555 Form 3160-3 5/22/00/uly 1992)

DEPART

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be

RIPLICATE* nstructions on erse side)

FORM APPROVED OMB NO. 1004-0136 Expires: February 28, 1995

BUREA obtained prior to pit construction.						5. LEASE DESIGNATION AND SERIAL NO. // 5/1/0 9		
APPLI	CATION FOR PER	MIT TO DE	₹ 166	DEEPEN O	rash		TTEE OR TRIBE NAM	AE .
1a. TYPE OF WORK DRILL XX DEEPEN						7 UNIT AGREEME	NT NAME	
h TYPE OF WELL								
OIL X	GAS OTHER		;	SINGLE X MULT	IPLE _	8. FARM OR LEASI	E NAME, WELL NO.	
2. NAME OF OPERATOR						Calmon #1		15
Pogo Producing Company 1789/								
3. ADDRESS AND TELEPHONE NO.								1571
	340, Midland, TX	79702-734		RECEIV	<u> </u>	10. FIELD AND PO	,	n 1
	port location clearly and in accordance FSL & 1980 FEL			JUN 2 2 21	າດເ	Undes Ing	<u>gle Wells I</u>	<u>Je raw</u> ar
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30 miles eas	t of Carlsbad, NM	[Eddy	1	NM
5. DISTANCE FROM PROF	POSED*		16. NO	OF ACRES IN LEASE		ACRES ASSIGNED		11.1
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(Also to nearest drig. unit B. DISTANCE FROM PROF				OPOSED DEPTH	20. ROTARY	OR CABLE TOOLS		
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OR APPLIED FOR, ON T . ELEVATIONS (Show wh			.l`	3700	nota	22. APPROX. DATE WORK WILL START*		
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7 - 7/8	5-1/2	17#			che	riculate		
and stimulat See attached APPROVAL GENERAL 1	BOP Sketch Surface us SUBJECT TO REQUIREMENTS AL STIPULATIO	al Drilline and oper	ng Da	ta ns plan		ROLLED WA	TER BASIM	
	CRIBE PROGRAM: If proposal is a pertinent data on subsurface to	cations and measu	red and t	rue vertical depths. Give blov	vout prevente	r program, if any.		ales
SIGNED	ing very t	ті	TLE	Sr. Fing Tech		DATE	04/28/06	
(This space for Federa	al or State office use)							
PERMIT NO.				APPROVAL DATE				
CONDITIONS OF APPRO	,		_			e the applicant to cond	duct operations thereon	
ADDROVED BY	/Linda S.C. Rund	ell		STATE DIRECTO	K	DATE	2011 T C	

See Instructions On Reverse Side APPROVAL FOR 1 YEAR

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

DATE

TITLE

APPROVED BY

Form C-102 Revised 1-1-89

<u>DISTRICT I</u> P.O. Box 1980, Hobbs, NM 88240

OIL CONSERVATION DIVISION

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

DISTRICT II P.O. Drawer DD, Artesia, NM 68210

DISTRICT III

WELL LOCATION AND ACREAGE DEDICATION PLAT

1000 Rio Brazos Rd., Aztec, NM 87410

All Distances must be from the outer boundaries of the section

Operator POGO PRODUCING COMPANY			Lease CAI	MON			Well No.		
Init Letter Section Township			Range			County	1		
0	Section	3 5	_ · · ·	OUTH	Range	31 EAS	Т ммр	1 *	EDDY
Actual Footage Lo	ocation	of Well:							
330 _{fe}	et from	the SC	OUTH line as	ad	198	0	feet fro	m the EAS	Ine
Ground Level Ele		Producing F	ormation		Pool				Dedicated Acreage:
3512.1		Delaw	are		Unde	signated In	qle Wells D	elaware	40 Acres
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3. If more than unitization,			-	s dedicated (to the well,	have the intere	st of all owne	rs been conso	lidated by communitization
☐ Yes		□ No		yes" type	of consolida	tion			
			nd tract descrip				dated. (Use re	verse side of	
No allowable	will be	assigned to	o the well unit	all interes	ts have bee	n consolidate	d (by commu	mitization, u	nitization, forced-poolin
otherwise) or a	until a	non-stands	ard unit, elimin	ating such i	nterest, has	been approve	by the Divi	non.	
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SUPPLEMENTAL DRILLING DATA

POGO PRODUCING COMPANY CAL-MON WELL NO. 15

1. SURFACE FORMATION:

Quaternary.

