

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

30-239-25014  
APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL	5. LEASE NUMBER SF-078772
1b. TYPE OF WELL GAS	6. IF INDIAN, ALL. OR TRIBE NAME
2. OPERATOR MERIDIAN OIL INC.	7. UNIT AGREEMENT NAME ROSA UNIT
3. ADDRESS & PHONE NO. OF OPERATOR P O BOX 4289 FARMINGTON, NM 87499	8. FARM OR LEASE NAME ROSA UNIT COM
4. LOCATION OF WELL 1520' FSL 1920' FWL	9. WELL NO. 330
	10. FIELD, POOL, OR WILDCAT BASIN FRUITLAND COAL
	11. SEC. T. R. M OR BLK. K SEC. 34 T32N R06W NMPM
14. DISTANCE IN MILES FROM NEAREST TOWN 32 MILES N. OF GOVERNADOR	12. COUNTY RIO ARRIBA
	13. STATE NM
15. DISTANCE FROM PROPOSED LOCATION 1520' TO NEAREST PROPERTY OR LEASE LINE.	16. ACRES IN LEASE 2501.46
	17. ACRES ASSIGNED TO WELL w/ 320.00
18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL DR. 4500' COMPL., OR APPLIED FOR ON THIS LEASE.	19. PROPOSED DEPTH 3135'
	20. ROTARY OR CABLE TOOLS ROTARY
	<small>REMARKS: THIS PERMIT IS ISSUED FOR THE PURPOSE OF DRILLING A WELL FOR THE PROPOSED LEASE. THIS PERMIT IS SUBJECT TO THE TERMS AND CONDITIONS OF THE BLM REGULATIONS AND THE APPLICABLE STATE AND FEDERAL LAWS.</small>
21. ELEVATIONS (DF, FT, GR, ETC.) 6373' GL	22. APPROX. DATE WORK WILL START

23. PROPOSED CASING AND CEMENTING PROGRAM

\*SEE OPERATIONS PLAN

24. AUTHORIZED BY: [Signature]  
REG. DRILLING ENGR.

OIL CON. DIV. 9/11/90  
DIST. 3 DATE

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

NOTE: THIS FORMAT IS ISSUED IN LIEU OF US BLM FORM 3160-3

Submit to Appropr. -  
District Office  
State Leases - 4 copies  
Fee Leases - 3 copies

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised 1-1-89

OIL CONSERVATION DIVISION

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

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

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

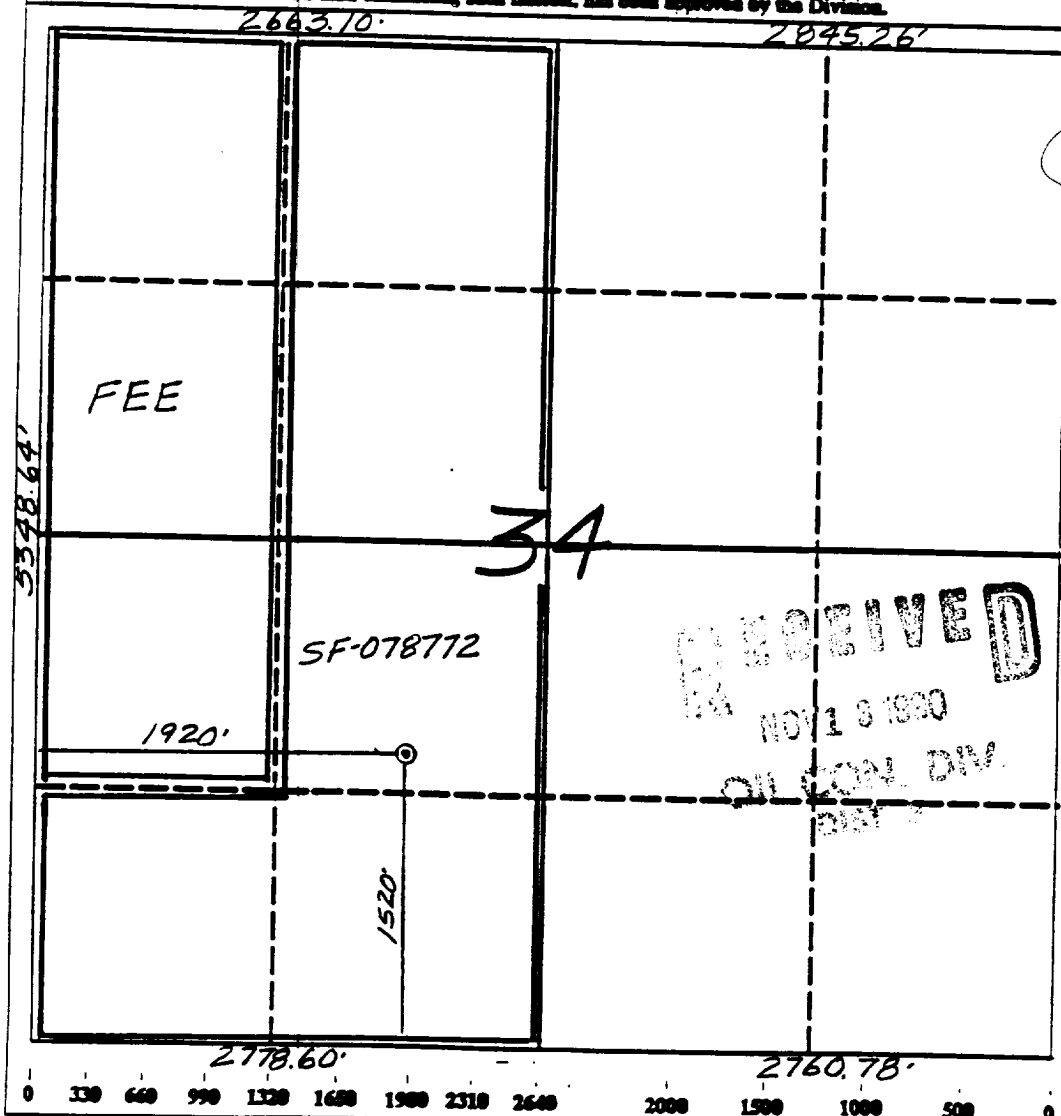
DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Meridian Oil Inc.			Lease Rosa Unit Com		Well No. 330
Unit Letter K	Section 34	Township 32 North	Range 6 West	County NMNM	Rio Arriba
Actual Footage Location of Well: 1520 feet from the South line and 1920 feet from the West line					
Ground level Elev. 6373'		Producing Formation Fruitland Coal		Pool Basin	Dedicated Acreage: 320 Acres

