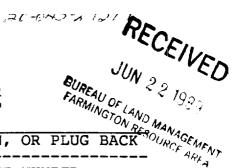
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT



APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK la. TYPE OF WORK 5. LEASE NUMBER DRILL SF-078312 6. IF INDIAN, ALL. OR TRIBE NAME 1b. TYPE OF WELL GAS OPERATOR 7. UNIT AGREEMENT NAME SOUTHLAND ROYALTY CO. 3 ADDRESS & PHONE NO. OF OPERATOR 8. FARM OR LEASE NAME P O BOX 4289 HUBBARD COM FARMINGTON, NM 87499 9. WELL NO. 103 LOCATION OF WELL 10. FIELD, POOL, OR WILDCAT 1930'N 1490'WE BASIN FRUITLAND COAL 11. SEC. T. R. M OR BLK. SEC. 22 T32N R12W NMPM DISTANCE IN MILES FROM NEAREST TOWN 12. COUNTY 13. STATE 17 MILES FROM AZTEC SAN JUAN DISTANCE FROM 16. ACRES IN LEASE 17. ACRES ASSIGNED TO WELL PROPOSED LOCATION 1490' 320.00 TO NEAREST PROPERTY OR LEASE LINE. DISTANCE FROM 19. PROPOSED DEPTH 20. ROTARY OR CABLE TOOLS PROPOSED LOCATION 2560' ROTARY TO NEAREST WELL DR. 500' COMPL., OR APPLIED This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 FOR ON THIS LEASE. and appeal pursuant to 43 CFR 3186.4. 21. ELEVATIONS (DF, FT, GR, ETC.) 22. APPROX. DATE WORK WILL START 6175'GL  $\overline{23}$ . PROPOSED CASING AND CEMENTING PROGRAM \*SEE OPERATIONS PLAN DRIVEING CHERNIUMS ASSINCHIZED ARE SUBJECT TO COMMENANCE WITH ATTACHED "GENERAL REQUIREMENTS". 24. AUTHORIZED BY: APPROVAL DATE AS AMES PERMIT NO. TITLE APPROVED BY THIS FORMAT IS ISSUED IN LIEU OF US BLM FORM 3100 BEA MANAGER NOTE:

MOCD

Submit to Accordance
District Office
State Lease - 4 conies
Fee Lease - 3 copies

## State of New Mexico Energy, Minerais and Natural Resources Department

Form C-102 Reviews 1-1-29

DISTRICT I P.O. Box 1980, Hobbs, NM 88240 OIL CONSERVATION DIVISION
P.O. Box 2088

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

990 1320 1650 1960 2310

2640

2006

1500

1000

500

Sama Fe. New Mexico 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT 1000 Rio Brazos Rd., Azzec, NM 87410 All Distances must be from the outer boundaries of the section Well No. (SF-078312)Southland Royalty Company Hubbard Com 103 Unit Letter Section Townson County Lorth 12 West Jan Juan NMPM Actual Footage Location of Well: 1930 Morth feet from the 1490 line and feet from the <u>East</u> line Ground level Elev. Producing Formation Dedicated Acreage: 6175 Fruitland Coal Basin 320 1. Outline the acreege dedicated to the subject well by colored peacul or hackure marks on the plat below. Acres 2. If more than one tease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty). 3. If more than one sease of different ownersmip is dedicated to the well, have the interest of all owners been consolidated by communication. unstruction, force-pooling, etc.? communitization X Yes If answer is "yes" type of consolidation If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse aids of this form if necessary. No allowable will be assigned to the weil until all interests have been consolidated (by communitization, unitization, forced-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 informati RECEIVED best of my knowledge and belief. JUN 2 2 1939 Peggy Bradfield BUREAU OF LAND MANAGEMENT Printed Name PARMINGTON RESOURCE AREA Regulatory Affairs Southland Royalty Company 6-22-8 ∠œ.º 1490' Date SURVEYOR CERTIFICATION I hereby certify that the well location show on this plat was plotted from field notes c actual surveys made by me or under m supervison, and that the same is true on correct to the best of 51.85 501 Neale C. Edwards Certificate No. 6857

DATE: JUN 21,1989

Well Name: 103 HUBBARD COM

Sec. 22 T32N R12W

BASIN FRUITLAND COAL

1930'N 1490'₩€

SAN JUAN NEW MEXICO

Elevation 6175'GL

Formation tops: Surface- NACIMIENTO

Ojo Alamo- 1785

Kirtland- 1865

Fruitland- 2125

Fruitland Coal Top- 2425

Fruitland Coal Base- 2548

Intermediate TD- 2395

Total Depth- 2560

Pictured Cliffs- 2570

Logging Program: Mud logs from intermediate to total depth.

Mud Program:	Interval	Туре	Weight	Visc.	Fl. Loss
	0 - 200	Spud	8.4 - 8.9	40-50	no control
	200 - 2395	Non-dispersed	8.4 - 9.1	30-60	no control
	2395 - 2560	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 -	- 2395	7"	20.0#	K-55
	6 1/4"	2345 -	- 2560	5 1/2"	15.5#	K-55
Tubing Program:		0 -	- 2560	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 34 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. 183 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 E/2 of Section 22 is dedicated to this well.

