

NM OIL & GAS COMMISSION
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on
reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1A. TYPE OF WORK

DRILL ☒

DEEPEN ☒

B. TYPE OF WELL

OIL
WELL ☒

GAS
WELL ☐

OTHER ☐

SINGLE
ZONE ☐

MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Southwest Royalties, Inc.

3. ADDRESS AND TELEPHONE NO.

407 N. Big Spring
P.O. Box 11390 Midland, TX 79702 (915) 686-9927

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

At surface 660' FNL & 467' FEL Sec. 11 T26S R29E

At proposed prod. zone Same

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

12 miles S.E. of Malaga, New Mexico

16. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any) 467'

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT. 1310'

16. NO. OF ACRES IN LEASE

520

19. PROPOSED DEPTH

7200'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40

20. ROTARY OR CABLE TOOLS

Rotary

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

G.L. 3007.3 Confined Controlled Water Basin

22. APPROX. DATE WORK WILL START*

01/31/94

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	J-55 ST&C 13-3/8	54.5#	600'	750 sx circulate to surface
11"	J-55 ST&C 8-5/8	24# & 32#	3150'	1000 sx circulate to surface
7-7/8"	K-55 ST&C 5-1/2	15.5# & 17#	6000'	1st stage 300 sx
				2nd stage 450 sx
				DV 4500'

- Set 40' of 20" conductor and cement to surface.
- Drill 17-1/2" hole to 600', run used inspected 13-3/8" J-55 ST&C 54.5# casing. Cement with 750 sx cement + 2% CaCl + 1/4# flocele. Circulate cement to surface.
- Drill 11" hole to 3150', run used inspected 8-5/8" J-55 ST&C 24# and 32# casing. Cement with 1000 sx 65/35 Poz 1/4# flocele/sx, tailin with 200 sx Class "H" with 1/4# flocele/sx. Circulate cement to surface.
- Drill 7-7/8" hole to 6000', log open hole, run new 5-1/2" K-55 ST&C 15.5# and 17# casing. Place DV tool at 4500', cement 1st stage with 300 sx 50/50 Poz + 6# salt/sx. Cement 2nd stage with 450 sx 50/50 Poz + 6# salt/sx. Tie into intermediate at 2850'. Run Temp Survey to verify.
- 13-3/8" casing and 8-5/8" casing may be used (Drifted and tested per API specs).

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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.

SIGNED [Signature] TITLE AGENT DATE 12-1-93

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY: *USED CASING SHALL MEET OR EXCEED API STANDARDS FOR NEW CASING.

APPROVED BY [Signature] TITLE AREA MANAGER DATE MAR 1 1994

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT II

P.O. Drawer DD, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

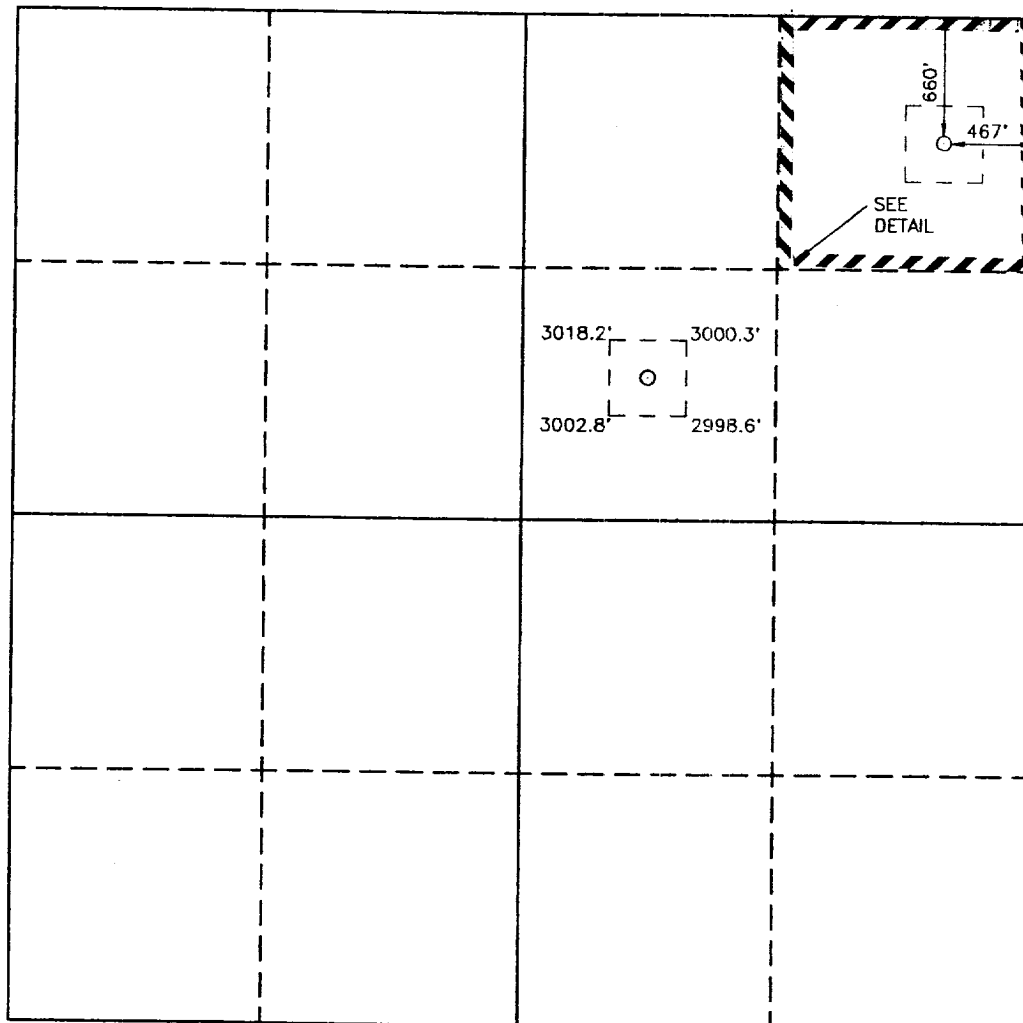
All Distances must be from the outer boundaries of the section

