

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 960' FNL & 1070' FEL  
A 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) .

16. NO. OF ACRES IN LEASE

17. NO. OF ACRES ASSIGNED  
TO THIS WELL  
320.00

18. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH  
5253'

20. ROTARY OR CABLE TOOLS  
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
6171' GR

22. APPROX. DATE WORK WILL START\*  
1-15-79

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#	2803'	354 cu. ft.
6-1/4"	4-1/2"	10.5#	2653'-5253'	453 cu. ft.
	2-3/8"	4.7#	5200'	

Surface formation is Nacimiento.

Top of Ojo Alamo sand is at 1233'.

Top of Pictured Cliffs sand is at 2553'.

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 Gamm Ray Induction and a Gamma Ray Density log will be run at total depth.

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

It is expected that this well will be drilled before April 15, 1979. This 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 [Signature] District Production Manager December 5, 1978  
TITLE \_\_\_\_\_ DATE \_\_\_\_\_

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

ok Frank

\*See Instructions On Reverse Side

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.

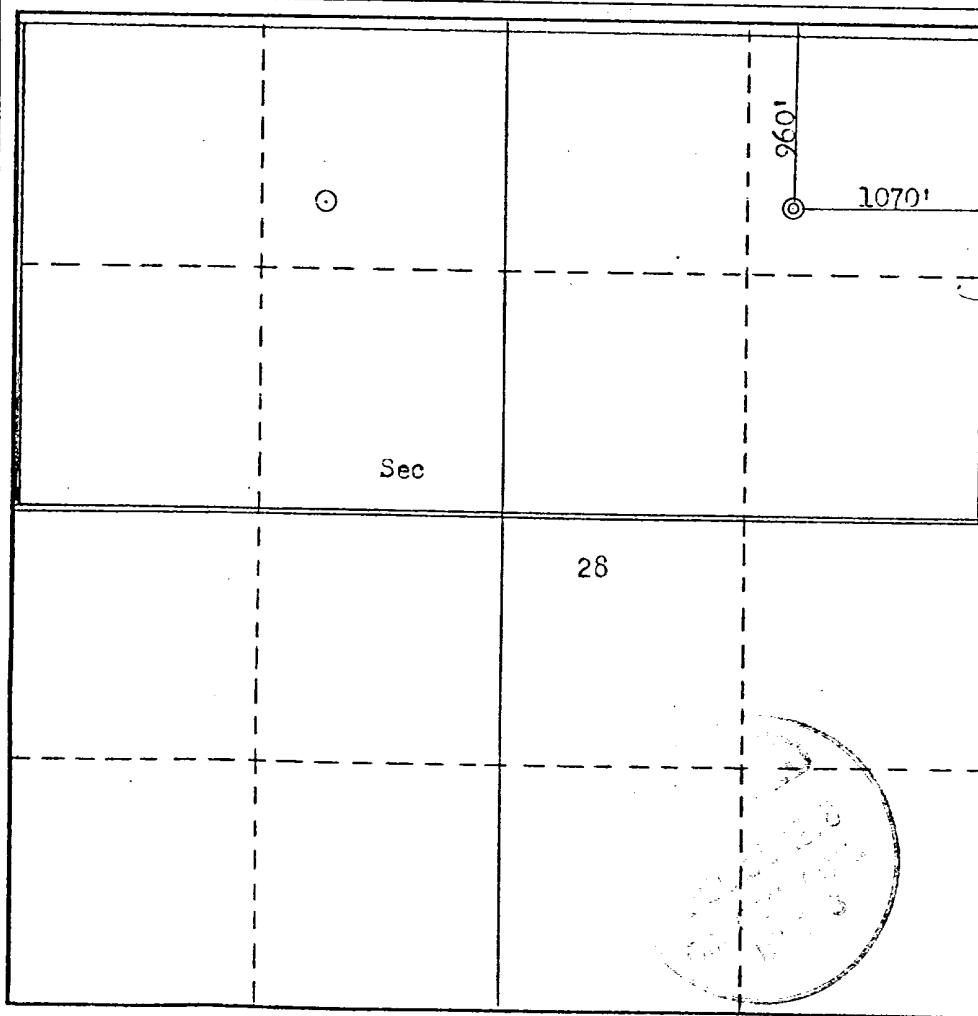
Operator <b>SOUTHLAND ROYALTY COMPANY</b>			Lease <b>THOMPSON</b>		Well No. <b>2A</b>
Unit Letter <b>A</b>	Section <b>28</b>	Township <b>31N</b>	Range <b>12W</b>	County <b>San Juan</b>	
Actual Footage Location of Well: <b>960</b> feet from the <b>North</b> line and <b>1070</b> feet from the <b>East</b> line					
Ground Level Elev. <b>6171</b>	Producing Formation <b>Mosa Verde</b>	Pool <b>Blanco</b>		Dedicated Acreage: <b>320.00</b> 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 *Van Gorp*  
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 9, 1978**  
Registered Professional Engineer  
and/or Land Surveyor  
*Fred R. Kerr Jr.*  
Certificate No. **3950**

