

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL	5. LEASE NUMBER SF-078204
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 SUNRAY D
4. LOCATION OF WELL 1425'S 2075'W	9. WELL NO. 226
10. FIELD, POOL, OR WILDCAT BASIN FRUITLAND COAL	11. SEC. T. R. M OR BLK. K SEC. 21 T30N R10W NMPM
12. COUNTY SAN JUAN	13. STATE NM
14. DISTANCE IN MILES FROM NEAREST TOWN 8 MILES FROM AZTEC	15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE. 1425'
16. ACRES IN LEASE 645.32	17. ACRES ASSIGNED TO WELL 322.66 320.44
18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL DR. 600' COMPL., OR APPLIED FOR ON THIS LEASE.	19. PROPOSED DEPTH 2950'
20. ROTARY OR CABLE TOOLS ROTARY	21. ELEVATIONS (DF, FT, GR, ETC.) 6406'GL
22. APPROX. DATE WORK WILL START	23. PROPOSED CASING AND CEMENTING PROGRAM
*SEE OPERATIONS PLAN "Approval of this action does not warrant that the applicant holds legal or equitable rights or title to this lease."	
24. AUTHORIZED BY: <i>[Signature]</i> REGULATORY AFFAIRS	DATE 3-9-89

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

APPROVED  
AS AMENDED

JUN 28 1989

AREA MANAGER

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

*Hold & not for cancellation of permit*

## OIL CONSERVATION DIVISION

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088  
SANTA FE, NEW MEXICO 87501Form C-102  
Revised 10-1.

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

Operator <b>Meridian Oil Inc.</b>		Lease <b>Sunray D</b>		Well No. <b>226</b>
Unit Letter <b>K</b>	Section <b>21</b>	Township <b>30 North</b>	Range <b>10 West</b>	County <b>San Juan</b>
Actual Footage Location of Well: <b>1425</b> feet from the <b>South</b> line and <b>2075</b> feet from the <b>West</b> line				
Ground Level Elev. <b>6406'</b>	Producing Formation <b>Fruitland Coal</b>	Pool <b>Basin</b>	Dedicated Acreage: <b>320.44</b> <b>322.66</b> ACT	

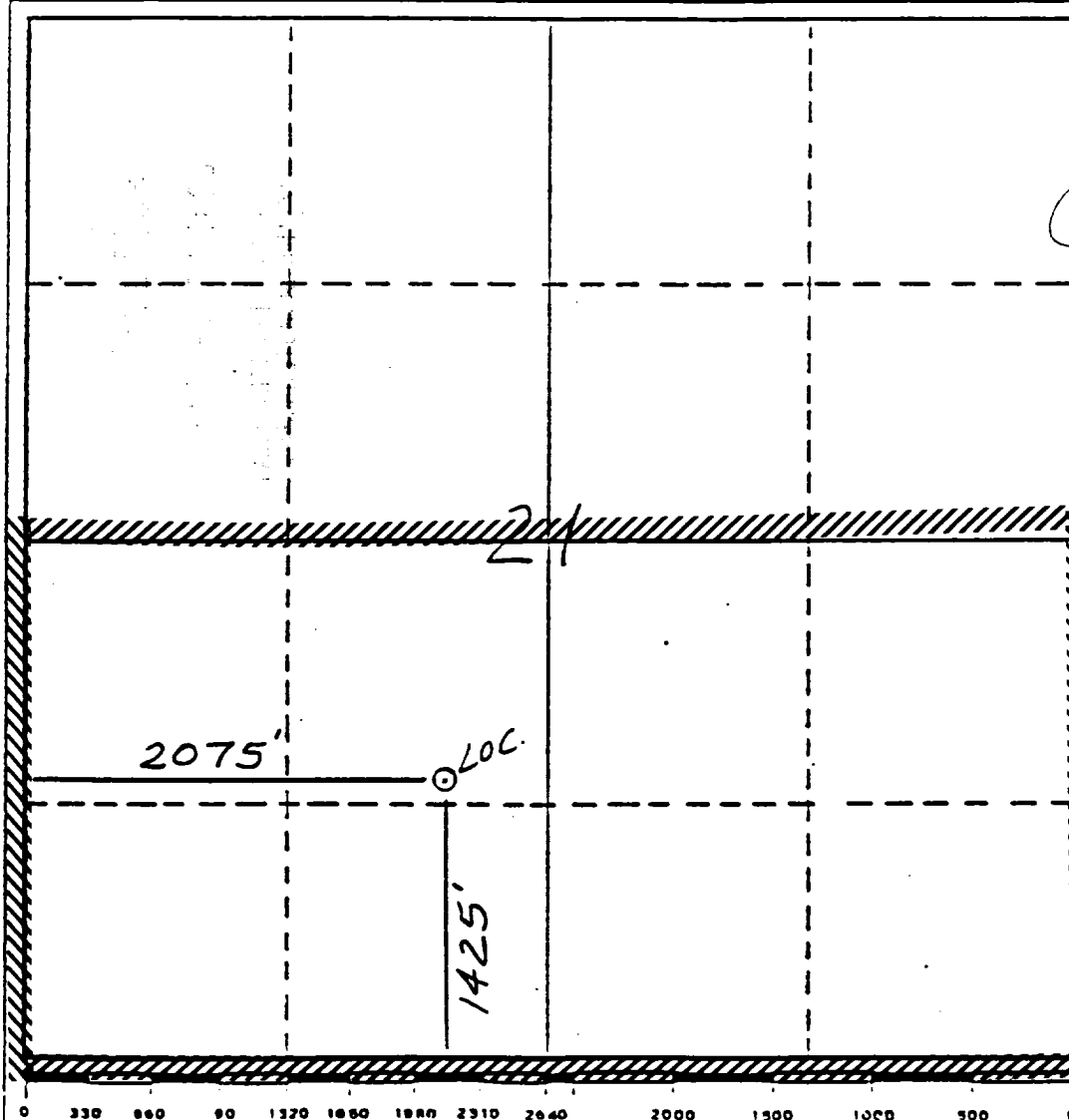
1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to work interest and royalty).
3. If more than one lease of different ownership is dedicated 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 \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side 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.

