

BLOW
8J608
sep-OK

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**

RECEIVED
AUG 18 1999

PIT REMEDIATION AND CLOSURE REPORT

OIL CON. DIV.
DIST. 3

Operator: AMOCO PRODUCTION COMPANY **Telephone:** (505) 326-9200
Address: 200 Amoco Court, Farmington, NM 87401
Facility or Well Name: JICARILLA CONTRACT #147-4E
Location: Unit or Qtr/Qtr Sec E Sec 5 T 25N R 5W County RIO ARriba
Pit Type: Separator Dehydrator Other BLOW
Land Type: RANGE

Pit Location: (Attach diagram) Pit dimensions: length 17', width 15', depth 9'
Reference: wellhead X, other
Footage from reference: 190'
Direction from reference: 23 Degrees X East of North
 West of 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)	<u>0</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): 0

BT608

Blow PIT

Date Remediation Started: _____

Date Completed: 8/18/98Remediation Method: Excavation ☒
Check all appropriate sections) Landfarmed ☒Approx. cubic yards 40

Insitu Bioremediation _____

Other _____

Remediation Location: Onsite ☒ Offsite _____
(i.e. landfarmed onsite,
name and location of
offsite facility)General Description of Remedial Action: ExcavationGroundwater Encountered: No ☒ Yes _____ Depth _____Final Pit:
Closure Sampling:
(if multiple samples,
attach sample results
and diagram of sample
locations and depths)Sample location see Attached DocumentsSample depth 11'Sample date 8/18/98 Sample time 1000

Sample Results

Soil: Benzene	(ppm)	_____	Water: Benzene	(ppb)	_____
Total BTEX	(ppm)	_____	Toluene	(ppb)	_____
Field Headspace	(ppm)	<u>0.0</u>	Ethylbenzene	(ppb)	_____
TPH	(ppm)	<u>36</u>	Total Xylenes	(ppb)	_____

Groundwater Sample: Yes _____ No ☒ (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 8/18/98 PRINTED NAME Buddy D. ShawSIGNATURE Buddy D. Shaw AND TITLE Environmental Coordinator

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

APPROVED: YES ☒ NO _____ (REASON) _____SIGNED: Ken C. Manda DATE: 9-9-98

3003922177

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>8J605</u> C.D.C. NO: _____
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FIELD REPORT: CLOSURE VERIFICATION		PAGE No: <u>1</u> of <u>1</u>
LOCATION: NAME: <u>JICA CONTR. 147</u> WELL #: <u>4E</u> PIT: <u>BLOW</u>		DATE STARTED: <u>8/18/98</u> DATE FINISHED: _____
QUAD/UNIT: <u>E</u> SEC: <u>5</u> TWP: <u>25N</u> RNG: <u>5W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u>		ENVIRONMENTAL SPECIALIST: <u>NV</u>
QTR/FOOTAGE: <u>1650' FWL</u> <u>1120' FWL</u> CONTRACTOR: <u>PFS</u>		

EXCAVATION APPROX. <u>17</u> FT. x <u>15</u> FT. x <u>9</u> FT. DEEP.	CUBIC YARDAGE: <u>40</u>
DISPOSAL FACILITY: <u>ON-SITE</u>	REMEDIAATION METHOD: <u>LANDFARM</u>
LAND USE: <u>RANGE</u>	LEASE: <u>JIC 147</u> FORMATION: <u>DK</u>

FIELD NOTES & REMARKS:	PIT LOCATED APPROXIMATELY <u>190</u> FT. <u>S23E</u> FROM WELLHEAD.
DEPTH TO GROUNDWATER: <u>>100'</u>	NEAREST WATER SOURCE: <u>>1000'</u> NEAREST SURFACE WATER: <u>>1000'</u>
NMOC D RANKING SCORE: <u>0</u>	NMOC D TPH CLOSURE STD: <u>5000</u> PPM
SOIL AND EXCAVATION DESCRIPTION:	
<p>OK. YELL. ORANGE SAND, NON COHESIVE, SLIGHTLY MOIST FIRM, NO APPARENT STRAINING OR HC ODOR OBSERVED/DETECTED w/in EXCAVATION, NO APPARENT HC ODOR IN ANY OF THE OVM SAMPLES.</p>	

CHECK ONE:
☒ PIT ABANDONED
☐ STEEL TANK INSTALLED
☐ FIBERGLASS TANK INSTALLED

(CLOSED)

SCALE

0 FT

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
0830	③ @ 11'	TPH-2014	5	20	1.1	9	36

