

Denny E. Foust
DEPUTY OIL & GAS INSPECTOR

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

*Blow-out
BJSA
Sep-OK*

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

OCT 08 1999

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 CONTRACT 148-19
Location: Unit or Qtr/Qtr Sec P Sec 14 T 25N R 5W County RIO ARIZONA
Pit Type: Separator Dehydrator Other BLOW
Land Type: RANGE

Pit Location: Pit dimensions: length 18', width 18', depth 13'
(Attach diagram) Reference: wellhead X, other
Footage from reference: 87'
Direction from reference: 5 Degrees X East of North
 West of South X

Depth To Groundwater:

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

RECEIVED
AUG 24 1999

Less than 50 feet (20 points)
50 feet to 99 feet (10 points) 0
Greater than 100 feet (0 points)

Distance to an Ephemeral Stream

(Downgradient dry wash greater than
ten feet in width)

OIL CON. DIV.
DIST. 3

Less than 100 feet (10 points)
Greater than 100 feet (0 points) 0

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) 0

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) 0

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) 0
Greater than 1000 feet (0 points)

RANKING SCORE (TOTAL POINTS): 0

87519

Blow PTT

Date Remediation Started: _____ Date Completed: 11/23/98

Remediation Method: Excavation ☒ Approx. cubic yards 75
(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

Groundwater Encountered: No ☒ 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 15' (PIT BOTTOM)

Sample date 11/22/98 Sample time 1320

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>12.8</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 11/23/98 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. M... DATE: 2-6-98

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>BJS19</u> C.O.C. NO: <u>5710</u>
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FIELD REPORT: CLOSURE VERIFICATION	PAGE No: <u>1</u> of <u>1</u>
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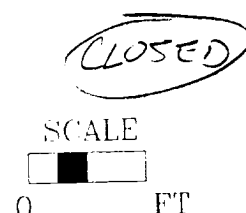
LOCATION: NAME: <u>JICA . CONTR. 148</u> WELL #: <u>19</u> PIT: <u>Blow</u>	DATE STARTED: <u>1/22/98</u> DATE FINISHED: _____
QUAD/UNIT: <u>P SEC 14 TWP 25N RNG 5W PM: NM CNTY: RA ST: NM</u>	ENVIRONMENTAL SPECIALIST: <u>NV</u>
OTF/FOOTAGE: <u>5E14 5E14</u> CONTRACTOR: <u>P & S</u>	

EXCAVATION APPROX. <u>18</u> FT. x <u>18</u> FT. x <u>13</u> FT. DEEP.	CUBIC YARDAGE: <u>75</u>
DISPOSAL FACILITY: <u>ON-SITE</u>	REMEDATION METHOD: <u>LANDFARMED</u>
LAND USE: <u>RANGE</u>	LEASE: <u>JICA . 148</u> FORMATION: <u>CK</u>

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY <u>87</u> FT. <u>55E</u> FROM WELLHEAD.
DEPTH TO GROUNDWATER: <u>>100'</u> NEAREST WATER SOURCE: <u>>1000'</u> NEAREST SURFACE WATER: <u>>1000'</u>
NMDD PARKING SCOPE: <u>0</u> NMDD TPH CLOSURE STD: <u>5000</u> PPM
SOIL AND EXCAVATION DESCRIPTION:

CHECK ONE:
<input checked="" type="checkbox"/> PIT ABANDONED
<input type="checkbox"/> STEEL TANK INSTALLED
<input type="checkbox"/> FIBERGLASS TANK INSTALLED

SOIL MOSTLY MOD. TO DR. YELL. BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT STAINING OR HC DOOR OBSERVED W/IN EXCAVATION, NO APPARENT HC DOOR OBSERVED IN ANY OF THE DUM SAMPLES.