DRILLING SCHEDULE - THOMPSON #2A

Location: 960' FNL & 1070' FEL, Section 28, T31N, R12W

Field: San Juan County, New Mexico  
Blanco Mesaverde

Elevation: 6171' GR

Geology:

Formation Tops:	Ojo Alamo	1233'	Cliff House	4153'	
	Fruitland	2163'	Point Lookout	4903'	
	Pictured Cliffs	2553'	Total depth	5253'*	(Add 50' if hole gets wet)
	Intermediate TD	2803'			

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"	2803'	7"	20# K-55
	6-1/4"	2653'-5253'	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 5% CaCl<sub>2</sub>. (100% excess)

7" intermediate casing: 354 cu. ft. (200 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% CaCl<sub>2</sub>. If lost circulation occurs, add 1/4# celloflake per sx. (50% excess to cover Ojo Alamo.)

4-1/2" liner: 453 cu. ft. Precede cement with 20 bbls gelled water. Cement with 305 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 (360 sxs))



**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: C. C. [Signature]

Title: District Engineer



**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 #2A 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**

December 5, 1978

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

Attention: Blowout Preventer Plan

Dear Sir:

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

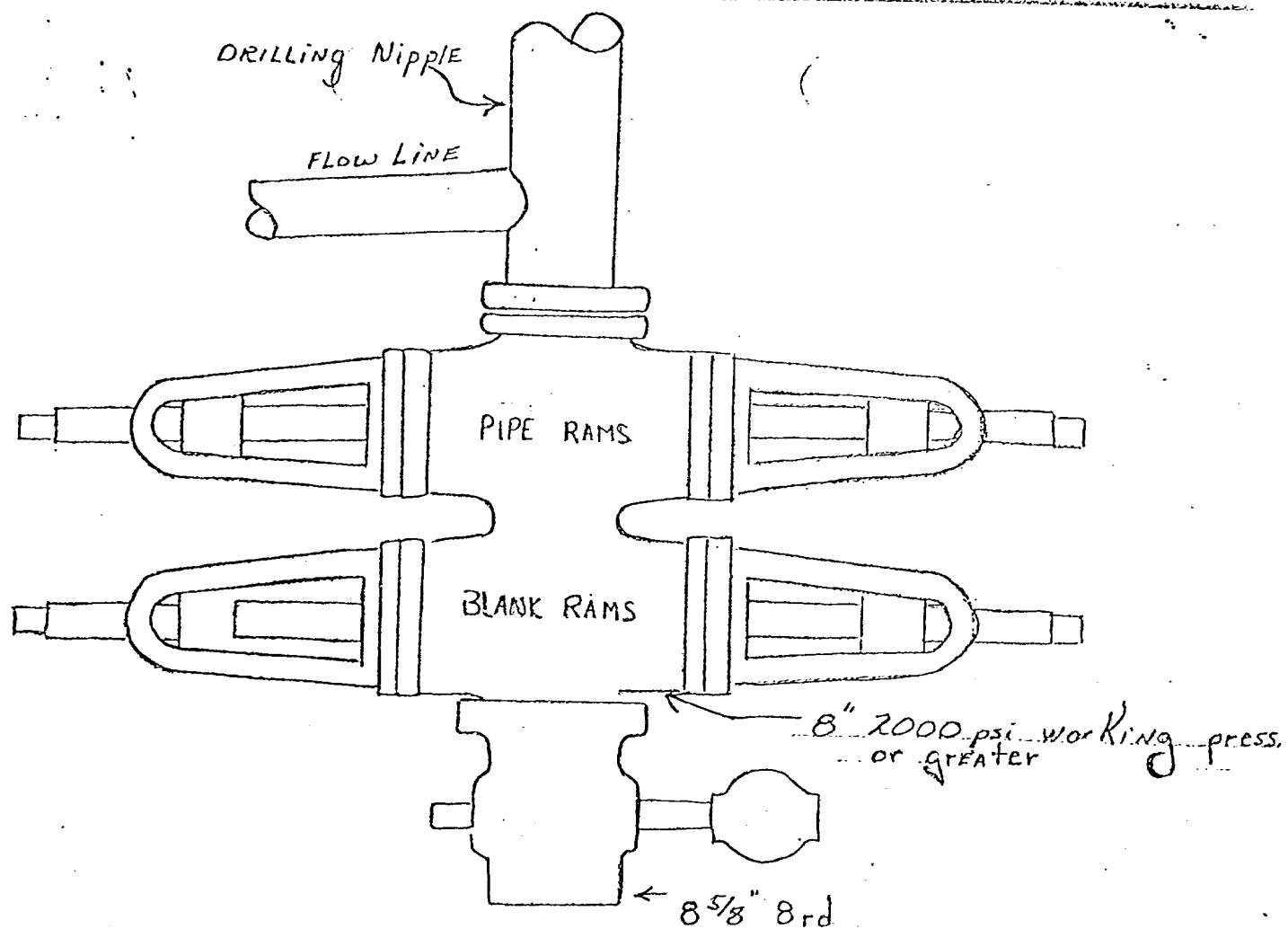
The preventer is 3000# working pressure and 6000# test.

