

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☐GAS
WELL ☒

OTHER

SINGLE
ZONE ☒MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Southland Royalty Company

3. ADDRESS OF OPERATOR

P. O. Drawer 570, Farmington, New Mexico 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface

1680' FSL & 1140' FEL

At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

8 miles Northwest of Aztec, New Mexico 87410

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

16. NO. OF ACRES IN LEASE

17. NO. OF ACRES ASSIGNED
TO THIS WELL

5/320.00

19. PROPOSED DEPTH

5266'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

6188'

22. APPROX. DATE WORK WILL START*

January 15, 1979

23.

PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
|--------------|----------------|-----------------|---------------|--------------------|
| 12-1/4" | 9-5/8" | 36# | 200' | 125 cu. ft. |
| 8-3/4" | 7" | 20# | 2844' | 295 cu. ft. |
| 6-1/4" | 4-1/2" | 10.5# | 2694'-5266' | 449 cu. ft. |
| | 2-3/8" | 4.7# | 5266' | |

Surface formation is Nacimiento.

Top of Ojo Alamo sand is at 1535'.

Top of Pictured Cliffs sand is at 2594'.

Fresh water mud will be used to drill from surface to intermediate casing point.

An air system will be used to drill from intermediate casing point to total depth.

It is anticipated that a Gamma Ray Induction and a Gamma Ray Density log will be
run at total depth.

No poisonous gases or abnormal pressures are anticipated in this well.

It is expected that this well will be drilled before April 1979. The depends

on time required for approvals, rig availability and the weather.

Gas is dedicated.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

TITLE

District Production Manager

DATE

December 5, 1978

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

**NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102
Supersedes C-128
Effective 1-1-65

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

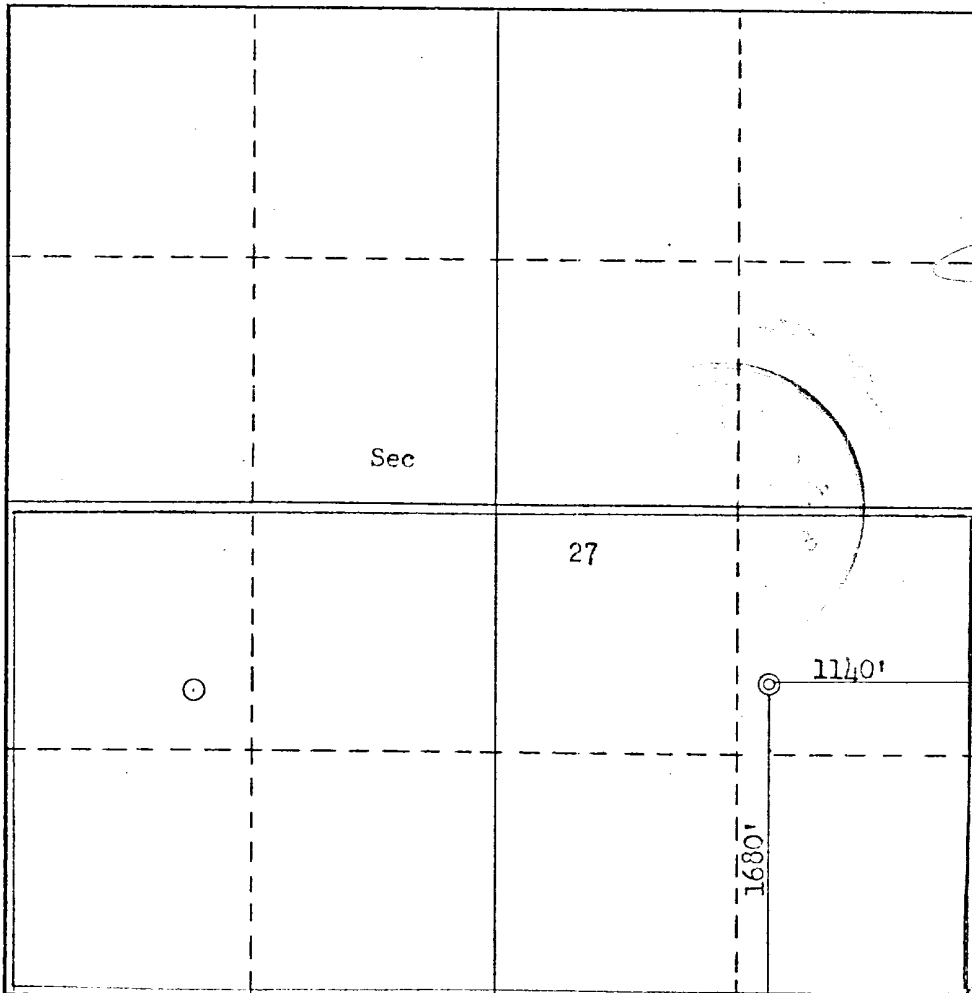
| | | | | | |
|--|---|-------------------------|---------------------------|----------------------------|---|
| Operator: SOUTHLAND ROYALTY COMPANY | | | Lease: THOMPSON | | Well No.: 114 |
| Unit Letter: I | Section: 27 | Township: 31N | Range: 12W | County: San Juan | |
| Actual Footage Location of Well: 1680 feet from the South line and 1140 feet from the East line | | | | | |
| Ground Level Elev.: 6166 | Producing Formation: Mesa Verde | | Pool: Blanco | | Dedicated Acreage: 320.00 Acres |

