HINKLE, COX, EATON, COFFIELD & HENSLEY

ATTORNEYS AT LAW

218 MONTEZUMA

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SANTA FE, NEW MEXICO 87504-2068

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WASHINGTON D.C. SPECIAL COUNSEL ALAN J STATMAN

December 15, 1992

700 UNITED BANK PLAZA POST OFFICE BOX IO ROSWELL, NEW MEXICO 88202 (505) 622-6510 FAX (505) 623-9332

2800 CLAYDESTA CENTER 6 DESTA DRIVE POST OFFICE BOX 3580 MIDLAND, TEXAS 79702 (915) 683-4691 FAX (915) 683-6518

1700 TEAM BANK BUILDING POST OFFICE BOX 9238 AMARILLO, TEXAS 79105 (806) 372-5569 FAX (806) 372-9761

500 MARQUETTE N.W., SUITE 800 POST OFFICE BOX 2043 ALBUQUERQUE, NEW MEXICO 87103

GREGORY .. NIBER* DAVID T MARKETTE* MARK C DOW *NOT LICENSED IN NEW MEXICO

LEWIS C COX

LEWIS C COX
PAUL W EATON
CONRAD E COFFIELD
HAROLD L HENSLEY, UR
STUART D SHANOR
ERIC D LANPHERE
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PAUL J KELLY, JR ROBERT P TANIN, JR MARSHALL G MARTIN OWEN M LOPEZ

DOUGLAS L LUNSFORD

JOHN J KE LY

JOHN J KELLY
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T CALDER EZZELL, JR
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JEFFREY L FORNACIARI
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JERRY F S-HACKELFORD
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JEFFREY W HELLBERG
ALBERT I. PITTS

JEFFREY W HELLBERG*
ALBERT L PITTS
"HOMAS M HNASKO
JOHN C CHAMBERS*
GARY D CCMPTON*
MICHAEL A GROSS
THOMAS D HAINES, JR

VIA HAND DELIVERY

KAREN M RICHARDSON

FRED W SCHWENDIMANN
JAMES M HUDSON
JEFFREY S BAIRD*

MACDONNELL GORDON

BETTY H. LITTLES

MARTIN MEYERS

BETTY H. LITTLE*
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GREGORY 5. WHEELER

ANDREW J. CLOUTIER JAMES A. GILLESPIE GARY W. LARSON STEPHANIE LANDRY

JOHN R KULSETH, JR MARGARET R MONETT

BRIAN T. CARTWRIGHT

BRIAN T. CARTWRIGHT*
LISA K. SMITH*
JAMES KENT SCHUSTER*
ROBERT H. BETHEA*
BRADLEY W. HOWARD
CHARLES A. SUTTON*
NORMAN D. EWART

DARREN T GROCE®

MOLLY MOINTOSH

REBECCA NICHOLS JOHNSON WILLIAM P JOHNSON STANLEY K. KOTOVSKY, JR. H. R. THOMAS KARA L. KELLOGG

Florene Davidson Oil Conservation Division 310 Old Santa Fe Trail Santa Fe, New Mexico 87503

Dear Florene:

505(768-I500 x (\$05) 768-1529 DEC 1 5 1992 OL COMSERVATION DIVISION

10651

Enclosed are an original and two copies of two Applications filed by Pogo Producing Company for directional drilling and unorthodox well locations. Proposed advertisements for each application are also enclosed. Please set both cases for the January 7, 1993 Examiner Hearing.

Very truly yours,

HINKLE, COX, EATON, COFFIELD

&_HENSLEY

James Bruce

JB:frs Enclosures

BEFORE THE NEW MEXICO OIL CONSERVATION DIVISION

APPLICATION OF POGO PRODUCING COMPANY FOR AN UNORTHODOX OIL WELL LOCATION AND DIRECTIONAL DRILLING, EDDY COUNTY, NEW MEXICO.

No. 10651 DEC 151992

APPLICATION

Pogo Producing Company hereby applies for approval of an unorthodox location and for directional drilling of the well described below, and in support thereof states:

- 1. Applicant is the operator of the NW\u00e4NE\u00e4 of Section 29,
 Township 23 South, Range 31 East, N.M.P.M., Eddy County, New
 Mexico, which is federal land located within the Oil-Potash Area.
- 2. Applicant desires to drill its Mobil Fed. No. 3 well in the NW\(\frac{1}{2}\)No. 3 cection 29 to test the Delaware formation. The Bureau of Land Management (BLM) has denied approval of all standard surface locations because, according to the BLM, drilling a vertical well at a standard location will cause an undue waste of potash. The BLM has approved a surface location 480 feet from the North line and 660 from the East line of Section 29, which is the surface location requested herein by applicant. Although applicant prefers not to drill directionally due to engineering, economic, and other reasons, applicant is filing this application due to drainage occurring from an offsetting well.
- 3. Applicant seeks approval to directionally drill its well vertically to a depth of approximately 2,200 feet subsurface (below the base of the Salado formation), to kick off the well in a west-

southwesterly direction, build angle to approximately 17°, and drill to a depth sufficient to test the Brushy Canyon formation of the Delaware Mountain Group, which is the primary zone of interest (approximately 7,600-7,900 feet subsurface). The bottomhole location in the Brushy Canyon formation will be orthodox, as allowed by Division Rule 111(E), at approximately 1,870 feet FEL and 578 feet FNL. In addition, the wellbore within the entire Brushy Canyon formation will be no closer than 330 feet to the quarter-quarter section line.

4. The wellbore will be unorthodox at certain depths in the Cherry Canyon formation of the Delaware Mountain Group. The wellbore will enter the Cherry Canyon formation (estimated top of formation at 5,044 feet subsurface) at an unorthodox location approximately 1,405 feet FEL and 540 feet FNL, and leave the Cherry Canyon formation (estimated bottom of formation at 6,342 feet subsurface) at an orthodox location approximately 1,789 feet FEL and 571 feet FNL. The wellbore will become standard in the Cherry Canyon formation at a depth of approximately 5,800 feet subsurface.

The proposed well is or may be prospective in the Cherry Canyon formation, and applicant requests approval of the above unorthodox location. A drilling prognosis, indicating the angle and direction of drilling, is attached hereto as Exhibit A.

- 5. The granting of this application is in the interests of conservation and the prevention of waste.
- 6. Applicant requests that this matter be set for the January 7, 1993 Examiner hearing.