Operator SOUTHWEST ROYALTIES			Lease ALTHORN FEDERAL		Well No. 1
Unit Letter A	Section 11	Township 26 SOUTH	Range 29 EAST	NMPM	County EDDY
Actual Footage Location of Well: 660 feet from the NORTH line and 467 feet from the EAST line					
Ground Level Elev. 3007.3'	Producing Formation DELAWARE		Pool NORTH BRUSHY DRAW		Dedicated Acreage: 40 Acres

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interest 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 of owners and tract descriptions which have actually been consolidated. (Use reverse side of this form necessary.)

No allowable will be assigned to the well unit all interests have been consolidated (by communitization, unitization, forced-pooling, otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

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

Signature

Printed Name

JOE T. JANICA

Position

AGENT

Company

SOUTHWEST ROYALTIES INC.

Date

12/16/93

SURVEYOR CERTIFICATION

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

DECEMBER 6, 1993

Signature & Seal of Professional Surveyor



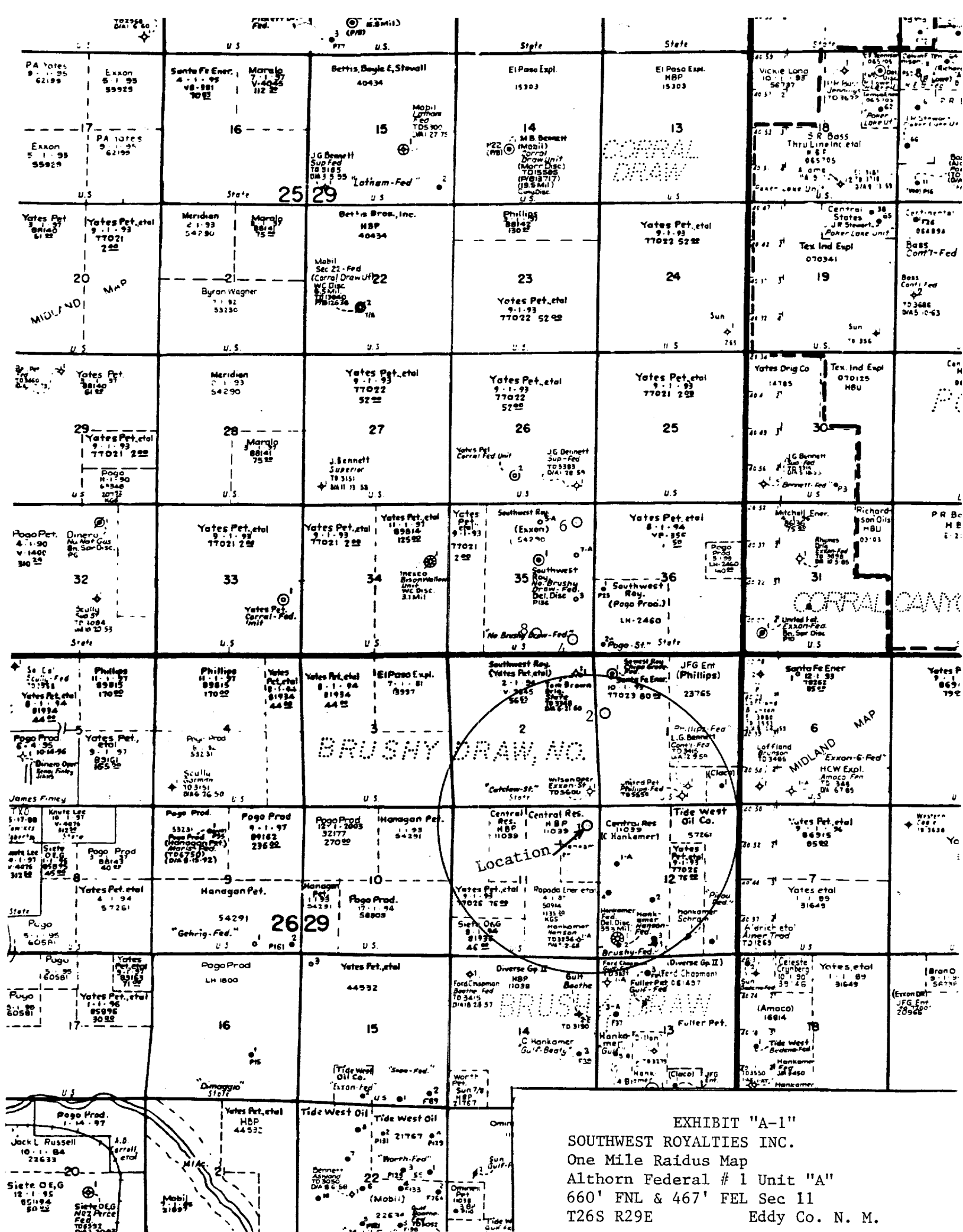
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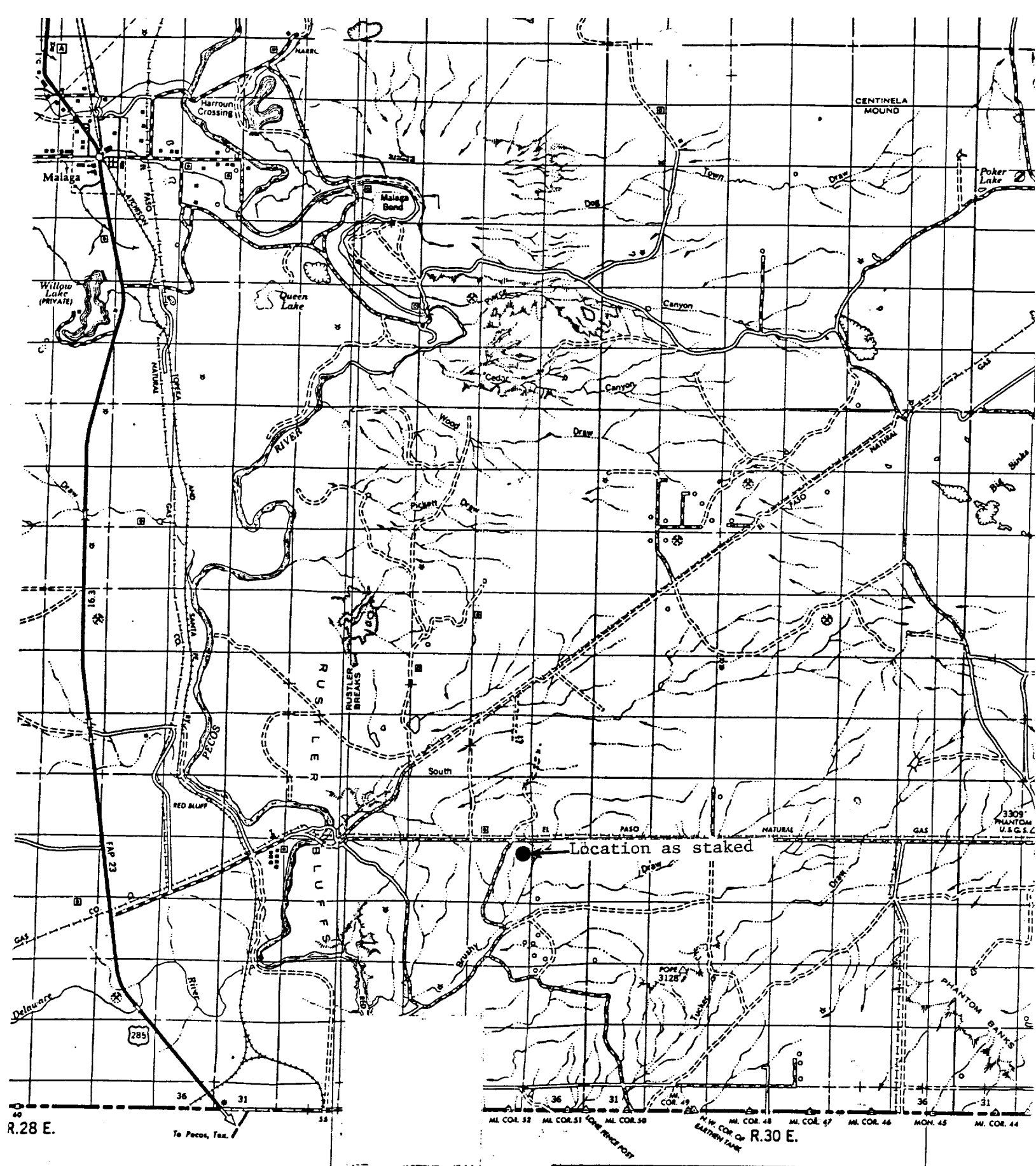
JOHN W. WEST 678