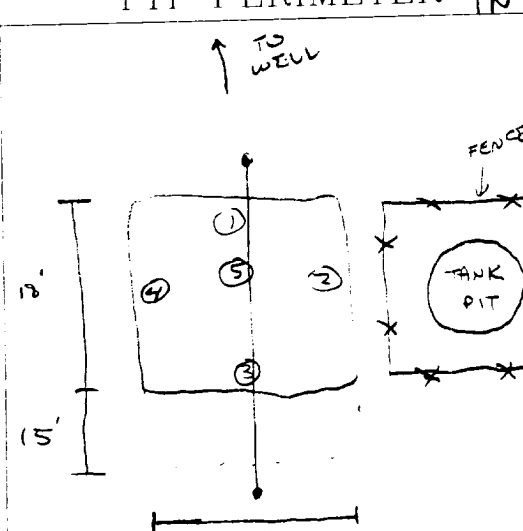


TIME	SAMPLE ID	LAB No.	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

PIT PERIMETER

OVM RESULTS

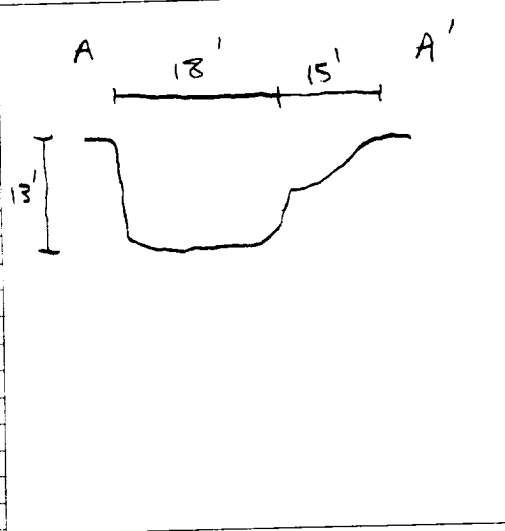
PIT PROFILE



SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 9'	0.0
2 @ 9'	0.0
3 @ 9'	0.0
4 @ 9'	0.0
5 @ 15'	0.0

SAMPLE ID	ANALYSIS	TIME
5 @ 15' TPH (418.1)	1320	

PASSED



TRAVEL NOTES: CALLOUT: <u>NA</u>	ONSITE: <u>1/22/98-morn.</u>
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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

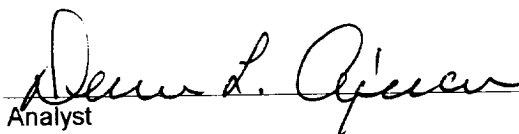
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	5 @ 15'	Date Reported:	01-23-98
Laboratory Number:	C835	Date Sampled:	01-22-98
Chain of Custody No:	5710	Date Received:	01-23-98
Sample Matrix:	Soil	Date Extracted:	01-23-98
Preservative:	Cool	Date Analyzed:	01-23-98
Condition:	Cool and Intact	Analysis Needed:	TPH-418.1

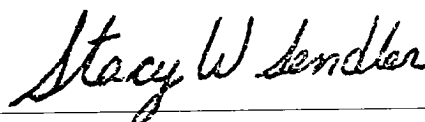
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	12.8	5.0

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: Jicarilla Contract 148-19 Blow Pit.


Analyst


Review

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

87519

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

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 CONTRACT 148-19
Location: Unit or Qtr/Qtr Sec P Sec 14 T 25N R 5W County RIO ARriba
Pit Type: Separator ☒ Dehydrator ☐ Other ☐
Land Type: RANGE

Pit Location: Pit dimensions: length 19', width 18', depth 15'
(Attach diagram) Reference: wellhead ☒, other ☐
Footage from reference: 145'
Direction from reference: 7 Degrees ☒ East of North ☒
West 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

BJ519

SEP. PIT

Date Remediation Started: _____ Date Completed: 5/15/98Remediation Method: Excavation ☒ Approx. cubic yards 75
Check all appropriate (actions) Landfarmed ☒ 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: Sample location see Attached Documents
Closure Sampling: _____
(if multiple samples, attach sample results and diagram of sample locations and depths)
Sample depth 17' (PIT BOTTOM)
Sample date 5/14/98 Sample time 0930

Sample Results

Soil: Benzene	(ppm)	<u>ND</u>	Water: Benzene	(ppb)	_____
Total BTEX	(ppm)	<u>0.0303</u>	Toluene	(ppb)	_____
Field Headspace	(ppm)	<u>137.8</u>	Ethylbenzene	(ppb)	_____
TPH	(ppm)	<u>6.1</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 5/15/98 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. Moore DATE: 6-15-98

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>8J519</u> C.O.C. NO: <u>5898</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. 148</u> WELL #: <u>19</u> PIT: <u>SEP</u>	DATE STARTED: <u>5/14/98</u> DATE FINISHED: _____
QUAD/UNIT: <u>P</u> SEC: <u>14</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>SE/4 SE/4</u> CONTRACTOR: <u>P&S</u>	