2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

Rustler Anhydrite	750'
Delaware Lime	4440'
Cherry Canyon	5300'
Brushy Canyon	6650'

3. ANTICIPATED POSSIBLE HYDROCARBON BEARING ZONE:

Delaware

Oil

4. PROPOSED CASING AND CEMENTING PROGRAM:

SETTIN	NG DEPTH			
FROM	<u>IQ</u>	WEIGHT	GRADE	INIOL
0	850'	54#	J-55	STC
0	1000'	32#	J-55	STC
1000	2200'	24#	J-5 5	STC
2200	4500'	32#	J-5 5	STC
0	1000	17#	J-55	LTC
1000	6 000'	15.5#	J -55	LTC
6 000,	8700'	17#	N-80	LTC
	FROM 0 0 1000' 2200' 0 1000'	0 850' 0 1000' 1000' 2200' 2200' 4500' 0 1000' 6000'	FROM IO WEIGHT 0 850' 54# 0 1000' 32# 1000' 2200' 24# 2200' 4500' 32# 0 1000' 17# 1000' 6000' 15.5#	FROM TO WEIGHT GRADE 0 850' 54# J-55 0 1000' 32# J-55 1000' 2200' 24# J-55 2200' 4500' 32# J-55 0 1000' 17# J-55 1000' 6000' 15.5# J-55

MINIMUM DESIGN FACTORS:

Collapse 1.125 Burst 1.1 Tension 1.7

13 3/8" casing is to be set at approximately 850' in 17-1/2" hole. Casing to be cemented with 500 sacks of Light cement talled in with 200 sacks of Class "C". Cement to circulate.

8 5/8" casing is to be set at approximately 4500' in 11" hole. Casing is to be cemented with 1200 sacks of Light cement tailed in with 200 sacks of Class "C". Cement to circulate.

5 1/2" casing is to be set at 8700' in 7 7/8" hole. Casing is to be cemented with 600 sacks of Class "H" cement tailed in with 700 sx Class "C". Cement to tie back to 8 5/8" casing.

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.

6. CIRCULATING MEDIUM:

Surface to 850 feet: Fresh water spud mud. Viscosity 30 to 36 as required for

hole cleaning.

850 feet to 4500 feet: Brine conditioned as necessary for control of viscosity. Weight 9.8 to

10.0. PH 9 to 10. Viscosity 32 to 36.

4500 feet to T.D.: Water based drilling fluid conditioned as necessary for control

of weight, viscosity, ph and water-loss. Weight 9 to 10. Visocity

38 - 45. ph 9-10. Filtrate while drilling pay zone 6-15.

7. AUXILIARY EQUIPMENT:

A mudlogging trailer will be used while drilling below 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 ans GR-DLL logs.

No coring is planned.

9. ABNORMAL PRESSURES, TEMPERTURES, OR HYDROGEN SULFIFE GAS:

None anticipated.

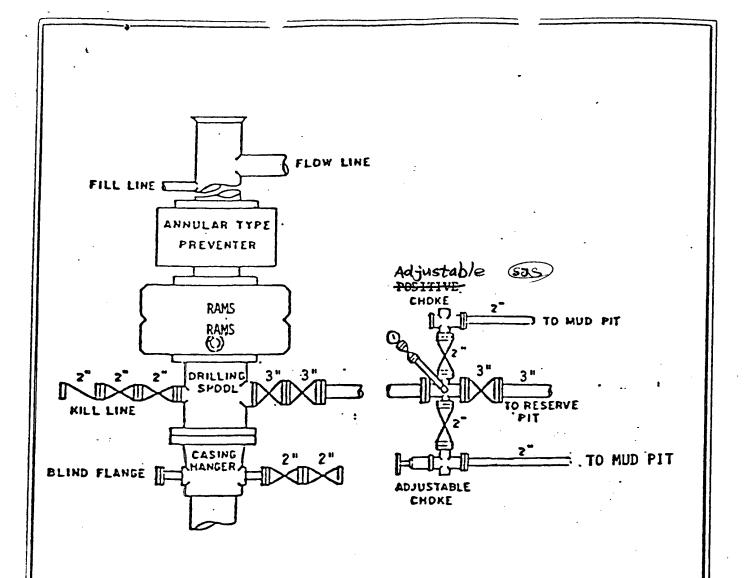
Expected bottom hole pressure is approximately 3700 psi.

