Form 3160-3
(December 1990)

NM Oil Cons. Commission
Drawer DD
Artesia, NM 88210

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

30-005-62933

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: ~~NM70215~~ NM 6765

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ]

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER — SINGLE ZONE [X] MULTIPLE ZONE [ ]

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O. C. D.
ARTESIA, OFFICE

7. UNIT AGREEMENT NAME: South Lone Wolf

8. FARM OR LEASE NAME, WELL NO.: South Lone Wolf Unit #2

9. API WELL NO.:

2. NAME OF OPERATOR: Rachael Exploration Corporation

3. ADDRESS AND TELEPHONE NO.: (616)941-7919
1503 N. Garfield Road, Traverse City MI 49686

10. FIELD AND POOL, OR WILDCAT: south lone wolf devonian

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 660 FSL 1980 FWL, Sec. 29, T13S, R29E, NMPM
At proposed prod. zone: same

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: S29, T13S,R29E, NMPM

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 16 Mi. ENE from Hagerman, NM

12. COUNTY OR PARISH: Chaves — 13. STATE: NM

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
660	800	40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
2310'	12,000	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3698 Gl

22. APPROX. DATE WORK WILL START*: immediately

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17½	13-3/8 H-40	48.00 used	300	Circ. to surface
12¼	9-5/8 L-80	53.50 used	3000	Circ. to surface
8¼	7 L-80	29.00 used	12,000	500 sx min.

Part ID-1
12-4-92
New Loc + API

Attachments:

1. Survey Plat -- NMOCD Form C-102
2. Drilling Plan
   - Exhibit "A" -- BOP Program
   - Exhibit "B" -- Drilling Prognosis Narrative
   - Exhibit "C" -- Drilling Fluid Program
3. Surface Use Plan
   - Exhibit "D" -- Highway Quad
   - Exhibit "E" -- Topo Quad
   - Exhibit "F" -- Lease Map
   - Exhibit "G" -- Wellpad diagrams

APPROVAL OF THIS APPLICATION 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.

PLEASE BE ADVISED THAT THERE WILL BE NO EXCAVATION OF FEDERALLY OWNED MINERAL MATERIAL FOR CONSTRUCTION OF THE ACCESS ROAD OR PAD WITHOUT PAYMENT IN ADVANCE.

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.

24.

SIGNED R R Fallon TITLE agent DATE 10/20/92

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

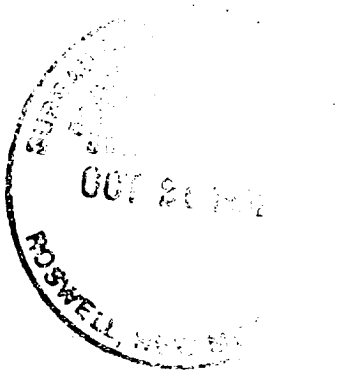
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY Homer L Bruce TITLE For Area Manager DATE 11-19-92

*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.


ROSWELL, NEW MEXICO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Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
ergy, Minerals and Natural Resources Departr

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator	Lease	Well No.
Rachael Exploration Corporation	South Lone Wolf Unit	2

Unit Letter	Section	Township	Range	County
N	29	13 South	29 East NMPM	Chaves

Actual Footage Location of Well:
660 feet from the South line and 1980 feet from the West line

Ground level Elev.	Producing Formation	Pool	Dedicated Acreage:
3698	Devonian	Lone Wolf South	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

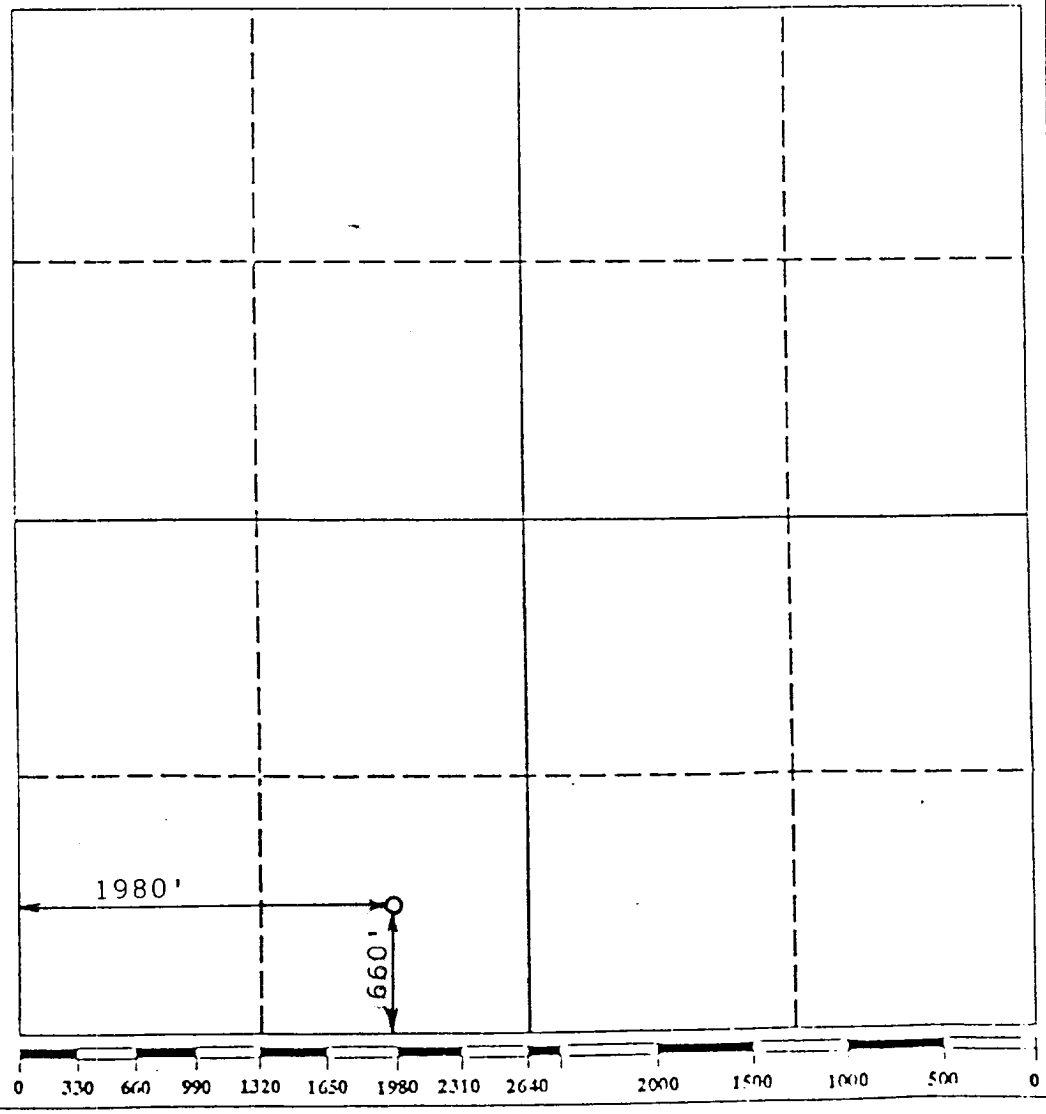
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the 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 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 interest, has been approved by the Division.



