

BLM-CARLSBAD

Form 3160-3
(July 1992)

SUBMIT IN THE MANNER
(Other instructions on
reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995 **J-39**

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

1330

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
 DRILL DEEPEN

b. TYPE OF WELL
 OIL WELL GAS WELL OTHER SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
 Enron Oil & Gas Company

3. ADDRESS AND TELEPHONE NO.
 P. O. Box 2267, Midland, Texas 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At surface: 2130' FNL & 2130' FEL
 At proposed prod. zone: 2130' FNL & 2130' FEL

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 24 miles west of Jal, NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drilg. unit line, if any)
 510 510

16. NO. OF ACRES IN LEASE
 640

17. NO. OF ACRES ASSIGNED TO THIS WELL
 80

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1746' to #3

19. PROPOSED DEPTH
 12,600

20. ROTARY OR CABLE TOOLS
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 3447' GR

22. APPROX. DATE WORK WILL START*
 August 15, 1995

5. LEASE DESIGNATION AND SERIAL NO.
 NM 19859

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.
 Hallwood 1 Federal #5

9. API WELL NO.

10. FIELD AND POOL, OR WILDCAT
 Red Hills Bone Spring

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
 Sec 1-25S-33E

12. COUNTY OR PARISH
 Lea

13. STATE
 NM

23. PROPOSED CASING AND CEMENTING PROGRAM **No Water Basin**

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
14-3/4	11-3/4 H-40 A ST&C	42#	600	250 sx <u>CIRCULATED</u>
11	8-5/8 J-55 ST&C	24# & 32#	5200	1100 sx <u>CIRCULATED</u>
7-7/8	5-1/2 P-110 LT&C	17#	12600	1200 sx <u>est TOC @ 4500'</u>

The Undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on leased land or portions thereof as shown below:

OPER. OGRID NO. 7377
 PROPERTY NO. 16089
 POOL CODE 51020
 EFF. DATE 8/24/95
 API NO. 30-025-33070

Federal Bond # is MT 0748 with endorsement to New Mexico

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNER Betty Gildon TITLE Regulatory Analyst DATE 7/13/95

**APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED**

PERMIT NO. _____ APPROVAL DATE _____
 Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
 CONDITIONS OF APPROVAL, IF ANY:

TPO
8-17-95

APPROVED BY [Signature] TITLE Asst. Area Manager DATE 8/17/95

*See Instructions On Reverse Side

District I
 PO Box 1980, Hobbs, NM 88241-1980
 District II
 PO Drawer DD, Artesia, NM 88211-0719
 District III
 1000 Rio Brasos Rd., Aztec, NM 87410
 District IV
 PO Box 8068, Santa Fe, NM 87504-2088

State of New Mexico
 Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
 PO Box 2088
 Santa Fe, NM 87504-2088

Form C-102
 Revised February 21, 1994
 Instructions on back
 Submit to Appropriate District Office
 State Lease - 4 Copies
 Fee Lease - 3 Copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code 51020	³ Pool Name Red Hills Bone Spring
⁴ Property Code	⁵ Property Name HALLWOOD "1" FEDERAL	⁶ Well Number 5
⁷ GRID No. 7377	⁸ Operator Name ENRON OIL AND GAS COMPANY	⁹ Elevation 3447

¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	1	25-S	33-E		2130	NORTH	2130	EAST	LEA

¹¹Bottom 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

¹² Dedicated Acres 80	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>¹⁶</p>	<p>¹⁷ OPERATOR CERTIFICATION</p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i></p> <p><i>Betty Gildon</i> Signature Betty Gildon Printed Name Regulatory Analyst Title 7/13/95 Date</p>
	<p>¹⁸ SURVEYOR CERTIFICATION</p> <p><i>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 best of my belief.</i></p> <p>APR 15 1995 Date of Survey Signature and Seal of Professional Surveyor Certificate Number 8278</p>

DRILLING PROGRAM

Enron Oil & Gas Company
Hallwood "1" Federal, Well No. 5
2130' FNL & 2130' FEL
Sec. 1, T25S, R33E
Lea County, New Mexico

1. Geologic Name of Surface Formation:

Permian

2. Estimated Tops of Important Geologic Markers:

Rustler	850'
Delaware Mt. Group	5175'
Bone Spring Lime	9275'
Bone Spring Pay	12225'
TD	12600'

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

Upper Permian Sands	100'	Fresh Water
3rd Bone Spring Sand	12225'	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 circulated back to surface.

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2130' FNL & 2130' FEL
Sec. 1, T25S, R33E
Lea County, New Mexico

4. Casing Program:

<u>Hole Size</u>	<u>Interval</u>	<u>OD csg</u>	<u>Weight Grade Jt. Cond. Type</u>
14-3/4	0- 600'	11-3/4	42# H-40 A ST&C
11	0- 5200'	8-5/8	24# & 32# J-55 ST&C
7-7/8	0- 12600'	5-1/2	17# P-110 LT&C

Cementing Program:

- 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 4500'.

5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (5000 psi WP) preventer and an annular preventer (5000 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 600 psi before drilling out of surface casing. Before drilling out of intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000 psi and the annular to 70% of rated working pressure (3500 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 valve (inside BOP) and choke lines and choke manifold with 3000 psi WP rating.

