#### SUBMIT IN TRIPLICATE\*

Form approved. Budget Bureau No. 42-R1425.

(Other instructions on reverse side)

30-095 - 24/06
5. LEASE DESIGNATION AND SERIAL NO.

### UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

| GEOLOGICAL SURVEY  | SF-079634  |  |
|--|--|--|
| APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK  | S. IF INDIAN, ALLOTTEE OR TRIPE NAME   |  |
| DRILL X DEEPEN DEEPEN PLUG BACK  | 7. UNIT AGREEMENT NAME   |  |
| b. Type of Well  on GAS X  arms  gas X  arms   | S. FAEM OR LEASE NAME  |  |
| OIL GAS X OTHER ZONE ZONE X  2 NAME OF OPERATOR  | McClanahan   |  |
|  | 9. WELL NO.  |  |
| Southland Royalty Company 3. ADDRESS OF OPERATOR   | #20E   |  |
| P. O. Drawer 570, Farmington, NM 87401   | 10. FIELD AND POOL, OR WILDCAT   |  |
| 4. Hocarion of well (Report location clearly and in accordance with any State requirements.*) At Surface  1840' FNL & 1660' FWL  | Basin Dakota Blanco Mesa Verde   |  |
| At proposed prod. zone   |  |  |
| At proposed prod. Zone   | Section 13, T28N, R10W   |  |
| 14 DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*   | 12. COUNTY OR PARISH 13 STATE  |  |
| Approximately 6 1/2 miles SE of Bloomfield, NY.  | San Juan New Mexico  |  |
| 15. A. O. OF ACERS IN LEASE   11. St.  | OF ACRES ASSIGNED THIS WELL  |  |
| PROPERTY OR LANSE LINE, FT.  About to non-rest drift, notify the strain, 1660'  2040   | <u>/</u> 320   |  |
| 18. LISTANCE FROM PROPOSED LOCATION* 19. PROPOSED DEPTH 20. ROT.   | ORY OR CABLE TOOLS   |  |
| TO MAZENT WELL, PERLLING, COMPLETED, GRAPPHED FOR, ON THIS LEASE, FT. 650' 6610'   | Rotary   |  |
| 21. ELEVATIONS (Show whether DF, RT, GR, etc.)   | 22. APPROX. DATE WORK WILL START*  |  |
| 5777' GR   | March 15, 1980   |  |
| PROPOSED CASING AND CEMENTING PROGRAM  |  |  |
| SIZE OF HOLE SIZE OF CASING WEIGHT PERFOOT SETTING DEPTH   | QUANTITY OF CEMENT   |  |
| 12 1/4" 8 5/8" 24# 200' 140 S  |  |  |
| 7.7/8" $5.1/2"$ $15.5$ # $6610$ $220.3$  | acks (Stage One)   |  |
| 240 S  | acks (Stage Two)   |  |
| 160 S  | acks   |  |
| Surface formation is Nacimiento. Top of Ojo Alamo sand is at 1240'. Top of Mesa Verde sand is at 3570'. Fresh water mud will be used to drill from surface to Total DI is anticipated that a GR-Density and IES log will be run a No abnormal pressures or poisonous gases are anticipated in tI is expected that this well will be drilled before August 3 on time required for approval, rig availability and the weath Gas is dedicated.  IN ABOVE SPACE DESCRIBE PRODUSED PROGRAM: If proposal is to deepen or plug back, give data on present proposal. If proposal is to deepen directionally, give pertinent data on subsurface locations and measure proceeder programs if any.  24. | his well.  1, 1980. This depends her.  DECCONSTRUCTION And proposed new productive |  |
|  | 12-4-79  |  |
| SHONED (C/C-13732) TITLE DISTRICT Engineer   |  |  |
| (This space for Federal or State office use)   |  |  |
| PERMIT NO APPROVAL DATE  |  |  |
| APPROVED BY CONDITIONS OF APPROVAL, IF ANY:  THE   | DATE   |  |