WHEREFORE,	applicant request	s that,	after	hearing,	the	relief
requested above	be granted.					
DATED:	12/15/92					

DATED:

Respectfully submitted,

HINKLE, COX, EATON, COFFIELD & HENSLEY

James Bruce

Post Office Box 2068

Santa Fe, New Mexico 87504-2068

(£05) 982-4554

Attorneys for Pogo Producing Company

DIRECTIONAL PROPOSAL

Pogo Producing Company

Mobil Federal No. 3 Section 29, T-23-S, R-31-E Eddy County, New Mexico

Mobil Federal No. 3

Recommended Procedure

- 1. Stake surface location 480' FNL & 660' FEL, Section 29, T-23-S, R-31-E.
- 2. Build location set 40' of 20" conductor and grout cement same.
- 3. MIRU Rotary tools.
- 4. Drill 17-1/2" hole to ± 550 ', set 13-3/8" 54.5# casing to T.D., cement casing to surface with lite weight cement + 200 sx Premium tail.
- 5. Go in hole with 11" bit + 8" X 30' non-magnetic drill collar + (1) 8" steel drill collar + (1) 11" IB stabilizer + (1) 8" steel drill collar + (1) 11" IB stabilizer + (5) 8" steel drill collars + (10) 6-1/2" steel drill collars. Drill 11' hole to KOP of 2200'. Survey with non-magnetic instrument every 250'. POOH for angle building assembly.
- 6. Go in hole with 11" bit + 8" high speed motor + 1-1/2" bent sub + 8" X 30' non-magnetic drill collar + steel drill collars. Orient tool face properly, deflect well bore toward proper direction. Start angle building run. POOH for angle building assembly.
- 7. Go in hole with 11" bit + 11" IB stabilizer + 8" X 30' non-magnetic drill collar + (1) 8" steel drill collar + IB stabilizer + (1) 8" steel drill collar + IB stabilizer + (6) 8" steel drill collars + (15) 6-1/2" steel drill collars + (1) roller reamer. Drill with this assembly building approximately 2°/100' of hole in the proper direction until a maximum angle of 17.20° is obtained ± 3062' M.D. POOH for packed hole assembly.
- 8. GIH with 11" bit + 11" IB stabilizer + 8" non-magnetic drill collar + (1) 8" steel drill collar + (1) 11" IB stabilizer + (1) 8" steel drill collar + (1) roller reamer. Drill hole maintaining 17.2° deviation to 100' into Basal Anhydrite ± 4050' TVD. POOH to run 8-5/8" casing. Take multi shot survey to base of surface casing.
- 9. Lay down 8" X 11" tools, run 8-5/8" 32# intermediate casing to TD. Cement string to surface.
- 10. Drill out casing with 7-7/8" bit + 7-7/8" IB stabilizer + 6-1/2" X 30' non-magnetic drill collar + (1) 6-1/2" steel drill collar + 7-7/8" IB stabilizer + (29) 6-1/2" steel drill collars + (1) roller reamer. Maintian 17.2° deviation and proper direction to 6000 TVD. POOH for angle dropping assembly.
- 11. Go in hole with 7-7/8" bit + 6-1/2" non-magnetic drill collar + 7-7/8" IB stabilizer + 6-1/2" steel drill collar + 7-7/8" IB stabilizer + (29) 6-1/2" steel drill collar + (1) roller reamer. Drill with this assembly dropping angle to 0° @ 7127' TVD. Make corrective motor run if needed in this section. Drill to TD 100' into Bone Springs.

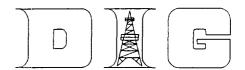
Mobil Federal No. 3 Recommended Procedure Page Two

12. Upon reaching TD, drop magnetic multi shot survey and tie into intermediate casing of ±4050' TVD.

Anticipated Formation Tops Based on Pure Gold "D" No. 2

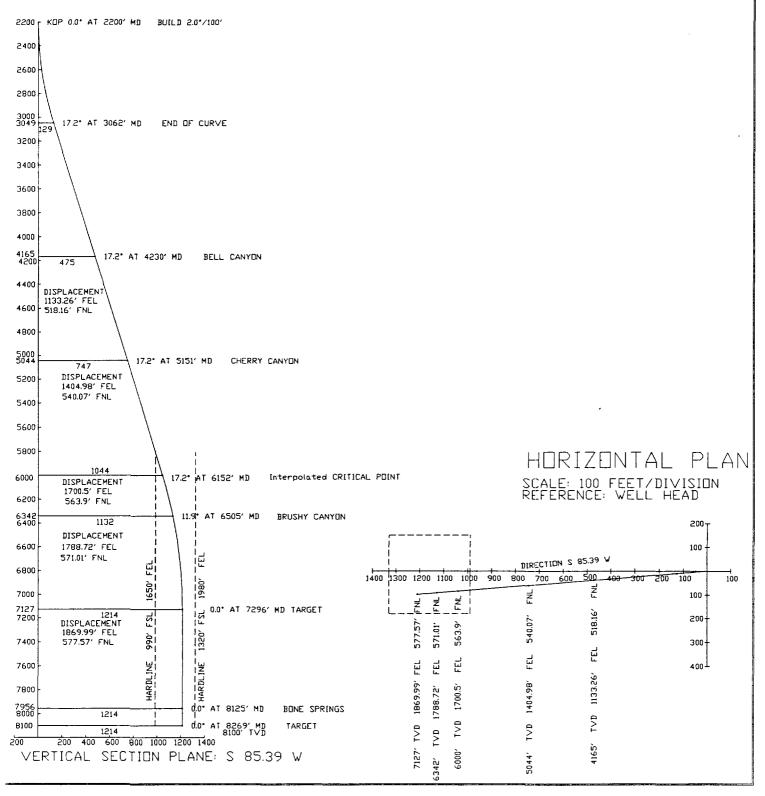
Basal Anhydrite	3897'
Lamar Lime	4122'
Bell Canyon	4165'
Cherry Canyon	5044'
Brushy Canyon	6342'
Bone Spring	7956'

POGO PRODUCING CO.
MOBIL FEDERAL # 3
SEC. 29, T23S, R31E
EDDY COUNTY, NEW MEXICO



VERTICAL SECTION

SCALE: 200 FEET/DIVISION REFERENCE: WELL HEAD



Mobil Federal No. 3 Recommended Procedure Page Two

12. Upon reaching TD, drop magnetic multi shot survey and tie into intermediate casing of ±4050' TVD.

Anticipated Formation Tops Based on Pure Gold "D" No. 2

Basal Anhydrite	3897'
Lamar Lime	4122'
Bell Canyon	4165'
Cherry Canyon	5044'
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DIRECTIONAL INVESTMENT GUIDANCE