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ENRON OIL & GAS COMPANY
Hallwood 1 Federal No. 5

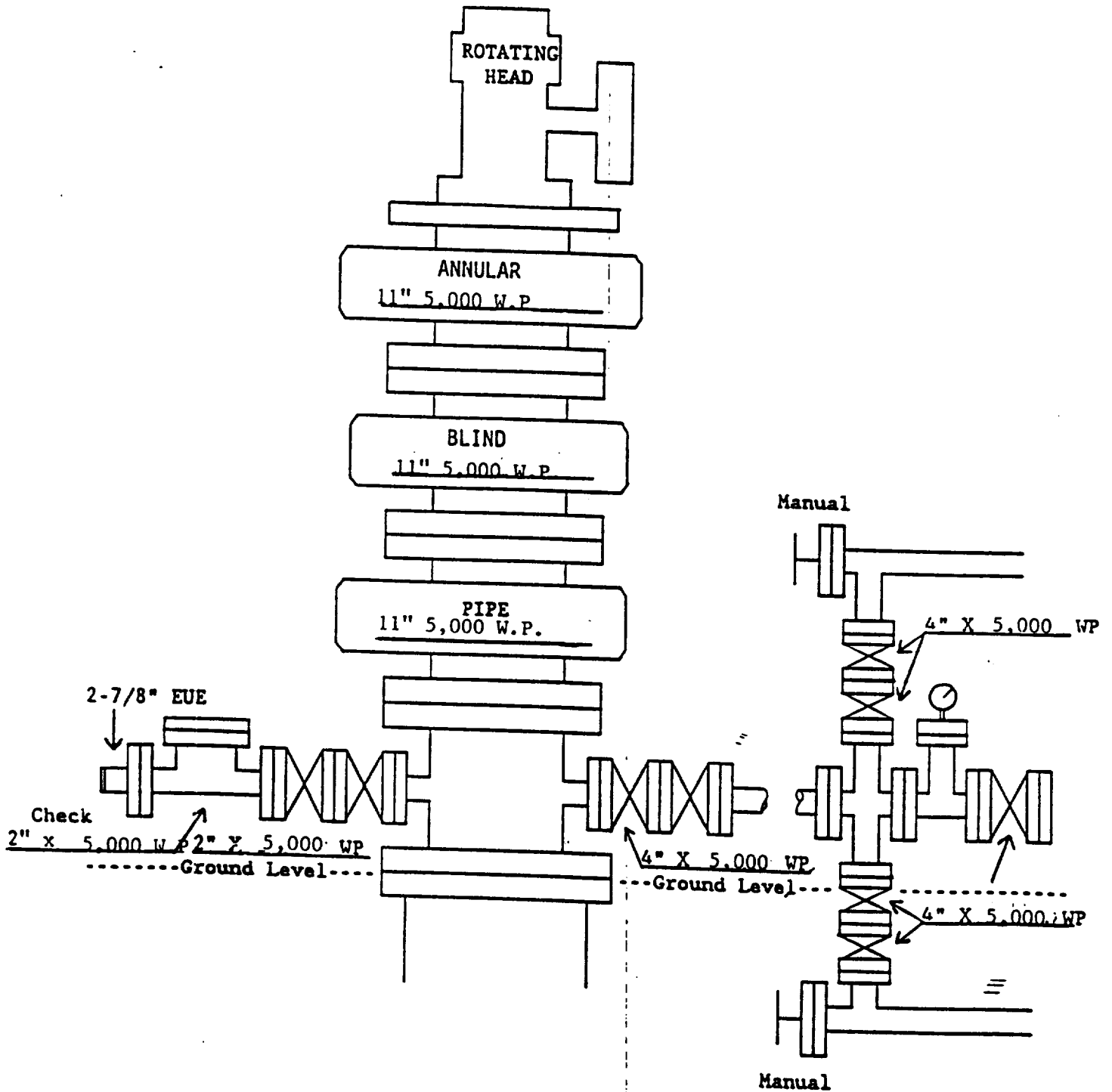


EXHIBIT #1

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Enron Oil & Gas Company
Hallwood "1" Federal, Well No. 5
2130' FNL & 2130' FEL
Sec. 1, T25S, R33E
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:

<u>Depth</u>	<u>Type</u>	<u>Weight (ppg)</u>	<u>Viscosity (sec)</u>	<u>Waterloss (cc)</u>
0-600'	Fresh water (spud)	8.5	40-45	N.C.
600'-5200'	Brine water	10.0	30	N.C.
5200'-12600'	Cut Brine	8.8-9.2	28	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. Auxiliary Well Control and Monitoring Equipment:

- (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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Iron Oil & Gas Company
Hallwood "1" Federal, Well No. 5
2130' FNL & 2130' FEL
Sec. 1, T25S, R33E
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, Temperatures & Potential Hazards:

The estimated bottom hole temperature (BHT) at TD is 175 degrees F with an estimated maximum bottom-hole pressure (BHP) of 5900 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 to 45 days will be required for completion and testing before a decision is made to install permanent facilities.

9/25/05

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