Expected bottom hole temperture is approximately 130 degrees Fahr

E.

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.



BOP STACK

3000 PSI WORKING PRESSURE

SURFACE USE AND OPERATIONS PLAN

FOR

POGO PRODUCING COMPANY CAL-MON WELL NO. 15 330' FSL 7 1980' FEL OF SECTION 35, T-23S, R-31E EDDY COUNTY, NEW MEXICO

LOCATED: 30 miles east of Carlsbad, New Mexico.

FEDERAL LEASE NUMBER:

NM-19199

LEASE DATE:

October 1, 1973. Lease is in producing status.

ACRES IN LEASE: 640 acres.

RECORD LESSEE: Pogo Producing Company

SURFACE OWNERSHIP:

Federal.

GRAZING PERMITTEE:

Charles F. James (505) 885-3938

1207 W. Riverside Drive Carlsbad, New Mexico 88220

POOL:

Undesignated Ingle Wells Delaware

POOL RULES:

Statewide. 40 acres 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 road as staked. Point "A" on the plat is on State highway 128 at Mile Marker 17.2, approximately 20 miles east of Loving, New Mexico, where a caliche road goes southwest. This caliche road is 500' west of Eddy County 798.
- B. Exhibit "B" shows existing pertinent roads in the vicinity of the proposed reentry. Existing roads are color coded.

2. PLANNED ACCESS ROADS:

- A. <u>Length and Width:</u> The new road will be 12 feet wide and approximately 1000' long, and labeled and color coded red on Exhibit "B". The centerline of the road will be staked and flagged.
- B. Surfacing Material: Caliche. Watered, compacted and graded.
- C. Maximum Grade: Less than two percent.
- D. <u>Turnouts</u>: Not needed.
- 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. Gates and Cattle Guards: Not needed. No fences involved.

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. Production from this well will be delivered to the unit tank battery located as shown

on Exhibit "B". The flowline will be 3" SDR-7 polyethylene pipe laid on the ground alongside the planned access road and will extend from the well to the battery as shown on Exhibit "B". Anticipated flowline pressure is about 60 psi.

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 a temporary pipeline laid on the ground alongside existing and proposed road.

6. SOURCE OF CONSTRUCTION MATERIAL:

A. Caliche needed for construction work will be taken, if present, from a pit opened on-site within the 400' X 450' work area. Otherwise, caliche will be taken from an existing pit located on Federal land in the SW1/4NW1/4 of Section 1, T-23S, R-31E, Eddy County, New Mexico, and will be trucked to the well site over existing and proposed roads.

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 pits are dry.
- C. 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 landfill.

8. ANCILLARY FACILITIES:

A. None necessary.

9. WELL SITE LAYOUT:

- A. Exhibit "C" shows relative location and dimensions of the well pad, mud pits, reserve pit and the location of major drilling rig components.
- B. Clearing and levelling of the well site 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. Pits will be filled 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 unquarded pits containing fluids will be fenced until the pits are dry.
- C. After abandonment, all equipment, trash and junk will be removed and the well site will be cleaned. Any special rehabilitation and/or special revegatation requirements of the surface management agency will be complied with and will be accomplished as rapidly as possible.

11. OTHER INFORMATION:

- A. <u>Topography:</u> The land surface in the area is undulating and duny. In the immediate area of the well site, land slope is to the southwest.
- B. Soil: Top soil at the well site is sand.
- C. <u>Flora and Fauna:</u> The vegatative cover is moderate and includes mesquite, javelina bush, yucca, weeds and range grasses. Wildlife in the area is that typical of semi-arid desert land and includes coyotes, rabbits, rodents, reptiles, dove and quail.
- D. Ponds and Streams: 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. <u>Archaeological, Historical, and Cultural Sites:</u> An archeological 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 Manager.
Pogo Producing Company
P.O. Box 10340
Midland, Texas 79702
432-685-8100

