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

# State of New Mexico Energy, Minerals and Natural Resources Department

SUBMIT 1 COPY TO APPROPRIATE DISTRICT OFFICE

DISTRICT OFFICE
AND CONTROL
SANTA FE OFFICE
DEPUTY OIL & GAS INSPECTOR

**MAN 11. 6 1996** 

## OIL CONSERVATION DIVISION

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

#### PIT REMEDIATION AND CLOSURE REPORT

<del>از منسالانانم</del>		
		and the second s
Operators	Amoco Production Compa	ny <b>Telephone:</b> (505) - 326-9200
Obergrot.	Imoco il oddetion compa	
Address:	200 Amoco Court, Farmi	ngton, New Mexico 87401
Facility Or:	FEDERAL GAS CO	M D "IE
Well Name		
Location: Unit	or Otr/Otr Sec	Sec 30 T30N R [2 W County SAN JUAN
Pit Type: Sep	arator Dehydrator_	Other Blow
Land Type: B	LM, State, Fee	, Other <u>Com. A6mT.</u>
914 Va41	Dit dimensions: 15	$\frac{18'}{100}$ , width $\frac{16'}{100}$ , depth $\frac{10'}{100}$
(Attach diagram)		ingen to , widen to , depen to
(Accach diagram)	Reference: wellhea	d $\chi$ , other
	Footage from refere	ence: 40
	Direction from refe	rence: $45$ Degrees $X$ East North
		of
		West South $ imes$
		*
Depth To Grou	nd water:	Less than 50 feet (20 points) 50 feet to 99 feet (10 points)
(Vertical distar		Greater than 100 feet (0 Points)
contaminants to	seasonai	Greater than 100 reet (0 Points)
high water elevaground water)	ation of	in the second of
ground nator,		Yes (20 points) No (0 points) 20
Wellhead Prot	ection Area:	Yes (20 points)
	feet from a private	No (0 points) 20
	source, or; less than	MAR MANO SPEED
	all other water sources)	ONE COR. BEV.
		,
Distance To 8	urface Water:	Less than 200 feet (20 points)
ii ,	tance to perennial	200 feet to 1000 feet (10 points)
	ivers, streams, creeks,	Greater than 1000 feet (0 points) 20
irrigation cana	ls and ditches)	
		DANKING GOODS (MOMAL DOTIMO).
I		RANKING SCORE (TOTAL POINTS): $\underline{60}$

Date Remediation St	arted: Date Completed:6-7-95
	Excavation X Approx. cubic yards 67
(Check all appropriate sections)	Landfarmed X Insitu Bioremediation
- -	Other
Remediation Locatio (ie. landfarmed onsite, name and location of offsite facility)	n: Onsite Offsite X L.C. KELLY #4
General Description	Of Remedial Action:
Excavation	on
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 7
locations and depths)	Sample date 6-7-95 Sample time
	Sample Results
	Benzene(ppm)
	Total BTEX(ppm)
	Field headspace(ppm) > 2100
	трн
	·
Ground Water Sample	: Yes No $X$ (If yes, attach sample results)
I HEREBY CERTIFY TH OF MY KNOWLEDGE AND	AT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST BELIEF
DATE 8-8-95	R 11 N S1.
STONATURE BASI	PRINTED NAME Buddy D. Shawington

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

DEGENVED DEC - 8 1035 Federal GC D 1E
Unit I, Sec. 30, T30N, R12W
Blow Pit
Basin Dakota
Vulnerable Area
< 1000 ft.
< 50 ft.

#### **RISK ASSESSMENT**

Pit remediation activities were terminated when trackhoe encountered sandstone bedrock at 10 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 10 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.
- 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.

