Form 3160-3 (November 1983

GENERAL REQUIREMENTS AND

30-015-35798

OCD-ARTESIA SUBLIT IN TE

Budget Bureau No. 1004-0136

UNITED STATES

Expures August 31, 1985

**		I OF THE INTER	11 6	5 LEASE DESIGNATION AND BERLAL NO.
		LAND MANAGEMEN	41	NM-40659 SFP 1.3 2007
	Y FOR PERMIT	TO DRILL, DEEPI	EN, OR PLUG B	OCD-ARTESIA
18 TYPE OF WORK DRI	LL 🛛	DEEPEN	PLUG BÀC	X 7. UNIT AGREEMENT NAME
b. TYPE OF WELL	AR []	R-111-POTASH	NOLE (X) MULTIPL	
WELL W	ELL OTHER	14	NOLE DONE ZONE	
Z. HERE OF OTERATOR	PAGA PR	ODUCING COMPANY		PURE GOLD "D"
3. ADDRESS OF OPERATOR	1000 110	ODOCING COMPANI		9
	P.O. BC	X 10340, MIDLAN	ID, TEXAS 79702	10. FIELD AND FOOL, OR WILDCAT
4. LOCATION OF WELL (R.	eport location clearly an	d in accordance with any E	State requirements.")	UNDESIGNATED DELAWARE
	740' FN	L AND 2310' FEL	OF SECTION 28	11. BEC., T., E., M., OR BLE. AND BURYEY OR AREA
At proposed prod. 20n	e		A. WKE	SEC.28, T.23 S., R.31 E
		OLLED WATER BASI		12. COUNTY OF PARISH 13. STATE
At. Diblance in prince.		S EAST OF LOVING		EDDY COUNTY NEW MEXICO
10. DISTANCE FROM PROPO	SED*		O OF ACRES IN LEASE	17. NO. OF ACRES ABSIGNED RIM BOMES #
LOCATION TO NEAREST PROPERTY OR LEASE I (Also to nearest drig	.INE, FT.	740'	640 [°]	40 WYB 000238
18. DISTANCE FROM PROP	OBED LOCATION*		HOPOSED DEPTH	20. ROTARI OR CABLE TOOLS
TO NEAREST WELL, D OR APPLIED FOR, ON TH	IS LEASE, FT.	1240'	8300'	ROTARY
21. ELEVATIONS (Show who	ether DF, RT, GR, etc.)			22. APPROX. DATE WORK WILL START*
		3358.5' GR		UPON APPROVAL
2 3.		PROPOSED CASING AND	CEMENTING PROGRAM	·
SIZE OF HOLE	BIZE OF CASING	WEIGHT PER FOOT	BETTING DEPTHSE	QUANTITY OF CEMENT
17-1/2"	13-3/8"	54.5#	550' COA	SUFFICIENT TO CIRCULATE . THE
11"	8-5/8"	24# & 32#	4100'	SUFFICIENT TO CIRCULATE VITNES
7-7/8"	5-1/2"	15.5# & 17#	8300'	SUFFICIENT TO CIRCULATE (See St
1A	ND STIMULATED A	R: SUPPLEMENTAL BOP SKETCH		Con Of Lake
	NS OF APPRO	If earthen pits ar	the drilling of this	DEC 29 1992
CONDITION IN ABOVE SPACE DESCRIBE CODE. If proposal is to Describer program, if as	S OF APPRO	If earthen pits an association with well, an OCD pit obtained prior to	the drilling of this	ons Supr. park December 23, 1992
CONDITION IN ABOVE SPACE DESCRIBE CODE. If proposal is to preventer program, if ag. EL. SIGNED	S OF APPRO	If earthen pits an association with well, an OCD pit obtained prior to	the drilling of this permit must be pit construction.	of productive some and proposed new productive easured and time vertical depths. Give blowout
CONDITION IN ABOVE SPACE DESCRIBE CODE. If proposal is to preventer program, if ag. EL. SIGNED	FROPOSED PROCESM: If drill or deepen directions.	If earthen pits an association with well, an OCD pit obtained prior to	the drilling of this permit must be pit construction.	ons Supr. park December 23, 1992
CONDITION IN ABOVE SPACE DESCRIBE CODE. If proposal is to DESCRIBE TO SERVICE SERVICE (This space for Fede	FROPOSED PROCESM: If drill or deepen directions.	If earthen pits an association with well, an OCD pit obtained prior to	the drilling of this permit must be pit construction.	ons Supr. December 23, 1992 Nos RECID: 12/8/92

