

District I
P.O. Box 1980, Hobbs, NM
District II
Drawer DD, Artesia, NM 88211
District III
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

SUBMIT 1 COPY TO
APPROPRIATE
DISTRICT OFFICE
AND 1 COPY TO
SANTA FE OFFICE

KISK - Devery
AO111

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OIL CON. DIV.
DIST. 3

PIT REMEDIATION AND CLOSURE REPORT

Denied 12/5/96 LF

Operator: Amoco Production Company Telephone: (505) - 326-9200
Address: 200 Amoco Court, Farmington, New Mexico 87401
Facility Or: VCU #15
Well Name
Location: Unit or Qtr/Qtr Sec I Sec 27 T 28N R 4W County RIO ARriba
Pit Type: Separator Dehydrator Other Blow
Land Type: BLM ✓, State , Fee , Other

Pit Location: Pit dimensions: length 30', width 36', depth 3'
(Attach diagram) Reference: wellhead X, other
Footage from reference: 205'
Direction from reference: 10 Degrees East North
of
✓ West South ✓

Depth To Ground Water:
(Vertical distance from
contaminants to seasonal
high water elevation of
ground water)

Less than 50 feet (20 points)
50 feet to 99 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) 0
No (0 points)

Distance To Surface Water:
(Horizontal distance to perennial
lakes, ponds, rivers, streams, creeks,
irrigation canals and ditches)

Less than 200 feet (20 points)
200 feet to 1000 feet (10 points) 0
Greater than 1000 feet (0 points)

RANKING SCORE (TOTAL POINTS): 0

A0111 Blow PIT

Date Remediation Started: _____

Date Completed: 9/29/94Remediation Method: Excavation ☒
(Check all appropriate sections)Landfarmed ☒Approx. cubic yards 120

Insitu Bioremediation _____

Other _____

Remediation Location:
(ie. landfarmed onsite,
name and location of
offsite facility)Onsite ☒ Offsite _____

General Description of Remedial Action: _____

Excavation. BEDROCK BOTTOM. RISK ASSESSED.

Ground Water 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 3' (PIT BOTTOM)Sample date 9/23/94Sample time 1020

Sample Results

Benzene(ppm) NDTotal BTEX(ppm) 8.426Field headspace(ppm) 861TPH 11,300 ppmGround Water 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

9/29/94

SIGNATURE

B. ShawPRINTED NAME
AND TITLEBuddy D. Shaw
ENVIRONMENTAL COORDINATOR

CLIENT: Amoco

ENVIROTECH Inc.

PIT NO: A01115796 US HWY. 64, FARMINGTON, NM 87401
(505) 632-0615C.O.C. NO: 3934

FIELD REPORT: CLOSURE VERIFICATION

JOB No: 92140PAGE No: 1 of 1LOCATION: NAME: Valencia Canyon Unit WELL #: 5 PIT: BLOWQUAD/UNIT: I SEC: 27 TWP: 28N RNG: 4W BM: NMBM CNTY: CA ST: NM

QTR/FOOTAGE:

CONTRACTOR: Carol VaughnDATE STARTED: 9/23/94DATE FINISHED: 9/23/94ENVIRONMENTAL
SPECIALIST: RmySOIL REMEDIATION: EXCAVATION APPROX. 30 FT. x 36 FT. x 3 FT. DEEP.DISPOSAL FACILITY: ON-SITE LANDFARM CUBIC YARDAGE: 120LAND USE: Carson Forest LEASE: FED LSE # NM-14921FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 205 FEET S10°W FROM WELLHEAD.DEPTH TO GROUNDWATER: 7100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'NMOC D RANKING SCORE: 0 NMOC D TPH CLOSURE STD: 5000 PPM

SOIL AND EXCAVATION DESCRIPTION: RAINWATER HAS COLLECTED in the SOUTHERN PORTION OF THE PIT (APPROX 1" deep).

Contaminated SOIL (VISUAL) IS PRESENT IN THE SOUTHERN WALL.

Recommend Closure if Laboratory Samples are below NMOC D Standard.

10/13/94 Recommended Removal of more SOIL FROM SOUTH WALL and Removal of more Sandstone from pit bottom (if possible) then Re-Assess.