	17	<del> (n)!!! </del>		distribution	
CLIENT <u>AMOCO</u>	ENVIROTE		5 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	LOCATION NO	A0121
	ENVIRONMENTAL SCIENT 5796 U.S. HIGH FARMINGTON, NEW	ISTS & ENGINEERS		C.O.C. NO	HOKE
	PHONE: (505)				
FIELD REPOR	T: CLOSURE	VERIFICA'	TION	PAGE No:	<u>l</u> of <u>l</u>
LOCATION: NAME FEDERAL	Gas Com "D" WELL # 1E 30 TWP: 30 N RNG 12W			DATE STARTED: DATE FINISHED:	
OTP/FOCTAGE		ENVIROTECH	į i	ENVIRONMENTAL SPECIALIST:	Huis
EXCAVATION APPROX	FT. x _ <b>18</b> FT. x	10 FT. DEEP	CUBIC	YARDAGE: _	107
	WDFARMOLC Kelly #4				
LAND USE: GOLF CO.	ARSE LEASE: Pri	uta.	FOR	MATION: عبد	tare D ALMMO
FIELD NOTES & PEMAR	KS: PIT LOCATED AFFRE	NIMATELY 40	FT	SE_ FROM	WELLHEAD.
DERTH TO GROUNDWATER _ <1	NEAREST WATER SEUPCE:	<1000 NEAR	EST SUPFACE	WATER: < 10	000
NMOCD PARAING LOOPS 60	NMEGD TPH CLESURE STEEL	100 254		CHECK ENE	
SOIL AND EXCLUYATION	N DESCRIPTION:			PIT ABANDONI STEEL TANK	•
Light Tan Media	m to coarse soud (	Surface to 4	'>	Excaua.	
White to light To	in medium to fine som	A (4'-5)			Q DOE TO
Silty Brown to DA	ik Brown medium to	s five sand (4	5'-7')	Proximit	y to Saparato
				/L. IC 6 6 6	
gray sheley soil	with overgish stain.	-3 (7-8)		Golf coa	rse, etc.
gray sheley soil	with overgish stain.	-3 (7-8)		Golf. coa	rse, etc.
gray sheley soil	with overgish steining steining state (8'-1 stane) @ 10'	ー <u>さ (7'-%')</u> ら <mark>)</mark> FIELD 418.1 <u>CALCU</u>	_ATIONS		
gray sheley soil	with overgish stein. - SAUDY SHALE (8'-1	ー <u>さ (7'-%')</u> ら <mark>)</mark> FIELD 418.1 <u>CALCU</u>	_ATIONS		
gray sheley soil	with overgish steining steining state (8'-1 stane) @ 10'	ー <u>さ (7'-%')</u> ら <mark>)</mark> FIELD 418.1 <u>CALCU</u>	_ATIONS		
gray shelvy soil  Light gray to ta  Badrock Lsand  SCALE	with overgish steining steining state (8'-1 stane) @ 10'	ー <u>さ (7'-%')</u> ら <mark>)</mark> FIELD 418.1 <u>CALCU</u>	_ATIONS		
gray shelvy soil Light gray to ta Badrock Loand  SCALE  O FT	with orangish staining  SANOY SHALE (8-1  STORE) & 10'  TIME SAMPLE I.D. LAB N  OV	(7'-%') FIELD 418.1 CALCU	_ATIONS . FREON DIL	UTION READING	CALC. ppm
gray shelvy soil  Light gray to ta  Badrock Lsand  SCALE	TIME SAMPLE I.D. LAB N  TTER  OV  RESU	(7'-8') FIELD 418.1 CALCUI O: WEIGHT (g) ML  M LTS	_ATIONS . FREON DIL		CALC. ppm