SPECIAL STIPULATIONS

The Instructions On Reveal Despecial STIPULATIONS

The Instruction of the Instruction of Instru

GENERAL REQUIREMENTS

State of New Mexico

DISTRICT I 1625 N. FRENCH DR., HOBBS, NM 88240

Energy, Minerals and Natural Resources Department

DISTRICT II 1301 W. GRAND AVENUE, ARTESIA, NM 68210

1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION 1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

Form C-102 Revised October 12, 2005 Submit to Appropriate District Office

State Lease ~ 4 Copies Fee Lease - 3 Copies

DISTRICT IV

DISTRICT III

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

1220 S. ST. FRANCIS DR., SANTA PE, NM 87505	WELL LOCATION AND	ACKEAGE DEDICATI	ON I LAI	☐ AMENDED REPORT
API Number	Pool Code		Pool Name	
	23812	Sand Dunes:	Delaware,	West
Property Code	Prop	erty Name		Well Number
36735	PURE	9		
OGRID No.	Oper	ator Name		Elevation
233194	POGO PRODU	JCING COMPANY		3360'

Surface Location

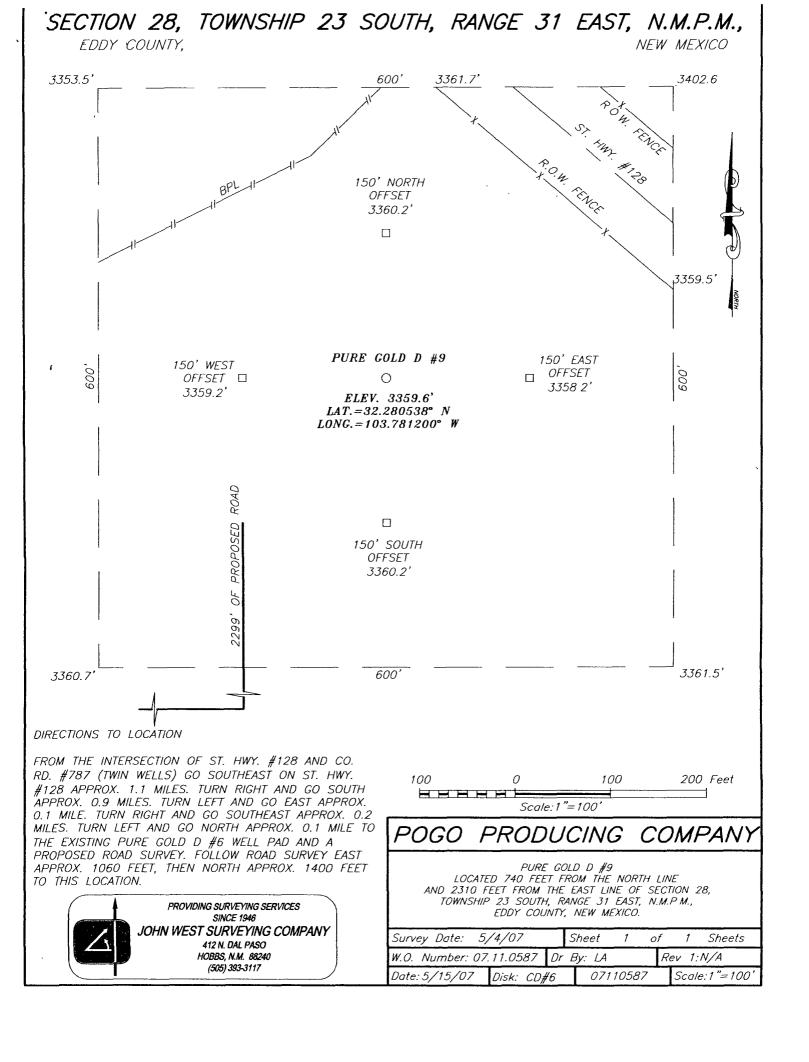
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
В	28	23-S	31-E		740	NORTH	2310	EAST	EDDY

