

Date Remediation Started: _____ Date Completed: 10/7/98

Remediation Method: Excavation ☒ Approx. cubic yards 125
Check all appropriate sections) 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 6' (EAST SIDEWALL)

Sample date 10/7/98

Sample time 1400

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>ND</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


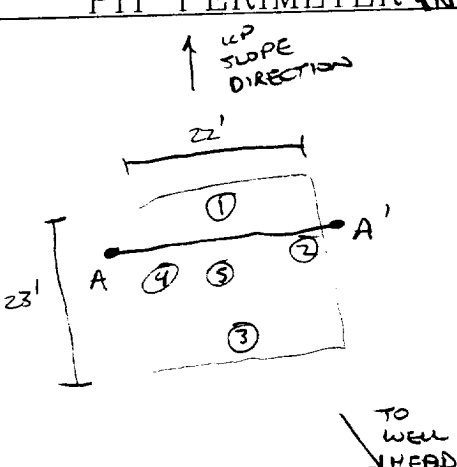
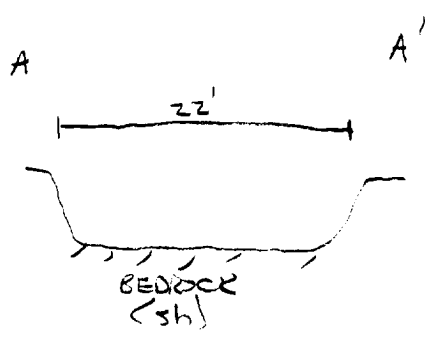
DATE 10/7/98 PRINTED NAME Buddy D. Shaw
SIGNATURE Buddy D. Shaw AND TITLE Environmental Coordinator

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: K. C. M... DATE: 11-18-98

3003923198

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>87656</u> C.O.C. NO: _____																																								
FIELD REPORT: CLOSURE VERIFICATION		PAGE No: <u>1</u> of <u>1</u>																																								
LOCATION: NAME: <u>TICA, AP. 102</u> WELL #: <u>15A</u> PIT: <u>BLOW</u>		DATE STARTED: <u>10/7/98</u> DATE FINISHED: _____																																								
QUAD/UNIT: <u>L SEC: 9</u> TWP: <u>26N</u> RNG: <u>4W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u>		ENVIRONMENTAL SPECIALIST: <u>NV</u>																																								
QTR/FOOTAGE: <u>1520' FSL / 1000' FWL</u> CONTRACTOR: <u>P&S</u>																																										
EXCAVATION APPROX. <u>22</u> FT. x <u>23</u> FT. x <u>11</u> FT. DEEP. CUBIC YARDAGE: <u>125</u>																																										
DISPOSAL FACILITY: <u>ON-SITE</u> REMEDIATION METHOD: <u>LANDFARM</u>																																										
LAND USE: <u>RANGE</u> LEASE: <u>TIC 102</u> FORMATION: <u>MV</u>																																										
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY <u>114</u> FT. <u>N3E</u> FROM WELLHEAD.																																										
DEPTH TO GROUNDWATER: <u>2100'</u> NEAREST WATER SOURCE: <u>21000'</u> NEAREST SURFACE WATER: <u>21000'</u>																																										
NMDCD RANKING SCORE: <u>0</u> NMDCD TPH CLOSURE STD: <u>5000</u> PPM																																										
SOIL AND EXCAVATION DESCRIPTION:																																										
<p> SIDEWALLS - DUSKY RED/LT. GRAY CLAY PLASTIC, SLIGHTLY MOIST, STIFF TO VERY STIFF, NO NOTICEABLE STAINING OR HC ODOR OBSERVED/DETECTED w/in EXCAVATION, HC ODOR IN NORTH & EAST SIDEWALL OVM SAMPLES ONLY. </p> <p> BOTTOM - BEDROCK (SHALE), DUSKY RED/LT. GRAY & MOD. YELL. ORANGE IN COLOR, HARD, NO APPARENT HC ODOR IN OVM SAMPLE. </p>																																										
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> BEDROCK BOTTOM </div> <div style="margin-top: 10px;"> SCALE  0 FT </div>	<div style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block;"> (CLOSED) </div>	<div style="text-align: center;"> FIELD 418.1 CALCULATIONS </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>TIME</th> <th>SAMPLE I.D.</th> <th>LAB No:</th> <th>WEIGHT (g)</th> <th>mL. FREON</th> <th>DILUTION</th> <th>READING</th> <th>CALC. ppm</th> </tr> </thead> <tbody> <tr> <td>1400</td> <td>(2) @ 6'</td> <td>TPH-2050</td> <td>5</td> <td>20</td> <td>1:1</td> <td>4</td> <td>ND</td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm	1400	(2) @ 6'	TPH-2050	5	20	1:1	4	ND																								
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TRAVEL NOTES: CALLOUT: _____ ONSITE: <u>10/7/98 - AFTER.</u>																																										

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:	2 @ 6'	Date Analyzed:	10-07-98
Project Location:	Jicarilla Apache # 102 - 15A	Date Reported:	10-07-98
Laboratory Number:	TPH-2050	Sample Matrix:	Soil

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

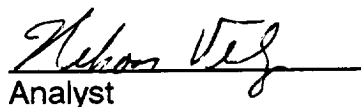
ND = Not Detectable at stated detection limits.

