

*Denny S. Frost*  
 DEPUTY OIL & GAS INSPECTOR

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

MAY 04 1996

**PIT REMEDIATION AND CLOSURE REPORT**

*Approved*

Operator: CONOCO, INC. Telephone: (505) 324-5884  
 Address: 3315 Bloomfield Hwy., Farmington, NM 87401  
 Facility or Well Name: JICARILLA #2  
 Location: Unit or Qtr/Qtr Sec M Sec 30 T 26N R 4W County RIO ARriba  
 Pit Type: Separator X Dehydrator      Other Production  
 Land Type: RANGE

Pit Location:  
 (Attach diagram)

Pit dimensions: length 40', width 35', depth 20'

Reference: wellhead X, other     

Footage from reference: 90

Direction from reference: 30 Degrees      East North X  
X West of South     

**Depth To Groundwater:**

(Vertical distance from  
 contaminants to seasonal  
 high water elevation of  
 groundwater)

Less than 50 feet	(20 points)	
50 feet to 99 feet	(10 points)	
Greater than 100 feet	(0 points)	<u>10</u>

**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)	<u>0</u>

**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)	<u>0</u>

**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)	<u>0</u>

**Distance To Surface Water:**

(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>0</u>

RANKING SCORE (TOTAL POINTS): 10

Date Remediation Started: \_\_\_\_\_ Date Completed: 7-25-96

Remediation Method: Excavation X Approx. cubic yards 1000

Check all appropriate sections) Landfarmed X Insitu Bioremediation \_\_\_\_\_

Other \_\_\_\_\_

Remediation Location: Onsite X Offsite \_\_\_\_\_

(i.e. landfarmed onsite, name and location of offsite facility) \_\_\_\_\_

General Description of Remedial Action: Excavation

Groundwater Encountered: No X Yes \_\_\_\_\_ Depth \_\_\_\_\_

Final Pit: Sample location see Attached Documents

Closure Sampling: \_\_\_\_\_

(if multiple samples, attach sample results and diagram of sample locations and depths) Sample depth \_\_\_\_\_

Sample date \_\_\_\_\_ Sample time \_\_\_\_\_

## Sample Results

BTEX SAMPLES SUBMITTED

Soil: Benzene	κ (ppm)	<u>0</u>	Water: Benzene	(ppb)	<u>N/A</u>
Total BTEX	κ (ppm)	<u>2.95</u>	Toluene	(ppb)	_____
Field Headspace	(ppm)	<u>333</u>	Ethylbenzene	(ppb)	_____
TPH	(ppm)	<u>710</u>	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 KNOWLEDGE AND BELIEF

DATE 7-25-96 PRINTED NAME Jeffrey C. Blagg, P.E. #11607

SIGNATURE Jeffrey C. Blagg AND TITLE President

AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES X NO \_\_\_\_\_ (REASON) \_\_\_\_\_

SIGNED: [Signature] DATE: 7-29-96

CLIENT: <u>COMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>CA389</u> C.O.C. NO: <u>4879</u>
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## FIELD REPORT: PIT CLOSURE VERIFICATION

LOCATION: <u>JICAPILLA # 2</u>	PIT TYPE: <u>SEP. / PROD.</u>	DATE STARTED: <u>7-25-96</u>
QUAD/UNIT: <u>M</u> SEC: <u>30</u> TWP: <u>26N</u> RNG: <u>4W</u> BM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u>		DATE FINISHED: _____
QTR/FOOTAGE: <u>700' FSL, 990' FWL</u>	CONTRACTOR: <u>ACME</u>	ENVIRONMENTAL SPECIALIST: <u>ALG</u>

EXCAVATION APPROX. 40 FT. x 35 FT. x 20 FT. DEEP. CUBIC YARDS: 1000  
DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: LANDFARM  
LAND USE: RANGE LEASE: CONTRACT # 120 FORMATION: \_\_\_\_\_

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 90 FEET N30°W FROM WELLHEAD  
DEPTH TO GROUNDWATER: >50' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'  
NMOC D RANKING SCORE: 10 NMOC D TPH CLOSURE STD: 1000 PPM

SOIL AND EXCAVATION DESCRIPTION: PIT DISPOSITION: ABANDONED

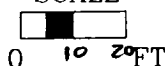
SOIL CONSISTS OF A MOIST, BROWN, CLAYEY SILT - STAIN + ODOR IN ALL SAMPLES.