- Outline the acreage dedicated to the subject well by colored pencil or leadpencil marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by commutation, unitization, force-pooling, etc.?  
☐ Yes ☐ No If answer is "yes" type of consolidation unitization  
If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)  
No allowable well be assigned to the well until all interests have been consolidated (by commutation, unitization, force-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Peggy Bradfield  
Signature

Peggy Bradfield  
Printed Name

Regulatory Affairs  
Position

Meridian Oil Inc.  
Company

9-10-90  
Date

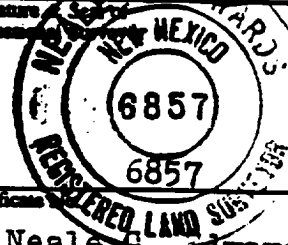
SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes and actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

8-6-90

Neale C. Edwards  
Date Surveyed

Neale C. Edwards  
Signature  
Professional Surveyor



Neale C. Edwards  
Certified Land Surveyor

Well Name: 330 ROSA UNIT COM  
 Sec. 34 T32N R06W  
 BASIN FRUITLAND COAL

1520'FSL 1920'FWL  
 RIO ARriba NEW MEXICO  
 Elevation 6373'GL

Formation tops: Surface- SAN JOSE

Ojo Alamo- 2400

Kirtland- 2550

Fruitland- 2960

Fruitland Coal Top- 2995

Fruitland Coal Base- 3129

Pictured Cliffs- 3141

Intermediate TD- 2955

Total Depth- 3135

Logging Program: Mud logs from intermediate to total depth.

Mud Program:	Interval	Type	Weight	Visc.	Fl. Loss
	0 - 400	Spud	8.4 - 8.9	40-50	no control
	400 - 2955	Non-dispersed	8.4 - 9.1	30-60	no control
	2955 - 3135	Formation Water	8.4		no control

Casing Program:	Hole Size	Depth Interval	Csg. Size	Weight	Grade
	12 1/4"	0 - 400	9 5/8"	32.3#	H-40
	8 3/4"	0 - 2955	7"	20.0#	K-55
	6 1/4"	2905 - 3135	5 1/2"	15.5#	K-55
Tubing Program:		0 - 3135	2 7/8"	6.5#	J-55

Float Equipment: 9 5/8" surface casing - saw tooth guide shoe. Centralizers will be run in accordance with Onshore Order #2.

7" intermediate casing - guide shoe and self-fill insert float valve. Three centralizers run every other joint above shoe. Run insert float one joint above the guide shoe. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 2550'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

5 1/2" production casing - float shoe on bottom and a pre-drilled liner run to the 7" casing with a minimum 50' overlap. Liner hanger is a double slip grip type.

Wellhead Equipment: 9 5/8" x 7" x 2 7/8" x 11" 3000 psi xmas tree assembly.

#### Cementing:

9 5/8" surface casing - cement with 319 sacks of class "B" cement with 1/4# flocele/sack and 3% calcium chloride (376 cu ft. of slurry, 200% excess to circulate to surface). WOC 12 hours. Test casing to 800 psi for 30 minutes.

7" intermediate casing - lead with 432 sacks of 65/35 class "B" poz with 6% gel, 2% calcium chloride and 1/2 cu ft. Perlite/sack (10.3 gallons of water/sack) tail with 100 sacks of class "B" with 2% calcium chloride. 953 cu ft. of slurry, 110% excess to circulate to surface. If hole conditions permit, a 600 ft spacer will be run ahead of the cement slurry to avoid mud contamination of the cement. WOC 12 hours. If cement does not circulate to surface, a temperature log will be run after 8 hours to determine TOC.

5 1/2" liner - do not cement.