

RECEIVED

OCT 31 1990

OIL CON. DIV.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

30-045-28562

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL	5. LEASE NUMBER SF-078389
1b. TYPE OF WELL GAS	6. IF INDIAN, ALL. OR TRIBE NAME
2. OPERATOR MERIDIAN OIL INC.	7. UNIT AGREEMENT NAME
3. ADDRESS & PHONE NO. OF OPERATOR P O BOX 4289 FARMINGTON, NM 87499	8. FARM OR LEASE NAME LUCERNE A COM
4. LOCATION OF WELL 1660' FNL 1180' FEL	9. WELL NO. 101
14. DISTANCE IN MILES FROM NEAREST TOWN 2 MILES FROM CEDAR HILL	10. FIELD, POOL, OR WILDCAT BASIN FRUITLAND COAL
15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE. 1180'	11. SEC. T. R. M OR BLK. H SEC. 9 T31N R10W NMPM
16. ACRES IN LEASE 1255.18	12. COUNTY SAN JUAN
17. ACRES ASSIGNED TO WELL N/319.85	13. STATE NM
18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL DR. COMPL., OR APPLIED FOR ON THIS LEASE. 300'	19. PROPOSED DEPTH 2977'
20. ROTARY OR CABLE TOOLS ROTARY	21. APPROX. DATE WORK WILL START 10/2/90
22. ELEVATIONS (DF, FT, GR, ETC.) 6191' GL	23. PROPOSED CASING AND CEMENTING PROGRAM *SEE OPERATIONS PLAN
24. AUTHORIZED BY: <i>[Signature]</i> REG. DRILLING ENGR.	

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

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

APD approved 9-1-88; rescinded 2-5-90 for this location.  
Hpld c-104 FOR CAFE

All distances must be from the outer boundaries of the Section.

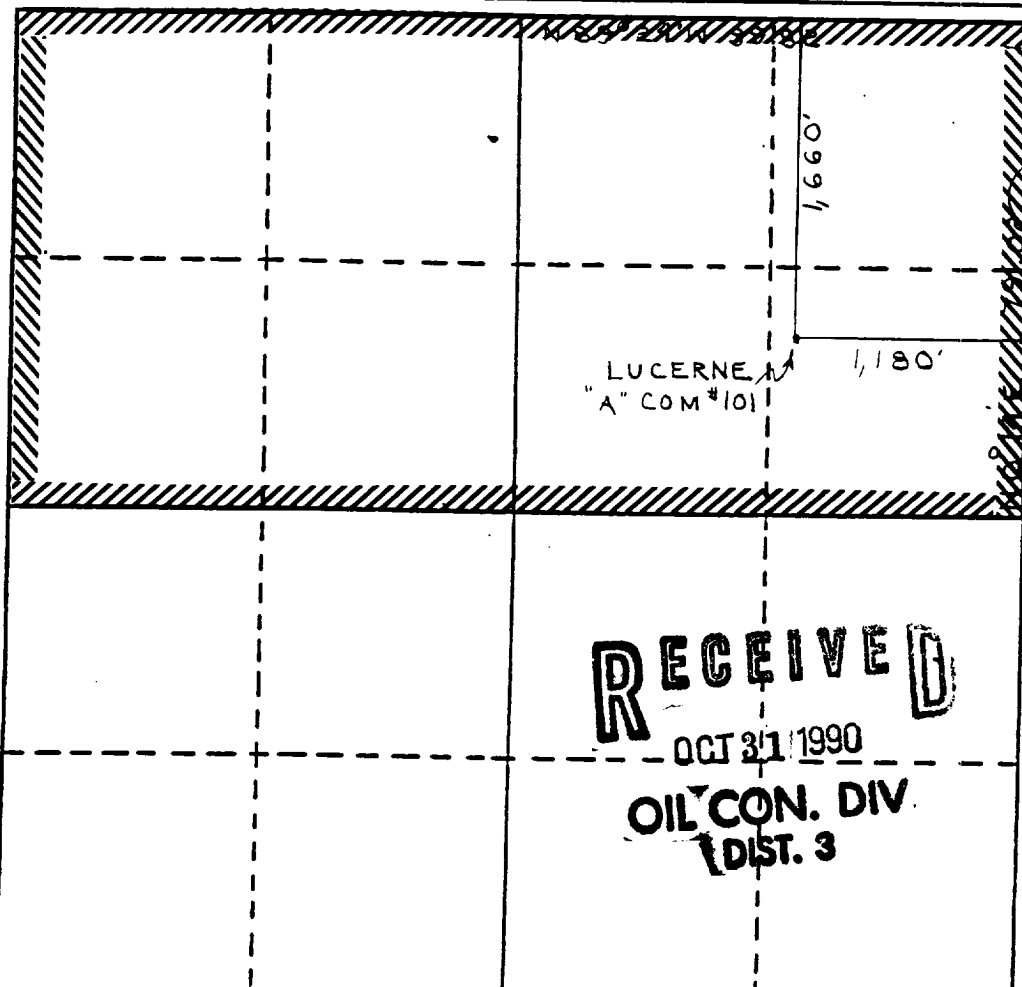
Operator <b>Meridian Oil Co.</b>			Lease <b>Lucerne "A" Com SF-078389</b>		Well No. <b>101</b>
Unit Letter <b>H</b>	Section <b>9</b>	Township <b>T31N</b>	Range <b>R10W</b>	County <b>San Juan County</b>	
Actual Footage Location of Well <b>1660</b> feet from the <b>North</b> line and <b>1180</b> feet from the <b>East</b> line					
Ground Level Elev. <b>6191</b>	Producing Formation <b>Fruitland Coal</b>		Pool <b>Basin</b>	Dedicated Acreage <b>319.85</b> Acre	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
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 interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation communitization agreement will be obtained

