30-045-27648

# DEPARTMENT OF THE INTERIOR

UNITED STATES  $TF_{B+oldsymbol{u} + z_{B}}$ BUREAU OF LAND MANAGEMENT

	APPLICATION FOR PERMIT TO DRIL	L, DEEPEN, OR PLUG BACK
	TYPE OF WORK DRILL TYPE OF WELL GAS	5. LEASE NUMBER SF-079037 6. IF INDIAN, ALL. OR TRIBE NAME
2.	OPERATOR SOUTHLAND ROYALTY CO.	7. UNIT AGREEMENT NAME
3.	ADDRESS & PHONE NO. OF OPERATOR P O BOX 4289 FARMINGTON, NM 87499	8. FARM OR LEASE NAME HALE 9. WELL NO. 350
4.	LOCATION OF WELL 815'S 1180'W	10. FIELD, POOL, OR WILDCAT  BASIN FRUITLAND COAL  11. SEC. T. R. M OR BLK.  SEC. 27 T31N R08W NMPM
14.	DISTANCE IN MILES FROM NEAREST TOWN 5 MILES NE OF ABE'S STORE	12. COUNTY 13.STATE SAN JUAN NM
15.	DISTANCE FROM 16. ACRE PROPOSED LOCATION 815' TO NEAREST PROPERTY OR LEASE LINE.	S IN LEASE 17. ACRES ASSIGNED TO WE $w/320.00$
18.	DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL DR. 200' COMPL., OR APPLIED FOR ON THIS LEASE.	
21.	ELEVATIONS (DF, FT, GR, ETC.) 6326'GL	22. APPROX. DATE WORK WILL START
23.	PROPOSED CASING AND	CEMENTING PROGRAM
NOTE: Techni	*SEE OPERATIONS F an APD was fîled on 4-14-88, approve cal report No.1281 dated 3-30-88 was AUTHORIZED BY:  REG. DRILLING ENGR.	ed 5-16-88, and rescinded 1-5-90. issued for this wellsite.
PERM APPR	OVED BY MAR1 6 1990 TITLE APPROVE	APPROVED AS AMENDED
NOTE	OIL CON. DIV.)  : THIS FORMORTIS ISSUED IN LIEU OF THE MACCONING TO THE PROPERTY OF THE PROPER	<i>j.</i> .

## OIL CONSERVATION DIVISION

#### P. O. BOX 2088

Form C-102 Revised 10-1-78

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT

SANTA FE, NEW MEXICO 87501

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)peretor			Lease .			Weil No.
•	ROYALTY CO.		HALE (SF	-07903 <u>7</u> )		350
		'ownship	Range	County		
M	27	31-N	8-W		SAN JUAN	
Civel Footoge Local	ion of Wells					
815		OUTH time of	nd 1180	feet from the	WEST	tine
Fround Level Elev.	Producing Forms		Poel			Dedicated Acreeque
6 <b>326</b>	Fruitlan		Basin			320 AcTes
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### OPERATIONS PLAN

DATE: FEB 13,1990

Well Name: 350 HALE

815'S 1180'W

Sec. 27 T31N R08W

SAN JUAN NEW MEXICO

BASIN FRUITLAND COAL

Elevation 6326'GL

Formation tops: Surface- SAN JOSE

Ojo Alamo- 2040

Kirtland- 2150

Fruitland- 2895

Fruitland Coal Top- 3040

Fruitland Coal Base- 3191

Intermediate TD- 3015

Total Depth- 3205

Pictured Cliffs- 3215

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 contro
	200 - 3015	Non-dispersed	8.4 - 9.1	30-60	no contro
	3015 - 3205	Formation Water	8.4		no contro

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	- 3015	7"	20.0#	K-55
	6 1/4"	2965	- 3205	5 1/2"	15.5#	K-55
Tubing Program:		0	- 3205	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 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 437 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.
962 cu ft. of slurry, 110% excess to circulate to surface. Run temperature survey at 8 hours. WOC 12 hours.

5 1/2" liner - do not cement.