Bottom Hole Location If Different From Surface

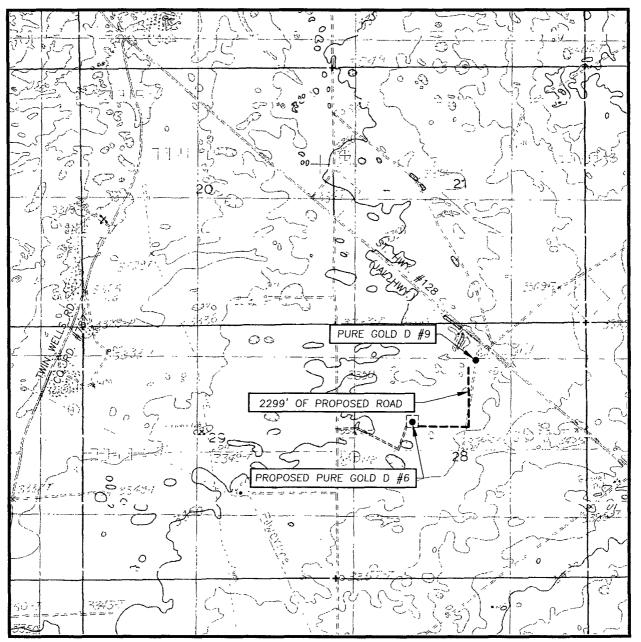
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint o	r Infill Co	onsolidation (Code Ord	ler No.				<u> </u>

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN ADDROVED BY THE DIVISION

OR A NON-STANDARD UNIT HAS BEEN AFFROVED BY THE	
	OPERATOR CERTIFICATION
3353,5' \$3361 7' 3359.5' 600' 3361.5' 3360.7' 3361.5'	I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory poeling order heretofore entered by the division.
GEODETIC COORDINATES NAD 27 NME Y=466216.3 N X=670636 2 E	Signature Date R. SCOTT MANIET
LAT.=32.280538* N LONG.=103.781200* W	SURVEYOR CERTIFICATION
	I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.
	Date Surveyed C LA Signature & Seal of Professional Surveyor C LA
	Certificate No. GARY EIDSON 12641
	RONALD J. EIDSON 3239



LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: LOS MEDANOS, N.M. - 10'

SEC. 28 TWP. 23-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 740' FNL & 2310' FEL

ELEVATION 3360'
POGO
OPERATOR PRODUCING COMPANY

LEASE PURE GOLD D

U.S.G.S. TOPOGRAPHIC MAP
LOS MEDANOS, N.M.



PROVIDING SURVEYING SERVICES SINCE 1946 JOHN WEST SURVEYING COMPANY 412 N. DAL PASO HOBBS, N.M. 88240 (505) 393-3117

SUPPLEMENTAL DRILLING DATA

POGO PRODUCING COMPANY PURE GOLD "D" WELL NO. 9

1. SURFACE FORMATION: Quaternary

2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

Anhydrite	550'
Delaware	4100'
Cherry Canyon	5000'
Brushy Canyon	6300'