PIT PERIMETER

PIT PROFILE

OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 4'	0.0
2 @ 4'	0.0
3 @ 4'	0.0
4 @ 4'	0.0
5 @ 11'	0.0

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

TRAVEL NOTES:	CALLOUT: <u>8/13/98 - AFTER.</u> ONSITE: <u>8/18/98 - MORN.</u>
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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 @ 11'	Date Analyzed:	08-18-98
Project Location:	Jicarilla Contract # 147 - 4E	Date Reported:	08-18-98
Laboratory Number:	TPH-2014	Sample Matrix:	Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	36	20

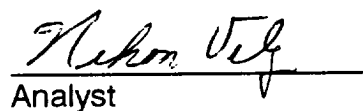
ND = Not Detectable at stated detection limits.

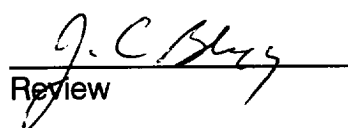
QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	228	244	6.78

*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 - BJ608


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:

Sample ID:

Project Location:

Laboratory Number:

AMOCO

5 @ 11'

Jicarilla Contract # 147 - 4E

TPH-2014

Project #:

Date Analyzed:

Date Reported:

Sample Matrix:

08-18-98

08-18-98

Soil

Sample Weight:

5.00 grams

Volume Freon:

20.00 mL

Dilution Factor:

1 (unitless)

TPH Reading:

9 mg/kg

TPH Result:

36.0 mg/kg

Reported TPH Result:

36 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.

228

244

6.78

Comments:

*****Max Characters*****

Comments:

Blow Pit - BJ608

8J608

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AND OIL & GAS ADMINISTRATION

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

PIT REMEDIATION AND CLOSURE REPORT

Operator: AMOCO PRODUCTION COMPANY **Telephone:** (505) 326-9200

Address: 200 Amoco Court, Farmington, NM 87401

Facility or Well Name: JICARILLA CONTACT # 147-4E

Location: Unit or Qtr/Qtr Sec E Sec 5 T 25N R 5W County RIO ARRIBA

Pit Type: Separator ☒ Dehydrator ☐ Other ☐

Land Type: RANGE

Pit Location: Pit dimensions: length 28', width 27', depth
(Attach diagram)

Reference: wellhead ☒, other ☐

Footage from reference: 170'

Direction from reference: 15 Degrees ☒ East of North
 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>0</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): 0

BT608

SEP. PIT

Date Remediation Started: _____

Date Completed: _____

8/19/98

Remediation Method: Excavation ☒
(Check all appropriate sections)

Approx. cubic yards 400

Landfarmed ☒

Insitu Bioremediation _____

Other _____

Remediation Location:

Onsite ☒ Offsite _____(i.e. landfarmed onsite,
name and location of
offsite facility)

General Description of Remedial Action: Excavation. BEDROCK BOTTOM.

Groundwater Encountered:

No ☒

Yes _____

Depth _____

Final Pit:

Closure Sampling:

(if multiple samples,
attach sample results
and diagram of sample
locations and depths)

Sample location see Attached Documents

Sample depth 13' (WEST SIDEWALL)

Sample date 8/18/98

Sample time 1130

Sample Results

Soil: Benzene (ppm) ND

Water: Benzene (ppb) _____

Total BTEX (ppm) 13.030

Toluene (ppb) _____

Field Headspace (ppm) 1,087

Ethylbenzene (ppb) _____

TPH (ppm) 58.5

Total Xylenes (ppb) _____

Groundwater Sample: Yes _____ No ☒ (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

8/19/98

PRINTED NAME

Buddy D. Shaw

SIGNATURE

Buddy D. Shaw

AND TITLE

Environmental Coordinator

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

APPROVED: YES ☒ NO _____ (REASON) _____

SIGNED:

Ken C. Mamm

DATE:

9-9-98

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>BT608</u> C.O.C. NO: <u>6046</u>
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FIELD REPORT: CLOSURE VERIFICATION	PAGE No: <u>1</u> of <u>1</u>
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LOCATION: NAME: <u>JICA CONTR.</u> 147 WELL #: <u>4E</u> PIT: <u>SEP</u>	DATE STARTED: <u>8/18/98</u> DATE FINISHED: _____
QUAD/UNIT: <u>E</u> SEC: <u>5</u> TWP: <u>25N</u> RNG: <u>5W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u>	ENVIRONMENTAL SPECIALIST: <u>NV</u>
QTR/FOOTAGE: <u>1650' FNL/1120' FNL</u> CONTRACTOR: <u>P+S</u>	

EXCAVATION APPROX. <u>28</u> FT. x <u>27</u> FT. x <u>19</u> FT. DEEP. CUBIC YARDAGE: <u>400</u>
DISPOSAL FACILITY: <u>ON-SITE</u> REMEDIATION METHOD: <u>LANDFARM</u>
LAND USE: <u>RANGE</u> LEASE: <u>JIC 147</u> FORMATION: <u>DR</u>

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 170 FT. SISE FROM WELLHEAD.

DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'

NMOC D RANKING SCORE: 0 NMOC D TPH CLOSURE STD: 5000 PPM

SOIL AND EXCAVATION DESCRIPTION:

SIDEWALLS - DR. YELL. DRANGE TO OLIVE GRAY SAND TO SILTY CLAY NON COHESIVE TO SLIGHTLY PLASTIC, SLIGHTLY MOIST TO MOIST (SILTY CLAY), FIRM TO STIFF NO APPARENT STAINING OBSERVED, STRONG HC ODOR IN NORTH & WEST SIDEWALL OVM SAMPLES.

BOTTOM - BEDROCK (SANDSTONE) MED. GRAY IN COLOR, VERY HARD, STRONG HC ODOR IN OVM SAMPLE.

BEDROCK
BOTTOM

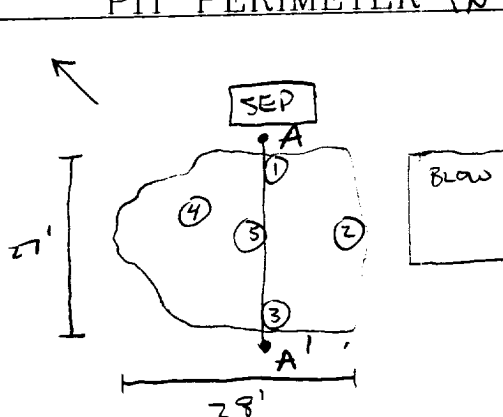
CLOSED

FIELD 418.1 CALCULATIONS

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

SCALE
0 FT

PIT PERIMETER



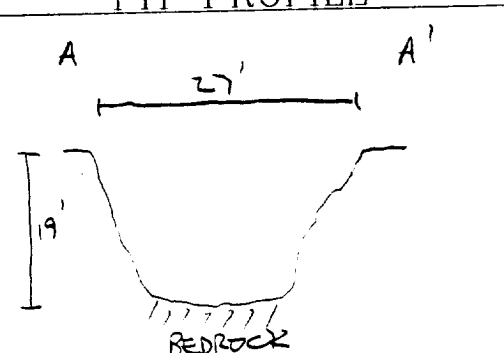
OVM
RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 14'	884
2 @ 14'	0.0
3 @ 14'	0.0
4 @ 13'	1,087
5 @ 19'	1,003

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
4 @ 13'	TPH/STEX	0930
BOTH PASSED		

PIT PROFILE



TRAVEL NOTES: CALLOUT: 5/13/98 - AFTER. ONSITE: 8/18/98 - MORN.

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client: Blagg / AMOCO
Sample ID: 4 @ 13'
Laboratory Number: D815
Chain of Custody No: 6046
Sample Matrix: Soil
Preservative: Cool
Condition: Cool and Intact

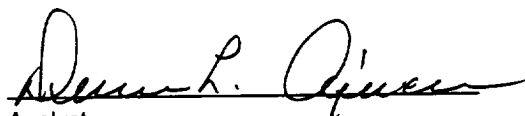
Project #: 04034-10
Date Reported: 08-19-98
Date Sampled: 08-18-98
Date Received: 08-18-98
Date Extracted: 08-19-98
Date Analyzed: 08-19-98
Analysis Requested: 8015 TPH

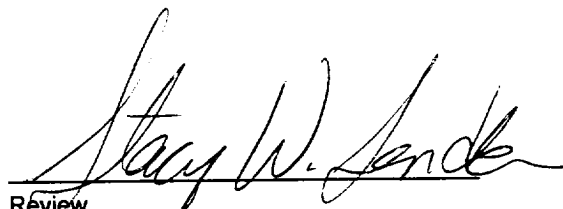
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	38.5	0.2
Diesel Range (C10 - C28)	20.0	0.1
Total Petroleum Hydrocarbons	58.5	0.2