POGO PRODUCING CO.
MOBIL FEDERAL # 3
SEC. 29, T23S, R31E
EDDY COUNTY, NEW MEXICO

Calculated by Minimum Curvature Method Vert Sect Plane: S 85.39 W

- DIRECTIONAL WELLPLAN -

MEASURED	INCL	DRIFT	COURSE	TRUE	тот	A L	VERTICAL	CLO	SURE	BUILD	DOGLEG
DEPTH	ANGLE	DIRECTION	LENGTH	VERTICAL	RECTANGULAR	COORDINATES	SECTION	DISTANCE	DIRECTION	RATE	SEVERITY
(FT)	(DEG)	(DEG)	(FT)	DEPTH	(FT)	(FT)	(FT)	(DEG)	(DG/100')	(DG/100')
2200.00	0.00	N 0.00 E	0.00	2200.00	0.00 N	0.00 E	0.00	0.00	N 0.00 E	0.00	0.00
2300.00	2.00	s 85.39 W	100.00	2299.98	0.14 S	1.74 W	1.75	1.75	s 85.39 W	2.00	2.00
2400.00	4.00	s 85.39 W	100.00	2399.84	0.56 s	6.96 W	6.98	6.98	s 85.39 W	2.00	2.00
2500.00	6.00	s 85.39 W	100.00	2499.45	1.26 S	15.64 W	15.69	15.69	s 85.39 W	2.00	2.00
2600.00	8.00	s 85.39 W	100.00	2598.70	2.24 S	27.79 W	27.88	27.88	s 85.39 W	2.00	2.00
2700.00	10.00	s 85.39 W	100.00	2697.47	3.50 S	43.38 W	43.52	43.52	s 85.39 W	2.00	2.00
2800.00	12.00	s 85.39 W	100.00	2795.62	5.03 s	62.40 W	62.60	62.60	s 85.39 W	2.00	2.00
2900.00	14.00	s 85.39 W	100.00	2893.06	6.84 S	84.82 W	85.10	85.10	s 85.39 W	2.00	2.00
3000.00	16.00	s 85.39 W	100.00	2989.64	8.92 S	110.62 W	110.98	110.98	s 85.39 W	2.00	2.00
END OF CUR	RVE										
3061.50	17.23	s 85.39 W	61.50	3048.58	10.33 s	128.15 W	128.56	128.56	s 85.39 W	2.00	2.00
Interpolat	ted CRIT	ICAL POINT									
4230.38	17.23	s 85.39 W	1168.88	4165.00	38.16 S	473.26 W	474.80	474.80	s 85.39 W	0.00	0.00
Interpolat	ted CRIT	ICAL POINT									
5150.68	17.23	s 85.39 W	920.30	5044.00	60.07 S	744.98 W	747.40	747.40	s 85.39 W	0.00	0.00
START OF	CURVE										
6146.96	17.23	s 85.39 W	996.27	5995.56	83.79 S	1039.13 W	1042.50	1042.50	s 85.39 W	0.00	0.00
Interpolat		ICAL POINT									
6151.60	17.16	s 85.39 W	4.64	6000.00	83.90 S	1040.50 W	1043.88	1043.88	s 85.39 W	-1.50	1.50
6246.96	15.73	s 85.39 W	95.36	6091.45	86.07 S	1067.41 W	1070.87	1070.87	s 85.39 W	-1.50	1.50
6346.96	14.23	s 85.39 W	100.00	6188.05	88.15 S	1093.17 W	1096.72	1096.72	s 85.39 W	-1.50	1.50
6446.96	12.73	s 85.39 W	100.00	6285.29	90.02 s	1116.40 W	1120.03	1120.03	S, 85.39 W	-1.50	1.50
Interpolat	ted CRIT	ICAL POINT									
6504.99	11.86	s 85.39 W	58.04	6342.00	91.01 S	1128.72 W	1132.39	1132.39	s 85.39 W	-1.50	1.50
6546.96	11.23	s 85.39 W	41.96	6383.11	91.69 S	1137.09 W	1140.78	1140.78	s`85.39 W	-1.50	1.50
6646.96	9.73	s 85.39 W	100.00	6481.44	93.15 S	1155.22 W	1158.97	1158.97	s 85.39 W	-1.50	1.50
6746.96	8.23	s 85.39 W	100.00	6580.21	94.40 S	1170.78 W	1174.58	1174.58	s 85.39 W	-1.50	1.50
6846.96	6.73	s 85.39 W	100.00	6679.36	95.45 s	1183.76 W	1187.60	1187.60	s 85.39 W	-1.50	1.50
6946.96	5.2 3	s 85.39 W	100.00	6778.81	96.29 S	1194.14 W	1198.02	1198.02	s 85.39 W	-1.50	1.50
7046.96	3.73	s 85.39 W	100.00	6878.50	96.92 s	1201.93 W	1205.83	1205.83	s 85.39 W	-1.50	1.50
7146.96	2.23	s 85.39 W	100.00	6978.37	97.33 s	1207.11 W	1211.03	1211.03	s 85.39 W	-1.50	1.50
7246.96	0.73	s 85.39 W	100.00	7078.33	97.54 S	1209.68 W	1213.61	1213.61	s 85.39 W	-1.50	1.50
TARGET											
7295.63	0.00	N 0.00 E	48.67	7127.00	97.57 s	1209.99 W	1213.92	1213.92	s 85.39 W	-1.50	1.50

Survey Ref: Well Head Closure Ref: Well Head Vert Sect Ref: Well Head

Mon Oct 19 1992 16:34:06 File: POGO_ED4.DAT Page 0

DIRECTIONAL INVESTMENT GUIDANCE

POGO PRODUCING CO.

MOBIL FEDERAL # 3

SEC. 29, T23S, R31E

EDDY COUNTY, NEW MEXICO

Calculated by Minimum Curvature Method Vert Sect Plane: S 85.39 W

- DIRECTIONAL WELLPLAN -

MEASURED DEPTH (FT)	INCL ANGLE (DEG)	D R I F T DIRECTION (DEG)	COURSE LENGTH (FT)	TRUE VERTICAL DEPTH	T O T RECTANGULAR ((FT)	COORDINATES	VERTICAL SECTION (FT)	C L O DISTANCE (FT)	SURE DIRECTION (DEG)	BUILD RATE (DG/100')	DOGLEG SEVERITY (DG/1001)
Interpolat	ed CRIT	ICAL POINT									
8124.63	0.00	N 0.00 E	829.00	7956.00	97.57 s	1209.99 W	1213.92	1213.92	s 85.39 W	0.00	0.00
TARGET											
8268.63	0.00	N 0.00 E	144.00	8100.00	97.57 s	1209.99 W	1213.92	1213.92	s 85.39 W	0.00	0.00

Survey Ref: Well Head Closure Ref: Well Head Vert Sect Ref: Well Head
Mon Oct 19 1992 16:34:06 File: POGO_ED4.DAT

Submit to Appropriate
Matrict Office
State Lease - 4 copies
See Lease - 3 copies

Operator

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-102 Revised 1-1-89

REGIVED

)ISTRICT | 1 2.0. Box 1980, Hobbs, NM 88240

OIL CONSERVATION DIVISION
P.O. Box 2088

OCT 2 6 1992

DISTRICT II

Santa Fe, New Mexico 87504-2088

MEDIAND

Well No.