Reissued to show moved location



## CERTIFICATION

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

*Neale C. Edwards*  
Name  
Regulatory Affairs

Position  
Meridian Oil Inc.

Company  
*5-9-89*

Date

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

*Neale C. Edwards*  
Date Surveyed  
**12-22-88**

Registered Professional Engineer  
and/or Land Surveyor

**Neale C. Edwards**  
Certificate No.

**6857**

Well Name: 226 SUNRAY D 1425'S 2075'W  
 Sec. 21 T30N R10W SAN JUAN NEW MEXICO  
 BASIN FRUITLAND COAL Elevation 6406'GL

Formation tops: Surface- NACIMIENTO  
 Ojo Alamo- 1662  
 Kirtland- 1770  
 Fruitland- 2655  
 Fruitland Coal Top- 2735  
 Fruitland Coal Base- 2946  
 Intermediate TD- 2715  
 Total Depth- 2950  
 Pictured Cliffs- 2952

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 - 2715	Non-dispersed	8.4 - 9.1	30-60	no control
	2715 - 2950	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 - 2715	7"	20.0#	K-55
	6 1/4"	2665 - 2950	5 1/2"	15.5#	K-55
Tubing Program:		0 - 2950	2 7/8"	6.5#	J-55

Float Equipment: 9 5/8" surface casing - saw tooth guide shoe.

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.

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 106 sacks of class "B" cement with 1/4# flocele/sack and 3% calcium chloride (125 cu ft. of slurry, 100% excess to circulate to surface). WOC 12 hours. Test casing to 600 psi for 30 minutes.

7" intermediate casing - lead with 103 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. 317 cu ft. of slurry, 100% excess to cover the Ojo Alamo. Run temperature survey at 8 hours. WOC 12 hours. Test casing to 1500 psi for 30 minutes.

5 1/2" liner - do not cement.

## BOP and Tests:

Surface to intermediate TD - 11" 3000 psi double gate BOP stack (Reference Figure #1). Prior to drilling out surface casing, test rams to 600 psi for 30 minutes.

Intermediate TD to TD - 7 1/16" 3000 psi double gate BOP stack (Reference Figure #2). Prior to drilling out intermediate casing, test rams to 2500 psi for 30 minutes.

Pipe rams will be actuated at least once each day and blind rams actuated once each trip to test proper functioning.

## Addition Information:

The Fruitland coal formation will be completed.  
This gas is dedicated.  
The S/2 of Section 21 is dedicated to this well.

Sunray D<sup>#</sup> 226

14255 3075W

S 21.7 30-R10

Knickerbocker  
Peak 16

GAS FIELD

Cerritos  
Canyon

Cerritos  
Canyon

Cerritos  
Canyon

Cerritos  
Canyon

NATURAL  
ARCH 66378

ATACCO

11  
159.04  
161.40  
320.44

57  
+3  
60  
27  
107  
33  
140

