District I P.O. Box Mig-Hobbs, NM 7 — Energy, Minerals and Natural Resources Department P.O. Drawer DD. Arteria NM 18711 BEFLITY OIL & GAS INSPECTOR 1000 Rio Brazos Rd. ATC. NM 87410 DEC 0 3 1996

State of New Mexico

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

OIL CONSERVATION DIVISION

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

/ PIT REMEDIATION AND CLOSURE REPORT

Approved	
Operator: Amoco Production Compa	ny Telephone: (505) - 326-9200
Address: 200 Amoco Court, Farmi	
Facility or: 6CU 163 Well Name	
Location: Unit or Qtr/Qtr SecO	sec 26 T 29 N R 13 W County SAN JUAN
Pit Type: Separator Dehydrator_	Other Blow
Land Type: BLM, State, Fee	, Other UNIT AGMT,
(Attach diagram)	ngth <u>40</u> , width <u>40</u> , depth <u>6</u>
Footage from refere	nce: 140
Direction from refe	rence: $\frac{75}{}$ Degrees $\frac{\times}{}$ East North
e distriction	West South X
Depth To Ground Water: (Vertical distance from contaminants to seasonal high water elevation of	Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 Points)
ground water)	DECENTRA
Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than	DEC - 3 1838 Yes (20 points) No (0 points)
1000 feet from all other water sources)	
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)
	RANKING SCORE (TOTAL POINTS):

Date Remediation St	arted:	Date * Completed:_	2-8-95
Remediation Method:			
(Check all appropriate sections)	Landfarmed X		
	Other		
Remediation Location (ie. landfarmed onsite, name and location of offsite facility)		fsite	-
General Description	Of Remedial Action	n:	
Excavation	on to belrock		
		·	
Ground Water Encoun	tered: No X	Yes Depth	
Final Pit: Closure Sampling: (if multiple samples,	Sample location _	see Attached Documents	
attach sample results and diagram of sample	Sample depth	3′, 6′	
locations and depths)	Sample date 2	8-95 Sample time	*
·	Sample Results		
e de la companya de l	Benzene (ppm)		
	Total BTEX(p		
	Field headsp	ace(ppm) 89@3', 1053	@ 6' BEDROCK
	TPH <u>@ 3´ =</u>		
Ground Water Sample	: Yes No _	X (If yes, attach sample	e results)
I HEREBY CERTIFY TH		ABOVE IS TRUE AND COMPLE	TE TO THE BEST
DATE 2-9-95 SIGNATURE BASI	PRINTED AND TIT	NAME Buddy D. S	haw Coordinator

BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	C.O.C. NO:
FIELD REPORT: PIT CLOSURE VERIFICATION	DN
LOCATION: NAME: 6CY 163 WELL #: PIT: BLOW QUAD/UNIT: O SEC: 26 TWP: 29 N RNG: 13 W BM: NM CNTY: SJ ST: NM	DATE STARTED: 2-8-95 DATE FINISHED:
OTR/FOOTAGE: SW/SE CONTRACTOR: MOSS	ENVIRONMENTAL REO
EXCAVATION APPROX. 40 FT. × 40 FT. × 6 FT. DEEP. CUBI	C YARDS: 340
DISPOSAL FACILITY: OPSITE REMEDIATION METHOD LEASE: SF-078926-A FORMA	: <u>LAMOFARM</u> TION:
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 140 FEET S DEPTH TO GROUNDWATER: 2100' NEAREST WATER SOURCE: 21000 NEAREST SURFACE	
NMOCD RANKING SCORE: O NMOCD TPH CLOSURE STD: 5000 PPM	
SOIL AND EXCAVATION DESCRIPTION: PIT DISPOSITION: ABANDON ED	
0-3" MOIST BROWN, SAND, BOTTOM IS STAUD + ODOR IN BE	1
3-6' SAND - HAND CLAY CLAY + BED FORT LIMIT MONEME	
6' - BEDROCK EXCAVATIBLE CONTAMINATION RE	Autal,
	(CLOSE BENFOCK)
FIELD 418:1 CALCULATIONS SAMPLE I.D. LAB NO: WEIGHT (g) ML. FREON DILUTION READING CALC	
	Δ
SCALE	
0 10 20 FT OVM	
PIT PERIMETER RESULTS PIT	PROFILE
SAMPLE FIELD HEADSPACE PID (ppm)	PROFILE
SAMPLE FIELD HEADSPACE PID (ppm) 1 NS - 3 89	PROFILE
SAMPLE FIELD HEADSPACE 1 NS - 3	
SAMPLE FIELD HEADSPACE PID (ppm) 1 NS - 3	PROFILE
SAMPLE FIELD HEADSPACE D D (ppm) 1	
SAMPLE FIELD HEADSPACE D D (ppm) 1	6' SAND
SAMPLE FIELD HEADSPACE D D (ppm) 1	6 SAND
SAMPLE FIELD HEADSPACE D D (ppm) 1	6' SAND
SAMPLE FIELD HEADSPACE D D (ppm) 1	6 SAND