3. ANTICIPATED POSSIBLE HYDROCARBON BEARING ZONES:

Brushy Canyon

0i1

6/19/01

4. PROPOSED CASING AND CEMENTING PROGRAM:

SETTING DEF	PTH			
FROM	T0	WEIGHT	GRADE	JOINT 50
0.	550 '	54.5 #	J-55	STC 1/C
0	1000'	32#	J-55	STC
1000'	2200'	24#	J-55	STC
2200'	4100'	32#	J-55	STC
0	1000'	17#	J-55	LTC
1000'	6000'	1 5.5#	J-55	LTC
6000'	83001	17#	N-80	LTC
	0 0 1000' 2200'	0 550' 0 1000' 1000' 2200' 2200' 4100' 0 1000' 1000' 6000'	FROM TO WEIGHT 0 550' 54.5 # 0 1000' 32# 1000' 2200' 24# 2200' 4100' 32# 0 1000' 17# 1000' 6000' 15.5#	FROM TO WEIGHT GRADE 0 550' 54.5 # J-55 0 1000' 32# J-55 1000' 2200' 24# J-55 2200' 4100' 32# J-55 0 1000' 17# J-55 1000' 6000' 15.5# J-55

DESIGN FACTORS: COLLAPSE 1.125 BURST 1.1 TENSION 1.7

13-3/8" casing to be cemented with 300 sacks of Light cement tailed in with 200 sacks of Class "C" cement with 2% CaCl. Cement to circulate.

8-5/8" casing to be cemented with 1000 sacks of Light cement with 10%) 6/19, salt, tailed in with 200 sacks of Class "C" cement with 1% CaCl. Cement to circulate.

5-1/2" casing to be cemented with approximately 500 sacks of Light cement followed by 700 sacks of Class "H" with the top of the Class "H"

calculated to be at or above the shoe of the intermediate casing. If need for a stage tool is indicated, it will be positioned to best suit hole conditions at the time casing is run. Cement to circulate.

Cement may have lost circulation or other additives, depending on hole conditions when casing is run.

5. PRESSURE CONTROL EQUIPMENT:

Blowout prevention equipment, while drilling the 11" hole, will be either a 3000 psi working pressure double ram type preventer or a 3000 psi working pressure annular type preventer.

Blow out prevention equipment, while drilling below the 8-5/8" casing seat, will be a 3000 psi working pressure BOP stack. A BOP sketch is attached.

6. CIRCULATING MEDIUM:

Surface to 550 feet: Fresh water spud mud. Viscosity 30 to 36 as required for hole cleaning.

550 feet to 4100 feet: Brine conditioned as necessary for control of viscosity. Weight 9.5 to 10. pH 9 to 10. Viscosity 32 to 36.

4100 feet to T.D.: Water base drilling fluid conditioned as necessary for control of weight, viscosity, pH, and water-loss. Weight 9 to 10. Viscosity 38 to 45. pH 9 to 10. Filtrate while drilling pay zone 6 to 15.

7. AUXILIARY EQUIPMENT:

A mud logging trailer will be in use while drilling below the intermediate casing.

8. TESTING, LOGGING, AND CORING PROGRAMS:

Drill stem tests will be made when well data indicate a test is warranted.

It is planned that electric logs will include GR-CNL-Density logs and GR-DLL logs.

No coring is planned.

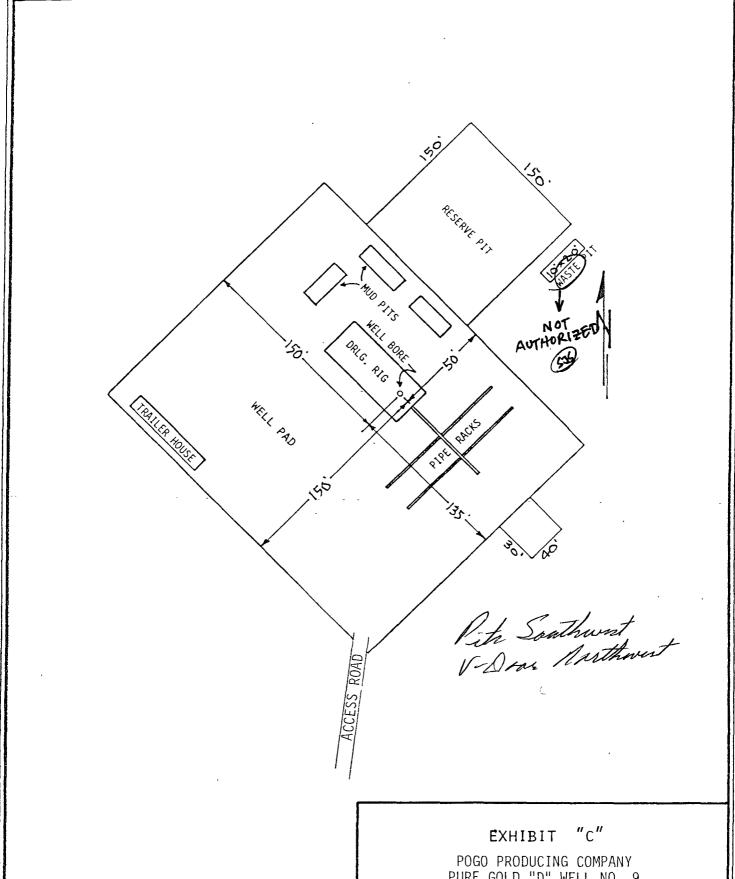
9. ABNORMAL PRESSURES, TEMPERATURES, OR HYDROGEN SULFIDE GAS:

