

District I
P.O. Box 1980, Hobbs, NM
District II
P.O. 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

Denny
DEPUTY OIL & GAS INSPECTOR
SANTA FE OFFICE

JAN 11 6 1996

PIT REMEDIATION AND CLOSURE REPORT

Operator: Amoco Production Company Telephone: (505) - 326-9200
Address: 200 Amoco Court, Farmington, New Mexico 87401
Facility Or: FEDERAL GAS COM E #1E
Well Name _____
Location: Unit or Qtr/Qtr Sec I Sec 30 T30N R12W County SAN JUAN
Pit Type: Separator X Dehydrator _____ Other _____
Land Type: BLM _____, State _____, Fee _____, Other COM. A6MT.

Pit Location: Pit dimensions: length 18', width 12.5', depth 6'
(Attach diagram) Reference: wellhead X, other _____
Footage from reference: 108
Direction from reference: 45 Degrees X East North _____
of _____ West South X

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) 20

Wellhead Protection Area:
(Less than 200 feet from a private
domestic water source, or; less than
1000 feet from all other water sources)

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EXT. 3

Yes (20 points)
No (0 points) 20

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)
Greater than 1000 feet (0 points) 20

RANKING SCORE (TOTAL POINTS): 60

Date Remediation Started: _____ Date Completed: 6-20-95Remediation Method: Excavation X Approx. cubic yards 50
(Check all appropriate sections) Landfarmed X Insitu Bioremediation _____

Other _____

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

General Description Of Remedial Action: _____

Excavation

Ground Water Encountered: No X 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'Sample date 6-20-95 Sample time _____

Sample Results

Benzene(ppm) _____

Total BTEX(ppm) _____

Field headspace(ppm) 676TPH 1080 ppmGround Water 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 8-8-95

SIGNATURE

B. ShawPRINTED NAME
AND TITLEBuddy D. Shaw
Environmental Coordinator

CLIENT AMOCO

ENVIROTECH INC.

ENVIRONMENTAL SCIENTISTS & ENGINEERS
5796 U.S. HIGHWAY 64-3014
FARMINGTON, NEW MEXICO 87401
PHONE: (505) 632-0615LOCATION NO A0122COORD. NO 4257FIELD REPORT: CLOSURE VERIFICATION PAGE NO: 1 of 1LOCATION NAME Federal Gas Can E Well #1E PIT _____ DATE STARTED 6-20-95
QUAD UNIT NE4SE4 SEC 30 TWP 30N RNG 12W PM 144 CNTY SJ ST NM DATE FINISHED 6-20-95
SITE FOOTAGE _____ CONTRACTOR ENVIROTECH ENVIRONMENTAL SPECIALIST HMB.EXCAVATION APPROX. 12.5' FT. x 18' FT. x 6' FT. DEEP CUBIC YARDAGE: 50 yd.
DISPOSAL FACILITY: EPC REMEDIATION METHOD: Land farm
LAND USE: Recreational LEASE: Private FORMATION: Surface: OJO ALAMOFIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 128' FT. SE FROM WELL-HEAD
DEPTH TO GROUNDWATER <50 NEAREST WATER SOURCE <1000 NEAREST SURFACE WATER <1000
WOOD PAVING DEPTH 60 WOOD TOP CLOSURE ITS 100 FPM

SOIL AND EXCAVATION DESCRIPTION

CHECK ONE

PIT ABANDONED

☒ STEEL TANK INSTALLED

Silty medium to coarse tan to brn sand.

Sandstone Below 4' DK gray to Black strong
petroleum odor. Fair to strong, indurated