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:

GCU 163

Project Location: Laboratory Number: N. Side @ 3'

TPH-1365

Project #:

Date Analyzed:

Date Reported: Sample Matrix:

2-8-95 2-8-95

Soil

Parameter

Result, mg/kg

Detection Limit, mg/kg

Total Recoverable

Petroleum Hydrocarbons

ND

10

ND = Not Detectable at stated detection limits.

QA/QC:

QA/QC Sample

TPH mg/kg

Duplicate

%

TPH mg/kg

*Diff.

4,760

4,400

8

*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

2433

Comments:

Abandoned Blow Pit - B0215

Mhon Vilg Review

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

State of New Mexico Energy, Minerals and Natural Resources Department

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

OIL CONSERVATION DIVISION

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

PIT REMEDIATION AND CLOSURE REPORT

Operator: Amoco Production Compa	Telephone: (505) - 326-9200		
Address: 200 Amoco Court, Farmi	ngton, New Mexico 87401		
Facility Or: 6CU 163 Well Name	•		
Location: Unit or Qtr/Qtr Sec O	Sec 26 T29N R 13 W County SAN JUAN		
Pit Type: Separator X Dehydrator_	Other		
Land Type: BLM, State, Fee	other UNIT AGMT.		
Pit Location: Pit dimensions: length 30', width 20', depth 4' Reference: wellhead X, other Footage from reference: 160 Direction from reference: 55 Degrees East North			
	$\underline{\chi}$ West South $\underline{\chi}$		
Depth To Ground Water: (Vertical distance from contaminants to seasonal high water elevation of	Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 Points) O		
wellhead Protection Area: (Less than 200 feet from a private	DEC = 3 1896 Yes (20 points) No (0 points) O		
domestic water source, or; less than 1000 feet from all other water sources)	OIL COM, DIV.		
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)		
	RANKING SCORE (TOTAL POINTS):		

Date Remediation St	arted:	Date * Completed:	2-8-95
Remediation Method:		Approx. cubic yards	60
(Check all appropriate sections)	Landfarmed X	Insitu Bioremediation	
	Other		
·			
Remediation Locatio (ie. landfarmed onsite, name and location of offsite facility)		site	-
General Description		i	
Excavation	on - 70 Belleoch	- LATERAL ERCALATION	DISCONTIBUED
DUE 70	PIPELLYE + EQU	U MENT.	
Ground Water Encoun	tered: No X	Yes Depth	
Final Pit: Closure Sampling: (if multiple samples,	Sample location	see Attached Documents	
attach sample results and diagram of sample	Sample depth	3′	
locations and depths)		8-95 Sample time	
	Sample Results		
	Benzene(ppm)		
	Total BTEX(pp	om)	
	Field headspa	ce(ppm)	
	TPH 13,700		
Ground Water Sample	,	imes (If yes, attach sample	results)
I HEREBY CERTIFY TH		ABOVE IS TRUE AND COMPLET	TE TO THE BEST
DATE 2-9-95 SIGNATURE BASI	PRINTED AND TITI	NAME Buddy D. S E Environmental	haw Poordinator

BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	C.D.C. ND:
FIELD REPORT: PIT CLOSURE VERIFICAT	ION
LOCATION: NAME: GCY 163 WELL #: PIT: SEP. QUAD/UNIT: O SEC: 26 TWP: 29 N RNG: [3 W BM: NM CNTY: 5 J ST: NM	DATE FINISHED.
QUAD/ONT: U SEC. 20 THF. 21 & RNG. 130 BM. FFT CHIT. 30 ST.	ENVIRONMENTAL PEU
EXCAVATION APPROX. 20 FT. \times 30 FT. \times 4 FT. DEEP. CUI	
DISPOSAL FACILITY: OPSITE REMEDIATION METHO	İ
LAND USE: £ KN6E LEASE: SF - 078926 - A FORM	
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 60 FEET :	
DEPTH TO GROUNDWATER: 7100' NEAREST WATER SOURCE: 21000' NEAREST SURFA	CE WATER 71000
NMOCD RANKING SCORE: 0 NMOCD TPH CLOSURE STD: 5000 PPM	
SOIL AND EXCAVATION DESCRIPTION: PIT DISPOSITION: ABANDONES	
Mast, BEDWY, SAMD No ~ 2"	
CLAYEY SAND TO H" - STAINT ODOR SOUTH + BAST	
SAMISTONE BOTTOM AT 4.	
EQUIPMENT + PIPELINES LIMIT LARGAL EXCAUNTION.	
FIELD 418.1 CALCULATIONS	(CONSITIONAL)
SAMPLE I.D. LAB NO: WEIGHT (g) ML. FREON DILUTION READING CA	
SS@31366 10.0 20.0 10 686 1	3,720
SCALE	
O 10 20FT OVM	PROFILE
INDODIE	LIOTILE
N A SAMPLE FIELD HEADSPACE PID (ppm) 1 NS-2 2	
2 ES - 2' 1063 3 SS - 3' 1181	
4 ws - 2' 9 5 c8 - 4' 586	
(9)	
(3) (4) To	BESEOCH
3 PIN WELL	
SEA LAB SAMPLES	
L	
Sul FALE CRADIEM	

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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

Sample ID:

S. Side @ 3'

Project Location: Laboratory Number:

GCU 163 TPH-1366 Project #:

Date Analyzed:

2-8-95

Date Reported:

2-8-95

8

Sample Matrix:

Soil

Parameter 	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	13,700	100

ND = Not Detectable at stated detection limits.

% QA/QC Sample Duplicate *Diff. TPH mg/kg TPH mg/kg 4,400

*Administrative Acceptance limits set at 30%.

4,760

Method:

Modified Method 418.1, Petroleum Hydrocarbons, Total

Recoverable, Chemical Analysis of Water and Waste,

USEPA Storet No.4551, 1978

Comments:

Abandoned Separator Pit - B0215

R. E. O'Noull

Melon V. Review

Well Name:

Well Site location:

Pit Type:

Producing Formation:

Pit Category:

1 1,5

Horizonal Distance to Surface Water:

Vicinity Groundwater Depth:

GCU #163
Unit O, Sec. 26, T29N, R13W
Blow Pit
Basin Dakota
Area III
> 1000 ft.

> 100 ft.

RISK ASSESSMENT

Pit remediation activities were terminated when trackhoe encountered sandstone bedrock at 6 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 6 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.

(1) (1) (2) (3)
 (2) (3) (4) (4) (7) (4)

Well Name:

Well Site location:

Pit Type:

Producing Formation:

Pit Category:

Horizonal Distance to Surface Water:

Vicinity Groundwater Depth:

GCU #163

Unit O, Sec. 26, T29N, R13W

Separator Pit Basin Dakota

Area III

Alea III

> 1000 ft.

> 100 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 relatively 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 (pit abandoned). 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.

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