gray shelvy soil Light gray to ta Badrock Loand  SCALE  O FT	TIME SAMPLE ID. LAB N  TTER  OV  RESU  SAMPLE ID. LAB N  OV  RESU  SAMPLE ID. LAB N  OV  RESU  SAMPLE ID. LAB N	M LTS ELD HEADSPACE FO (ppm)	_ATIONS . FREON DIL	UTION READING	CALC. ppm
gray shelvy soil  Light gray to ta  Badrock (sand  SCALE  O FT  PIT PERIM	TIME SAMPLE ID. LAB N  TTER  OV  RESU  SAMPLE  D  SAMPLE  D  SAMPLE  D  COV  SAMPLE  S	M LTS ELD HEADSPACE FO (ppm)	_ATIONS . FREON DIL	UTION READING	CALC. ppm
gray shelvy soil  Light gray to ta  Badrock (sand  SCALE  O FT  PIT PERIM	TIME SAMPLE I.D. LAB N  TTER  OV  RESU  SAMPLE   P.    D.   P.	M LTS ELD HEADSPACE F.D (ppm)	_ATIONS . FREON DIL	UTION READING	CALC. ppm
gray shelvy soil  Light gray to ta  Badrock (sand  SCALE  O FT  PIT PERIM	TIME SAMPLE I.D. LAB N  TTER  OV  RESU  SAMPLE   P.    D.   P.	M LTS ELD HEADSPACE F.D (ppm) 2100 437	ATIONS FREON DILI	UTION READING	CALC. ppm
gray shelvy soil  Light gray to ta  Badrock (sand  SCALE  O FT  PIT PERIM	TIME SAMPLE ID LAB N  TIME SAMPLE ID LAB N  OV  RESU  SAMPLE  OV  RESU  SAMPLE  D  SAMPL	M LTS ELC HEADSPACE FO (ADDM) 2100 437 2100 V 2100 V 2100 V 2100 V 2100	PIT	UTION READING	CALC. ppm
gray shelvy soil  Light gray to ta  Badrock (sand  SCALE  O FT  PIT PERIM	TIME SAMPLE I.D. LAB N  TTER  OV  RESU  SAMPLE   P.    D.   P.	M LTS ELD 418.1 CALCUI O: WEIGHT (g) ML WEIGHT (g) ML WEIGHT (g) ML WEIGHT (g) ML WEIGHT (g) ML SING SALCE F.O. (ppm) V 2100 V 2100 V 2100 V 2100 V 311 SING SALCE SING SALCE	PIT	UTION READING	CALC. ppm
gray shelvy soil Light gray to ta Bedrock (sand  SCALE  O FT  PIT PERIM  Q Well head	TIME SAMPLE ID LAB N  TIME SAMPLE ID LAB N  OV  RESU  SAMPLE  P  3,5,7  203,5,7  303,5,7  5  LAB SAM	M LTS ELD 418.1 CALCUI O: WEIGHT (g) ML  M LTS ELD HEADSPACE FO (ppm) 2100 437 2100 W SILL SILL SILL SILL SILL SILL SILL SI	PIT	PROFILE	CALC. ppm
gray shelvy soil  Light gray to ta  Bedrock (sand  SCALE  O FT  PIT PERIM  Q Well head	WITH OVERGES SECTION  SAUDY SHALE (8-1  STORE) @ 10'  TIME SAMPLE ID. LAB N  OVERESU  SAMPLE  [D  23,5,7'  203'5,7'  303'5,7'  402'5,7'  5	M LTS ELD 418.1 CALCUI O: WEIGHT (g) ML  M LTS ELD HEADSPACE FO (ppm) 2100 437 2100 W SILL SILL SILL SILL SILL SILL SILL SI	PIT	PROFILE	CALC. ppm