FIELD 418.1 CALCULATIONS

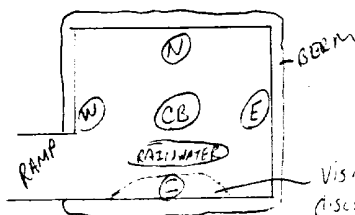
SAMPLE I.D.	LAB No:	WEIGHT (g)	ML. FREON/DILUTION	READING	CALC. ppm

SCALE
0 10 20
FEET

PIT PERIMETER

OVM
RESULTS

PIT PROFILE



SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 N03'	Sand 446.
2 E03'	Sand 125
3 S03'	Sand 59
4 W03'	Sand 4.2
5 NE03'	Sandstone 861
LAB SAMPLES	
CB03'	419.1/ETC
S03'	419.1

0'-2' interbedded Sand AND Sandstone. Fairly loose, moist, staining as noted above.

3' Olive Green Sandstone. Well lithified, HARD, No hydrocarbon odor, no visible contamination.

TRAVEL NOTES:

CALLOUT:

ON-SITE

Well Name:

Well Site location:

Pit Type:

Producing Formation:

Pit Category:

Horizontal Distance to Surface Water:

Vicinity Groundwater Depth:

Valencia Canyon Unit #15

Unit I, Sec. 27, T28N, R4W

Blow Pit

Pictured Cliffs

Non Vulnerable

> 1000 ft.

> 100 ft.

RISK ASSESSMENT (non-vulnerable area)

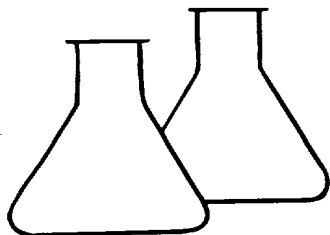
Pit remediation activities were terminated when loader encountered sandstone bedrock at 3 feet below grade.

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 3 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. Well site located on the fringe of the Valencia Canyon vulnerable area boundary.

(Refer to Leandro Canyon Quadrangle, New Mexico - Rio Arriba County, 7.5 Minute Series (Topographic), photorevised 1982, (vulnerable area boundary developed by Mr. William C. Olson, Hydrogeologist, Environmental Bureau, New Mexico Oil Conservation Division).

Based upon the information given, we conclude that the subsurface lateral and vertical impact from the earthen pit is very limited and that the sandstone bottom creates enough of an impermeable barrier as 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.



ENVIROTECH LABS

5796 US HIGHWAY 64-3014 • FARMINGTON, NEW MEXICO 87401
PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

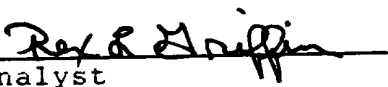
Client:	Amoco	Project #:	92140
Sample ID:	S @ 3'	Date Sampled:	09-26-94
Laboratory Number:	7923	Date Received:	09-26-94
Chain of Custody #	3934	Date Analyzed:	09-29-94
Sample Matrix:	Soil	Date Reported:	09-29-94
Preservative:	Cool	Analysis Needed:	TPH
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----	-----	-----
Total Petroleum Hydrocarbons	54300	10.0

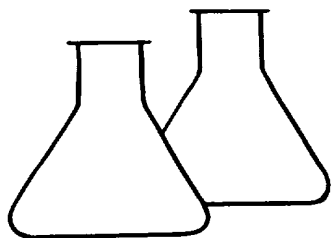
ND = Parameter not detected at the stated detection limit.
N/A = Not applicable

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

Comments: Valencia Canyon Unit # 15 Blow Pit A0111
analysis performed with GAC TPH unit


Analyst


Review



ENVIROTECH LABS

5796 US HIGHWAY 64-3014 • FARMINGTON, NEW MEXICO 87401
PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	CB @ 3'	Date Sampled:	09-26-94
Laboratory Number:	7924	Date Received:	09-26-94
Chain of Custody #	3934	Date Analyzed:	09-29-94
Sample Matrix:	Soil	Date Reported:	09-29-94
Preservative:	Cool	Analysis Needed:	TPH
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----	-----	-----
Total Petroleum Hydrocarbons	11300	10.0

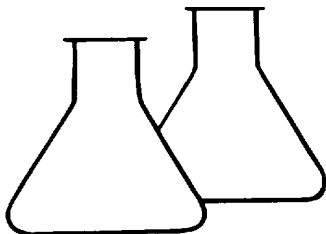
ND = Parameter not detected at the stated detection limit.
N/A = Not applicable

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

Comments: Valencia Canyon Unit # 15 Blow Pit A0111
analysis performed with GAC TPH unit

Rex A. Grippa
Analyst

Mavis J. Young
Review



ENVIROTECH LABS

5796 US HIGHWAY 64-3014 • FARMINGTON, NEW MEXICO 87401
PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	CB @3'	Date Reported:	09-28-94
Laboratory Number:	7924BTEX.	Date Sampled:	09-26-94
Sample Matrix:	Soil	Date Received:	09-26-94
Preservative:	Cool	Date Extracted:	09-26-94
Condition:	Cool & Intact	Date Analyzed:	09-27-94
		Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
-----	-----	-----
Benzene	ND	39.4
Toluene	526	78.7
Ethylbenzene	ND	39.4
p,m-Xylene	4870	59.1
o-Xylene	3030	59

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	-----	-----
	Trifluorotoluene	143 %
	Bromofluorobenzene	182 %

Method: 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. 1986.