RONALD J. ELLISON 3239

GARY L. JONES 7977

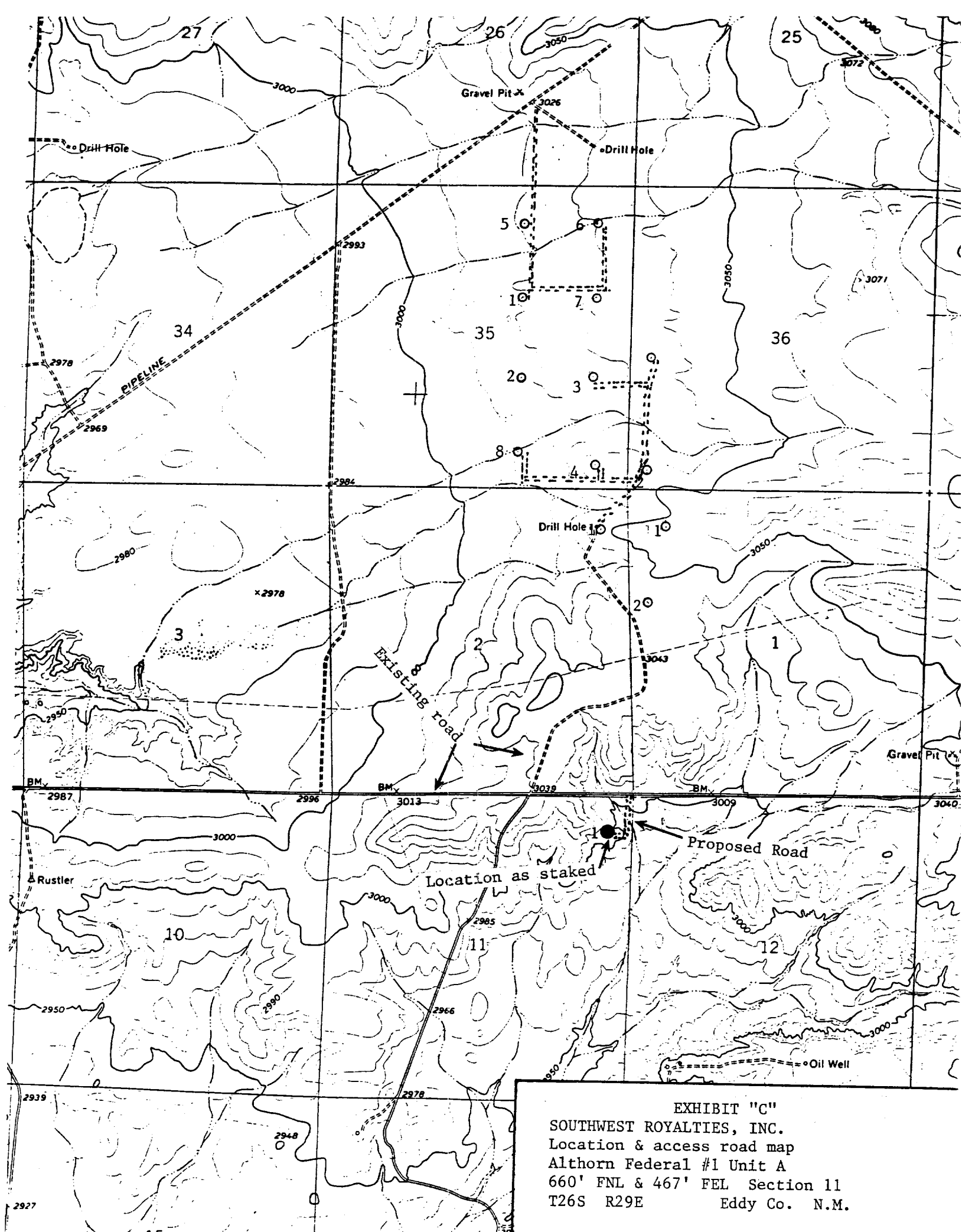
93-11-2461





REEVES CO.

EXHIBIT "B"
 SOUTHWEST ROYALTIES, INC.
 County Road Map showing direction
 Althorn Federal #1 Unit A
 660' FNL & 467' FEL Section 11
 T26S R29E Eddy Co. N.M.