FIELD 418.1 CALCULATIONS

FIELD 418.1 CALCULATIONS						
SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
ES@15'	1752	10.0	20.0	1	355	710

CLOSED

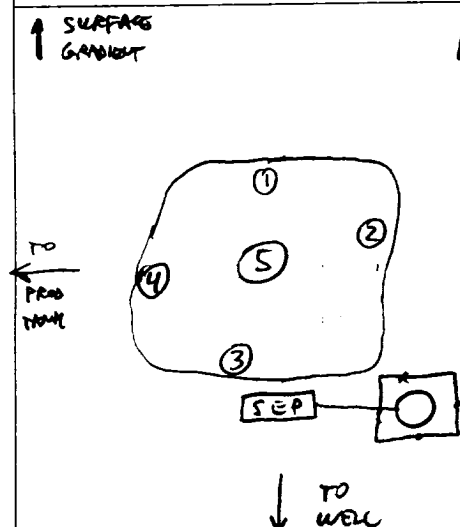
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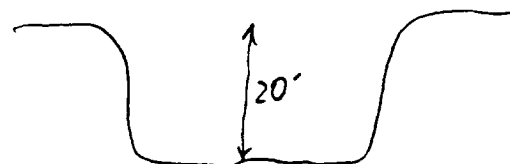
PIT PERIMETER

## OVM RESULTS

PIT PROFILE



SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 N3 - 15'	318
2 ES - 15'	333
3 SS - 15'	221
4 WS - 15'	243
5 CB - 22'	273
LAB	SAMPLES
ES - 15'	BTEX-PAS



TRAVEL NOTES: CALLOUT: 7-25-96 ONSITE: 7-25-96 1250

**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:	Conoco, Inc.	Project #:	
Sample ID:	East Side @ 15'	Date Analyzed:	7-25-96
Project Location:	Jicarilla 2	Date Reported:	7-26-96
Laboratory Number:	TPH #1752	Sample Matrix:	Soil

Parameter -----	Result, mg/kg -----	Detection Limit, mg/kg -----
Total Recoverable Petroleum Hydrocarbons	<b>710</b>	<b>10</b>

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg -----	Duplicate TPH mg/kg -----	% *Diff. -----
	4,440	3,640	20

\*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/Production Pit

R. E. O'Neil  
Analyst

Heleen V. J.  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Blagg / Conoco	Project #:	04034
Sample ID:	E.S. @ 15'	Date Reported:	07-26-96
Laboratory Number:	A416	Date Sampled:	07-25-96
Chain of Custody:	4879	Date Received:	07-26-96
Sample Matrix:	Soil	Date Analyzed:	07-26-96
Preservative:	Cool	Date Extracted:	07-26-96
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	17.5
Toluene	55.1	16.7
Ethylbenzene	94.8	15.2
p,m-Xylene	2,230	21.6
o-Xylene	571	10.4
Total BTEX	2,950	

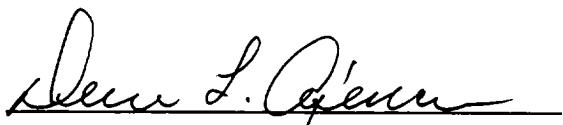
ND - Parameter not detected at the stated detection limit.


Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	98 %
	Bromofluorobenzene	102 %

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 #2, Sep./Prod/ Pit.

  
Analyst

  
Review

[illegible]

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

CA389

SUBMIT 1 COPY TO  
NATURAL RESOURCE DEPT  
AND OIL & GAS ADMINISTRATION

**ON-SITE SOIL REMEDIATION REPORT**

Operator: Conoco, Inc. Telephone: (505) 324-5884

Address: 3315 Bloomfield Hwy., Farmington, NM 87401

Facility or Well Name: JICARILLA #2

Location: Unit or Qtr/Qtr Sec M Sec 30 T26N R4W County RIO ARriba

Land Type: RANGE

Date Remediation Started: 7/25/96

Date Completed: 8/22/97

Remediation Method: Landfarmed X

Approx. cubic yards 1,000

Composted       

Other       

Depth To Groundwater: (pts.) 10

Distance to an Ephemeral Stream (pts.) 0

Distance to Nearest Lake, Playa, or Watering Pond (pts.) 0

Wellhead Protection Area: (pts.) 0

Distance To Surface Water: (pts.) 0

RANKING SCORE (TOTAL POINTS): 10

**Final Closure Sampling:**

Sampling Date: 8/20/97 Time: 1055

**Sample Results:**

Field Headspace (ppm) 0.0

TPH (ppm) 1.6 Method 8015

Other       

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 8/22/97 PRINTED NAME Jeffrey C. Blagg, P.E. #11607