OPERATOR CERTIFICATION

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

Signature

Printed Name
P.R. Patton

Position
Agent for

Company
Rachael Exploration Corp.

Date
October 16, 1992

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 supervison, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed
October 15, 1992

Signature & Seal of Professional Surveyor
P.R. Patton, 8112

NEW MEXICO
REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate No.
8112


BUREAU OF LAND MANAGEMENT
OCT 26 1992
ROSWELL, NEW MEXICO

DRILLING PLAN
To Accompany
APPLICATION FOR PERMIT TO DRILL

RACHAEL EXPLORATION CORPORATION
SOUTH LONE WOLF UNIT WELL No. 2
660 FSL, 1980 FWL, SEC.29, T13S, R29E NMPM
Chaves County, NM

In conjunction with Form 3160-3, Application for Permit to Drill, Rachael Exploration Corporation submits the following items of pertinent information in accordance with Onshore Oil & Gas Order Nos. 1 & 2, and with all other applicable federal and state regulations.

1. Estimated Tops of Geologic Markers

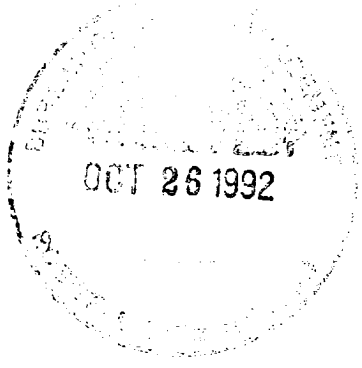
The surface geologic formation is Quaternary Alluvium and Bolson deposits, overlying undifferentiated sandstones, siltstones, and shales of Triassic age; the estimated tops of geologic markers are as follows:

FORMATION	DEPTH	SUBSEA
Yates	760	2950
Queen	1510	2200
San Andres	2060	1640
Glorietta	3470	230
Tubb	4900	-1200
Abo	5585	-1985
Wolfcamp	6870	-3170
Cisco	7790	-4090
Strawn	8000	-4300
Atoka	8585	-4885
Morrow	8770	-5070
Miss Lime	8860	-5160
WoodFord SH	9510	-5810
Devonian	9570	-5870
Fusselman	9970	-6270
Montoya	10210	-6510
Ellenberger	10260	-6560
Granite Wash	10590	-6890
TD	12000	-8300

2. The estimated depths at which water, oil, or gas formations are expected to be encountered:

A. Fresh Water

May be found at the base of the Quaternary Alluvium, at a depth of about 150 feet; it will be protected with 13-3/8" casing set at 300 feet and cemented to surface, as per NMOCC regulations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B. Oil or Gas:

Formation Name	Depth of Formation Top
San Andres	2060
Abo	5685
Wolfcamp	6870
Miss Lime	8860
Devonian	9570
Fusselman	9970
Ellenberger	10260
Granite Wash	10590

Potentially productive horizons to be protected by 7" production casing with cement across zones of interest as logging data would suggest.

3. Pressure Control Equipment 10000 Psi W.P. used on 5M system.

See Exhibit "A" for Description and Exhibit "B" for testing schedule.

4. Proposed Casing Program:

See Form 3160-3 and Exhibit "B".

5. Mud Program:

See Exhibit "C".

6. Testing, Logging, and Coring Programs:

DSTs:
Possible on all of secondary target formations, plus target formations.

Mud Logging
From San Andres Formation to TD

Electric Logging
From Surface to TD; Projected to run CNL/LDT/GR and Possibly DLL/MLL.

Coring:
No Coring is planned at this time. However, rotary sidewall cores may be taken before production casing would be run.

7. Abnormal Pressures, Temperatures, or other Hazards:

Lost Circulation Zones:

Records on nearby wells do Not mention any lost circulation zones. However, appropriate


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measures will be taken if such zones are encountered.

High Pressure Zones:

Records available on nearby wells do Not mention any zones of high pressure. However, due to the anticipated TD of 12,000', a 10,000 psi blowout preventer will be tested and used in the drilling process (see Exhibit "A").

8. Anticipated Starting Date:

As soon as possible.

WELLHEAD BLOWOUT CONTROL SYSTEM

COMPANY: RACHAEL EXPLORATION CORP.