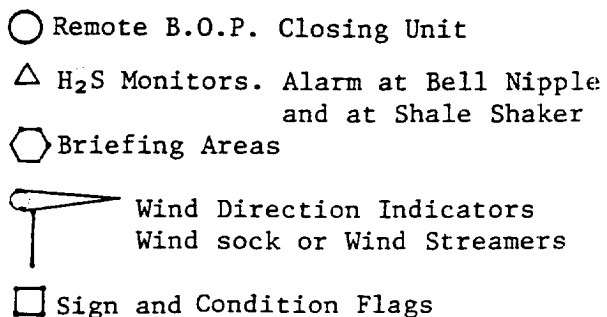
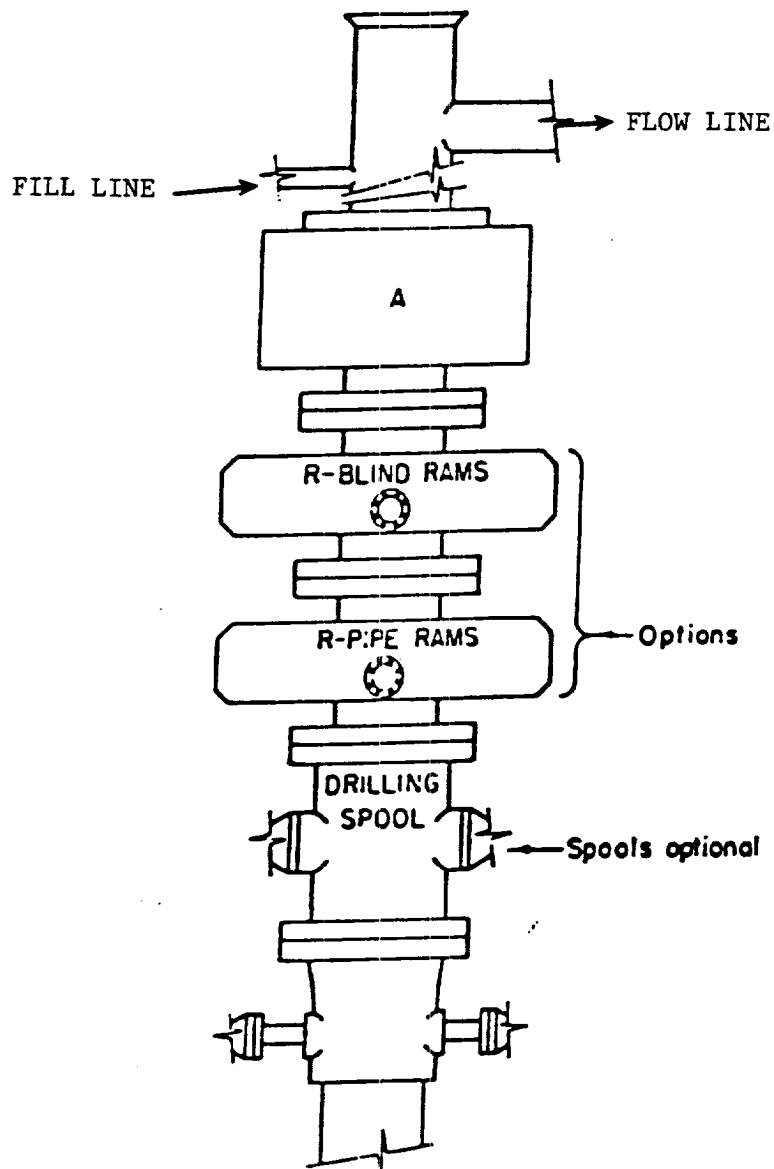


EXHIBIT "D"
SOUTHWEST ROYALTIES, INC.
Plat of Rig Layout
Althorn Federal #1 Unit A
660' FNL & 467' FEL Section 11
T26S R29E Eddy Co., N.M.



ARRANGEMENT SRRA

900 Series
3000 PSI WP

EXHIBIT "E"
SOUTHWEST ROYALTIES, INC.
BOP Sketch of typed to be used on
Althorn Federal #1 Unit A
660' FNL & 467' FEL Section 11
T26S R29E Eddy Co., NM