## OIL CONSERVATION DIVISION

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT

# P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-102 Revised 10-1-78

All distances must be from the cuter boundaries of the Section

| F 13 28N 10W San Juan  Actual Footage Location of Well:  1840 feet from the North line and 1660 feet from the West line  Ground Level Elev. Producing Formation Pool  5777 Dakota/Mesa Verde Basin/Blanco 320 —  |                |
|--|----------------|
| Unit Letter Section Township Range County  F 13 28N 10W San Juan  Actual Footage Location of Well:  1840 feet from the North line and 1660 feet from the West line  Ground Level Elev. Producing Formation Pool  5777 Dakota/Mesa Verde Basin/Blanco 320   | ge:            |
| F 13 28N 10W San Juan  Actual Footage Location of Well:  1840 feet from the North line and 1660 feet from the West line  Ground Level Elev. Producing Formation Pool  5777 Dakota/Mesa Verde Basin/Blanco 320 —  | ge:            |
| 1840 feet from the North line and 1660 feet from the West line  Ground Level Elev. Producing Formation Pool Deducated Acrea  5777 Dakota/Mesa Verde Basin/Blanco 320 —   |                |
| Ground Level Elev. Producing Formation Pool Dedicated Acrea  5777 Dakota/Mesa Verde Basin/Blanco 320   |                |
| 5777 Dakota/Mesa Verde Basin/Blanco 320 —  | Acres          |
| JIII   |                |
| 1 O di   |                |
| 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 interest and royalty).  | to working     |
| 3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners be dated by communitization, unitization, force-pooling. etc?  | en consoli-    |
| 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 rev  | erse 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 t   | he Commis-     |
| sion.  |                |
| CERTIFICATIO   | n              |
|  |                |
| I hereby certify that the in   | formation con- |
| toined herein is true and co   |                |
| best of my knowledge and b   | eliet.         |
| The second of th | ns             |
| U. S. GEONDE CAL SUCCES C. Parson  |                |
| Curtis C. Parson   | rs             |
| Pesition District Engine   | er             |
| 1660' Company  |                |
| Southland Royalt   | y Company      |
| Date   |                |
| Sec. December 4, 1979  | )              |
|  |                |
|  |                |
| SF-07,9634  1 hereby certify that the shown on this plat was plo   |                |
| shown on this plat was plat notes of actual surveys m  |                |
| under my supervision, and  | · ·            |
| is true and correct to th  |                |
| knowledge and belief.  |                |
|  |                |
|  |                |
| Date Surveyed  |                |
| October 1 1979   | neet           |
| Registered Professional Profess | Mee!           |
|  | afra a         |
| Fred Ba Werr Ju  | Š.             |
| Certify # v8.  | 5//            |
| 0 330 660 90 1320 1650 1980 2310 2640 2000 1500 1000 500 0 3950 0 KR, IR.  | /              |

# SOUTHLAND ROYALTY COMPANY - DRILLING SCHEDULE

### McCLANAHAN

1840' FNL & 1660' FWL Section 13, T28N, RlOW San Juan County, New Mexico

Field: Basin Dakota/Blanco Mesa Verde Elevation: 5777' GR

#### Geology:

| Formation Tops: Ojo Alamo Fruitland Pictured Cliffs Cliff House Point Lookout | 1240'<br>1730'<br>1965'<br>3570'<br>4270' | Gallup<br>Graneros<br>Dakota<br>Total Depth | 5460'<br>6290'<br>6410'<br>6610' |
|---|---|---|----------------------------------|
|---|---|---|----------------------------------|

Logging Program: IES and GR-Density from Total Depth to surface casing.

#### Drilling:

Contractor:

Tool Pusher:

SRC Representative:

SRC Answering Service: 325-1841

Dispatch Number: 325-7391

Mud Program: Fresh water to 5450'. Mud up at 5450'. Maintain mud weight of 8.9 to 9.3, viscosity of 35 to 40 sec, water loss of 10 to 12 cc. Anticipate losing circulation in the bottom of the Gallup zone at 5700' and in the top of the Dakota zone at 6500'. Have ICM available

on location.

#### Materials:

| Casing Program: | Hole Size         | Depth                 | Casing Size | Wt. & Grade            |
|-----------------|-------------------|-----------------------|-------------|------------------------|
| CLIMY 11091     | 12 1/4"<br>7 7/8" | 200 <b>'</b><br>6610' | 8 5/8"      | 24# H-40<br>15.5# K-55 |

### Float Equipment:

8 5/8" Surface Casing: Pathfinder type "A" guide shoe.

5 1/2" Production Casing: Pathfinder type "A" guide shoe. Self-fill flapper type float collar, run one joint above shoe. 5 Pathfinder bow-type stabilizers run every other joint above shoe. Run Dowell stage tools at 4670' and 2150'. Run one cement basket below and 5 Pathfinder rigid

stabilizers above each tool.