WELL NAME AND NUMBER: South Lone Wolf Unit No.2

LOCATION: Section 29 T13S-R29E Chaves County New Mexico

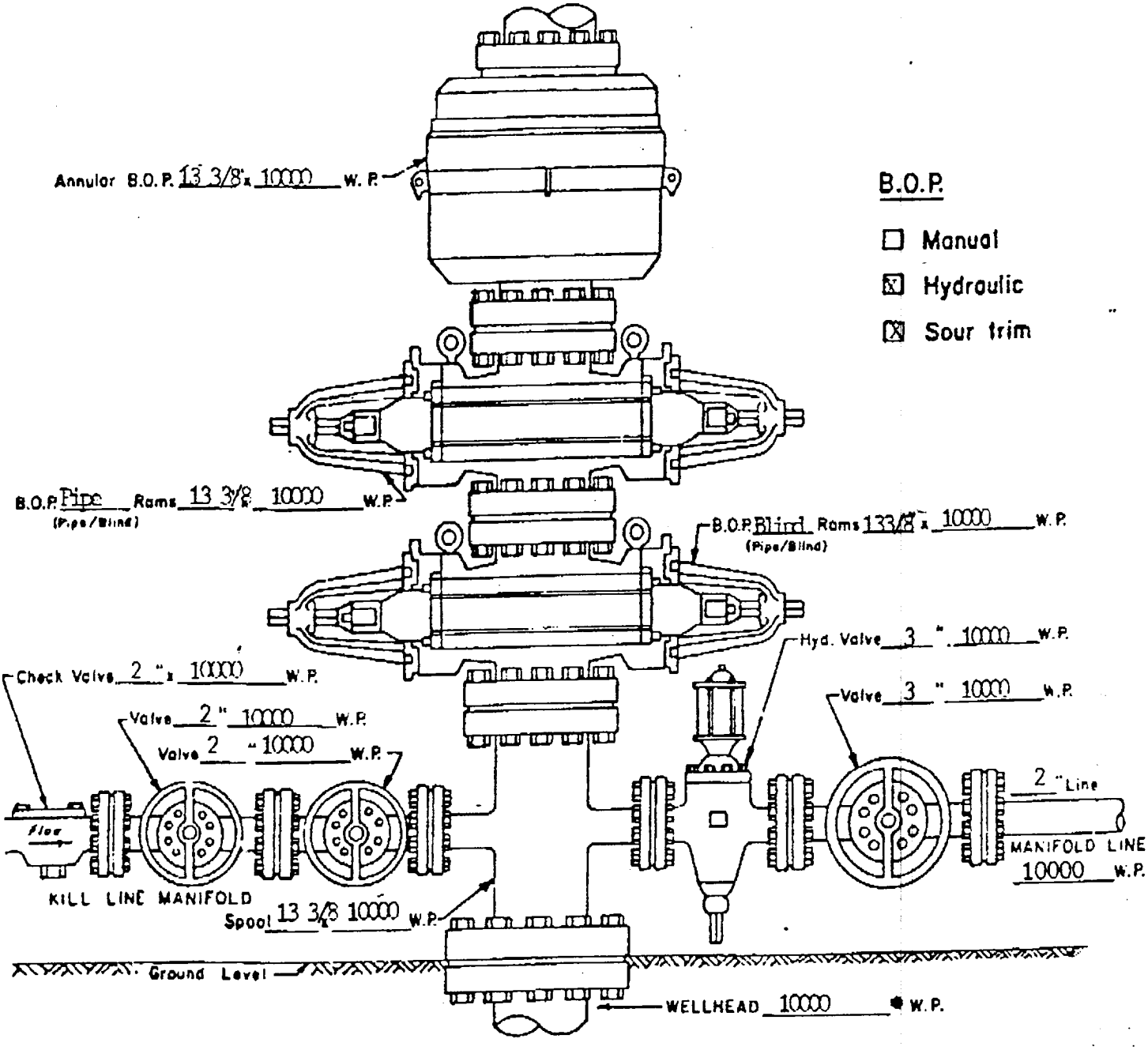

EXHIBIT "A"
Rachael Exploration Corporation
South Lone Wolf Unit Well No. 2
660 FSL & 1980 FWL, Section 29
T13S, R29E, NMPM, Chaves Co. NM

RACHAEL EXPLORATION
South Lone Wolf Unit No.2
DRILLING PROCEDURE

1. Drill 17 1/2" hole to 300'

2. Cement 13 3/8" 48# used H-40 casing with 315 sx Premium Plus w/2% Calcium Chloride. Run Texas Pattern Guide Shoe with an insert float valve in top of shoe joint. Weld first few joints of casing. Use wooden or rubber plug to displace cement.

3. Nipple up and install BOPS. Test casing to 600 psi after 18 hrs and drill out cement.

4. Drill 12 1/4" hole to 2095'± in the San Andres formation.

5. Cement 9 5/8" L-80 53# used 8 1/2" drift casing with 510 sx Halliburton Light w/12% salt + 1/4# Flocele. Tail w/200 sx of Premium Plus w/2% CaCl2. Run guide shoe and insert float on bottom joint and 3-6 centralizers. Weld first few joints of casing. Use one wooden or rubber plug to displace cement.

6. Nipple up and install BOPS. Test casing to 1500 psi for 30 minutes after WOC 18 hrs and drill out cement.

7. Drill 8 1/2" hole to TD @ 12000±. A fresh water mud system will be used to 5450' (or 150' to 200' above the top of the Abo). At 5450' (or 150' to 200' above the top of Abo) mud up w/salt gel and oil type drilling fluid. At 7500' or prior to top of Cisco, add My-Lo-Jel to the drilling fluid. At 8200', or prior to the top of the Atoko (Morro), have water loss below 10 cc @ 8300'. This type of drilling fluid should be sufficient to drill to 12000' with the exception of weight and viscosity which will have to be altered to suit hole conditions. DST flow periods and shut-in time will be determined on location. A mud logging unit will be on location at Devonian to assist in evaluating samples and shows for exact drill stem intervals. Run Formation Density-Compensated Neutron-Gamma Ray Log, Dual Induction-Laterolog and Microlaterolog.

8. Run 7" 29# L-80 used casing and cement. Use guide shoe and set float collar 1 jt up. Run 10-15 centralizers where necessary. Use top and bottom rubber plugs. Displace cement with clean, fresh water treated w/2% KCl and non-emulsifying agent (2 gals NE per 1000 gals water).

Set DV tool @ 9000'. 1st stage - cmt w/480 sx Premium w/5# KCl, 5/10% Halad-22A + 3/10% CFR-3. 2nd stage - cmt w/565 sx Premium w/5# KCl, 5/10% Halad-22A + 3/10% CFR-3. Precede each stage w/1000 gal of Superflush 102. Circulate 4-6 hours between stages.

9. Perforations, acidizing and additional stimulation to be determined after completion.

EXHIBIT "B"
Rachael Exploration Corporation
South Lone Wolf Unit Well No. 2
660 FSL & 1980 FWL, Section 29
T13S, R29E, NMPM, Chaves Co. NM


OCT 8 0 1952

M-I Drilling Fluids Co.
Magcobar/IMCO A Dresser/Halliburton Company

February 25, 1992

Mr. Jeff Critchfield
Rachael Exploration
1503 North Garfield
Traverse City, Michigan 49684

Dear Mr. Critchfield:

Thank you for giving M-I Drilling Fluids this opportunity to be of service to you and to Rachael Exploration.

The following is our suggested drilling fluid program with casing and estimated mud cost for your Rachael Federal #2 to be drilled in Section 29, T-13S, R-29E, Chaves County, New Mexico.

SURFACE: 300' of 13 3/8"

We suggest spudding and drilling surface with a M-I Gel and Lime type drilling fluid.

We recommend adding a few sacks of drilling paper to the drilling fluid system to prevent seepage expected while drilling surface.

NOTE: Some operators and contractors prefer to spud with water and convert to a "native mud" for drilling surface.

COMMENTS:

1. There is a possibility you will encounter a seepage to medium loss while drilling the Gravel Beds. Normally, a few sacks of loss circulation material added to the drilling fluid system is sufficient to control or prevent seepage and loss.

2. For corrosion control: see CORROSION SECTION.

INTERMEDIATE: 2,300' of 9 5/8"

We suggest drilling out under surface with fresh water, converting to a native Brine, having the viscosity in the 26 to 28 sec/qt. range.

If no hole problems are encountered, intermediate can be drilled with native Brine and casing set.