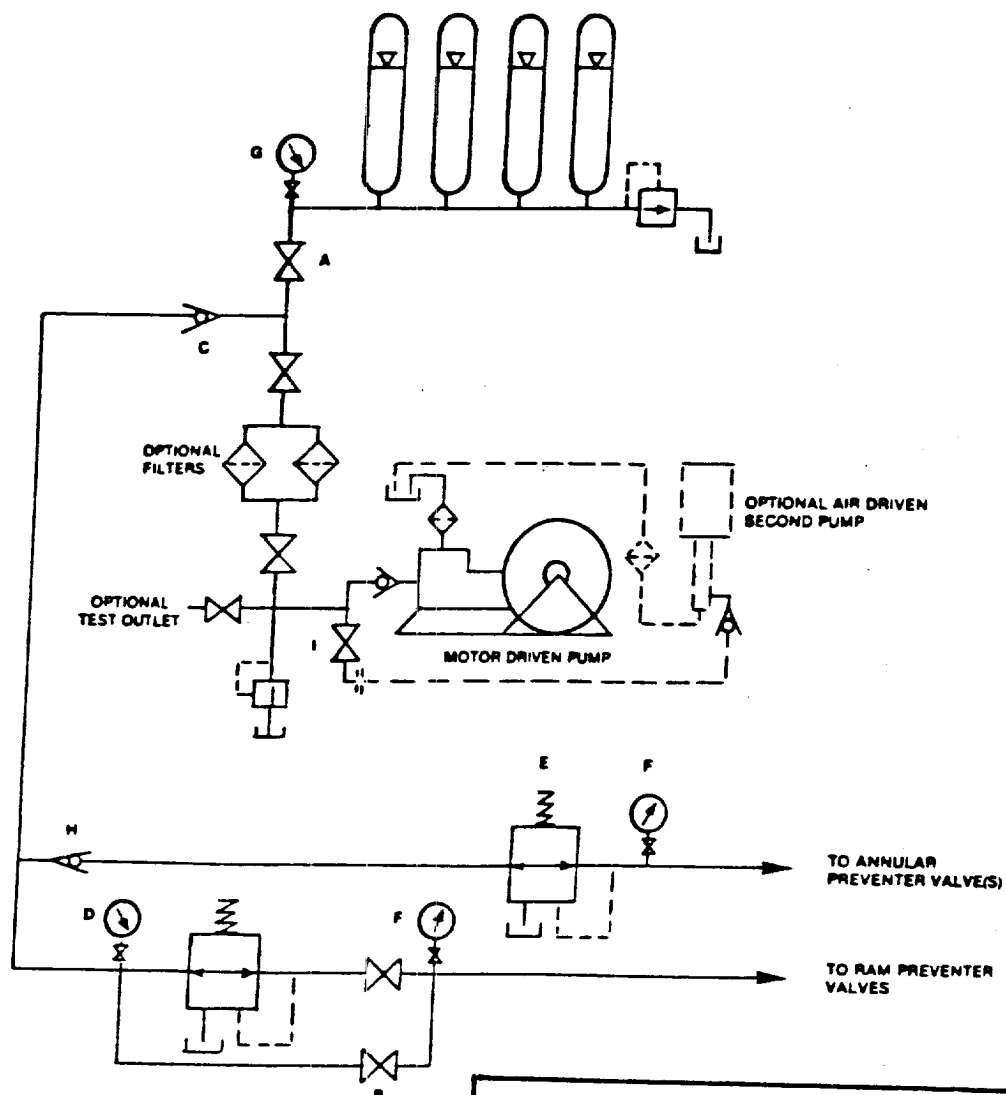
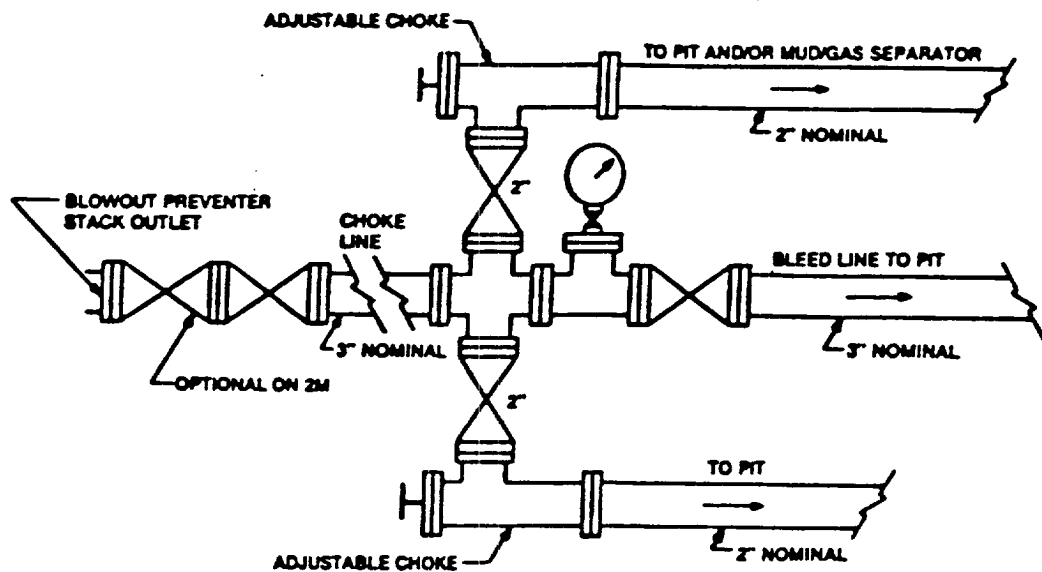


EXHIBIT "E-1"
 SOUTHWEST ROYALTIES, INC.
 Choke Manifold & Closing Unit
 Althorn Federal #1 Unit A
 660' FNL & 467' FEL Section 11
 T26S R29E Eddy Co., N.M.

APPLICATION TO DRILL

Southwest Royalties, Inc.
AllThorn
Section 11, Unit "A", T26S-R29E
Eddy County, New Mexico

In response to questions asked under Section II B of Bulletin NTL-6, the following information is provided for your consideration:

1. Location: 660' FNL, & 467' FEL Section 11, T26S-R29E, Eddy Co., New Mexico
2. Elevation Above Sea Level:
3. Geologic Name of Surface Formation: Quaternary Aeolian Deposits
4. Drilling Tools and Associated Equipment: Conventional rotary drilling rig using mud for the circulation medium.
5. Proposed Drilling Depth: 7200'
6. Estimated Geological Marker Tops:

Dewey Lake	300'	Delaware Sand	3210'
Rustler	600'	Cherry Canyon	4075'
Salado	1300'	Williamson Sand	5255'
Castille	1550'	Getty Sand	5350'
Base of Salt	2870'		
Delaware	3175'		
7. Possible Mineral Bearing Formation:

Delaware	3175-7000'	Oil
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8. Casing Program:

Hole Size	Interval	OD Csg	Weight Thread Grade Condition
25"	0- 40	20"	Conductor .30 Wall New
17 1/2"	0- 600	13 3/8"	54.5# 8R J-55 ST&C Used (tested and inspected)
11	0- 3000	8 5/8"	24# & 32# 8R J-55 ST&C Used (tested and inspected)
7 7/8"	0- 7200	5 1/2"	15.5# & 17# 8R J-55 ST&C New

Application to Drill
Southwest Royalties, Inc.
AllThorn

9. Cementing and Setting Depth:

20" Conductor

Set @ 40' cement with readymix to surface.