SIGNATURE Jeffrey C. Blagg AND TITLE President

AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES X NO        (REASON)       

SIGNED: Ker C. Mamm DATE: 9-2-97

CLIENT: CONOCOBLAGG ENGINEERING, INC.  
P.O. BOX 87, BLOOMFIELD, NM 87413  
(505) 632-1199LOCATION NO: CA389C.O.C. NO: 5392

## FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: JICARILLA WELL #: 2 PITS: SEP/PROD.DATE STARTED: 8/20/97

DATE FINISHED: \_\_\_\_\_

QUAD/UNIT: M SEC: 30 TWP: 26N RNG: 4W PM: NM CNTY: RA ST: NMDEPT/BOU: 1700 FSL/990 FWL CONTRACTOR: ACMEENVIRONMENTAL  
SPECIALIST: NV

## SOIL REMEDIATION:

REMEDICATION SYSTEM: LANDFARMEDAPPROX. CUBIC YARDAGE: 1000LAND USE: RANGELIFT DEPTH (ft): 12"-24"

## FIELD NOTES &amp; REMARKS:

DEPTH TO GROUNDWATER: <100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'NMOC/D BANKING SCORE: 10 NMOC/D TPH CLOSURE STD: 1000 PPM

OK. YELL. BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT  
DISCOLORATION OBSERVED IN ANY OF THE SAMPLE PTS. HARD CLAY  
ENCOUNTERED @ SAMPLE PT. ③. NO APPARENT HC ODOR IN OVM  
SAMPLES. 5 FT. COMPOSITE COLLECTED FOR LAB ANALYSIS.

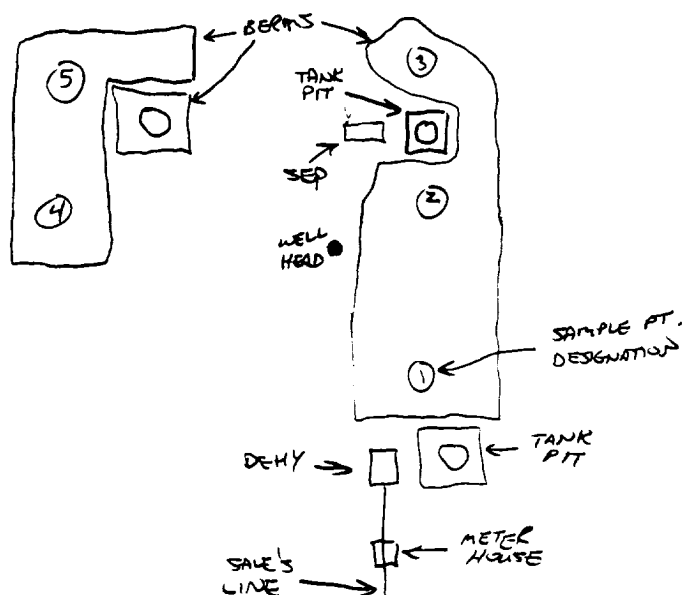
**CLOSED**

## FIELD 418.1 CALCULATIONS

SAMP. TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

## SKETCH/SAMPLE LOCATIONS

N



## OVM RESULTS

## LAB SAMPLES

SAMPLE ID	FIELD HEADSPACE PID (ppm)	SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	0.0	LF-1	TPH (8015)	1055	1.6

## SCALE

0 FT

## TRAVEL NOTES:

CALLOUT: NAONSITE: 8/20/97



# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

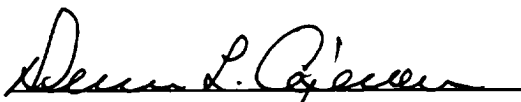
Client:	Blagg / Conoco	Project #:	04034-10
Sample ID:	LF - 1	Date Reported:	08-21-97
Laboratory Number:	B908	Date Sampled:	08-20-97
Chain of Custody No:	5392	Date Received:	08-20-97
Sample Matrix:	Soil	Date Extracted:	08-20-97
Preservative:	Cool	Date Analyzed:	08-21-97
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

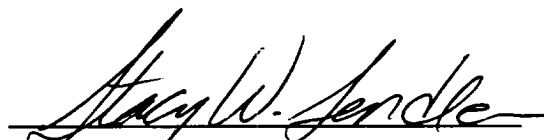
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	1.6	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	1.6	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments: Jicarilla #2 Landfarm. 5 pt. Composite.

  
Analyst

  
Review

**(505) 632-0615**