EXHIBIT "C"
Rachael Exploration Corporation
South Lone Wolf Unit Well No. 2
660 FSL & 1980 FWL, Section 29
T13S, R29E, NMPM, Chaves Co. NM


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For any unanticipated hole troubles, coring, testing, or logging, we suggest mudding up with a Salt Gel and My-Lo-Jel type drilling fluid having the following characteristics:

Weight	9.0 to 10.0 lbs/gal.
Viscosity	34 to 38 sec/qt.
Water Loss	20 cc or less

COMMENTS:

1. We suggest circulating a portion of the reserve pit and adding all water at the flow line.

2. There is a good possibility you will encounter a seepage in the Water Sands. Normally, a few sacks of drilling paper added to the drilling fluid system is sufficient to control seepage.

3. For corrosion control: see CORROSION SECTION.

PRODUCTION: 12,000' of 7"

We suggest drilling out from under intermediate using the same drilling fluid or fresh water with Lime for pH control, 9.5 to 10 pH. This type drilling fluid can be used from bottom of 9 5/8" intermediate to 5,450' (or 150' to 200' above top of the Abo).

At 5,450', (or 150' to 200' above the top of Abo), we suggest mudding up with a Salt Gel and Oil type drilling fluid having the following characteristics:

Weight	9.1 to 9.4 lbs/gal.
Viscosity	33 to 36 sec/qt.
Plastic Viscosity	4 to 8 CPS
Yield Point	4 to 8 lbs/100 ft^2
Initial Gel	1 to 5
10 Minute Gel	5 to 10
Water Loss	No Control
Oil Content	3 to 4 %

This type drilling fluid should be sufficient to drill to 7,500' or prior to the top of the Cisco.

At 7,500' or prior to the top of the Cisco, we suggest adding My-Lo-Jel to the drilling fluid in order to have the following characteristics:

Weight	9.1 to 9.5 lbs/gal.
Viscosity	34 to 38 sec/qt.
Plastic Viscosity	5 to 10 CPS
Yield Point	8 to 12 lbs/100 ft^2
Initial Gel	3 to 5

EXHIBIT "C-2"
Rachael Exploration Corporation
South Lone Wolf Unit Well No. 2
660 FSL & 1980 FWL, Section 29
T13S, R29E, NMPM, Chaves Co. NM

10 Minute Gel	5 to 10
Water Loss	30.0 cc or less
pH	9.0 to 9.5 (Soda Ash - Bi Carb)
Oil Content	3 to 4%

This type drilling fluid should be sufficient to drill to 8,200', with the exception of weight and viscosity which will have to be altered to suit hole conditions.

At 8,200', or prior to the top of the Atoka (Morrow), we suggest conditioning the drilling fluid to have a water loss below 10cc at 8,300'. We suggest the following characteristics:

Weight	9.1 to 9.5 lbs/gal.
Viscosity	36 to 40 sec/qt.
Plastic Viscosity	7 to 12 CPS
Yield Point	10 to 15 lbs/100 ft^2
Initial Gel	3 to 5
10 Minute Gel	5 to 10
Water Loss	10 cc or less
pH	9.0 to 9.5
Oil Content	3 to 4%

This type drilling fluid should be sufficient to drill to 12,000', with the exception of weight and viscosity which will have to be altered to suit hole conditions.

NOTE: Viscosities in the 40 to 45 sec/qt. range may be needed to insure a clean hole while drilling.

COMMENTS:

1. We suggest circulating a portion of the reserve pit, returning to the steel pits at mud up depth.

2. There is a possibility you may encounter seepage. Normally, a few sacks of paper added to the drilling fluid system is sufficient to control seepage.

3. For corrosion control: see CORROSION SECTION.

EXHIBIT "C-3"
Rachael Exploration Corporation
South Lone Wolf Unit Well No. 2
660 FSL & 1980 FWL, Section 29
T13S, R29E, NMPM, Chaves Co. NM

M-I Drilling Fluids Co.
Magcobar/MGCO A Dresser/Halliburton Company

P.O. BOX 60130 MIDLAND, TEXAS 79711-0130 915-683-4987 FAX: 915-683-5014

RACHAEL EXPLORATION
RACHAEL FEDERAL #1

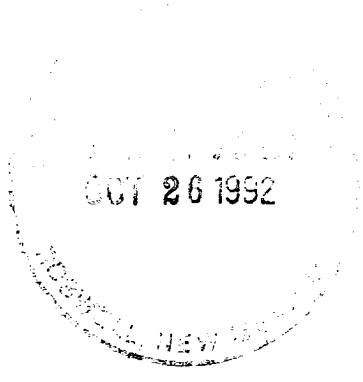
SECTION 29, T-13S, R-29E
CHAVES COUNTY, NEW MEXICO

CASING

SURFACE: 300' of 13 3/8"
INTERMEDIATE: 2,300' of 9 5/8"
PRODUCTION: 12,000' of 7"

DEPTH	MUD WEIGHT	VISCOSITY	WATER LOSS	SOLIDS	COMMENTS
0 to 300'	8.7 to 9.0	32 to 35	No Control	<4	Spud Mud
300 to 2,300'	8.4 to 9.8	26 to 28	No Control	<3	Fresh or Brine Water
2,300 to 5,450'	8.4 to(9.4)	26 to 28	No Control	<1	Fresh Water (Salt Stringers)
5,450 to 7,500'	9.1 to 9.4	33 to 36	No Control	<4	Salt Gel & Oil
7,500 to 8,200'	9.3 to 9.5	34 to 38	30cc or less	<6	Lower Water Loss with My-Lo-Jel
8,200 to 12,000'	9.3 to 9.5	36 to 42	10cc or less	<6	
		(40 to 45			Logs, DST's, etc.)

EXHIBIT "C-4"
Rachael Exploration Corporation
South Lone Wolf Unit Well No. 2
660 FSL & 1980 FWL, Section 29
T13S, R29E, NMPM, Chaves Co. NM


OCT 26 1992

SURFACE USE PLAN
To Accompany
APPLICATION FOR PERMIT TO DRILL

RACHAEL EXPLORATION CORPORATION
SOUTH LONE WOLF UNIT WELL No. 2
660 FSL & 1980 FWL, SEC.29, T13S, R29E, NMPM
CHAVES COUNTY, NEW MEXICO

1. EXISTING ROADS

A. REGIONAL MAP

Exhibit "D" is a portion of the New Mexico State Highway Department Quadrangle No. 94, "Hagerman Quadrangle", showing the regional road network and access from the nearest town.

B. NARRATIVE ACCESS DIRECTIONS

From Hagerman, New Mexico, travel east on NM 31 to milemarker 20.6; Turn north on Chaves County Road "Jemina" which meanders north and then west a distance of 2.1 mi.; Turn North on Chaves County Road "Teresa" a distance of 6.3 mi to a dry hole and an unnamed oilfield road leading west. Turn west and travel 1.6 Mi. to a dry hole and large water tank; Turn south and travel 1.6 miles to the wellsite.