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 will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Division.



CERTIFICATION

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

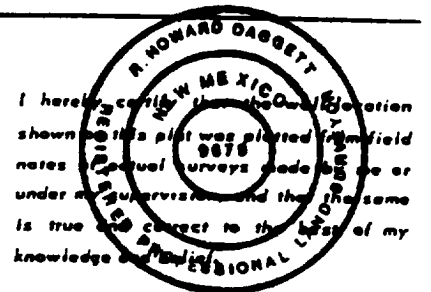
*R. Howard Daggett*  
Name

Regulatory Affairs

Position  
Meridian Oil Inc.

Company  
*10-2-90*

Date



Registered Professional  
Land Surveyor

Date Surveyed  
**July 13, 1988**

Registered Land Surveyor  
**R. Howard Daggett**

*R. Howard Daggett*  
Certificate No.

**9679**

0 330 660 990 1320 1650 1980 2310 2640 2970 3300 3630 3960 4290 4620 4950 5280 5610 5940 6270 6600

Well Name: 101 LUCERNE A COM  
 Sec. 9 T31N R10W  
 BASIN FRUITLAND COAL

1660'FNL 1180'FEL  
 SAN JUAN NEW MEXICO  
 Elevation 6191'GL

Formation tops: Surface- NACIMIENTO

Ojo Alamo-	1239		
Kirtland-	1340		
Fruitland-	2586		
Fruitland Coal Top-	2979	Intermediate TD-	2767
Fruitland Coal Base-	2787	Total Depth-	2977
Pictured Cliffs-	2976		

Logging Program: Mud logs from intermediate to total depth.

Mud Program:	Interval	Type	Weight	Visc.	Fl. Loss
	0 - 200	Spud	8.4 - 8.9	40-50	no control
	200 - 2767	Non-dispersed	8.4 - 9.1	30-60	no control
	2767 - 2977	Formation Water	8.4		no control

Casing Program:	Hole Size	Depth Interval	Csg. Size	Weight	Grade
	12 1/4"	0 - 200	9 5/8"	32.3#	H-40
	8 3/4"	0 - 2767	7"	20.0#	K-55
	6 1/4"	2717 - 2977	5 1/2"	15.5#	K-55
Tubing Program:		0 - 2977	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 @ 1340'. 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 160 sacks of class "B" cement with 1/4# flocele/sack and 3% calcium chloride (189 cu ft. of slurry, 200% excess to circulate to surface). WOC 12 hours. Test casing to 600 psi for 30 minutes.

7" intermediate casing - lead with 396 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. 884 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.

