downgradient lakes, playas and livestock or wildlife watering ponds)	Greater than 100 and 1
Wellhead Protection Area:	Yes (20 points) No (0 points)
(Less than 200 feet from a private domestic water source, or: less than	( o points)
1000 feet from all other water sources)	(20 points)
Distance To SurfaceWater: (Horizontal distance to perennial	Less than 100 feet (20 points) 100 feet to 1000 feet (10 points)
lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Greater than 1000 feet (0 points)
	RANKING SCORE (TOTAL POINTS):

		BJ 214	SEP. PIT
Date Remediation Sta	rted:		12/23/97
Remediation Method:	Excavation X	Approx. cubic yard	ds
ck all appropriate	Landfarmed	Insitu Bioremediati	on
	Other		
Remediation Location: (i.e. landfarmed onsite, name and location of offsite facility)			
	of Remedial Action: Excavation		
SONTH, + WE	ST SIDEWALLS.		
Groundwater Encount	ered: No X Yes	Depth	
Final Pit: Closure Sampling: (if multiple samples, attach sample results	Sample location see Attached		
and diagram of sample locations and depths)	Sample depth [] (5047)	SIDEWALL)	1100
locations and deprins)	Sample date	Sample tin	ne
	Sample Results		<i>(</i> 1)
		0.316 Water:	
		<u> </u>	Toluene (ppb)
	Field Headspace (ppm)		Ethylbenzene (ppb)
	TPH (ppm)	141	Total Xylenes (ppb)
Groundwater Sample	: Yes No	(If yes, attach sample	results)
I HEREBY CERTIFY KNOWLEGE AND B			
DATE	2 23 97 PRINTED N	AME Buddy D.	Shaw
SIGNATURE BLA	ly D. Show AND TIT	LE Environme	ntal Coordinator
AFTER REVIEW OF TO THE JICARILLA	THE PIT CLOSURE INFORMATION APACHE TRIBE PIT CLOSURE OF	ON, PIT CLOSURE IS ORDINANCE.	APPROVED IN ACCORDANCE
APPROVED: YES	NO (REASON)		

DATE: 1-6-98

SIGNED: Ker Ma

CLIENT: AMOCO	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199  LOCATION NO: <u>\$5514</u> c.d.c. No: <u>\$665</u>
FIELD REPO	RT: CLOSURE VERIFICATION PAGE NO: 1 of 1  Date Started: 12/22/97
	TWO 24N RNG SW PM: NM CNTY:RA ST: NM
EXCAVATION APPROX DISPOSAL FACILITY:	SW CONTRACTOR PFS SPECIALIST: NV  SPECIALIST:
FIELD NOTES & REMA	ARKS: PIT LOCATED APPROXIMATELY 150 FT. NOCO FROM WELLICHTS  100 NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'  CHECK ONE:
NMOCD PANEING SCORE:	NMBCD TPH CLOSURE STD: 5000 PPM PIT ABANDONED
1	YELL BROWN SAND FROM STUDY SUCHTLY MOIST FIRM NO APPARENT WID SURFACE NOW COHESIVE, SUCHTLY MOIST FIRM NO APPARENT IN SUPERING OR HE DOOR OBSERVED; STRIMING OBSERVED BELOW 10' ALL SIDEWALLS EXCEPT EAST (APPROX. BET. 13'-16' BELOW GRADE) ALL SIDEWALLS EXCEPT EAST (APPROX. BET. 13'-16' BELOW GRADE) ALL SIDEWALLS EXCEPT EAST (APPROX. BET. 13'-16' BELOW GRADE) ALL STATE OF THE OBOR IN NORTH SOUTH, OWEST WELL BROWN SILTY OF THE OBOR OBSERVED IN OWN SAMPLE.  TIME SAMPLE I.D. LAB NO: WEIGHT (g) ML. FREON DILLITION READING CALC. ppm  TIME SAMPLE I.D. LAB NO: WEIGHT (g) ML. FREON DILLITION READING CALC. ppm
0 FT PIT PERI	METER TO OVM PIT PROFILE  RESULTS  SAMPLE FIELD HEADSPACE
TOEND THEND TO A TO S	SAMPLE FIELD HEADSPACE PID (Appm)  ACTOMATION 1 @ 10 346  2 @ 11'
	OUT: 12/17/97 ONSITE: 12/22/97 -morn.