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 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 _____

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 Commission.



CERTIFICATION

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

Name: [Signature]
Position: District Production Manager
Company: Southland Royalty Company
Date: December 5, 1978

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

Date Surveyed: November 8, 1978
Registered Professional Engineer and/or Land Surveyor No. 3260
Fred B. Kerr
Certificate No. 2. KERR

DRILLING SCHEDULE - THOMPSON #4A

Location: 1680' FSL & 1140' FEL, Section 27, T31N, R12W
San Juan County, New Mexico

Field: Blanco Mesaverde

Elevation: 6188' GR

Geology:

Formation Tops: Ojo Alamo 1535' Cliff House 4152'
Fruitland 2217' Point Lookout 4916'
Pictured Cliffs 2594' Total depth 5266'* (Add 50' if hole gets wet)
Intermediate TD 2844'

Logging Program: GR-Density and GR-Induction at total depth.

Coring Program: None

Natural Gauges: Gauge at last connection above Cliff House, Point Lookout and total depth.
Gauge any increase in gas flow.

Drilling:

Contractor:

Tool Pusher:

SRC Representative:

SRC Ans. Service: 325-1841
Dispatch Number: 325-7391

Mud Program:

Fresh water mud from surface to Intermediate total depth.
Air from intermediate to total depth.

Materials:

| Casing Program: | Hole Size | Depth | Casing Size | Wt. & Grade |
|-----------------|-----------|-------------|-------------|-------------|
| | 12-1/4" | 200' | 9-5/8" | 36# K-55 |
| | 8-3/4" | 2844' | 7" | 20# K-55 |
| | 6-1/2" | 2844'-5266' | 4-1/2" | 10.5# K-55 |

Cementing:

9-5/8" surface casing: 125 cu. ft. (105 sxs) of Class "B" with 1/4# gel flakes per sack and 3% CaCl₂. (100% excess)

7" intermediate casing: 295 cu. ft. (160 sxs) of 50/50 Class "B" Poz with 6% gel. Mix with 7.2 gals water per sx to weigh 12.85 ppg. Tail in with 50 sxs of Class "B" with 2% CaCl₂. If lost circulation occurs, add 1/4# celloflake per sx. (50% excess to cover Ojo Alamo.)

4-1/2" liner:

449 cu. ft. Precede cement with 20 bbls gelled water. Cement with 300 sxs of 50/50 Class "B" Poz with 6% gel, 1/4# celloflake and 6% halad 9. Mix water with 7.2 gals water per sx to weigh 12.85 ppg. (70% excess to circulate liner (355 sxs)



Southland Royalty Company

December 5, 1978

United States Geological Survey
P. O. Box 959
Farmington, New Mexico

Attention: Mr. P. T. McGrath

Dear Sir:

Enclosed please find map showing existing roads and planned access roads to Southland Royalty Company's Thompson #4A 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.

Contractor will furnish restroom facilities on location.

There will be no air strips or camps.

Also, enclosed is a location layout showing approximate location of rig, pits and pipe racks and cut required to build this location.

Water supply will be the Farmer's Ditch. All water will be transported by truck and stored on location.

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

Mr. Max Larson will be Southland Royalty Company's field representative supervising these operations.