None anticipated.

Expected bottom hole pressure is approximately 3500 psi. Expected bottom hole temperature is approximately 125 degrees Fahr.

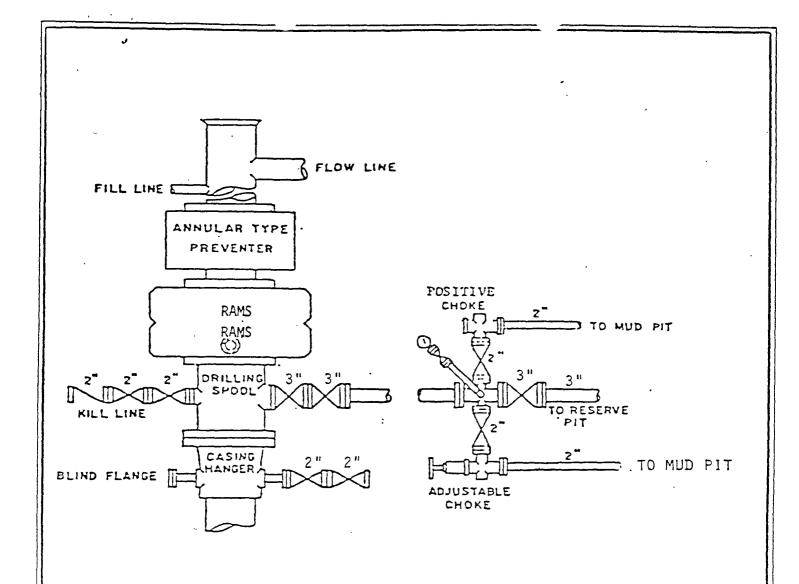
10. ANTICIPATED STARTING DATE:

It is planned that operations will commence upon approval of this application, with drilling and completion operations lasting about 30 days.



PURE GOLD "D" WELL NO. 9

DRILLING RIG LAYOUT SCALE: None



BOP STACK

3000 PSI WORKING PRESSURE

SURFACE USE AND OPERATIONS PLAN

FOR

POGO PRODUCING COMPANY PURE GOLD "D" WELL NO. 9 740'FNL & 2310'FEL SEC.28, T.23 S., R.31 E. EDDY COUNTY, NEW MEXICO

LOCATED: 18 miles east of Loving, New Mexico.

FEDERAL LEASE NUMBER: NM-40659.

LEASE DATE: July 1, 1980. Lease is in producing status.

ACRES IN LEASE: 640.

LESSEE: Pogo Producing Company.

SURFACE OWNERSHIP: Federal.

GRAZING PERMITTEE: J. C. Mills P. O. Box 190

Abernathy, Texas 79311

POOL: Undesignated Delaware.

POOL RULES: Statewide Rules. 40 acre spacing for oil.