EXCAVATION APPROX. <u>19</u> FT. x <u>18</u> FT. x <u>15</u> FT. DEEP.	CUBIC YARDAGE: <u>75</u>
DISPOSAL FACILITY: <u>ON-SITE</u>	REMEDIATION METHOD: <u>LANDFARM</u>
LAND USE: <u>RANGE</u>	LEASE: <u>JIC 148</u> FORMATION: <u>CLC</u>

FIELD NOTES & REMARKS:	PIT LOCATED APPROXIMATELY <u>145</u> FT. <u>N7E</u> FROM WELLHEAD.
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DEPTH TO GROUNDWATER: <u>>100'</u>	NEAREST WATER SOURCE: <u>>1000'</u>	NEAREST SURFACE WATER: <u>>1000'</u>
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NMOCB RANKING SCORE: <u>0</u>	NMOCB TPH CLOSURE STD: <u>5000</u> PPM
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SOIL AND EXCAVATION DESCRIPTION:	CHECK ONE: <input checked="" type="checkbox"/> PIT ABANDONED <input type="checkbox"/> STEEL TANK INSTALLED <input type="checkbox"/> FIBERGLASS TANK INSTALLED
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SOIL MOSTLY PALE ORANGE TO MOD. YELL. BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT STAINING OR HC ODOR OBSERVED W/ EXCAVATION, SLIGHT HC ODOR DETECTED IN PIT BOTTOM OVM SAMPLE ONLY.

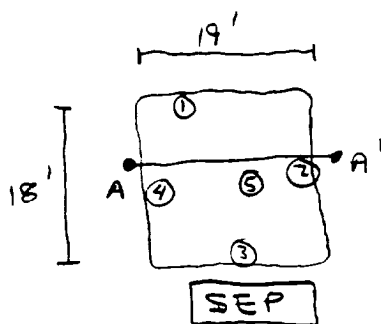
CLOSED

SCALE
0 FT

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
0930							

PIT PERIMETER



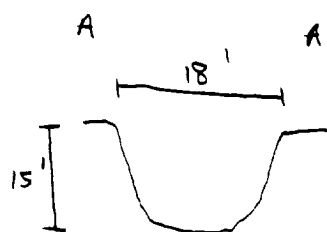
OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 9'	0.0
2 @ 10'	0.0
3 @ 11'	0.0
4 @ 9'	0.0
5 @ 17'	137.8

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
⑤ @ 17'	TPH / BTEX	0930
	8015 / 8021	
<u>BOTH PASSED</u>		

PIT PROFILE



TRAVEL NOTES:	CALLOUT: <u>5/12/98 - MORN.</u>	ONSITE: <u>5/14/98 - MORN.</u>
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**EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons**

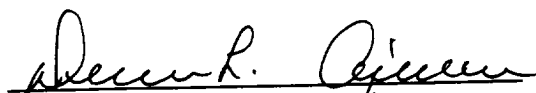
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	5 @ 17'	Date Reported:	05-15-98
Laboratory Number:	D276	Date Sampled:	05-14-98
Chain of Custody No:	5898	Date Received:	05-14-98
Sample Matrix:	Soil	Date Extracted:	05-15-98
Preservative:	Cool	Date Analyzed:	05-15-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

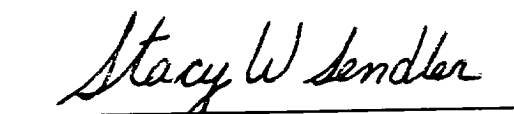
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	3.1	0.2
Diesel Range (C10 - C28)	3.0	0.1
Total Petroleum Hydrocarbons	6.1	0.2

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 Contract 148-19 Separator Pit.**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	5 @ 17'	Date Reported:	05-15-98
Laboratory Number:	D276	Date Sampled:	05-14-98
Chain of Custody:	5898	Date Received:	05-14-98
Sample Matrix:	Soil	Date Analyzed:	05-15-98
Preservative:	Cool	Date Extracted:	05-15-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	11.7
Toluene	ND	11.1
Ethylbenzene	ND	10.1
p,m-Xylene	30.3	14.4
o-Xylene	ND	6.9
Total BTEX	30.3	

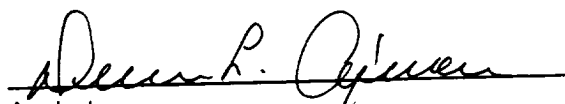
ND - Parameter not detected at the stated detection limit.