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

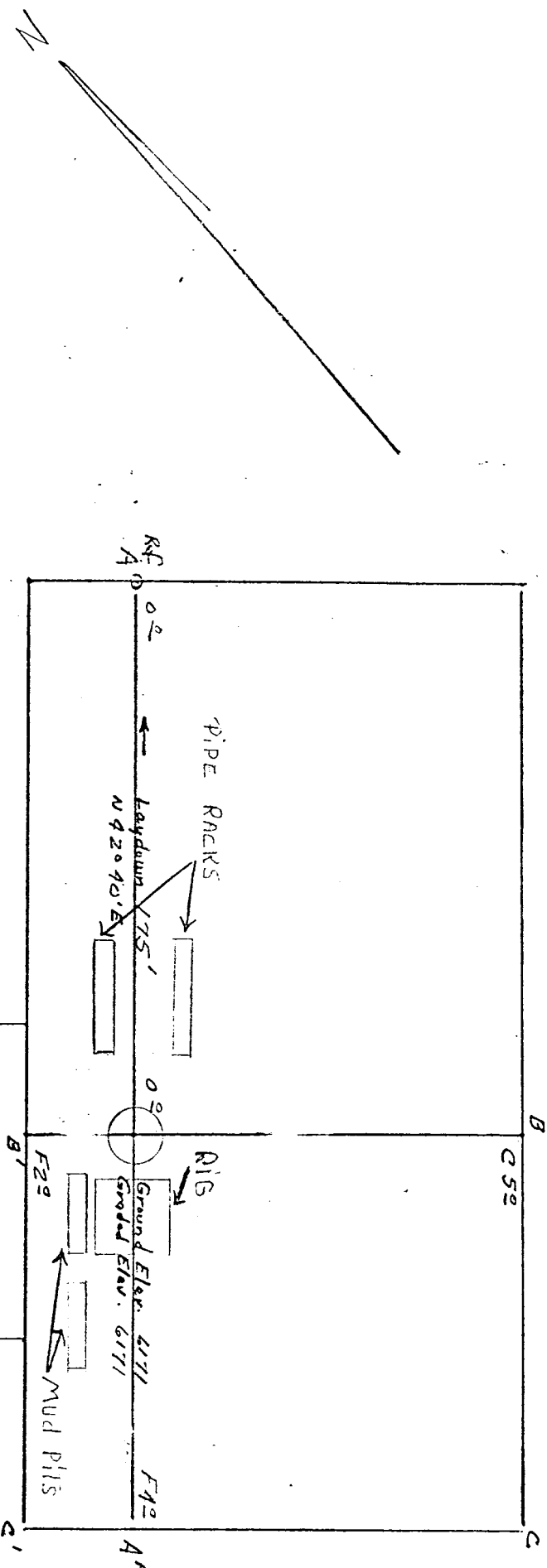
LOVR/dg



Preventers and spools are to have through bore of 8" - 2000# or larger.