DIST	RIC	T III					
1000	Rio	Brazos	Rd.,	Aztec,	NM	87410	

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Lease

0,41,200.	POGO PR	ODUCINO	COMPAN	Y		MOBIL		3	
Unit Letter	Section		Township		Range			County	
Α	:	29	23	SOUTH		31 EAS	T NMP	.	EDDY
Actual Footage L	ocation of	Well:							
480 4	feet from the	NOF	TH time	and	660		feet fro	m the EAS	line
Ground Level E		ducing For			Pool				Dedicated Acreage:
3345.7	,				ļ				Acres
1. Outline the	acreage dec	licated to	the subject v	rell by colored	pencil or had	chure marks or	the plat belo	· .	10103
	-						-		g interest and royalty).
			nt ownership	is dedicated	to the well, l	have the intere	st of all owne	rs been consol	idated by communitization.
Yes	forc e -pool,	No	If answer	is "yes" type	of convolidat	tion			•
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Mossee FED No.

1980' FEC

BEFORE THE NEW MEXICO OIL CONSERVATION DIVISION

APPLICATION OF POGO PRODUCING COMPANY FOR AN UNORTHODOX OIL WELL LOCATION AND DIRECTIONAL DRILLING, EDDY COUNTY, NEW MEXICO.



APPLICATION

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- 5. The granting of this application is in the interests of conservation and the prevention of waste.
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WHEREFORE,	applicant	requests	that,	after	hearing,	the	relief
requested above	be granted	d.					
DATED:	10/15/42		•				

Respectfully submitted,

HINKLE, COX, EATON, COFFIELD & HENSLEY

James Bruce

Post Office Box 2068

Santa Fe, New Mexico 87504-2068

(\$05) 982-4554

Attorneys for Pogo Producing Company

DIRECTIONAL PROPOSAL

Pogo Producing Company

Mobil Federal No. 3 Section 29, T-23-S, R-31-E Eddy County, New Mexico

Mobil Federal No. 3

Recommended Procedure

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- 5. Go in hole with 11" bit + 8" X 30' non-magnetic drill collar + (1) 8" steel drill collar + (1) 11" IB stabilizer + (1) 8" steel drill collar + (1) 11" IB stabilizer + (5) 8" steel drill collars + (10) 6-1/2" steel drill collars. Drill 11' hole to KOP of 2200'. Survey with non-magnetic instrument every 250'. POOH for angle building assembly.
- 6. Go in hole with 11" bit + 8" high speed motor + 1-1/2" bent sub + 8" X 30' non-magnetic drill collar + steel drill collars. Orient tool face properly, deflect well bore toward proper direction. Start angle building run. POOH for angle building assembly.
- 7. Go in hole with 11" bit + 11" IB stabilizer + 8" X 30' non-magnetic drill collar + (1) 8" steel drill collar + IB stabilizer + (1) 8" steel drill collar + IB stabilizer + (6) 8" steel drill collars + (15) 6-1/2" steel drill collars + (1) roller reamer. Drill with this assembly building approximately 2°/100' of hole in the proper direction until a maximum angle of 17.20° is obtained ± 3062' M.D. POOH for packed hole assembly.
- 8. GIH with 11" bit + 11" IB stabilizer + 8" non-magnetic drill collar + (1) 8 " steel drill collar + (1) roller reamer. Drill hole maintaining 17.2° deviation to 100' into Basal Anhydrite ± 4050' TVD. POOH to run 8-5/8" casing. Take multi shot survey to base of surface casing.
- 9. Lay down 8" X 11" tools, run 8-5/8" 32# intermediate casing to TD. Cement string to surface.
- 10. Drill out casing with 7-7/8" bit + 7-7/8" IB stabilizer + 6-1/2" X 30' non-magnetic drill collar + (1) 6-1/2" steel drill collar + 7-7/8" IB stabilizer + (29) 6-1/2" steel drill collars + (1) roller reamer. Maintian 17.2° deviation and proper direction to 6000 TVD. POOH for angle dropping assembly.
- 11. Go in hole with 7-7/8" bit + 6-1/2" non-magnetic drill collar + 7-7/8" IB stabilizer + 6-1/2" steel drill collar + 7-7/8" IB stabilizer + (29) 6-1/2" steel drill collar + (1) roller reamer. Drill with this assembly dropping angle to 0° @ 7127' TVD. Make corrective motor run if needed in this section. Drill to TD 100' into Bone Springs.

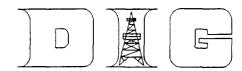
Mobil Federal No. 3 Recommended Procedure Page Two

12. Upon reaching TD, drop magnetic multi shot survey and tie into intermediate casing of ±4050' TVD.

Anticipated Formation Tops Based on Pure Gold "D" No. 2

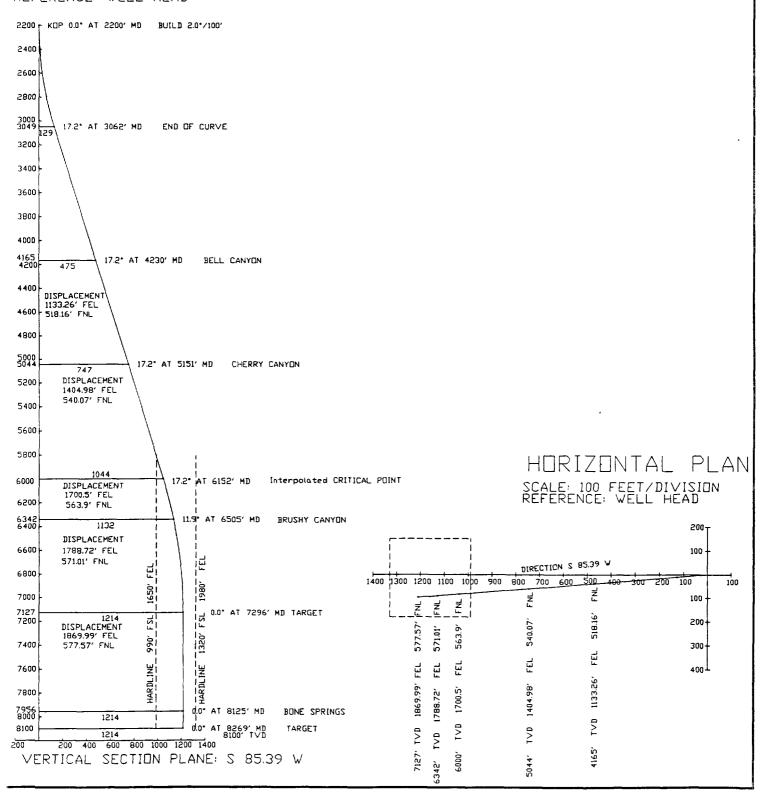
Basal Anhydrite	3897'
Lamar Lime	4122'
Bell Canyon	4165'
Cherry Canyon	5044'
Brushy Canyon	6342'
Bone Spring	7956'