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 Contract #147 - 4E Separator Pit.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 IC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	4 @ 13'	Date Reported:	08-19-98
Laboratory Number:	D815	Date Sampled:	08-18-98
Chain of Custody:	6046	Date Received:	08-18-98
Sample Matrix:	Soil	Date Analyzed:	08-19-98
Preservative:	Cool	Date Extracted:	08-19-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	17.5
Toluene	1,520	16.7
Ethylbenzene	540	15.2
p,m-Xylene	8,850	21.6
o-Xylene	2,120	10.4
Total BTEX	13,030	

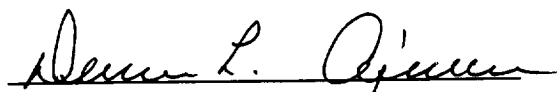
ND - Parameter not detected at the stated detection limit.

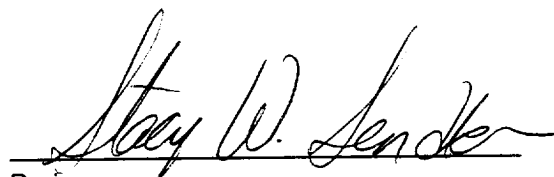
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	95 %
	Bromofluorobenzene	95 %

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 Contract #147 - 4E Separator Pit.


Analyst


Review

6046

[illegible]

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

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: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>B5608</u> C.O.C. NO: <u>0880</u>
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FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: <u>SICARILLA CONTRACT 147 WELL # 4E</u>	PITS: <u>SEP, BLOW</u>	DATE STARTED: <u>4.7.99</u>
QUAD/UNIT: <u>E</u> SEC: <u>5</u> TWP: <u>25N</u> RNG: <u>5W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u>		DATE FINISHED: _____
QTR/FOOTAGE: <u>SW/4 NW/4</u>	CONTRACTOR: <u>PJS</u>	ENVIRONMENTAL SPECIALIST: <u>REP</u>

SOIL REMEDIATION:

 REMEDIATION SYSTEM: LANDFARM

 APPROX. CUBIC YARDAGE: 440

 LAND USE: RANGE

 LIFT DEPTH (ft): 1.5

FIELD NOTES & REMARKS:

 DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'

 NMOCD RANKING SCORE: 0 NMOCD TPH CLOSURE STD: 5000 PPM

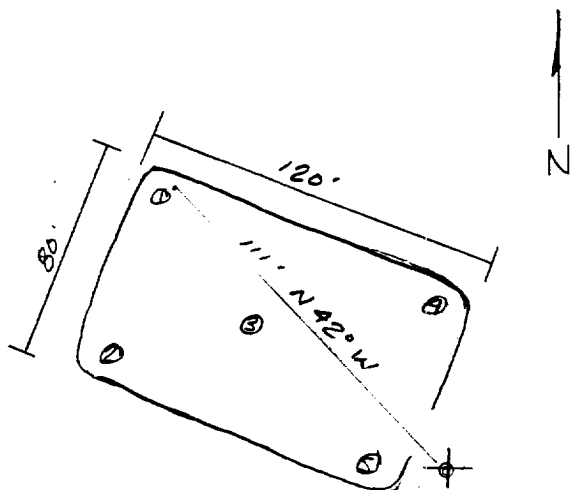
OK. YELLOWISH ORANGE SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM.
 NO APPARENT STAINING OBSERVED, NO HC ODOR DETECTED. SAMPLING
 DEPTHS RANGE FROM 6" - 18". TOOK A SPT COMPOSITE SAMPLE
 FOR LAB ANALYSIS.

CLOSED

FIELD 418.1 CALCULATIONS

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

SKETCH/SAMPLE LOCATIONS

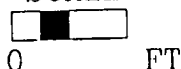


OVM RESULTS

LAB SAMPLES

SAMPLE ID	FIELD HEADSPACE PID (ppm)	SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	4.3	LF-1	TPH (8015)	1100	9.4

SCALE



TRAVEL NOTES:

 CALLOUT: NA

 ONSITE: 4.7.99

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons


Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	LF - 1	Date Reported:	04-09-99
Laboratory Number:	E987	Date Sampled:	04-07-99
Chain of Custody No:	6880	Date Received:	04-08-99
Sample Matrix:	Soil	Date Extracted:	04-08-99
Preservative:	Cool	Date Analyzed:	04-09-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH


Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	3.2	0.2
Diesel Range (C10 - C28)	6.2	0.1
Total Petroleum Hydrocarbons	9.4	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 147 - 4E Landfarm. 5 Pt. Composite.


Analyst


Review

6800

[illegible]