Yours truly,

L. O. Van Ryan
District Production Manager

LOVR/dg



Southland Royalty Company

United States Geological Survey
P. O. Box 959
Farmington, New Mexico 87401

Attention: Mr. P. T. McGrath

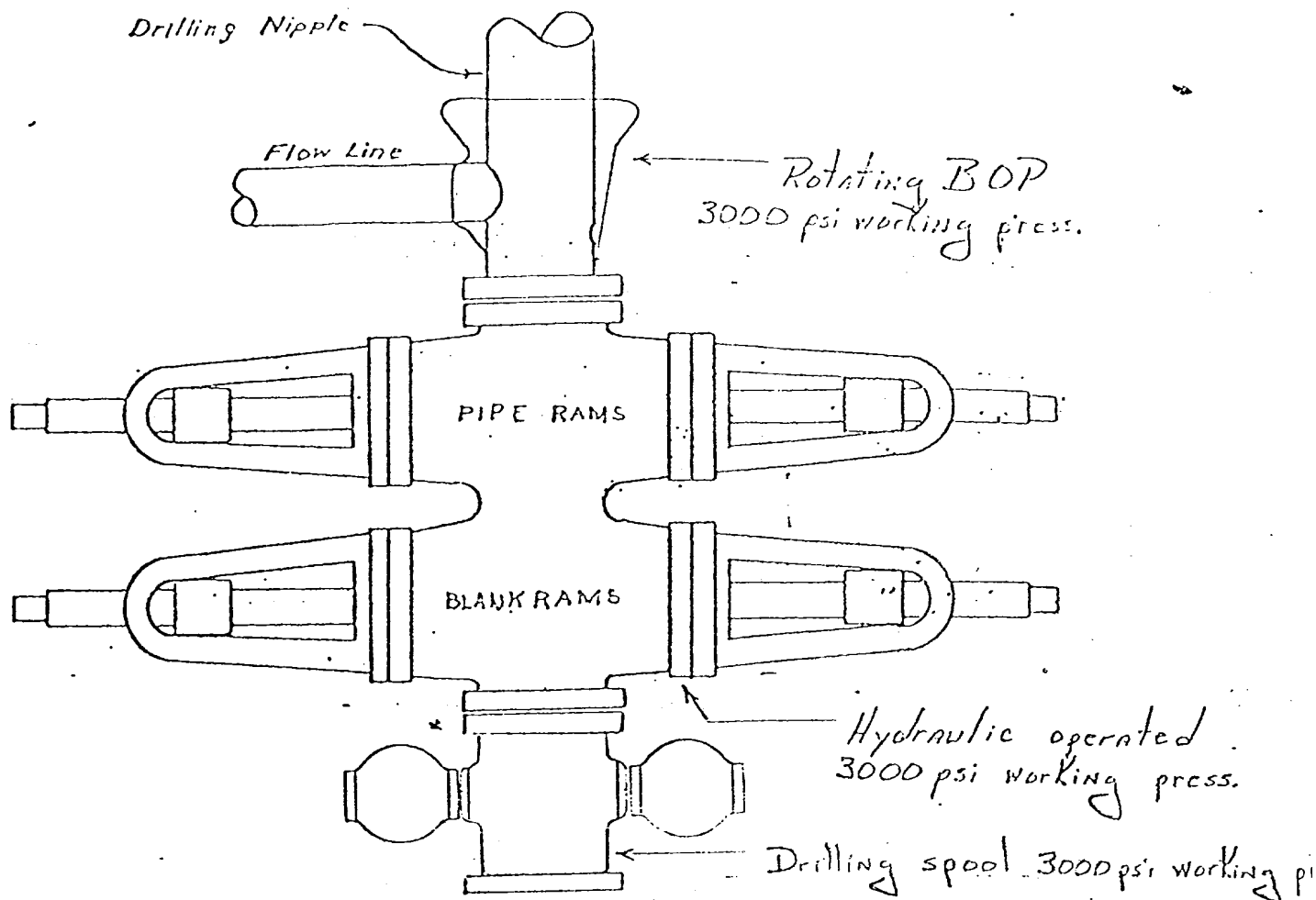
Dear Sir:

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 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 5, 1978

Name: CC Korman

Title: District Engineer



Preventers and spools are to have
through bore of 6" - 3000# PSI or larger.



Southland Royalty Company

December 5, 1978

United States Geological Survey
P. O. Box 959
Farmington, New Mexico

Attention: Mr. P. T. McGrath

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.