POGO PRODUCING CO.
MOBIL FEDERAL # 3
SEC. 29, T23S, R31E
EDDY COUNTY, NEW MEXICO



VERTICAL SECTION

SCALE: 200 FEET/DIVISION REFERENCE: WELL HEAD



DIRECTIONAL INVESTMENT GUIDANCE

POGO PRODUCING CO.
MOBIL FEDERAL # 3
SEC. 29, T23S, R31E
EDDY COUNTY, NEW MEXICO

Calculated by Minimum Curvature Method Vert Sect Plane: S 85.39 W

- DIRECTIONAL WELLPLAN -

MEASURED	INCL	DRIFT	COURSE	TRUE	101	AL	VERTICAL	CLO	SURE	BUILD	DOGLEG
DEPTH	ANGLE	DIRECTION	LENGTH	VERTICAL	RECTANGULAR	COORDINATES	SECTION	DISTANCE	DIRECTION	RATE	SEVERITY
(FT)	(DEG)	(DEG)	(FT)	DEPTH	(FT	")	(FT)	(FT)	(DEG)	(DG/100')	(DG/100')
2200.00	0.00	N 0.00 E	0.00	2200.00	0.00 N	0.00 E	0.00	0.00	N 0.00 E	0.00	0.00
2300.00	2.00	s 85.39 W	100.00	2299.98	0.14 S	1.74 W	1.75	1.75	s 85.39 W	2.00	2.00
2400.00	4.00	s 85.39 W	100.00	2399.84	0.56 S	6.96 W	6.98	6.98	s 85.39 W	2.00	2.00
2500.00	6.00	s 85.39 W	100.00	2499.45	1.26 S	15.64 W	15.69	15.69	s 85.39 W	2.00	2.00
2600.00	8.00	s 85.39 W	100.00	2598.70	2.24 S	27.79 W	27.88	27.88	s 85.39 W	2.00	2.00
2700.00	10.00	s 85.39 W	100.00	2697.47	3.50 s	43.38 W	43.52		s 85.39 W	2.00	2.00
2800.00	12.00	s 85.39 W	100.00	2795.62	5.03 s	62.40 W	62.60	62.60	s 85.39 W	2.00	2.00
2900.00	14.00	\$ 85.39 W	100.00	2893.06	6.84 S	84.82 W	85.10	85.10	s 85.39 W	2.00	2.00
3000.00	16.00	s 85.39 W	100.00	2989.64	8.92 S	110.62 W	110.98	110.98	s 85.39 W	2.00	2.00
END OF CUR	RVE										
3061.50		s 85.39 W	61.50	3048.58	10.33 s	128.15 W	128.56	128.56	s 85.39 W	2.00	2.00
Interpolat	ted CRIT	ICAL POINT									
4230.38	17.23	s 85.39 ₩	1168.88	4165.00	38.16 s	473.26 W	474.80	474.80	s 85.39 W	0.00	0.00
Interpolat	ted CRIT	ICAL POINT									
5150.68	17.23	s 85.39 W	920.30	5044.00	60.07 s	744.98 W	747.40	747.40	s 85.39 W	0.00	0.00
START OF C											
6146.96		s 85.39 W	996.27	5995.56	83.79 S	1039.13 W	1042.50	1042.50	s 85.39 W	0.00	0.00
•		ICAL POINT									
6151.60		s 85.39 w	4.64	6000.00	83.90 S	1040.50 W	1043.88		s 85.39 w	-1.50	1.50
6246.96	15. 73	s 85.39 W	95.36	6091.45	86.07 S	1067.41 W	1070.87	1070.87	s 85.39 W	-1.50	1.50
47.4.04	44 57	- 05 70 11	400.00	(100.05	00 45 5	4007 47 11			- 		
6346.96		\$ 85.39 W	100.00	6188.05	88.15 s	1093.17 W	1096.72		s 85.39 W	-1.50	1.50
6446.96		s 85.39 W	100.00	6285.29	90.02 s	1116.40 W	1120.03	1120.03	s, 85.39 W	-1.50	1.50
		ICAL POINT	F0 0/	(7/2.00	04.04.0	4400 70	1170 70				
6504.99	11.86	s 85.39 w	58 .04	6342.00	91.01 S	1128.72 W	1132.39	1132.39	s 85.39 W	-1.50	1.50
4544 04	11 27	s 85.39 W	41.96	6383.11	01 40 0	1177 00 11	11/0 70	4440 70	0:05.70.11	4 50	4.50
6546.96 6646.96		S 85.39 W	100.00	6481.44	91.69 S 93.15 S	1137.09 W 1155.22 W	1140.78		s 85.39 W	-1.50	1.50
					· · · · · -		1158.97		s 85.39 W	-1.50	1.50
6746.96	8.23	s 85.39 W	100.00	6580.21	94.40 S	1170.78 W	1174.58	11/4.58	s 85.39 ₩	-1.50	1.50
6846.96	6.73	s 85.39 W	100.00	6679.36	95.45 s	1183.76 W	1187.60	1107 40	s 85.39 W	-1.50	1.50
6946.96	5.23	s 85.39 W	100.00	6778.81	96.29 S	1194.14 W	1198.02		S 85.39 W	-1.50	1.50
	3.73	S 85.39 W	100.00	687 8. 50				· · · · · · · -			
7046.96	3.13	7 7.JC	100.00	0010.30	96.92 S	1201.93 W	1205.83	1203.63	s 85.39 W	-1.50	1.50
7146.96	2.23	s 85.39 W	100.00	6978.37	97.33 s	1207.11 W	1211.03	1211.03	s 85.39 W	-1.50	1.50
7246.96		s 85.39 W	100.00	7078.33	97.54 s	1209.68 W	1213.61		s 85.39 W	-1.50	1.50
TARGET		**							 "		
7295.63	0.00	N 0.00 E	48.67	7127.00	97.57 s	1209.99 W	1213.92	1213.92	s 85.39 W	-1.50	1.50
	- • • •								· · ·		

Survey Ref: Well Head Closure Ref: Well Head Vert Sect Ref: Well Head
Mon Oct 19 1992 16:34:06 File: POGO_ED4.DAT

Page 0

DIRECTIONAL INVESTMENT GUIDANCE

POGO PRODUCING CO. MOBIL FEDERAL # 3 SEC. 29, T23S, R31E EDDY COUNTY, NEW MEXICO Calculated by Minimum Curvature Method Vert Sect Plane: S 85.39 W