EXHIBITS: A. Road Map

B. Plat Showing Existing Wells and Existing Roads

C. Drilling Rig Layout

D. Topo Plat

1. EXISTING ROADS:

- A. Exhibit "A" is a portion of a road map showing the location of the proposed well as staked. Point "A" on the plat is on State highway 128 at Milepost 13.7, approximately 21 road miles east of Loving, New Mexico, where a caliche road goes south. To go to the proposed well site from this point, exit 128 an go south 0.5 mile and the proposed well site is on the east side of the road at a distance of about 3000 feet. Also see Exhibits "B" and "D".
- B. Exhibit "B" shows existing pertinent roads in the vicinity of the proposed well site. Existing roads are color coded.

2. PLANNED ACCESS ROAD:

- A. <u>Length and Width</u>: The access road will be 12 feet wide and about 3800 feet long as indicated on Exhibit "B". The access road will utilize about 900 feet of existing ripped caliche road, which will be restored, and about 2900 feet of new road to be constructed and shown color coded red on Exhibit "B". The centerline of the proposed new road is staked and flagged.
 - B. Surfacing Material: Caliche. Watered, compacted, and graded.
 - C. Maximum Grade: One percent.
 - D. Road Turnouts: Probably two.
- E. <u>Drainage Design</u>: The new road will be crowned with drainage to the side.
 - F. Culverts: None needed.
 - G. Cuts and Fills: None necessary.
- H. <u>Gates and Cattle Guards</u>: A cattle guard will be re-installed where the ripped caliche road goes through the existing fence.

3. LOCATION OF EXISTING WELLS:

A. Existing wells in the immediate area are shown on Exhibit "B".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

A. Necessary production facilities for this well will be located on the well pad.

5. LOCATION AND TYPE OF WATER SUPPLY:

A. It is not planned that a water well will be drilled. Water necessary for drilling operations will be purchased and trucked to the well site, or will be moved to the well site by temporary pipeline laid on the ground alongside existing and proposed roads.

6. SOURCE OF CONSTRUCTION MATERIALS:

A. Caliche needed for construction work will be taken, if present, from a pit opened on-site within the 400'x 450' archaeologically cleared work area adjacent to the reserve pit. Otherwise, caliche will be taken from the existing pit on Federal land in the NE $\frac{1}{2}$ NE $\frac{1}{2}$ of Section 4, T.24 S., R.31 E., Eddy County, New Mexico, and will be trucked to the well site over existing and proposed roads.

7. METHODS OF HANDLING WASTE MATERIAL:

- A. Drill cuttings will be disposed of in the drilling pits.
- B. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.
- C. Water produced during tests will be disposed of in the drilling pits or will be stored in tanks for disposal in an approved disposal system.
 - D. Oil produced during tests will be stored in test tanks until sold.
- E. All trash, junk, and other waste material will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary land fill.

8. ANCILLARY FACILITIES:

A. None necessary.

9. WELL SITE LAYOUT:

- A. Exhibit "C" shows the relative location and dimensions of the well pad, mud pits, and reserve pits, and the location of major drilling rig components.
 - B. Clearing and levelling of the pad and pit area will be required.
 - C. The pad and pit area is staked and flagged.

10. PLANS FOR RESTORATION OF THE SURFACE:

- A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed from the well site. Pits will be filled and and the location will be cleaned of all trash and junk to leave the well site in an as aesthetically pleasing condition as possible.
 - B. Any unguarded pits containing fluids will be fenced.
- C. After abandonment, all equipment, trash, and junk will be removed and the well site will be cleaned. Any special rehabilitation requirements of the surface management agency will be complied with and accomplished as rapidly as possible.

11. OTHER INFORMATION:

- A. <u>Topography</u>: The land surface in the general area is gently undulating and duny. In the immediate area of the well site the land surface slopes gently to the north. Regionally, drainage is to the west and southwest.
 - B. Soil: Top soil at the well site is sand.
- C. Flora and Fauna: The vegetative cover is moderate and includes mesquite, shinnery oak, sand sage, yucca, weeds, and range grasses. Wildlife in the area is that typical of semi-desert land and includes coyotes, rabbits, rodents, reptiles, dove and quail:
- D. <u>Ponds and Streams</u>: There are no rivers, lakes, ponds, or streams in the area.
- E. <u>Residences and Other Structures</u>: There are no occupied dwellings or other structures within a mile of the proposed well site.