13. CERTIFICATION:

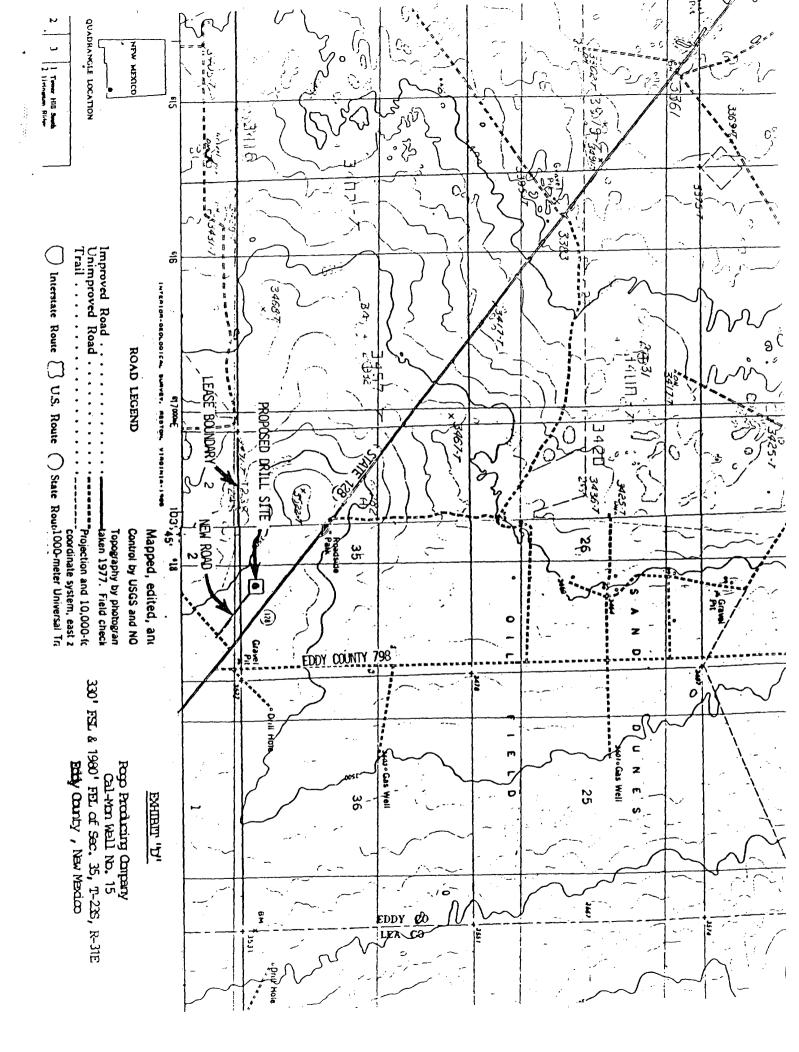
4-28-06

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 19 U.S.C. 1001 for the filing of a false statement.

Date:

Richard L. Wright

Division Operations Manager



CONDITIONS OF APPROVAL - DRILLING

Operator's Name:

Pogo Producing Company

Well Name & No.

Calmon #15

Location:

330' FSL, 1980' FEL, Section 35, T. 23 S., R. 31 E., Eddy County, New Mexico

Lease:

NM-19199

I. DRILLING OPERATIONS REQUIREMENTS:

- 1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County in sufficient time for a representative to witness:
 - A. Well spud
 - B. Cementing casing: 13-3/8 inch 8-5/8 inch 5-1/2 inch
 - C. BOP tests
- 2. 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.
- 3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15-day time frame.
- 4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.
- 5. Gamma-Ray/Neutron logs shall be run from the base of the Salado formation to the surface; cable speed not to exceed 30 feet per minute.

II. CASING:

- 1. The <u>13-3/8</u> inch surface casing shall be set at <u>approximately 950 feet except if halite is encountered at a lesser</u> <u>depth in which case set surface casing just above the halite</u> and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.
- 2. The minimum required fill of cement behind the 8-5/8 inch intermediate casing is to be circulated to the surface.
- 3. The minimum required fill of cement behind the <u>5-1/2</u> inch production casing is to reach at least 500 feet above the top of the uppermost hydrocarbon productive interval.
- 4. Whenever a casing string is cemented in the R-111-P Potash Area, cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

III. PRESSURE CONTROL:

- 1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 13-3/8 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
- Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 3000 psi.
- 3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.