- DIRECTIONAL WELLPLAN -

MEASURED DEPTH (FT)	INCL ANGLE (DEG)	D R I F T DIRECTION (DEG)	COURSE LENGTH (FT)	TRUE VERTICAL DEPTH	T O T A RECTANGULAR CO (FT)	DORDINATES	VERTICAL SECTION (FT)	C L O DISTANCE (FT)	SURE DIRECTION (DEG)	BUILD RATE (DG/100')	DOGLEG SEVERITY (DG/100')
Interpolat	ted CRIT	ICAL POINT									
8124.63	0.00	N 0.00 E	829.00	7956.00	97.57 s	1209.99 W	1213.92	1213.92	s 85.39 W	0.00	0.00
TARGET											
8268.63	0.00	N 0.00 E	144.00	8100.00	97.57 S	1209.99 W	1213.92	12 13.9 2	s 85.39 W	0.00	0.00

Survey Ref: Well Head Closure Ref: Well Head Vert Sect Ref: Well Head Mon Oct 19 1992 16:34:06

File: POGO_ED4.DAT Page 1 ibmit to Appropriate strict Office ata Lease - 4 copies is Lease - 3 copies

ISTRICT III

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102 Revised 1-1-89

REGIVED

ISTRICT | 0. Box 1980, Habbs, NM 58240

OIL CONSERVATION DIVISION
P.O. Box 2088

OCT 2 6 1992

Santa Fe, New Mexico 87504-2088

MEDLAND

ISTRICT II O. Drawer DD, Artesia, NM 88210

WELL LOCATION AND ACREAGE DEDICATION PLAT

300 Rio Brazos Rd., Artec, NM 87410 All Distances must be from the outer boundaries of the section Leane perator Well No. POGO PRODUCING COMPANY MOBIL FEDERAL 3 Renge nit Letter Section Township County 23 SOUTH 31 EAST **EDDY** NMPM ctual Footage Location of Well: NORTH 660 feet from the feet from the line and line Pool round Level Elev. Producing Formation Dedicated Acreage: 3345.7 Acres 1. Outling the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below. 2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty). 3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization. unitization, force-pooling, etc.? If answer is "yes" type of consolidation ☐ No If answer is "no" list of owners and tract descriptions which have actually been consolidated. (Use reverse side of No allowable will be assigned to the well unit all interests have been consolidated (by communitization, unitization, forced-pooling, otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division. OPERATOR CERTIFICATION I hereby certify the the information ed herein is true and complete to the best of my knowledge and beilef. ∮660′∍ Signature 3344.0 3346.41 Printed Name Position Company SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of supervison, and that the same is true and correct to the best of my knowledge an bettef. Date Surveyed OCTOBER 19, 1992 Signature & Seal of Professional Surveyor GARY L. JONES JENI MEXIC

1980' FFC

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Epoy Co., U.m.

BEFORE THE NEW MEXICO OIL CONSERVATION DIVISION

APPLICATION OF POGO PRODUCING COMPANY FOR AN UNORTHODOX OIL WELL LOCATION AND DIRECTIONAL DRILLING, EDDY COUNTY, NEW MEXICO.



APPLICATION

Pogo Producing Company hereby applies for approval of an unorthodox location and for directional drilling of the well described below, and in support thereof states:

- 1. Applicant is the operator of the NW\u00e4NE\u00e4 of Section 29, Township 23 South, Range 31 East, N.M.P.M., Eddy County, New Mexico, which is federal land located within the Oil-Potash Area.
- 2. Applicant desires to drill its Mobil Fed. No. 3 well in the NW\(\frac{1}{3}\)NE\(\frac{1}{3}\) of Section 29 to test the Delaware formation. The Bureau of Land Management (BLM) has denied approval of all standard surface locations because, according to the BLM, drilling a vertical well at a standard location will cause an undue waste of potash. The BLM has approved a surface location 480 feet from the North line and 660 from the East line of Section 29, which is the surface location requested herein by applicant. Although applicant prefers not to drill directionally due to engineering, economic, and other reasons, applicant is filing this application due to drainage occurring from an offsetting well.
- 3. Applicant seeks approval to directionally drill its well vertically to a depth of approximately 2,200 feet subsurface (below the base of the Salado formation), to kick off the well in a west-

southwesterly direction, build angle to approximately 17°, and drill to a depth sufficient to test the Brushy Canyon formation of the Delaware Mountain Group, which is the primary zone of interest (approximately 7,600-7,900 feet subsurface). The bottomhole location in the Brushy Canyon formation will be orthodox, as allowed by Division Rule 111(E), at approximately 1,870 feet FEL and 578 feet FNL. In addition, the wellbore within the entire Brushy Canyon formation will be no closer than 330 feet to the quarter-quarter section line.

4. The wellbore will be unorthodox at certain depths in the Cherry Canyon formation of the Delaware Mountain Group. The wellbore will enter the Cherry Canyon formation (estimated top of formation at 5,044 feet subsurface) at an unorthodox location approximately 1,405 feet FEL and 540 feet FNL, and leave the Cherry Canyon formation (estimated bottom of formation at 6,342 feet subsurface) at an orthodox location approximately 1,789 feet FEL and 571 feet FNL. The wellbore will become standard in the Cherry Canyon formation at a depth of approximately 5,800 feet subsurface.

The proposed well is or may be prospective in the Cherry Canyon formation, and applicant requests approval of the above unorthodox location. A drilling prognosis, indicating the angle and direction of drilling, is attached hereto as Exhibit A.

- 5. The granting of this application is in the interests of conservation and the prevention of waste.
- 6. Applicant requests that this matter be set for the January 7, 1993 Examiner hearing.

WHEREFORE, applicant requests that, after hearing, the relief requested above be granted.