gray shelvy soil Light gray to ta Bedrock (sand  SCALE  O FT  PIT PERIM  Q Well head	TIME SAMPLE I.D. LAB N  TIME SAMPLE I.D. LAB N  OV  RESU  SAMPLE   P.    D.   C.   C.   C.    SAMPLE   P.   C.   C.      D.   C.   C.      D.   C.   C.   C.      D.   C.   C.   C.      D.   C.   C.      D.   C.   C.      D.   C.   C.   C.      D.   C.   C.   C.      D.   C.   C.      D.   C.   C.   C.      D.   C.   C.   C.      D.   C.   C.      D.   C.   C.   C.      D.   C.   C.   C.      D.   C.   C.      D.   C.   C.   C.      D.   C.   C.   C.      D.   C.   C.      D.   C.   C.   C.      D.   C.   C.   C.      D.   C.   C.      D.   C.   C.   C.      D.   C.   C.   C.      D.   C.   C.      D.   C.   C.   C.      D.   C.   C.      D.   C.   C.      D.	M LTS ELD 418.1 CALCUI O: WEIGHT (g) ML  M LTS ELD HEADSPACE FO (ppm) 2100 437 2100 W SILL SILL SILL SILL SILL SILL SILL SI	PIT	PROFILE	CALC. ppm
gray shelvy soil Light gray to ta Bedrock (sand  SCALE  O FT  PIT PERIM  Q Well head	TIME SAMPLE I.D. LAB N  TIME SAMPLE I.D. LAB N  OV  RESU  SAMPLE   P.    D.   C.   C.   C.    SAMPLE   P.   C.   C.      D.   C.   C.      D.   C.   C.   C.      D.   C.   C.   C.      D.   C.   C.      D.   C.   C.      D.   C.   C.   C.      D.   C.   C.   C.      D.   C.   C.      D.   C.   C.   C.      D.   C.   C.   C.      D.   C.   C.      D.   C.   C.   C.      D.   C.   C.   C.      D.   C.   C.      D.   C.   C.   C.      D.   C.   C.   C.      D.   C.   C.      D.   C.   C.   C.      D.   C.   C.   C.      D.   C.   C.      D.   C.   C.   C.      D.   C.   C.   C.      D.   C.   C.      D.   C.   C.   C.      D.   C.   C.      D.   C.   C.      D.	M LTS ELD 418.1 CALCUI O: WEIGHT (g) ML  M LTS ELD HEADSPACE FO (ppm) 2100 437 2100 W SILL SILL SILL SILL SILL SILL SILL SI	PIT	PROFILE	CALC. ppm
gray shelvy soil Light gray to ta Bedrock (sand  SCALE  O FT  PIT PERIM  Q Well head	WITH OVERY SHALE (8-1) SHALE (8-1) STIME SAMPLE I.D. LAB N  TIME SAMPLE I.D. LAB N  OV RESU  SAMPLE  JD  G3,5,7  G3,5,7  G3,5,7  SAMPLE  JD  LAB SAM  LAB SA	M LTS ELD 418.1 CALCUI O: WEIGHT (g) ML  M LTS ELD HEADSPACE FO (ppm) 2100 437 2100 W SILL SILL SILL SILL SILL SILL SILL SI	PIT	PROFILE	CALC. ppm