C. SITE MAP

Exhibit "E" is a reproduction of a portion of the U.S.G.S. 7.5' Topographic Quardrangle "Connor Well", edition of 1952, showing the wellsite and access roads as staked.

D. ROAD MAINTENANCE

All roads shall be maintained in a condition equal to or better than that which existed prior to the start of construction.

2. PLANNED ACCESS ROADS

Approximately 2300 feet of new access road will be constructed on the same alignment as an extant seismic line. Required off-lease rights of way are already held by the applicant.

A. The access road will be crowned and ditched to a 14'-0" wide travel surface with a 30' right-of-way.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B. Gradient on all roads will be less than 5.00%.

C. Turnouts will be constructed at intervals not exceeding 1000 feet; the exact location of which will be as dictated by topography to provide optimal sight distance.

D. Road will be surfaced with a minimum of 4" of caliche, obtained as described in Article 6.

E. Centerline for the new access road has been flagged; earthwork will be as required by field conditions.

F. No culverts will be required, as the road alignment does not cross any defined drainageways.

3. LOCATION OF EXISTING WELLS WITHIN AREA OF CONCERN

A.	Water Wells:	As shown on Exhibit "E"
B.	Disposal Wells:	In approval process; McClellan Federal No.3, Unit I, 28-13-29
C.	Drilling Wells:	Proposed; none known
D.	Producing Wells:	McClellan Federal No 1 Unit H, 28-13-29; Rachael Exploration South Lone Wolf Unit No. 1, Unit F, 29-13-29
E.	Abandoned Wells:	Numerous, as shown on Exhibit "F"

4. LOCATION OF PRODUCTION FACILITIES

Upon completion of a producing well the Operator will furnish maps and diagrams showing ON WELL PAD facilities and OFF WELL PAD facilities as proposed along with a SUNDRY NOTICE prior construction of these facilities.

5. LOCATION AND TYPE OF WATER SUPPLY

Water will be purchased locally from a private source and trucked over the designated access route.

6. SOURCE OF CONSTRUCTION MATERIALS

Caliche will be obtained from the reserve pit to the extent available. Additional caliche will be obtained from a Federal Pit, NM 84383, located in the SW¼ of Section 22, T13S, R29E, NMPM. This pit has been

recently used in conjunction with the McClellan Federal wells in Section 28, T13S, R29E, and has been investigated for Cultural Resources under report ACA-F86-116.

7. METHOD OF WASTE DISPOSAL

A. Solid Waste:

1. Drill cuttings will be disposed of in the reserve pit.

2. Trash, waste paper, and garbage will be disposed of in a dumpster located on the wellpad and serviced by a commercial disposal company.

3. Salt, starch, bentonite gel, and other related chemicals will be stored in the manufacturer's containers until used; unused and/or damaged containers will be removed from the wellsite.

B. Liquid Waste:

1. Human waste will be trucked from the site by the contractor providing the rented portable Chemical Toilet maintained onsite for the rig crews. Trailers onsite with bathrooms will either utilise holding tanks which will be serviced by the above firm, or will drain to covered leach holes having a minimum depth of 10 feet. These leach holes wil be backfilled with earth upon removal of the trailer.

2. Drilling Fluid will be allowed to evaporate in the reserve pit until the pit is dry enough to backfill.

3. Water produced during testing of the well will be disposed of in the reserve pit, where it will evaporate.

4. 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. WELLSITE LAYOUT

A. Exhibit "G" shows the proposed wellsite layout.

B. Reserve pits and trailer locations are as indicated

C. Steel pits will be utilised for the active mud circulation system, the reserve pit used for final separation of suspended drill cuttings.

D. The reserve pit is to be lined with a plastic liner which will extend beyond the crest a minimum of 2 ft. and will be anchored with earth in the standard industry practice.

E. The reserve pit will be fenced on three sides with a four strand barbwire fence during drilling and completion; after drilling operations cease the remaining side will be fenced. The fence will be removed when the reserve pit is backfilled.

F. A birdproof netting will be maintained over the reserve pit immediately following the cessation of drilling operations and remaining until the pit is backfilled.

10. SURFACE RESTORATION

A Rehabilitation and restoration of the location and reserve pit will start in a timely manner upon the cessation of drilling operations.

B. The reserve pit shall be allowed to dry, and then backfilled. The area will be leveled and reshaped to eliminate erosion while maintaining the general topography of the preconstruction landform. Revegetation will be in accordance with BLM recommendations.

C. Wellpad and access road will be recontoured and revegetated according to BLM recommendations in effect at the time of plugging the well.

11. OTHER INFORMATION

A. Cultural Resources

Subsequent to performing a Class I Cultural Resource Investigation, a Class III Cultural Resource Investigation has been conducted by Archaeological Survey Consultants on the wellsite and new access road. The report of that

investigation will be submitted under separate cover.

B. Development

Land surface affected by this application is Public Domain under the surface management auspices of the Bureau of Land Management. There are no buildings or other improvements save for fences and stock waterings for a minimum of a 4 mile radius from this site.

C. Site Development

An existing barbed-wire fence bisects the wellpad site; it is proposed to reroute the existing fence to jog around the wellpad. Approximately 800 feet of new fence will be constructed as 400± feet of extant east west fence is relocated 200± feet south. About 2 acres of land previously south of this fence will be north of the fence after construction, of which about 3/4 acre will be caliche wellpad.

D. Existing Land Use

The only evident land use at this time is for Livestock Grazing. The mineral lease which is the subject of this application is in BLM Allotment Number 5074. The Permittee under that allotment is:

Madeline Barbe
2550 Bent Tree Road
Roswell NM 88201

E. Landform and Vegetation

Soiltype as identified by the Soil Conservation service and published in "Soil Survey of Chaves County, New Mexico, Southern Part" (April 1980) is of the Roswell-Jalmar Complex, a deep, excessively drained soil of aeolian sediment, formed in a upland environment. Vegetation is mainly sand dropseed, little bluestem, sand bluestem, threeawn, sandbur, shinnery oak, sand sagebrush, and yucca. A more intensive, site-specific, discussion of the vegetation and landform of this site will be found in the cultural resource investigation report.


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12. OPERATOR'S REPRESENTATIVE

Project Coordinator

Mr. Stephen J. Savoie (616) 941-7919
Rachael Exploration Corporation
1503 N. Garfield Road
Traverse City, MI 49684

Drilling Operations

Mr. Jeff Critchfield (616) 929-7171
Phoenix Operating Co.
% Rachael Exploration Corporation
1503 N. Garfield Road
Traverse City, MI 49684

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 the applicant and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of §18 U.S.C. 1001 for for the filing of a false statement.