13 3/8" Surface Casing

Set @ 600' cement with 750 sx Class "C" cement w/2% CaCl circulate to surface.

8 5/8" Intermediate Casing

Set @ 3150' cement with 1000 sx Light 65/35 Poz cement tailin w/200 sx of class "H" 1/4# flocele/sx. Circulate to surface.

5 1/2" Production Casing

Set @ TD 7200' DV tool @ 4500' cement 1st stage w/300 sx 50/50 Poz + 6# salt /sx. Cement 2nd stage w/450 sx 50/50 Poz + 6# salt/sx. Tie back into 8 5/8 to 2850'.

10. Pressure Control Equipment: Exhibit "E". A Blow-out Preventer (no less than 900 series 3000 psi working pressure) consisting of double ram type preventer with bag type preventer. Units will be hydraulically operated. Exhibit "E-1" Choke Manifold and Closing Unit. Blind rams on top, pipe rams on bottom to correspond with size of drill pipe in use. BOP will be nipped up on 13 3/8" casing and remain on well until casing is run and cemented. BOP will be tested as well as choke manifold. BOP will be worked at least once each day while drilling and blind ram will be worked on trips when no drill pipe is in hole. Flow sensor PVT, full opening stabbing valve and upper kelley cock will be utilized. No pressures greater than 2000 psi anticipated.

11. Proposed Mud Circulating System:

Depth	Mud Wt.	Mud Visc.	Fluid Loss	Type Mud
0- 600	8.6 - 9.0	34-36	NC	Fresh Water
600-7200	10.0 - 10.1	28-29	NC	Brine water w/lime for pH control and paper for seepage

To log well and run casing viscosity may have to be raised and water loss may be required to be lowered to 8cc or less depending on hole conditions.

Application to Drill
Southwest Royalties, Inc.
AllThorn

12. Testing, Logging and Coring Programs:

- (A) Possible D.S.T. if shows dictate.
- (B) Open Hole Logs: DLLw/LDT-CNL from TD to 3000' with Gamma Ray to surface.
- (C) No coring planned.

13. Potential Hazards:

No abnormal pressures of temperature zones expected (nothing abnormal in offset wells or other wells in the area). Hydrogen sulfide gas is not anticipated however, precautions for detection will be observed. No major lost circulation is expected (none reported in this area). H2S contingency attached "13-A".

14. Anticipated Starting Date and Duration of Operation: Road and location construction will begin after BLM approval of APD. Anticipated spud date 01/20/94. Drilling expected to take 18 to 25 days. If production casing is run an additional 30 days to complete and construct surface facility and place well on production.

15. Other Facets of Operations: After running casing, cased hole gamma ray collar correlation logs will be run from total depth over possible pay intervals. The Delaware pay will be perforated and stimulated. The well will be swab tested and potentialied as an oil well.

CONTINGENCY PLAN SHOULD H₂S BE ENCOUNTERED WHILE DRILLING

1. All Company and Contract personnel admitted on location must be trained by a qualified H₂S safety instructor to the following:
 - A. Characteristics of H₂S
 - B. Physical effects and hazards
 - C. Proper use of safety equipment and life support systems.
 - D. Principle and operation of H₂S detectors, warning system and briefing areas.
 - E. Evacuation procedure, routes and first aid.
 - F. Proper use of 30 minute pressure demand air pack.
2. H₂S Detection and Alarm Systems
 - A. H₂S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.
3. Windsack and/or wind streamers
 - A. Windsack at mudpit area should be high enough to be visible.
 - B. Windsack at briefing area should be high enough to be visible.
 - C. There should be a windsack at entrance to location.
4. Condition Flags and Signs
 - A. Warning sign on access road to location.
 - B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H₂S present in dangerous concentration. Only emergency personnel admitted to location.
5. Well control equipment
 - A. See exhibit "E"
6. Communication
 - A. While working under masks chalkboards will be used for communication.
 - B. Hand signals will be used where chalk board is inappropriate.
 - C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephoned will be available at most drilling foreman's trailer or living quarters.
7. Drillstem Testing
 - A. All testing will be done in daylight hours.
 - B. Exhausts will be watered
 - C. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
 - D. If location is near any dwelling a closed D.S.T. will be performed.

CONTINGENCY PLAN SHOULD H₂S BE ENCOUNTERED WHILE DRILLING

8. Drilling contractor supervisor will be required to be familiar with the effects H₂S has on tubular goods and other mechanical equipment.
9. If H₂S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H₂S scavengers if necessary.