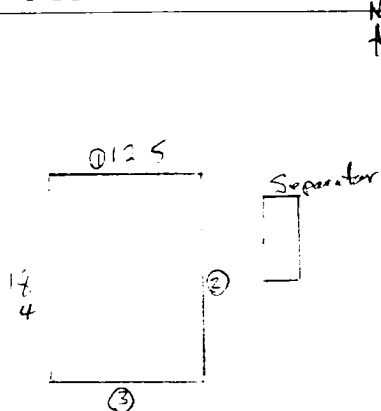
FIELD DATA CALCULATIONS

TIME	SAMPLE NO.	LAB NO.	WEIGHT (g)	INSTR. FREQU. DILUTION	READING	CALC.	ppm
11:20	3 @ 3.5'	8609					1080

SCALE

0 FT

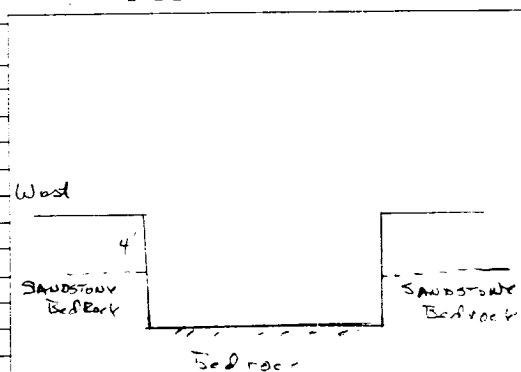
PIT PERIMETER



OVM RESULTS

SAMPLE ID	FIELD HEADSPACE P.D. (cm)
1 @ 2.4'	112.4 ppm
2 @ 2.4'	829 ppm
3 @ 3'	676 ppm
4 @ 2.4'	205 ppm
5	

PIT PROFILE



LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
3 @ 3.5'	TPH	11:20

TRAVEL NOTES:

CALLOUT: _____

ONSITE: _____

(SUP.)

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

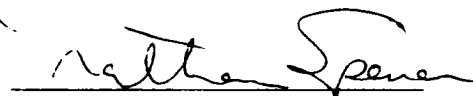
Client:	Amoco	Project #:	92140
Sample ID:	3 @ 3.5'	Date Reported:	06-22-95
Laboratory Number:	8609	Date Sampled:	06-20-95
Chain of Custody No:	4257	Date Received:	06-20-95
Sample Matrix:	Soil	Date Extracted:	06-21-95
Preservative:	Cool	Date Analyzed:	06-21-95
Condition:	Cool and Intact	Analysis Needed:	TPH

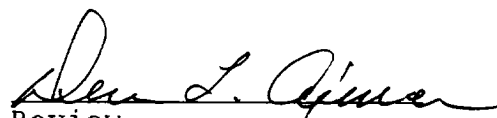
Parameter -----	Concentration (mg/kg) -----	Det. Limit (mg/kg) -----
Total Petroleum Hydrocarbons	1,080	10.0

ND = Parameter not detected at the stated detection limit.

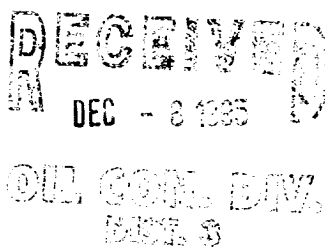
Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978.

Comments: Federal Gas Com E "1E", A0122.


Analyst


Review

Well Name:
Well Site location:
Pit Type:
Producing Formation:
Pit Category:
Horizontal Distance to Surface Water:
Vicinity Groundwater Depth:



Federal GC E 1E
Unit I, Sec. 30, T30N, R12W
Separator Pit
Basin Dakota
Vulnerable Area
< 1000 ft.
< 50 ft.

RISK ASSESSMENT

Pit remediation activities were terminated when trackhoe encountered sandstone bedrock at 4 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 shallow sandstone bedrock located 4 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 (double sidewall steel tank installed). Prior discharge into the pit is believed to be under 5 barrels per day.
4. Field headspace readings (OVM/PID) on Basin Dakota type locations do not reflect direct correlation to total BTEX per USEPA Method 8020 concentrations. Listed below are several typical AMOCO Basin Dakota pit soil analyses comparing headspace to Benzene and total BTEX results.

LOCATION	HEADSPACE (ppm)	BENZENE (ppm)	TOTAL BTEX (ppm)
Frost, Jack B 1E	1100	0.011	5.889
Berger A1	482	0.084	0.681
Mudge Com B 1E	684	0.017	16.438
L.C. Kelly #5	1235	0.643	13.908

The comparisons listed above demonstrates that headspace testing is not an accurate measurement to Benzene or total BTEX concentrations when above standards for Basin Dakota type pits.

Based upon the information given, we conclude that the subsurface lateral impact from the earthen pit is very limited and that the sandstone bottom creates enough of a permeable 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.

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Well Site location:
Pit Type:
Producing Formation:
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Horizontal Distance to Surface Water:
Vicinity Groundwater Depth:

Federal GC E 1E
Unit I, Sec. 30, T30N, R12W
Separator Pit
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CLIENT <u>AMOCO</u>	ENVIROTECH INC. <small>ENVIRONMENTAL SCIENTISTS & ENGINEERS 5798 U.S. HIGHWAY 64-3014 FARMINGTON, NEW MEXICO 87401 PHONE: (505) 632-0615</small>	LOCATION NO: <u>A0122</u> C.D.C. NO: <u>4257</u>
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FIELD REPORT: CLOSURE VERIFICATION		PAGE No: <u>1</u> of <u>1</u>
LOCATION: NAME <u>Federal Gas Can E</u> WELL #: <u>1E</u> PIT:		DATE STARTED: <u>6-20-95</u> DATE FINISHED: <u>6-20-95</u>
QUAD: UNIT <u>11E45E4</u> SEC <u>30</u> TWP: <u>30N</u> RNG: <u>12W</u> PM: <u>NM</u> CNTY: <u>SJ</u> ST: <u>NM</u>		ENVIRONMENTAL SPECIALIST: <u>HMB.</u>
SITE FOOTAGE		CONTRACTOR: <u>ENVIROTECH</u>

EXCAVATION APPROX. <u>12.5'</u> FT. x <u>18'</u> FT. x <u>6'</u> FT. DEEP.	CUBIC YARDAGE: <u>50 yd.</u>
DISPOSAL FACILITY: <u>EPC</u>	REMEDATION METHOD: <u>Land farm</u>
LAND USE: <u>Recreational</u>	LEASE: <u>Private</u>
FORMATION: <u>Surface: OJO ALAMO</u>	

FIELD NOTES & REMARKS:		PIT LOCATED APPROXIMATELY <u>108</u> FT. <u>SE</u> FROM WELLHEAD.
DEPTH TO GROUNDWATER: <u><50</u>	NEAREST WATER SOURCE: <u><1000</u>	NEAREST SURFACE WATER: <u><1000</u>
NMOCB PARKING SCOPE: <u>60</u>	NMOCB TPH CLOSURE STD: <u>100</u> PPM	
SOIL AND EXCAVATION DESCRIPTION:		CHECK ONE: <input type="checkbox"/> PIT ABANDONED <input checked="" type="checkbox"/> STEEL TANK INSTALLED

Silty medium to coarse tan to brn sand.

Sandstone Below 4' DK gray to Black strong petroleum odor. Fair to strongly indurated

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
11:20	3@3.5'	8609					1080

SCALE

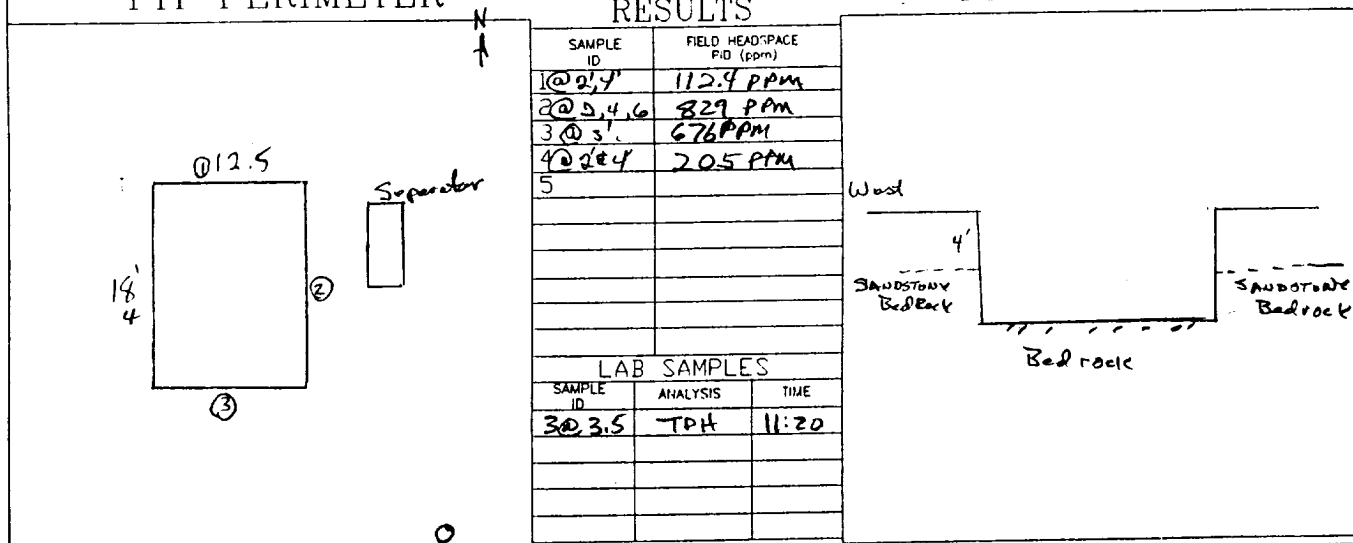


0 FT

PIT PERIMETER

OVM RESULTS

PIT PROFILE



TRAVEL NOTES:

CALLOUT: _____

ONSITE: _____

COND.