P.R. Patton, Agent for applicant Date 10/20/92


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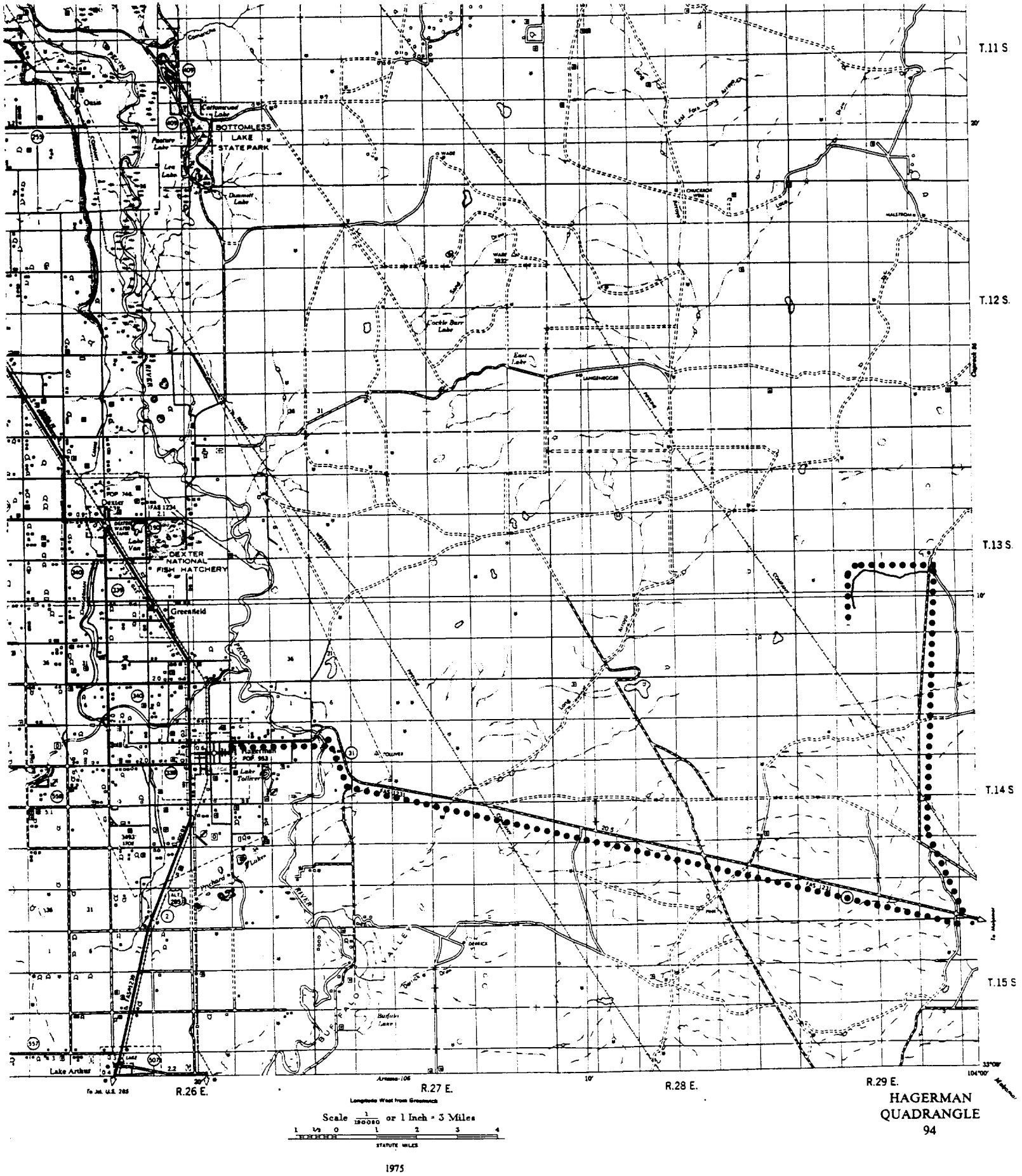

EXHIBIT "D"
Rachael Exploration Corporation
South Lone Wolf Unit Well No. 2
660 FSL & 1980 FWL, Section 29
T13S, R29E, NMPM, Chaves Co. NM