DATED: ,7/15/92

Respectfully submitted,

HINKLE, COX, EATON, COFFIELD & HENSLEY

James Bruce

Post Office Box 2068 Santa Fe, New Mexico 87504-2068 (505) 982-4554

Attorneys for Pogo Producing Company

DIRECTIONAL PROPOSAL

Pogo Producing Company

Mobil Federal No. 3 Section 29, T-23-S, R-31-E Eddy County, New Mexico

Mobil Federal No. 3

Recommended Procedure

- 1. Stake surface location 480' FNL & 660' FEL, Section 29, T-23-S, R-31-E.
- 2. Build location set 40' of 20" conductor and grout cement same.
- 3. MIRU Rotary tools.
- 4. Drill 17-1/2" hole to ± 550 ', set 13-3/8" 54.5# casing to T.D., cement casing to surface with lite weight cement + 200 sx Premium tail.
- 5. Go in hole with 11" bit + 8" X 30' non-magnetic drill collar + (1) 8" steel drill collar + (1) 11" IB stabilizer + (1) 8" steel drill collar + (1) 11" IB stabilizer + (5) 8" steel drill collars + (10) 6-1/2" steel drill collars. Drill 11' hole to KOP of 2200'. Survey with non-magnetic instrument every 250'. POOH for angle building assembly.
- 6. Go in hole with 11" bit + 8" high speed motor + 1-1/2" bent sub + 8" X 30' non-magnetic drill collar + steel drill collars. Orient tool face properly, deflect well bore toward proper direction. Start angle building run. POOH for angle building assembly.
- 7. Go in hole with 11" bit + 11" IB stabilizer + 8" X 30' non-magnetic drill collar + (1) 8" steel drill collar + IB stabilizer + (1) 8" steel drill collar + IB stabilizer + (6) 8" steel drill collars + (15) 6-1/2" steel drill collars + (1) roller reamer. Drill with this assembly building approximately 2°/100' of hole in the proper direction until a maximum angle of 17.20° is obtained ± 3062' M.D. POOH for packed hole assembly.
- 8. GIH with 11" bit + 11" IB stabilizer + 8" non-magnetic drill collar + (1) 8" steel drill collar + (1) 11" IB stabilizer + (1) 8" steel drill collar + (1) roller reamer. Drill hole maintaining 17.2° deviation to 100' into Basal Anhydrite ± 4050' TVD. POOH to run 8-5/8" casing. Take multi shot survey to base of surface casing.
- 9. Lay down 8" X 11" tools, run 8-5/8" 32# intermediate casing to TD. Cement string to surface.
- 10. Drill out casing with 7-7/8" bit + 7-7/8" IB stabilizer + 6-1/2" X 30' non-magnetic drill collar + (1) 6-1/2" steel drill collar + 7-7/8" IB stabilizer + (29) 6-1/2" steel drill collars + (1) roller reamer. Maintian 17.2° deviation and proper direction to 6000 TVD. POOH for angle dropping assembly.
- 11. Go in hole with 7-7/8" bit + 6-1/2" non-magnetic drill collar + 7-7/8" IB stabilizer + 6-1/2" steel drill collar + 7-7/8" IB stabilizer + (29) 6-1/2" steel drill collar + (1) roller reamer. Drill with this assembly dropping angle to 0° @ 7127' TVD. Make corrective motor run if needed in this section. Drill to TD 100' into Bone Springs.

Mobil Federal No. 3 Recommended Procedure Page Two

12. Upon reaching TD, drop magnetic multi shot survey and tie into intermediate casing of ±4050' TVD.

Anticipated Formation Tops Based on Pure Gold "D" No. 2

	3897'
Basal Anhydrite	4122'
Lamar Lime	4165'
Bell Canyon	5044
Cherry Canyon	6342'
Brushy Canyon	7956'
Bone Spring	1,500

File: POGD_ED4.DAT Mon Oct 19 199 POGO PRODUCING CO. MOBIL FEDERAL # 3 SEC. 29, T23S, R31E COUNTY, NEW MEXICO VERTICAL SECTION SCALE: 200 FEET/DIVISION REFERENCE: WELL HEAD 2200 r KDP 0.0° AT 2200' MD BUILD 2.0°/100' 2400 2600 2800 3000 3049 17.2° AT 3062' MD END OF CURVE 3200 3400 3600 3800 4000 17.2° AT 4230' MD BELL CANYON 4400 DISPLACEMENT 4600 518.16' FNL 4800 5000 5044 17.2° AT 5151' MD CHERRY CANYON 747 DISPLACEMENT 5200 1404.98' FEL 540.07' FNL 5400 5600 5800 HORIZONTAL PLAN 1044 17.2" AT 6152" MD Interpolated CRITICAL POINT 6000 DISPLACEMENT 1700.5' FEL SCALE: 100 FEET/DIVISION REFERENCE: WELL HEAD 6200 563.9' FNL 11.9° AT 6505' MD 6342 BRUSHY CANYON 1132 200-DISPLACEMENT 6600 1788.72' FEL 100 571.01' FNL 恒 DIRECTION S 85.39 W 6800 1400 1300 1200 1100 1000 900 800 700 600 500 400 300 200 100 100 1980 1650′ 7000 100 FR 7127 0.0° AT 7296' MD TARGET 12 <u>,</u> 1214 540.07 7200 DISPLACEMENT 1869.99' FEL 200 518.1 577.57 563.9 571.01 1320 7400 577.57' FNL 300 FEL HARDLINE FEL 딢 HARDLINE FEL 7600 4001 1869.99' 1404.98 7800 1788.72 7956 8000 0.0° AT 8125' MD BONE SPRINGS 1214 B100 do AT 8269' MD TARGET 1214 200 200 400 600 800 1000 1200 1400 VERTICAL SECTION PLANE: S 85.39 W 6342

DIRECTIONAL INVESTMENT GUIDANCE

POGO PRODUCING CO.