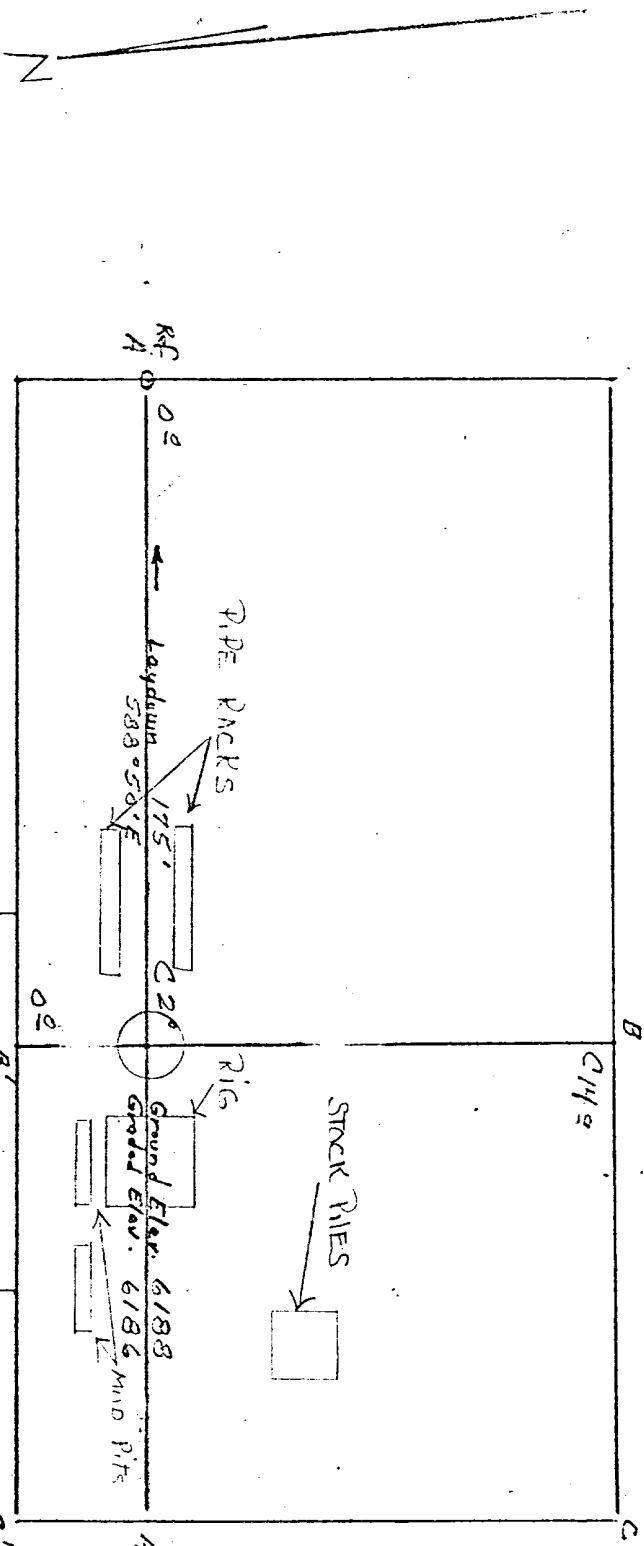
All crews will be thoroughly trained in the operation of this preventer. The preventer will be tested frequently enough to insure proper operation.

Yours truly,

L. O. Van Ryan
District Production Manager

LOVR/dg

Location Profile for
 SOUTHLAND ROYALTY CO., #1A THOMPSON
 1680' TSL 1110' FEL Sec 27-T3JN-R12W San Juan County, New Mexico

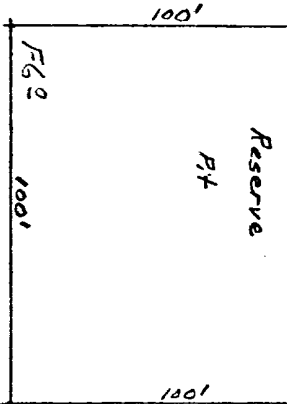


Vert. 1"=40' A-A' Horiz. 1"=100'

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| 6180 | | | | |
| 6180 | | | | |
| 6170 | | | | |

B-B' &

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| 6200 | | | | |
| 6190 | | | | |
| 6180 | | | | |
| 6170 | | | | |



Vert. 1"=40' C-C' Horiz. 1"=100'