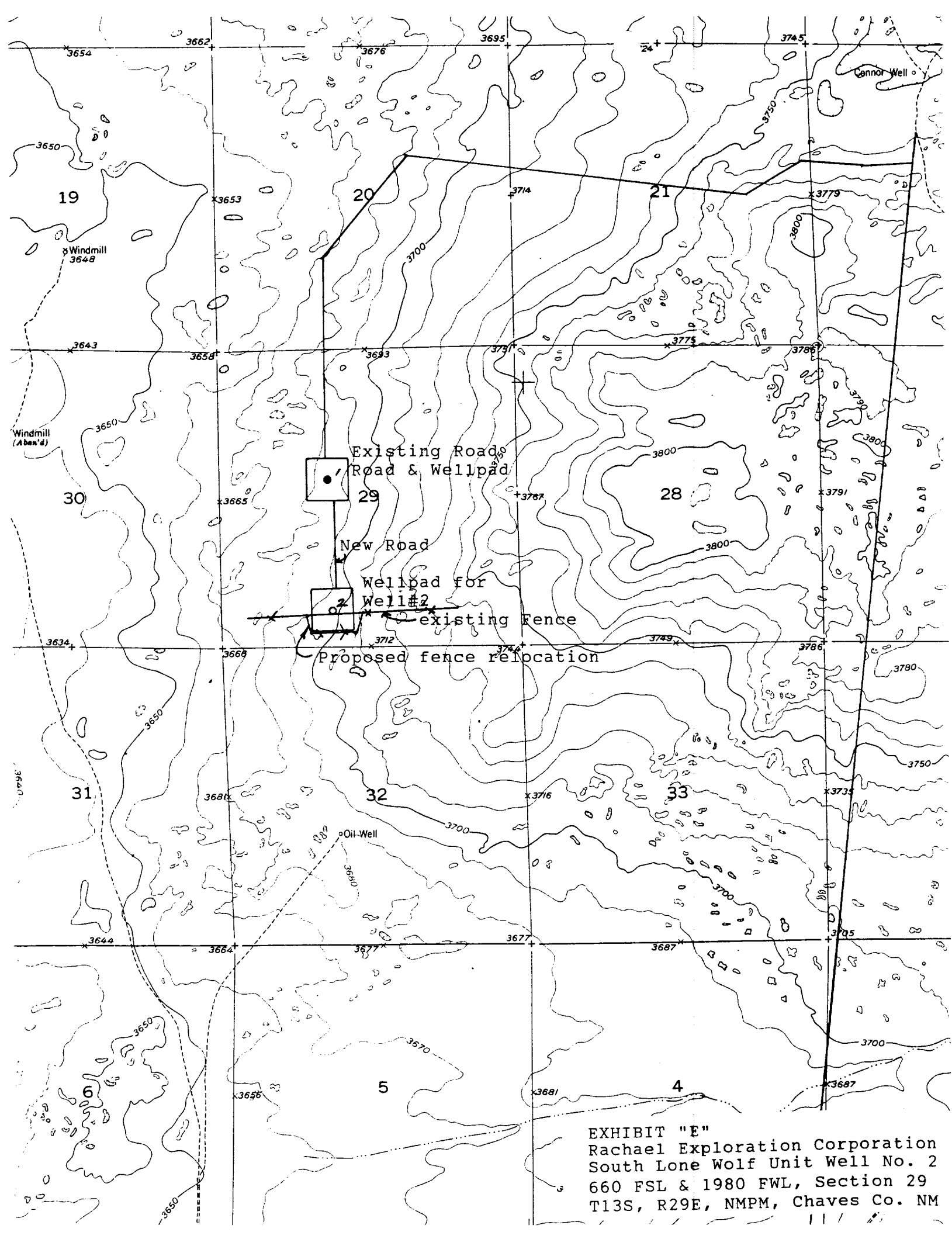

EXHIBIT "E"
Rachael Exploration Corporation
South Lone Wolf Unit Well No. 2
660 FSL & 1980 FWL, Section 29
T13S, R29E, NMPM, Chaves Co. NM

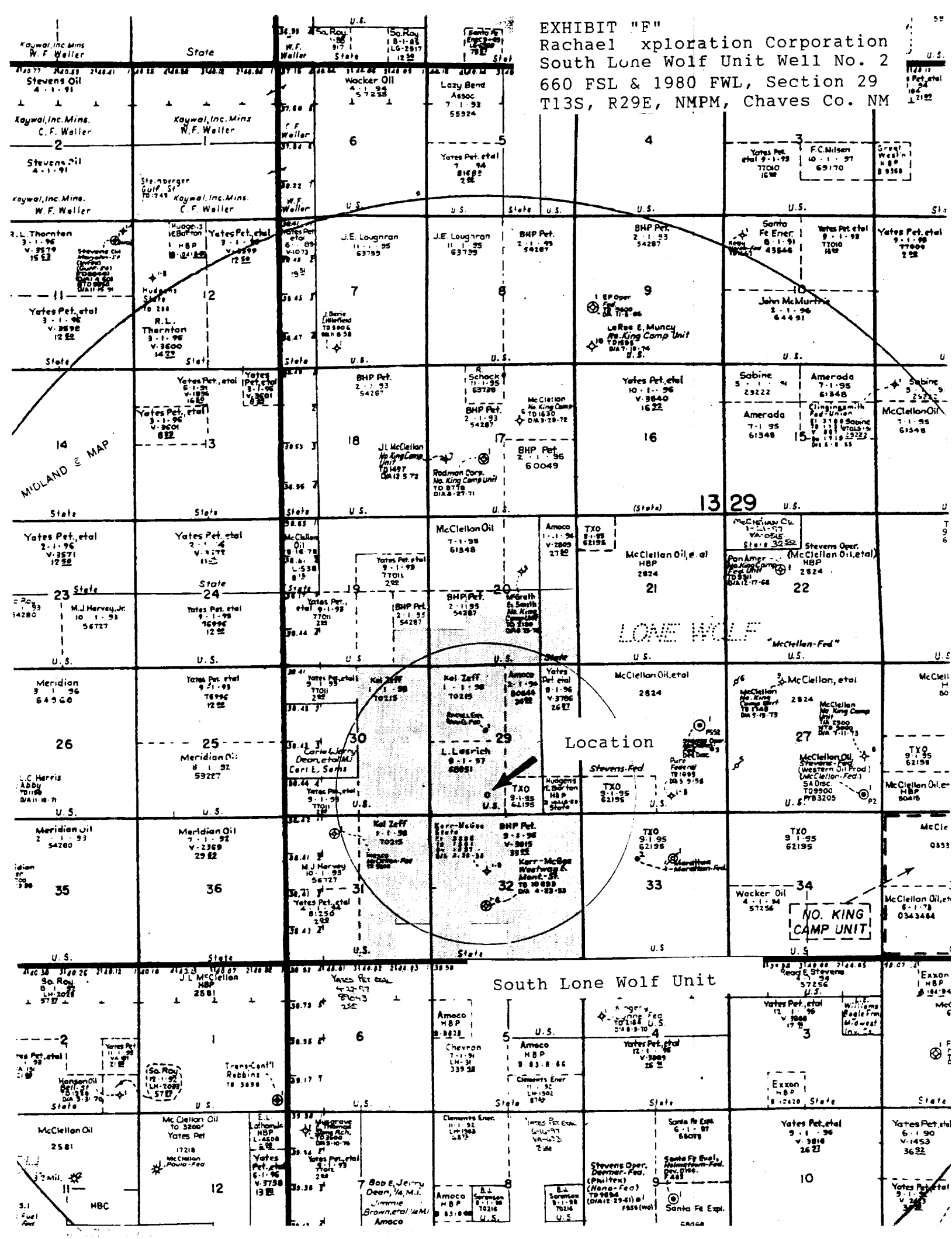
EXHIBIT "F"
Rachael xploration Corporation
South Lone Wolf Unit Well No. 2
660 FSL & 1980 FWL, Section 29
T13S, R29E, NMPM, Chaves Co. NM
MIDLAND © MAP
LONE WOLF
"McClellan-Fed"
Location
South Lone Wolf Unit
NO. KING CAMP UNIT
Stevens-Fed
Stevens Oper. (McClellan Oil,etal)
McClellan Oil,et al
HBP
2824
Yates Pet.etal
Amoco
TXO
BHP Pet.
Kaywal,Inc.Mins.
W.F. Weller
State
U.S.