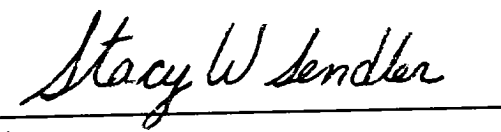
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	98 %
	Bromofluorobenzene	98 %

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 148-19 Separator Pit.


Analyst


Review

ENVIROTECH INC.

(505) 632-0615

0-11

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NATURAL RESOURCE DEPT
AND OIL & GAS ADMINISTRATION

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

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 CONTRACT 148-19
Location: Unit or Qtr/Qtr Sec P Sec 14 T 25N R 5W County RIO ARIZONA
Land Type: RANGE
Date Remediation Started: 1-22-98 Date Completed: 1/12/99
Remediation Method: Landfarmed ☒ Approx. cubic yards 150
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: 1-7-99 Time: 1345
Sample Results:
Field Headspace (ppm) 0.0
TPH (ppm) 18.4 Method 8015
Other ☐

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

DATE 1/12/99 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: _____ DATE: _____

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>83519</u> C.D.C. NO: <u>0540</u>
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FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: <u>SCARILLA CONTRACT 148</u> WELL #: <u>19</u> PITS: <u>BLOW</u>	DATE STARTED: <u>1-7-99</u> DATE FINISHED: <u>1/12/99</u>
QUAD/UNIT: <u>P</u> SEC: <u>14</u> TWP: <u>25N</u> RNG: <u>5W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u>	ENVIRONMENTAL SPECIALIST: <u>REP</u>
QTR/FOOTAGE: <u>SE/4 SE/4</u> CONTRACTOR: <u>P & S</u>	

SOIL REMEDIATION:

REMEDIATION SYSTEM: LANDFARM

APPROX. CUBIC YARDAGE: 150

LAND USE: RANGE

LIFT DEPTH (ft): 1.5-2.5

FIELD NOTES & REMARKS:

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

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

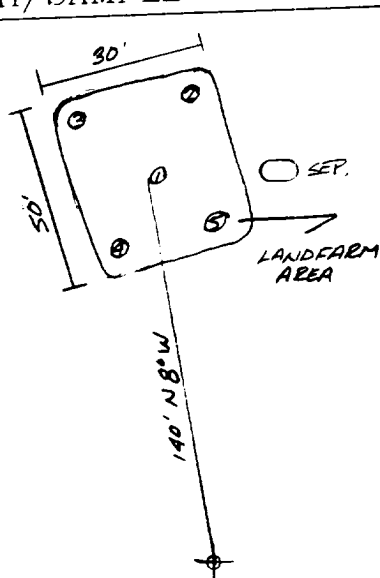
DK. YELLOW ORANGE - BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, LOOSE.
NO APPARENT STAINING OR H.C. ODOR DETECTED. SAMPLING DEPTHS RANGE
FROM 6" - 18" TOOK A SPT COMPOSITE SAMPLE FOR LAB. ANALYSIS

CLOSED

FIELD 418.1 CALCULATIONS

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

SKETCH/SAMPLE LOCATIONS

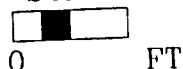


OVM RESULTS

LAB SAMPLES

SAMPLE ID	FIELD HEADSPACE PID (ppm)	SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	0.0	LF-1	TPH (8615)	1345	18.4

SCALE



TRAVEL NOTES:

CALL OUT:

N/A

ONSITE: 1-7-99

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

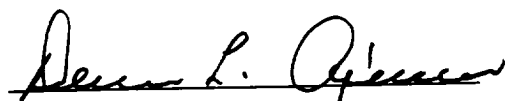
Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	LF - 1	Date Reported:	01-11-99
Laboratory Number:	E486	Date Sampled:	01-07-99
Chain of Custody No:	6540	Date Received:	01-08-99
Sample Matrix:	Soil	Date Extracted:	01-11-99
Preservative:	Cool	Date Analyzed:	01-11-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	7.7	0.2
Diesel Range (C10 - C28)	10.7	0.1
Total Petroleum Hydrocarbons	18.4	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 148 - 19 Landfarm. 5 Pt. Composite.


Analyst


Review

6540

[illegible]