United States Department of the Interior Bureau of Land Management Roswell Field Office

Refer To: 3160-3

May 11, 2006

To:

AFM, Lands and Minerals, RFO

From:

Geologist, RFO

Subject: Geologic Review of Application for Permit to Drill

Operator: Pogo Producing Company

Well Name and Number: Calmon No. 15

Location: 330' FSL & 1980' FEL

Section: 35, T. 23 S., R. 31 E., NMPM

County: Eddy

State: NM

Lease No.: NM-19199

Date APD Rec'd: 5/10/06

1. Surface Elevation X

Surface Geology X

2. Geologic Marker Tops (from reports on surrounding wells):

Geologic Marker	<u>Depth</u>
Rustler	430'
T/Salt	980'
B/Salt	3952
Delaware Ls.	4178'
Delaware Ss	4205'

Marker tops taken from the Wright No. 2 well located in the SW1/NW1/4, sec. 33, T. 23 S., R. 31 E., NMPM

Geologic Marker	Depth
Rustler	437
T/Salt	820'
B/Salt	3960'
Lamar	4186'
Bell Canyon	4210'
Ramsey Ss	4218'

Pogo Producing Company, Calmon No. 15

Geologic Marker	<u>Depth</u>
Cherry Canyon	5138'
Brushy Canyon	6401'
Bone Spring	8020'

Marker beds taken from the Sterling Silver 33 Federal No. 7 located in the NW1/4SW1/4, sec. 33, T. 23 S., R. 31 E., NMPM

Geologic Marker	<u>Depth</u>
T/Basal Rustler	932'
B/Salt	4190'
Del. Ss	4420'

Marker tops taken from the well log of the Calmon No. 11 well located in the NW1/4SW1/4, sec. 35, T. 23 S., R. 31 E., NMPM.

3. Fresh Water Information: Domestic and Stock water is obtained from the Chinle, Santa Rosa and Dewey Lake Formations. Water for stock use is obtained from the Rustler. The two water wells in the Rustler Fm both show water to be potable and have been providing water for a number of years, from 1987 to 1992 the date of my data list. The wells located in secs. 4 and 28, T. 24 S., R. 31 E., NMPM. obtain this water from depths of 625 ft and 871 ft. respectively. Apparently there are two wells located in sec. 4 the other was drilled by DOE and is labeled a stock well at a depth of 816 ft.

The deeper correlative interval occurs at an approximate depth of 800 ft. This is nearly to the top of the salt which occurs at 850 ft. Surface casing should be set between 827 to 840 ft. which is somewhat cleaner interval than over and underlying sediment. The depths utilized for this determination are found on the log for the Calmon 11 well above this section.

Deepest Expected Fresh Water: above 922'

Does Surface Casing cover all anticipated usable fresh water zones? Yes, called operator and they are in agreement.

If no, set surface casing 950 feet except if Halite is encountered at a lesser depth in which case set surface just above the halite.

Controlled Water Basin: Yes

Capitan Carlsbad X Roswell Lea No basin

Remarks: Witness Surface Casing.

4. Geologic Hazards? Yes

H2S X Karst X Abnormal Pressures Other X

Remarks: H2S although not reported, is always a potential hazard. Possible lost circulation in the Delaware and Bone Springs. Possible water flows in the Salado, Castile, Delaware, and Bone Springs. There is a low potential for the occurrence of karst type features in the area.

- 5. Other Mineral Deposits: Possible Halite and other associated salts in the Rustler Formation, and the Castile and Salado Groups. Possible potash in the Salado Group.
- 6. Potash:

Secretary's
Oil-Potash Area X R-111-P Area X Not Applicable

7. References:

New Mexico State Engineer's Water Well Listings;

Lea County H2S List;

Nicholson, A., Jr., and Clebsch, A., Jr., 1961, Geology and Ground-Water Conditions of Southern Lea County, New Mexico; Ground-Water Report No. 6, New Mexico Bureau of Mines and Mineral Resources, Campus Station, Socorro, New Mexico.

Historic O&G well files

8. No active mining claims are located in this vicinity.

Geologist Signature: /s/ J. S. Simitz Date: 5/11/06