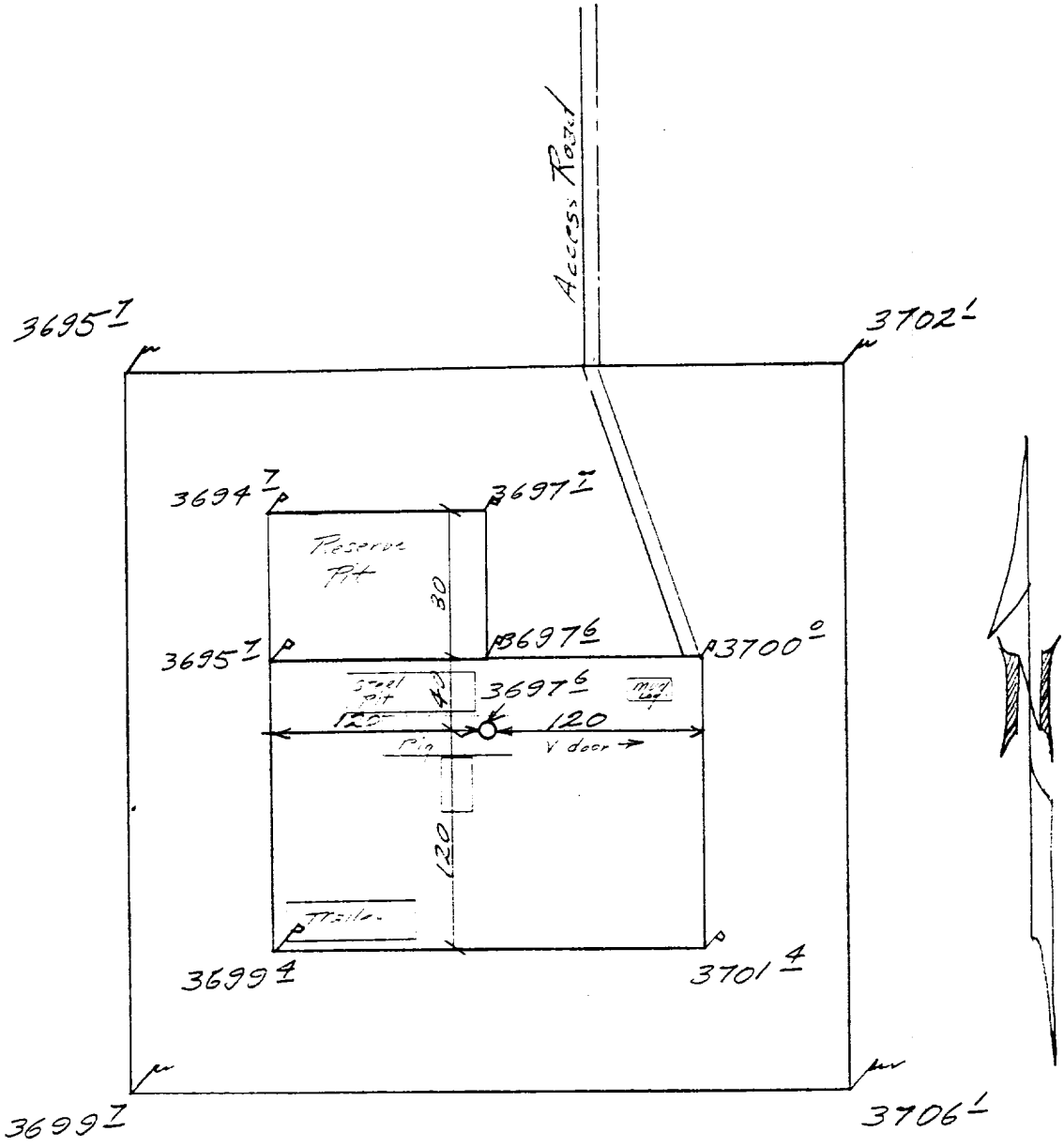

EXHIBIT "G"
Rachael Exploration Corporation
South Lone Wolf Unit Well No. 2
660 FSL & 1980 FWL, Section 29
T13S, R29E, NMPM, Chaves Co. NM


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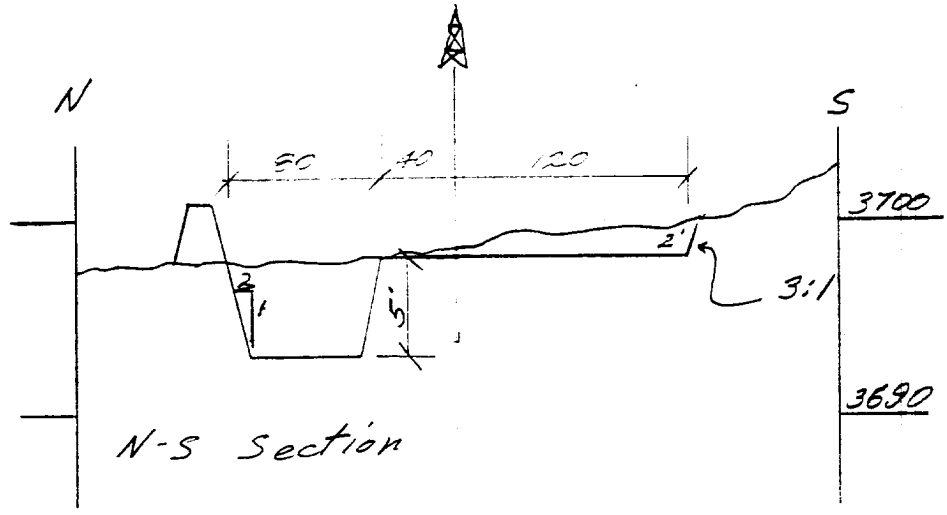
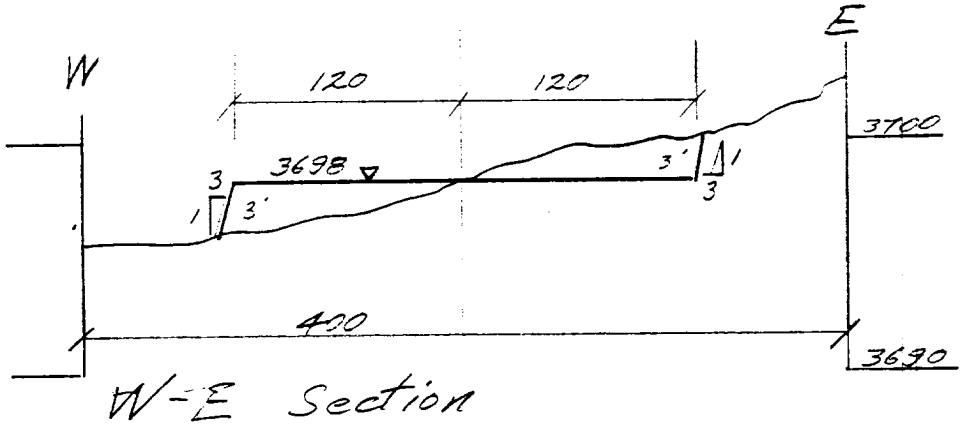
ROSWELL, NEW MEXICO



N-S Section



W-E Section

vertical exaggeration 10×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