SURFACE USE PLAN

Southwest Royalties, Inc.
AllThorn
Section 11, Unit "A", T26S-R29E
Eddy County, New Mexico

1. EXISTING ROADS - Area map, Exhibit "B", is a reproduction of the New Mexico General Hi-way Map. Existing and proposed roads are shown on the exhibit. All roads shall be maintained in a condition equal to or better than existed prior to the start of construction.
 - A. Exhibit "A" shows the proposed development well site as staked.
 - B. From Malaga, New Mexico Post Office take US 285, go 12 miles south, turn east on El Paso Pipeline road, go 4 miles to low water crossing, continue 3 miles east, turn north on lease road approximately 1.5 miles to location.
2. PLANNED ACCESS ROADS - Approximately 700' of new access road will be constructed.
 - A. the access road will be crowned and ditched to a 12'00" wide travel surface with a 40' right-of-way.
 - B. Gradient on all roads will be less than 5.00%.
 - C. Turnouts will be constructed as necessary.
 - D. If needed, road will be surfaced with a minimum of 4" of caliche. This material will be obtained from a local source.
 - E. Centerline for the new access road has been flagged. Earthwork will be as required by field conditions.
 - F. Culverts in the access road will not be used. The road will be constructed to utilize low water crossings for drainage as required by the Topography.
3. LOCATION OF EXISTING WELLS IN A ONE-MILE RADIUS - Exhibit "A-1"
 - (A) Water wells -None known
 - (B) Disposal wells -None known
 - (C) Drilling wells -None known
 - (D) Producing wells-See Exhibit "A"-1
 - (E) Abandoned wells-See Exhibit "A"-1
 - (F) Staked Location-See Exhibit "A"-1

SURFACE USE PLAN
Southwest Royalties, Inc.
AllThorn

4. If, upon completion, the well is a producer, Southwest Royalties, Inc. will furnish maps or plats showing On Well Pad facilities and Off Well Pad facilities (if needed) on a Sundry Notice before construction of these facilities starts.

5. LOCATION AND TYPE OF WATER SUPPLY

Water will be purchased locally from a commercial source and trucked over the access roads or piped in flexible lines laid on top of the ground.

6. SOURCE OF CONSTRUCTION MATERIALS

If needed, construction materials will be obtained from the drill site's excavations or from a local source. These materials will be transported over the access route as shown on Exhibit "C".

7. METHODS FOR HANDLING WASTE DISPOSAL

- A.
 1. Drill cuttings will be disposed of in the reserve pit.
 2. All trash, junk and other waste material will be contained in trash cages or bins to prevent scattering. When the job is completed all contents will be removed and deposited in an approved sanitary landfill.
 3. Salts remaining after completion of the well will be picked up by the supplier, including broken sacks.
 4. Sewage from trailer houses will drain into holes with minimum depth of 10'00". These holes will be covered during drilling and backfilled upon completion. A "porta John" will be provided for the rig crews. This will be properly maintained during the drilling operations and removed upon completion of the well.
- B. Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for backfilling. In the event drilling fluids will not evaporate in a reasonable period of time they will be transported by tank truck to a state approved disposal site. Pits will then be broken out to speed drying.

Water produced during testing of the well will be disposed of in the reserve pit. Oil produced during testing of the well will be stored in test tanks until sold and hauled from the site.

8. ANCILLARY FACILITIES

No camps or airstrips will be constructed.

9. WELL SITE LAYOUT

- A. Exhibit "D" shows the proposed well site layout.
- B. This exhibit indicated proposed location of reserve and sump pits and living facilities.
- C. Mud pits in the active circulating system will be steel pits and the reserve pit is proposed to be unlined, unless subsurface condition encountered during pit construction indicate that lining is needed for lateral containment of fluids.
- D. If needed, the reserve pit is to be lined with polyethylene. The pit liner will be 6 mils thick. Pit liner will extend a minimum 2'00" over the reserve pits dikes where the liner will be anchored down.
- E. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

10. PLANS FOR RESTORATION OF SURFACE

Rehabilitation of the location and reserve pit will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

However, in either event, the reserve pit will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be contoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

Should the well be a producer, the previously noted procedures will apply to those areas which are not required for production facilities.

SURFACE USE PLAN
Southwest Royalties, Inc.
AllThorn

11. OTHER INFORMATION

- A. The topography consists of isolated hills with a dip to the west toward the Pecos River valley (approximately 50' per mile.) Sandy soil Pleistocene age aeolian deposits, native grass with mesquite and catclaw.
- B. The surface is used to mainly access producing wells in the area and minimal grazing for livestock. It is administered by the BLM and is being leased to Brian W. Paschal, Box 1847, Pecos, TX 79772.
- C. An archaeologist study will be conducted for the location and new access road. The report will be submitted separately when completed.
- D. There is a ranch house approximately 1 mile southwest of location.

12. OPERATOR'S REPRESENTATIVE - field representative for contact regarding compliance with the Surface Use Plan is:

Before and during construction:

Natural Resources Engineering, Inc.
P O Box 2188
Hobbs NM 88241
Office Phone (505)392-2112
Joe T. Janica

After construction:

Southwest Royalties, Inc.
P O Box 11390
Midland TX 79702
Office Phone (915)686-9927
Doug Keathley

13. CERTIFICATION - I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently 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 Southwest Royalties Inc., its contractors/ subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of 18 U.S.C. 1001 for the filing of a false statement.

NAME : Joe T. Janica
DATE : 12/36/95
TITLE : agent