Wellhead Equipment: 8 5/8" x 10", 2000# casing head with 5 1/2" casing hanger 6", 2000# x 10", 2000# tubing head and tree

#### Cementing:

8 5/8" Surface Casing: 140 sacks (165 cu. ft.) of Class "B" with 1/4# gel flake per sack and 3% CaCl2. WOC 12 hours. Test to 600# prior to drilling out. (Volume is 100% excess.)

5 1/2" Production Casing:

STAGE ONE: 170 sacks (249 cu. ft.) of 50/50 Poz with 6% gel, 1/4# gel flake per sack, followed by 50 sacks of neat with 2% CaCl<sub>2</sub>. (Volume is 25% excess to cover top of Gallup.)

STAGE TWO: 190 sacks (286 cu. ft.) of 50/50 Poz with 6% gel followed by 50 sacks of neat with 2% CaCl<sub>2</sub>. (50% excess to cover top of Cliff House.)

STAGE THREE: 160 sacks (236 cu. ft.) of 50/50 Poz with 6% gel. (Volume is 50% excess to cover top of Ojo Alamo.)

WOC and circulate between stages as required by well conditions.

L. O. Van Rayan District Production Manager

BJM/ke



December 4, 1979

United States Geological Survey Mr. James Sims P. O. Box 959 Farmington, NM 87401

Dear Sir:

Enclosed please find a map showing existing roads and planned access roads to Southland Royalty Company's <u>McClanahan #20E</u> well.

The locations of tank batteries and flow lines will be on location with well. A burn pit will be provided for disposal of trash. Cuttings, drilling fluid and produced fluids will be put into the reserve pit and properly disposed of depending on amount and type of fluids.

There will be no camps or airstrips.

Also, enclosed is a location layout showing approximate location of rig, pits and pipe racks.

Water supply will be \_\_\_\_\_the Blanco Wash \_\_\_\_\_.

The location will be restored according to Bureau of Land Management standards. This work will begin when all related construction is finished.

Mr. Ross Lankford will be Southland Royalty Company's field representative supervising these operations.

Yours truly,

Curtis C. Parsons District Engineer

CCP/ke



United States Geological Survey Mr. James Sims P. O. Box 595 Farmington, NM 87401

Dear Sir:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Southland Royalty Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Date: December 4, 1979

L. O. Van Ryan U District Production Manager

LOVR/ke



December 4, 1979

United States Geological Survey Mr. James Sims P. O. Box 959 Farmington, NM 87401

RE: Blowout Preventer Plan

Dear Sir:

All drilling and completion rigs will be equipped with 6" or larger double hydraulic blowout preventers and a hydraulic closing unit with steel lines.

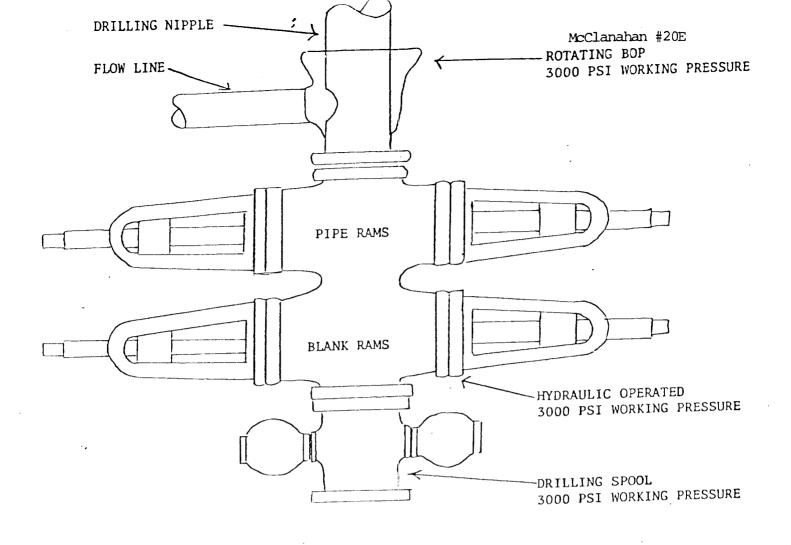
The preventer is 3000# working pressure and 6000# test pressure.

All crews will be thoroughly trained in the operation of this preventer. The preventer will be tested frequently enough to insure proper operation.

Yours truly,

Curtis C. Parsons District Engineer

CCP/ke



PREVENTERS AND SPOOLS ARE TO HAVE THROUGH BORE OF 6" - 3000 PSI OR LARGER