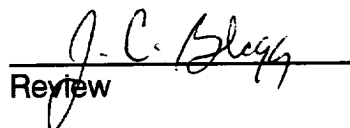
QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	236	220	7.02

*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: Blow Pit - BJ656


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

Project #:

Sample ID:

2 @ 6'

Date Analyzed:

10-07-98

Project Location:

Jicarilla Apache # 102 - 15A

Date Reported:

10-07-98

Laboratory Number:

TPH-2050

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.

236

220

7.02

Comments:

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

Comments:

Blow Pit - BJ656

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

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

ON-SITE SOIL REMEDIATION REPORT

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

Address: 200 Amoco Court, Farmington, NM 87401

Facility or Well Name: JICARILLA APACHE 102-15A

Location: Unit or Qtr/Qtr Sec L Sec 9 T24N R 4W County RIO ARriba

Land Type: RANGE

Date Remediation Started: 10-7-98 Date Completed: 5/13/99

Remediation Method: Landfarmed ☒ Approx. cubic yards 125

Composted ☐

Other ☐

Depth To Groundwater: (pts.) 0

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): 0

Final Closure Sampling:

Sampling Date: 5.12.99 Time: 1230

Sample Results:

Field Headspace (ppm) 8.1

TPH (ppm) 12.1 Method ^{TPH} (8015)

Other ☐

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

DATE 5/13/99 PRINTED NAME Buddy D. Shaw
SIGNATURE Buddy D. Shaw 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: Ken C. Man DATE: 6-18-99

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>85656</u> C.D.C. NO: <u>6923</u>
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FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: <u>JICARILLA APACHE 102 WELL # 15A</u> PITS: <u>BLOW</u>	DATE STARTED: <u>5.12.99</u>
QUAD/UNIT: <u>L</u> SEC: <u>9</u> TWP: <u>26N</u> RNG: <u>4W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u>	DATE FINISHED: _____
QTR/FOOTAGE: <u>NW/4 SW/4</u> CONTRACTOR: <u>P+S</u>	ENVIRONMENTAL SPECIALIST: <u>REP</u>

SOIL REMEDIATION:

REMEDICATION SYSTEM: LANDFARM APPROX. CUBIC YARDAGE: 125

LAND USE: RANGE LIFT DEPTH (ft): 1'

FIELD NOTES & REMARKS:

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

NMOCB RANKING SCORE 0 NMOCB TPH CLOSURE STD: 5000 PPM

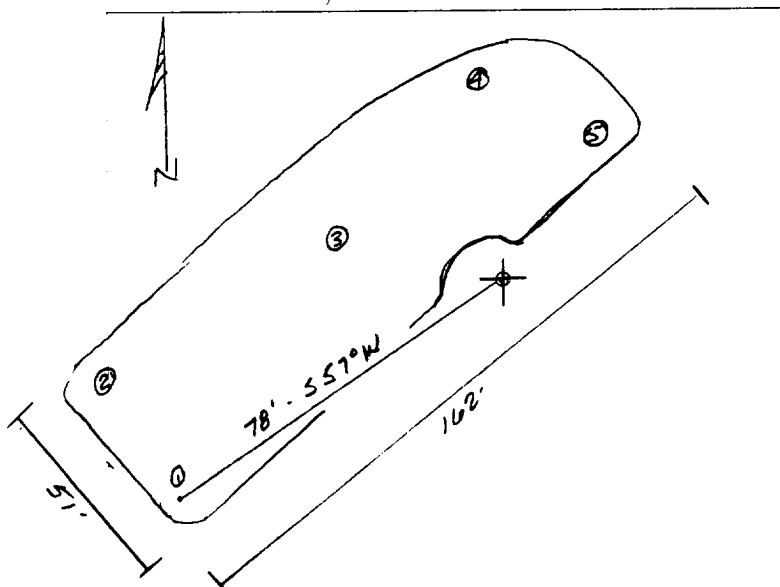
*PALE YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM
NO APPARENT STAINING, NO HC ODOR DETECTED. SAMPLING DEPTHS
RANGE FROM 6"-10". COLLECTED A SPT COMPOSITE SAMPLE FOR
LAB ANALYSIS.*

CLOSED

FIELD 418.1 CALCULATIONS

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

SKETCH/SAMPLE LOCATIONS

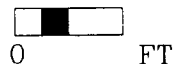


OVM RESULTS

LAB SAMPLES

SAMPLE ID	FIELD HEADSPACE PID (ppm)	SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	8.1	LF-1	TPH (8015)	1230	12.1

SCALE



TRAVEL NOTES: CALLOUT: NP ONSITE: 5.12.99

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

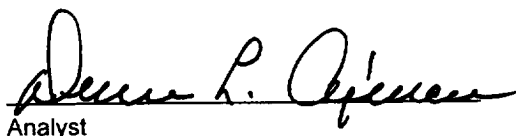
Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	LF - 1	Date Reported:	05-13-99
Laboratory Number:	F219	Date Sampled:	05-12-99
Chain of Custody No:	6923	Date Received:	05-13-99
Sample Matrix:	Soil	Date Extracted:	05-13-99
Preservative:	Cool	Date Analyzed:	05-13-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	12.1	0.1
Total Petroleum Hydrocarbons	12.1	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 102 - 15 A Landfarm. 5 Pt. Composite.


Analyst


Review

6923

ENVIROTECH INC.