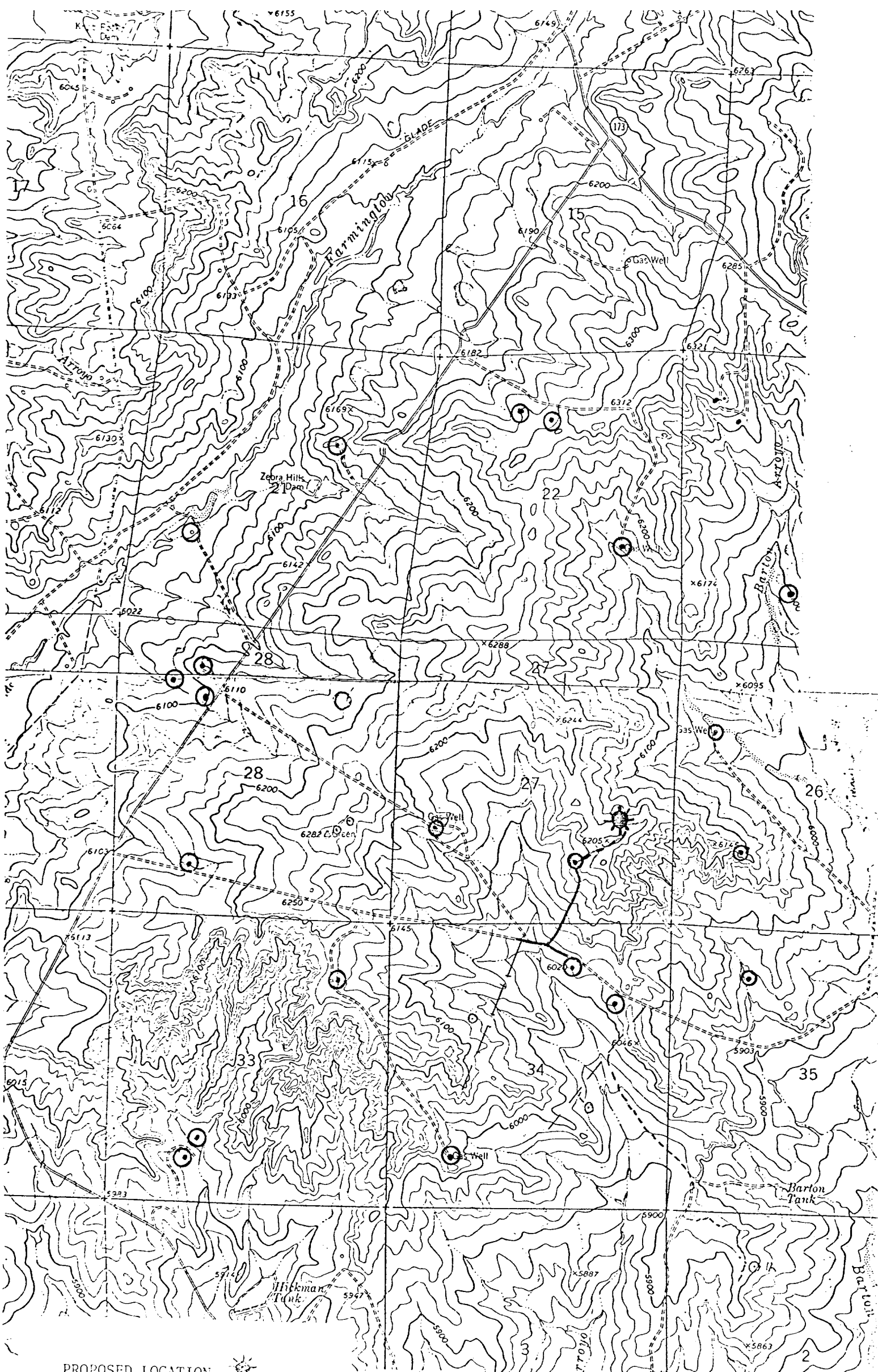
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KERR LAND SURVEYING
 Date: 11-8-78

F. K.



PROPOSED LOCATION 
EXISTING LOCATIONS 
PROPOSED ROAD 
EXISTING ROADS 

Vicinity Map for
SOUTHLAND ROYALTY CO. #4A THOMPSON
1680' E 1140' E L Sec 27-T31N-R12W
SAN JUAN COUNTY, NEW MEXICO