- F. Archaeological, Historical, and Cultural Sites: None observed. However, an archaeological reconnaissance is to be accomplished and a report furnished.
 - G. Land Use: Grazing and wildlife habitat.
 - H. Surface Ownership: Federal.

12. OPERATOR'S REPRESENTATIVE:

Richard L. Wright Division Operations Supervisor Pogo Producing Company P. O. Box 10340 Midland, Texas 79702 Office Phone: 915-682-6822

13. <u>CERTIFICATION</u>:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Pogo Producing Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

December 21, 1992

Date:

Richard L. Wright

Division Operations Supervisor



PRAIRIE CHICKENS

No surface use is allowed during the following time periods; unless otherwise specified, this stipulation does not apply to operation and maintenance of production facilities.

On the lands described below: All of Section 28; Township 23 South, Range 31 East

For the purpose of: Protecting Prairie Chickens:

Drilling for oil and gas, and 3-D geophysical exploration operations will not be allowed in Lesser Prairie Chicken Habitat during the period of March 15 through June 15, each year. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 a.m. and 9:00 a.m. The 3:00 a.m. and 9:00 a.m. restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during the period. Additionally, no new drilling will be allowed within up to 200 meters of leks know at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.



Operator's Name: POGO Producing Company

Well Name & No. 9-Pure Gold "D"

Location: 0740' FNL, 2310' FEL, Sec. 28, T-23-S, R-31-E, Eddy County, NM

Lease: NM-40659

I. DRILLING OPERATIONS REQUIREMENTS:

A. The Bureau of Land Management (BLM) is to be notified a minimum of 4 hours in advance for a representative to witness:

- 1. Spudding well
- 2. Setting and/or Cementing of all casing strings
- 3. BOPE tests
 - Eddy County call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822
- B. Although Hydrogen Sulfide is not reported, it is always a potential hazard.
- C. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- **D.** If floor controls are required, (3M or Greater) controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- E. Gamma-Ray/Neutron logs shall be run from the base of the Salado formation to the surface. The logs shall be run at a speed which allows the logs to be legible and no faster than manufactures of the logging tools recommended speed. (R-111-P area only)

II. CASING: NB! Casing depth for surface casing based on Geological Report by BLM geologist.

- A. The 13-3/8 inch surface casing shall be set a minimum of 25 feet into the Rustler Anhydrite and above the salt at approximately 760 feet and cemented to the surface. Fresh water mud to be used to setting depth of surface casing.
 - 1. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
 - 2. Wait on cement (WOC) time for a primary cement job will be a minimum of 24 hours in the potash area, or 500 pounds compression strength, whichever is greater. (This is to include the lead cement)
 - 3. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compression strength, whichever is greater.
 - 4. If cement falls back, remedial action will be done prior to drilling out that string.

Possible lost circulation in the Delaware and Bone Spring formations.

Possible water flows in the Salado, Castile, Delaware, and Bone Spring formations.

- B. The minimum required fill of cement behind the <u>8-5/8</u> inch intermediate casing is cement shall circulate to surface. If cement does not circulate see A.1 thru 4.
- C. The minimum required fill of cement behind the <u>5-1/2</u> inch production casing is cement shall circulate to surface.
- **D.** If hardband drill pipe is rotated inside casing; returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool I joints of the drill pipe will be installed prior to continuing drilling operations.
- E. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

III. PRESSURE CONTROL:

- A. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2.
- **B.** Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 2000 (2M) PSI.
- C. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 8-5/8 intermediate casing shoe shall be 3000 (3M) PSI.
- **D.** The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - 1. The tests shall be done by an independent service company.
 - 2. The results of the test shall be reported to the appropriate BLM office.
 - 3. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
 - 4. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi in accordance with API RP 53 Sec. 17. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

IV. DRILL STEM TEST:

If a drill stem test is performed, the conditions of Onshore Order 2.III.D must be met.

Engineer on call phone (after hours): 505-706-2779

WWI 061907