Well Name:
Well Site location:
Pit Type:
Producing Formation:
Pit Category:
Horizonal Distance to Surface Water:

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

### RISK ASSESSMENT

Vicinity Groundwater Depth:

Pit remediation activities were terminated when trackhoe encountered sandstone bedrock at 10 feet below grade.

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CLIENT AMOCO		Enviroted	CH INC.		LOCATIO	IN NO: AO1	21
		ENVIRONMENTAL SCIENTIS 5796 U.S. HIGHWA FARMINGTON, NEW 1 PHONE: (505) 6	AY 64-3014 MEXICO 87401		C.O.	C. NO: None	_
FIELD REPO	RT: CL	OSURE V	VERIFICA	TION	PAGE No	o:1_ of1	
LOCATION: <u>NAME: Federi</u> quad/unit <b>I</b> sec					DATE FINIS	TED: <u>6-7-94</u> HED: <u>6-7-14</u>	
QTR/FOOTAGE	30 1111 30		ENVIROTECH		ENVIRONMEI SPECIALIST:	NTAL HUB	
EXCAVATION APPROX  DISPOSAL FACILITY: L  LAND USE:Golf Co	ANDFARM@L	C. Kelly #4	REMEDIATION	МЕТНО	D: <u>Land</u>	GE: 107 Commercial Surface OJO ALAM	-
FIELD MOTES & REMA	RKS: PIT LI	DCATED APPRON	(IMATELY 40	FT	SE_ F	ROM WELLHE	4 D.
NMOCD PANKING SCOPE 60			DO PPM		<u>CHECK</u> PIT_ABA	DNE :	
SOIL AND EXCAMATE						TANK INSTALL	ED
Light Tan Med. White to light	um to coa Tan medium	ise soud (	surface to 1 (4'-5')	4,)		inted Due	To
6.11 D 4 N	READN	madium to	Give sand (	5'-7')	Pr.	rimity to Sep F coarse, de	
Dittal Resmo to Da	TRIC BIOLIS	West mit		•	4.1	ومميته والأو	***
Silty Brown to Do	with over	ngish stainin	3 (7-8)	• . ,	G.1	f coarsie, de	******
gray shelvy soi	with over	ngish stainin	3 (7-8)		<b>G.</b> 1	f coarse, de	***************************************
gray shelvy soi Light gray to t Bedrock Lsand	en saudy solution	ngish staining Have (8'-10 10'	3 (7-8)	ULATIONS			
gray shelvy soi	en skupy s pstone)@	ngish staining Have (8'-10 10'	5 (7 - %) 15 15LD 418.1 CALC	ULATIONS			
Gray shelvy soi  Light gray to t  Badrock Lsand  SCALE	en skupy s pstone)@	ngish staining Have (8'-10 10'	5 (7 - %) 15 15LD 418.1 CALC	ULATIONS			
gray shelvy soi  Light gray to t  Badrock Lsand  SCALE  O FT	TIME SAM	PLE I.D. LAB NO	15 (7 - %)  SELD 418.1 CALC  WEIGHT (g) m	ULATIONS L. FREON [		ADING CALC. ppr	
gray shelvy soi  Light gray to t  Bedrock Come  SCALE  O FT  PIT PERIN	TIME SAM	OV.	15 (7 - %)  IELD 418.1 CALC  WEIGHT (g) m	ULATIONS L. FREON [	DILUTION REA	ADING CALC. ppr	
gray shelvy soi  Light gray to t  Badrock Lsand  SCALE  O FT	TIME SAM	OVA RESUI SAMPLE  PLE 1.D. LAB NO	1	ULATIONS L. FREON [	DILUTION REA	ADING CALC. ppr	
gray shelvy soi  Light gray to t  Bedrock Come  SCALE  O FT  PIT PERIN	TIME SAM	OVA RESUI SAMPLE  PLE 1.D. LAB NO	15 (7 - 8)  IELD 418.1 CALC  WEIGHT (g) m  ITS  ITS  ITS  ITS  ITS  ITS  ITS  IT	ULATIONS L. FREON [	DILUTION REA	ADING CALC. ppr	
gray shelvy soi  Light gray to t  Bedrock Come  SCALE  O FT  PIT PERIN	TIME SAM	OVA RESUI SAMPLE  PLE 1.D. LAB NO	1	ULATIONS L. FREON C	DILUTION REA	ADING CALC. ppr	F
gray shelvy soi  Light gray to t  Bedrock Come  SCALE  O FT  PIT PERIN	TIME SAM	OVA RESUI SAMPLE  PLE 1.D. LAB NO	15 (7 - 8)  IFLD 418.1 CALC  WEIGHT (g) m  TS  D HEADSPACE FID (Ppm)  2100  2100  W  51	ULATIONS L. FREON C PIT	DILUTION REA	ADING CALC. ppr	F
SCALE  SCALE  PIT PERIN  Q Well hear	TIME SAM	OVA RESUI SAMPLE  PLE 1.D. LAB NO	IELD 418.1 CALC : WEIGHT (g) m  TS D HEADSPACE FID (ppm)  2100 2100 W  51	PIT	DILUTION REA	ADING CALC. ppr	F
gray shelvy soi  Light gray to t  Bedrock Come  SCALE  O FT  PIT PERIN	TIME SAM	OV.  RESUI  SAMPLE   FE  10   F.  PLE I.D. LAB NO  OV.  RESUI  SAMPLE   FE  10   FE  23,5,7   24  303,5,7   25  LAB SAM	IELD 418.1 CALC  WEIGHT (g) m  ITS D HEADSPACE FID (ppm)  2100 2100 W  SI SI SI PLES	PIT	PROF	ADING CALC. ppr	F
SCALE  SCALE  PIT PERIN  Q Well hea	TIME SAM	OVA  RESUI  SAMPLE   FE  10   F  10   F	IELD 418.1 CALC  WEIGHT (g) m  ITS D HEADSPACE FID (ppm)  2100 2100 W  SI SI SI PLES	PIT	PROF	ADING CALC. ppr	F