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

Client: Sample ID: Laboratory Number: Chain of Custody No: Sample Matrix: Preservative:	Blagg / AMOCO 3 @ 11' C726 5665 Soil Cool	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed:	04034-10 12-23-97 12-22-97 12-23-97 12-23-97 12-23-97 8015 TPH
Condition:	Cool and Intact	Analysis Requested:	8015 120

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	50.0	0.2
Diesel Range (C10 - C28)	91.4	0.1
Total Petroleum Hydrocarbons	141	0.2

ND - Parameter not detected at the stated detection limit.

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, References:

SW-846, USEPA, December 1996.

Jicarilla GC 35 C #1 Separator Pit. Comments:

Stacy W Landler
Review



### EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	316	8.8
	9,150	8.4
Toluene	6,240	7.6
Ethylbenzene	16,870	10.8
p,m-Xylene o-Xylene	15,510	5.2
Total BTEX	48,090	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	97 %
	Bromofluorobenzene	97 %

References:

Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846,

USEPA, Sept. 1994.

Comments:

Jicarilla GC 35 C #1 Separator Pit.

Decen L. Gjeren Analyst Stacy W Sendler.
Review

			Q 4 Q 104	CH IO( vay 64-301) Mexico 87 0615	ENVIROTECH INC. 5796 U.S. Highway 64-3014 Farmington, New Mexico 87401 (505) 632-0615				
			Signature)	Received by: (Signature)	n <sub>e</sub>			ire)	Relinquished by: (Signature)
		1	Signature)	Received by: (Signature)	Re			118)	Relinquished by: (Signature)
Date Time /2-23-27 0718		Chen.	Signature)	Received by: (Signature)	Date Time Re 23/97 07/8	n.l		nature)	Relinquished by: (Signature)
	Mals blen!	COOL 1- 11	830	BOZ	SAMPLE.				
				,					
THE R. P. STEX	Tit.					C 126	1100	12/22/97	
10005 > Hell	- X/		<u> </u>		5012	717	l'on	1/_6	(3)
PESBN - 0004	Pres	( 80	(80 87 (80		Sample Matrix	Lab Number	Sample Time	Sample Date	Sample No./ Identification
		70	PH EX	o. of tainers		91-45040		Vick	Them
Remarks			<u>)</u>			Chain of Custody Tape No.			١.
					35 C#1	JICARINA GC		Amoco	See !
	NAMETERS	ANALYSIS/PARAMETERS		7	SEPARATOR PTI	Project Location S			Client/Project Name
			CORD	DY RE	CHAIN OF CUSTODY RECORD	CH			

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

BJ514

SUBMIT 1 COPY TO

NATURAL RESOURCE DEPI

AND OIL & GAS ADMINISTRATION

## ON-SITE SOIL REMEDIATION REPORT

NOGO PRODUCTION (	COMPANY	Telephone: (505) 326-9200
Operator: AMOCO PRODUCTION C		NM 87401
Address: 200 Amoco Court,	Farmington,	NM 87401
Facility or Well Name:	ARILLA GC	35 C #/
Location: Unit or Otr/Otr Sec	Sec_ Z T_Z	4N R5W County 210 AZRIBA
Land Type: RANGE	,	0/10/08
Date Remediation Started:	2/22/97	Date Completed:
Remediation Method: Landfarmed		Approx. cubic yards 1350
Composted		
Other		
		D' A Clean-s Compling
Depth To Groundwater:	(pts.)	Final Closure Sampling:
Distance to an Ephemeral Stream	(pts.)	Sampling Date: 9/8/98 Time:
Distance to Nearest Lake, Playa,		Sample Results:
or Watering Pond	(pts.)	Field Headspace (ppm)
Wellhead Protection Area:		TPH (ppm) <u>58.7</u> Method <u>5515</u>
Distance To SurfaceWater:	(pts.)	Other ZNO SAMPLE oum = 0.0 pm
momal BOIN	urc).	Time $(LF-L)$ $TPH = 24.7 ppm$
RANKING SCORE (TOTAL POIN	ORMATION AROV	E IS TRUE AND COMPLETE TO THE BEST OF MY
KNOWLEGE AND BELIEF		
PATE 9/10/98	PRINTED	NAME Buddy D. Shaw
SIGNATURE Bully 1.	Shaw	NAME Buddy D. Shaw AND TITLE Environmental Coordinator
ACCORDANCE TO THE JICARIELA	Miller I	MATION, ON-SITE REMEDIATION IS APPROVED IN IT CLOSURE ORDINANCE.
APPROVED: YES NO	(REASON)	
SIGNED: Ker Ma	$\mathcal{O}$	E:

LIENT: <u>AMOCO</u>	P.O. BOX 87, BLG (505)	INEERING, INC. DOMFIELD, NM 87413 632-1199	
FIELD REPORT:	LANDFARM/COM	PITS: SEP. BLOW	DAIL SIMILES!
SEC:	TWP: Z4N RNG: SW  TWP: Z4N CONTRACTOR	PITS: SEP. BLOW  PM: NM CNTY: RA ST: NM  P + 5	DATE FINISHED:
SOIL REMEDIATION: REMEDIATION SY	ISTEM: <u>Laideairm</u> Zaige	aribid.	YARDAGE:(350 :
NMOCD RANKING SCORE:  50.L CONSIST SUBSTRET MO SHIPPE PTS 5 PT. COM	D NMOCD TPH CLOSURE S  ED OF OIL TELL DIAGNACE TO  15T FIRM TO STIFF MED  1 DESIGNATED WI LETTER ID  POSTITE SAMPLES FOR LAB	GRAY TO BLACK DISCOLORATION SAMPLING DEPTHS RANGE FIRE	COHESIVE TO PLOSTIC, ON OBSERVED IN THOSE OM 1'-1/z', COLLECTED
SAMPLE PT.	IPLE LOCATIONS	OVM RESULTS  SAMPLE FIELD HEADSPACE PID (ppm)  LF-1 0.0 LF-	TPU
		1	



### 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 D909 6198 Soil Cool Cool and Intact	Project #: Date Reported: Date Sampled: Date Received: Date Extracted: Date Analyzed: Analysis Requested:	04034-10 09-10-98 09-08-98 09-08-98 09-10-98 09-10-98 8015 TPH
--	--	---	--

		Det.
Parameter	oncentration (mg/Kg)	Limit (mg/Kg)
Gasoline Range (C5 - C10)	11.1	0.2
Diesel Range (C10 - C28)	47.6	0.1
Total Petroleum Hydrocarbons	58.7	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 GC 35 C #1 Landfarm. 5 Pt. Composite.

Den L. Guen

Stacy W Sendler



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

Client: Blagg / Sample ID: LF - 2 Laboratory Number: D910 Chain of Custody No: 6198 Sample Matrix: Soil Preservative: Cool Condition: Cool ar	Project #:       04034-10         Date Reported:       09-10-98         Date Sampled:       09-08-98         Date Received:       09-08-98         Date Extracted:       09-10-98         Date Analyzed:       09-10-98         Analysis Requested:       8015 TPH
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Parameter	oncentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	4.7	0.2
Diesel Range (C10 - C28)	20.0	0.1
Total Petroleum Hydrocarbons	24.7	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 GC 35 C #1 Landfarm. 5 Pt. Composite.

Alen L. Gien

Stacy W Sendler

# CHAIN OF CUSTODY RECORD

Client / Project Name	Project Location	LANDFARM	ANALYSIS / PARAMETERS	RAMETERS
BLAGGE AMOCO	Jichrich 60	C 35 C#1		
Sampler:	Client No.			Remarks
252	01-45070	1-10	H	
	Lab Number	Sample	No Con	
240 868/6 1-71	D909	5012	1	S PT. COMPOSITE
2450 86/8/6 2- ±7	0162	2016		5 M. Composite
				BOTH SAMPLES
				PRESERV COOL
Relinquished by: (Signature)		Date Time R	Received by: (Signature)	Date Time
Whom Ush		9/8/98/455	Alland lyters	
Relinquished by: (Signature)			Received by: (Signature)	
Relinquished by: (Signature)		20	Received by: (Signature)	
			- 1	Sample Receipt
	•			Y N NA
		5796 U.S. Highway 6	Highway 64	Received Intact
		Farmington, New Mexico (505) 632-0615	(505) 632-0615	Cool - Ice/Blue Ice