MOBIL FEDERAL # 3

SEC. 29, T23S, R31E

EDDY COUNTY, NEW MEXICO

Calculated by Minimum Curvature Method Vert Sect Plane: S 85.39 W

- DIRECTIONAL WELLPLAN -

MEASURED	INCL	DRIFT	COURSE	TRUE	тот	A L	VERTICAL	CLO	SURE	8UILD	DOGLEG
DEPTH	ANGLE	DIRECTION	LENGTH	VERTICAL	RECTANGULAR (COORDINATES	SECTION	DISTANCE	DIRECTION	RATE	SEVERITY
(FT)	(DEG)	(DEG)	(FT)	DEPTH	(FT))	(FT)	(FT)	(DEG)	(DG/100')	(DG/100')
2200.00	0.00	N 0.00 E	0.00	2200.00	0.00 N	0.00 E	0.00	0.00	N 0.00 E	0.00	0.00
2300.00	2,00	s 85.39 W	100.00	2299.98	0.14 S	1.74 ₩	1.75	1.75	s 85.39 W	2.00	2.00
2400.00	4.00	s 85.39 W	100.00	2399.84	0.56 S	6.96 W	6.98	6.98	s 85.39 W	2.00	2.00
2500.00	6,00	s 85.39 W	100.00	2499.45	1.26 S	15.64 W	15.69	15.69	s 85.39 W	2.00	2.00
2600.00	8,00	s 85.39 W	100.00	2598.70	2.24 S	27.79 W	27.88	27.88	s 85.39 W	2.00	2.00
2700.00		s 85.39 W	100.00	2697.47	3.50 s	43.38 W	43.52	43.52	s 85.39 w	2.00	2.00
											-
2800.00	12,00	s 85.39 W	100.00	2795.62	5.03 s	62.40 W	62.60	62.60	s 85.39 w	2.00	2.00
2900.00	14.00	s 85.39 W	100.00	2893.06	6.84 S	84.82 W	85.10	85.10	s 85.39 W	2.00	2.00
3000.00	16,00	s 85.39 W	100.00	2989.64	8.92 S	110.62 W	110.98		s 85.39 W	2.00	2.00
		-									
END OF CUI	RVE										
3061.50		s 85.39 W	61.50	3048.58	10.33 s	128.15 W	128.56	128.56	s 85.39 w	2.00	2.00
		ICAL POINT									
4230.38		s 85.39 W	1168.88	4165.00	38.16 s	473.26 W	474.80	474 - 80	s 85.39 W	0.00	0.00
		ICAL POINT			301.10 0	***************************************	********	********	0 05.0, 2		0.00
5150.68		s 85.39 W	920.30	5044.00	60.07 s	744.98 W	747,40	747 40	s 85.39 W	0.00	0.00
3130.00	** ***	0 03.03	,20130	5044100	00.07 3	144170 #	741140	147.40	0 03.3, #	0.00	0.00
START OF	CURVE										
6146.96	17,23	s 85.39 W	996.27	5995.56	83.79 s	1039.13 W	1042.50	1042.50	s 85.39 W	0.00	0.00
Interpola	ted CRIT	ICAL POINT									
6151.60	17,16	s 85.39 W	4.64	6000.00	83.90 s	1040.50 W	1043.88	1043.88	s 85.39 W	-1.50	1.50
6246.96		s 85.39 W	95.36	6091.45	86.07 S	1067.41 W	1070.87	1070.87	s 85.39 W	-1.50	1.50
6346.96	14.23	s 85.39 W	100.00	6188.05	88.15 s	1093.17 W	1096.72	1096.72	s 85.39 W	-1.50	1.50
6446.96	12,73	s 85.39 W	100.00	6285.29	90.02 s	1116.40 W	1120.03	1120.03	s, 85.39 W	-1.50	1.50
Interpola	ted CRIT	ICAL POINT									
6504.99		s 85.39 W	58.04	6342.00	91.01 s	1128.72 W	1132.39	1132.39	s 85.39 W	-1.50	1.50
6546.96	11,23	s 85.39 W	41.96	6383.11	91.69 S	1137.09 W	1140.78	1140.78	s 85.39 W	-1.50	1.50
6646.96	9.73	s 85.39 W	100.00	6481.44	93.15 s	1155.22 W	1158.97		s 85.39 W	-1.50	1.50
6746.96		s 85.39 W	100.00	6580.21	94.40 S	1170.78 W	1174.58		s 85.39 W	-1.50	1.50
55., 5		• • • • • • • • • • • • • • • • • • • •	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		,,,,,,			1114130	C 0310, II		
6846.96	6.73	s 85.39 W	100.00	6679.36	95.45 s	1183.76 W	1187.60	1187,60	s 85.39 W	-1.50	1.50
6946.96		s 85.39 W	100.00	6778.81	96.29 S	1194.14 W	1198.02		S 85.39 W	-1.50	1.50
7046.96			100.00	6878.50	96.92 s	1201.93 W	1205.83			-1.50	1.50
7046.96 3.73 S 85.39 W 100.00 6878.50 96.92 S 1201.93 W 1205.83 1205.83 S 85.39 W -1.50 1.50								1.50			
7146.96	2.23	s 85.39 W	100.00	6978.37	97.33 s	1207.11 W	1211.03	1211 03	s 85.39 W	-1.50	1.50
7246.96		s 85.39 W	100.00	7078.33	97.54 s	1209.68 W	1213.61		s 85.39 W	-1.50	1.50
TARGET	٠.,٦	0 03.07 H			71.54 3	.207100 W	1213.01	1213.01	5 03.37 H		1.30
7295.63	0 00	N 0.00 E	48.67	7127.00	97.57 s	1209.99 W	1213.92	1213 02	s 85.39 w	-1.50	1.50
, , , , , , , ,		,			, , , , , ,	********************************		1213172	- 03.37 #		1.50

Survey Ref: Well Head Closure Ref: Well Head Vert Sect Ref: Well Head
Mon Oct 19 1992 16:34:06 File: POGO ED4.DAT

DIRECTIONAL INVESTMENT GUIDANCE

POGO PRODUCING CO.
MOBIL FEDERAL # 3
SEC. 29, T23S, R31E
EDDY COUNTY, NEW MEXICO

Calculated by Minimum Curvature Method Vert Sect Plane: S 85.39 W

- DIRECTIONAL WELLPLAN -

MEASURED DEPTH (FT)	INCL ANGLE (DEG)	D R I F T DIRECTION (DEG)	COURSE LENGTH (FT)	TRUE VERTICAL DEPTH	T O T RECTANGULAR ((FT)	COORDINATES	VERTICAL SECTION (FT)	C L O DISTANCE (FT)	SURE DIRECTION (DEG)	BUILD RATE (DG/100')	DOGLEG SEVERITY (DG/100')
Interpolat	ted CRIT	ICAL POINT									
8124.63	0.00	N 0.00 E	829.00	7956.00	97.57 s	1209.99 W	1213.92	1213.92	s 85.39 W	0.00	0.00
TARGET											
8268.63	0.00	N 0.00 E	144.00	8100.00	97.57 s	1209.99 W	1213.92	1213.92	s 85.39 W	0.00	0.00

Survey Ref: Well Head Closure Ref: Well Head Vert Sect Ref: Well Head
Mon Oct 19 1992 16:34:06 File: POGO_ED4.DAT

Submit to Appropriate District Office State Lease - 4 copies See Lease - 3 copies

Operator

Unit Letter

State of New Mexico

Energy, Minerals and Natural Resources Department

RECEIVED

Form C-102 Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088

OCT 2 6 1992

Township

23 SOUTH

POGO PRODUCING COMPANY

Section

29

Santa Fe, New Mexico 87504-2088

MEDIAND

County

NMPM

Well No.

EDDY

3

DISTRICT II P.O. Drawer DD, Artesia, NM 58210

DISTRICT I P.O. Box 1980, Hobbs, NM 88240

WELL LOCATION AND ACREAGE DEDICATION PLAT

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 67410

All Distances must be from the outer boundaries of the section

MOBIL FEDERAL

31 EAST

Lease

Range

Actual Footage Location		660	54CT
480 feet from	المساور والمناز والمنا	660 feet from	
Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3345.7'	<u> </u>	<u> </u>	Acres
_	e dedicated to the subject well by colored p	_	
3. If more than one unitization, force-	lease of different ownership is dedicated to -pooling, etc.? No If answer is "yes" type o		s been consolidated by communitization,
If answer is "no" list this form necessary.	t of owners and tract descriptions which h	nave actually been consolidated. (Use re-	
	e assigned to the well unit all interests a non-standard unit, eliminating such in		
			OPERATOR CERTIFICATION
		00 00 → 660' →	I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.
		3344.0' 3346.4'	Signature
	į		Printed Name
			Position
	1		Company
			Date
			SURVEYOR CERTIFICATION
			I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me er under my supervison and that the same is true and correct to the best of my knowledge and belief.
			OCTOBER 19, 1992 Signature & Seal of
			Certificate No. John MENIST. 676
			Certificati No. JOHN WE WEST. 676
0 330 660 990	1320 1650 1980 2310 2640 200	0 1500 1000 500 0	92-11-1581

ERRY Co., U.m. morece fee No. 3

1213.92' 585.39.W 990. 1656' FEL

1980' FFC

330