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

State of New Mexico

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Energy, Minerals and Natural Resources Department OIL CONSERVATION DIVISION DISTRICT I P.O. Box 2088 P.O. Box 1980, Hobbs, NM 88240 Santa Fe, New Mexico 87504-2088 DISTRICT II P.O. Drawer DD, Artesia, NM 88210 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 Operator Lease Well No. ENRON OIL AND GAS CO. DIAMOND "7" FEDERAL 2 Unit Letter Section Township Range County G 25 SOUTH 34 EAST NMPM LEA Actual Footage Location of Well: 1980 NORTH feet from the 1780 line and EAST feet from the Ground Level Elev. Producing Formation line Pool Dedicated Acreage: 3399.51 Bone Spring Red-Hi 40 1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below. Acres 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.? Yes No If answer is "yes" type of consolidation If answer is "no" list of owners and tract descriptions which have actually been consolidated. (Use reverse side of this form necessary. 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 contained herein is true and complete to the best of my knowledge and belief. Signature 980 Printed Name Betty Gildon Position <u>Regulatory Analyst</u> Company 3411.6 3396.0 Enron Oil & Gas Company 1780' Date 8/2/93 3410.7' 3396.2 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 supervison, and that the same is true and correct to the best of my knowledge an belief. Date Surveyed JUNE 16, 1993 Signature & Seal of. Professional Sur GARY L. JONES EN METIC Certificate NAK BY 4 1810 200 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 Ó 93-11-1152

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DRILLING PROGRAM

Enron Oil & Gas Company Diamond "7" Federal, Well No. 2 1980' FNL & 1780' FEL Sec. 7, T25S, R34E Lea County, New Mexico

1. <u>Geologic Name of Surface Formation:</u>

Permian

2. Estmated Tops of Inportant Geologic Markers:

Rustler	850'
Delaware Mt. Group	5,175'
San Andres	9,275'
Bone Spring Pay	12,225'
TD	12,600'

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas:

Upper Permian Sands	100'	Fresh Water
3rd Bone Spring Sand	12,225'	Oil

No other formations are expected to give up oil, gas or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 11-3/4" casing at 650' and circulating cement back to surface, and 8-5/8" casing will be set at 5200' with cement circulating back to surface.



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Enron Oil & Gas Company Diamond "7" Federal, Well No. 2 1980' FNL & 1780' FEL Sec. 7, T25S, R34E Lea County, New Mexico

4. <u>Casing Program:</u>

<u>Hole Size</u> 14-3/4	<u>Interval</u>	<u>OD csg</u>	Weight Grade Jt. Cond. Type
14-3/4 11 7-5/8	0- 650' 0- 5200' 0- 12600'	11-3/4 8-5/8 5-1/2	42# H-40 A ST&C
	5 ±2600	5-1/2	PHO 17# ##### & ####### &T&C

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<u>Cementing Program:</u>

- 11-3/4" Surface casing: Cement to surface with 250 sx of Class C + 2% CaCl2 + 1/4#/sx flocele.
- 8-5/8" Intermediate: Cement to surface with 800 sx of Premium Plus lite + 15#/sx salt + 1/4#/sx Flocele and 300 sx Cl C + 2% CaCl2
- 5-1/2" Prod casing: Cement with 1200 sx 50/50 Cl H/Poz + 2% gel + .4% CF-14, .1% Diacel LWL. This cement slurry is designed to bring TOC to 7500'.
- 5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (3000 psi WP) preventer and an annular preventer (3000 psi WP). Units will be hydraulically operated and the ram-type will be equipped with blind rams on top and drill pipe rams on bottom. All will be installed on the 11-3/4" surface casing and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 1000 psi before drilling out of surface casing. Before drilling out of intermediate casing, the ram-type BOP and accessory equipment will be tested to 3000 psi and the annular to 70% of rated working pressure (2100 psi).

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and 4" choke line will be included in the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include a kelly cock and floor safety 2valve (inside BOP) and choke lines and choke manifold with 3000 psi WP rating.

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Enron Oil & Gas Company Diamond "7" Federal, Well No. 2 1980' FNL & 1780' FEL Sec. 7, T25S, R34E Lea County, New Mexico

6. Types and Characteristics of the Proposed Mud System:

The well will be drilled to TD with a combination of brine, cut brine, and fresh water. The applicable depths and properties of this system are as follows:

		Weight	Viscosity	Waterloss
<u>Depth</u>	Type	(pqq)_	(sec)	(cc)
0-650'	Fresh water (spud)	8.5	40-45	N.C.
650'-5200'	Brine water	10.0	30	
5200'-TD	Cut Brine	8.8-9.2	28	N.C.
		0.0 9.2	20	N.C.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. <u>Auxiliary Well Control and Monitoring Equipment:</u>

- (A) A kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- (C) A mud logging unit complete with H2S detector will be continuously monitoring drilling penetration rate and hydrocarbon shows from 4500' to TD.

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Enron Oil & Gas Company Diamond "7" Federal, Well No. 2 1980' FNL & 1780' FEL Sec. 7, T25S, R34E Lea County, New Mexico

8. Logging, Testing and Coring Program:

- (A) The electric logging program will consist of GR-Dual Laterolog-MSFL and GR-Compensated Density-Neutron from TD to intermediate casing with a GR-Compensated Neutron ran from intermediate casing to surface.
- (B) Possible side wall cores based on shows.

9. Abnormal Conditions, Pressures, Temperaturs, & Potential Hazards:

The estimated bottom-hole temperature (BHT) at TD is 175 degrees F with an estimated maximum bottom-hole pressure (BHP) of 9400 psig. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major loss circulation zones have been reported in offsetting wells. Anticipated Starting Date and Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. Anticipated spud date is unknown at the present time. Once drilling has commenced, the drilling operation should be finished in approximately 30 days. If the well is productive, an additional 30 days will be required for completion and testing before a decision is made to install permanent facilities.

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