ND - Parameter not detected at the stated detection limit.

Comments: Valencia Canyon Unit # 14 A0111
Excessive surrogate recovery due to coelution

Ref. L. Griffin
Analyst

M. J. Young
Review

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>A0111</u> C.O.C. NO: _____
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FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: <u>VCU</u>	WELL #: <u>15</u>	PITS: <u>BLOW</u>	DATE STARTED: <u>11-18-97</u>
QUAD/UNIT: <u>I</u> SEC: <u>27</u> TWP: <u>29N</u> RNG: <u>4W</u> PM: <u>NM</u> CNTY: <u>RA</u> ST: <u>NM</u>			DATE FINISHED: _____
QTP/FOOTAGE: _____		CONTRACTOR: _____	
			ENVIRONMENTAL SPECIALIST: <u>JCB</u>

SOIL REMEDIATION:

REMEDIAL SYSTEM: <u>LANDFARM</u>	APPROX. CUBIC YARDAGE: <u>120</u>
LAND USE: <u>RANGE</u>	LIFT DEPTH (ft): _____

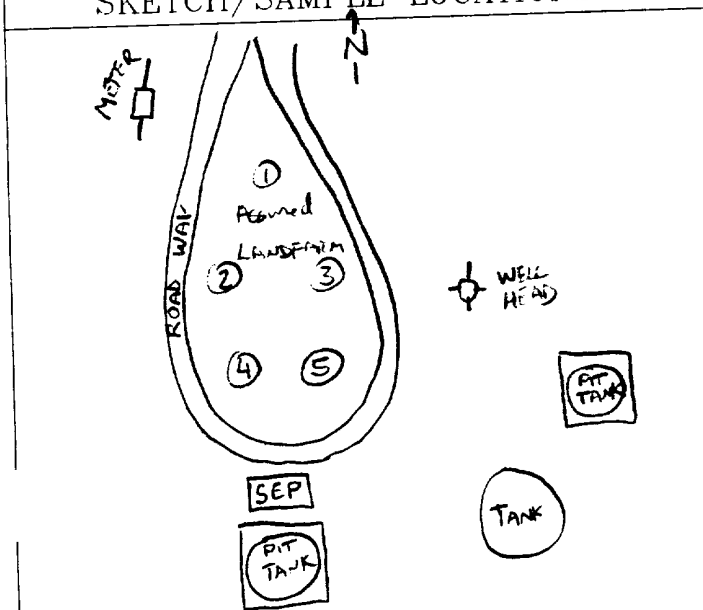
FIELD NOTES & REMARKS:

DEPTH TO GROUNDWATER: >100 NEAREST WATER SOURCE: >1000 NEAREST SURFACE WATER: >1000
 NMDCD RANKING SCORE: 0 NMDCD TPH CLOSURE STD: 5000 PPM

FIELD 418.1 CALCULATIONS

SAMP. TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
<u>1054</u>	<u>LF-1</u>	<u>1940</u>	<u>5.0</u>	<u>20.0</u>	<u>4X</u>	<u>220</u>	<u>880</u>

SKETCH/SAMPLE LOCATIONS



OVM RESULTS

LAB SAMPLES

SAMPLE ID	FIELD HEADSPACE PID (ppm)	SAMPLE ID	ANALYSIS	TIME	RESULTS
<u>LF-1</u>	<u>0.0</u>				

SCALE



TRAVEL NOTES: CALLOUT: _____ ONSITE: _____

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: Landfarm
Project Location: VCU # 15
Laboratory Number: TPH-1940

Project #:
Date Analyzed: 11-19-97
Date Reported: 11-19-97
Sample Matrix: Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	880	20

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	608	568	6.80

*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: Landfarm Composite Sample

J.C. Blagg
Analyst

Nelson Vef
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

Landfarm

VCU # 15

TPH-1940

Project #:

Date Analyzed:

Date Reported:

Sample Matrix:

11-19-97

11-19-97

Soil

Sample Weight: 5.00 grams
Volume Freon: 20.00 mL
Dilution Factor: 1 (unitless)
TPH Reading: 220 mg/kg

TPH Result: 880.0 mg/kg
Reported TPH Result: 880 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: Landfarm Composite Sample