Location Profile for  
SOUTHLAND ROYALTY CO. #2A THOMPSON  
960' FNL 1070' TEL Sec 28-T31N-R12W San Juan County, New Mexico

LA Thompson

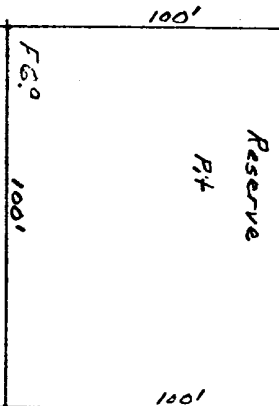


Vert. 1"=40'      A-A'      Horiz. 1"=100'

6180			
6170			
6160			

B-B'

6180			
6170			
6160			

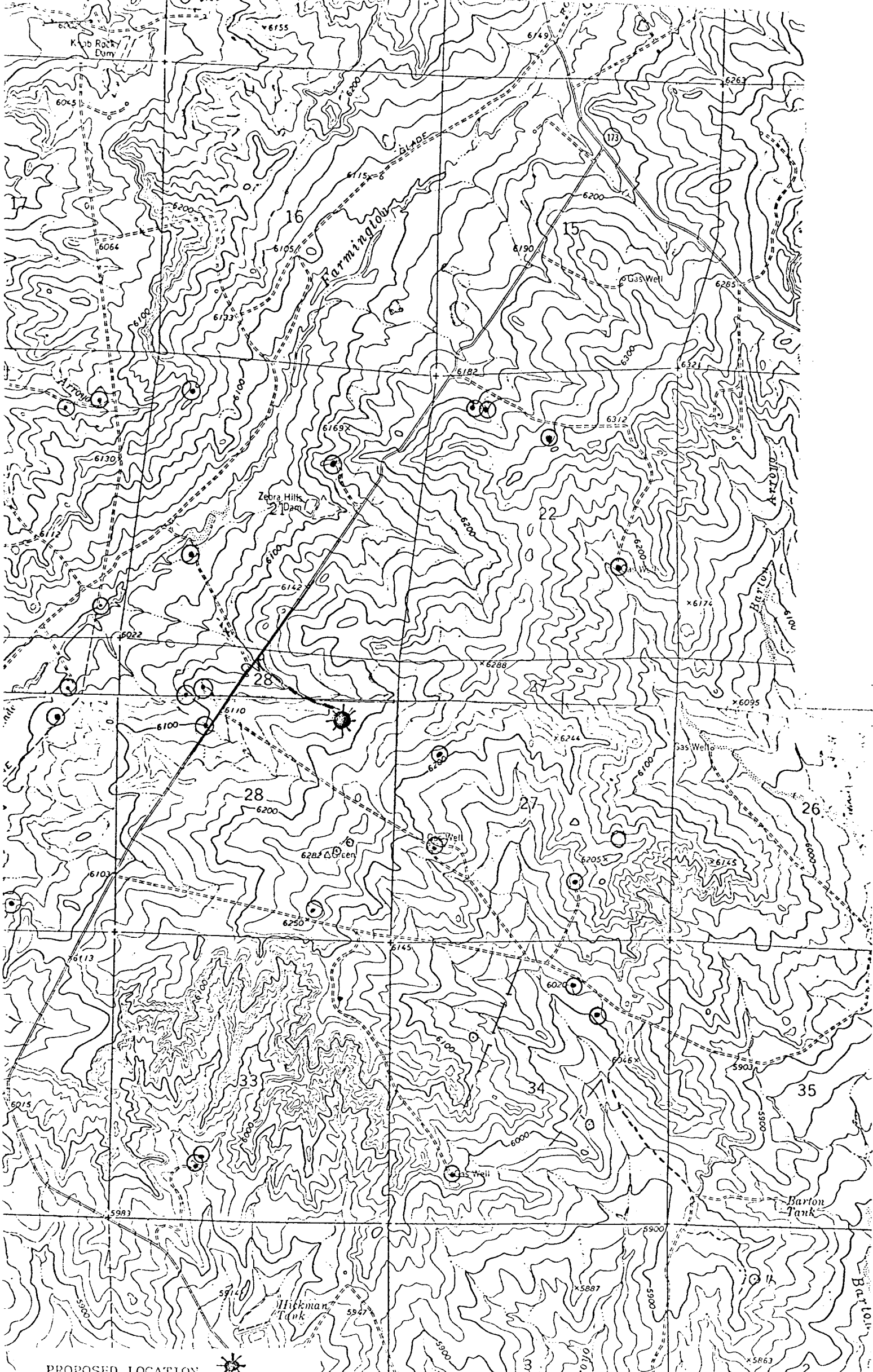


Vert. 1"=40'      C-C'      Horiz. 1"=100'


D-D'


KERR LAND SURVEYING  
Date: 11-9-78





PROPOSED LOCATION  
EXISTING LOCATIONS  
PROPOSED ROAD  
EXISTING ROADS

Vicinity Map for  
SOUTHLAND ROYALTY CO. #2A THOMPSON  
960' FNL 1070' FEL Sec 23-T31N-R12W  
SAN JUAN COUNTY NEW MEXICO