Form 3160-3
(July 1992)

New Mexico Oil Conservation Division, District I

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

1625 N. French Drive
Hobbs, NM 88240

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: NM-101610

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

1a. TYPE OF WORK: DRILL ☒ DEEPEN ☐

b. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ OTHER — SINGLE ZONE ☐ MULTIPLE ZONE ☐

8. FARM OR LEASE NAME, WELL NO.: Miro "35" Fed #1

2. NAME OF OPERATOR: Roden Oil Company

9. API WELL NO.: 30-025-34897

3. ADDRESS AND TELEPHONE NO.: 550 W. Texas, Suite 1140; Midland, Texas 79701 (915) 682-6373

10. FIELD AND POOL, OR WILDCAT: Wildcat

4. LOCATION OF WELL (Report location clearly and in accor
At surface: (E) 1250' FNL & 1000' FWL (D)
At proposed prod. zone

OPER. OGRID NO. 182110
PROPERTY NO. 25276
POOL CODE 78010
EFF. DATE 1-26-2000
API NO. 30-025-34897

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 35, T-26-S, R-35-E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOW: 13 miles Southwest of Jal, New Me

12. COUNTY OR PARISH: Lea | 13. STATE: New Mexico

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
1000'	960	320
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**
NA	16500'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3040' GR

22. APPROX. DATE WORK WILL START*: January 15, 2000

23. 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 13 3/8"	54.5#	1000'	950 sx to circulate
12 1/4"	N-80&J-55 10 3/4"	51.0	5150'	1350 sx to circulate
9 1/2"	P-110 7 5/8"	33.7	13000'	1425 sx to TOC @ 5000'
6 1/2"	P-110 5"	21.6	12800'-16500'	450 sx (circ to liner top)

We propose to drill to a depth sufficient to test the Morrow formation for gas. If productive, a 5" liner will be run to TD. If non-productive, the well will be plugged and abandoned in a manner consistent with Federal Regulations. Specific programs as per Onshore Oil and Gas Order No. 1 are outlined in the following attachments:

Drilling Program
- Exhibit A - Operations Plan
- Exhibit B - BOP and Choke Schematic
- Exhibit C - Drilling Fluid Program
- Exhibit D - Auxiliary Equipment
- Exhibit E - Topo Map at Location
- Exhibit F - Map Showing Existing Wells
- Exhibit F (A) - Plat of Location
- Exhibit G - Well Site Layout
- Surface Use and Operations Plan

Roden Oil Company accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land or portion thereof, as described above.

Bond Coverage: Single Well BLM Bond File No.: NM-2755

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 James F. "Phil" Stinson TITLE Agent for Roden Oil Company DATE 12-14-99

(This space for Federal or State office use)

PERMIT NO. ORIGINAL SIGNED BY CHRIS WILLIAMS DISTRICT I SUPERVISOR APPROVAL DATE JAN 27 2000

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 [illegible] TITLE Acting Field Office Manager, Lands and Minerals DATE 4

*See Instructions On Reverse Side

APPROVED FOR 1 YEAR

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.

DISTRICT I
P. O. Box 1980
Hobbs, NM 88241-1980

DISTRICT II
P. O. Drawer DD
Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd.
Aztec, NM 87410

DISTRICT IV
P. O. Box 2088
Santa Fe, NM 87507-2088

State of New Mexico
Energy, Minerals, and Natural Resources Department

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

Form C-102
Revised 02-10-94

Instructions on back

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-025-34897	78010	~~Wildcat~~ Hagood; Penn

4 Property Code	5 Property Name	6 Well Number
25276	MIRO FEDERAL "35"	1

7 OGRID No.	8 Operator Name	9 Elevation
182110	RODEN OIL COMPANY (OGE)	3040'

10 SURFACE LOCATION

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
E	35	26 SOUTH	35 EAST, N.M.P.M.		1250'	NORTH	1000'	WEST	LEA

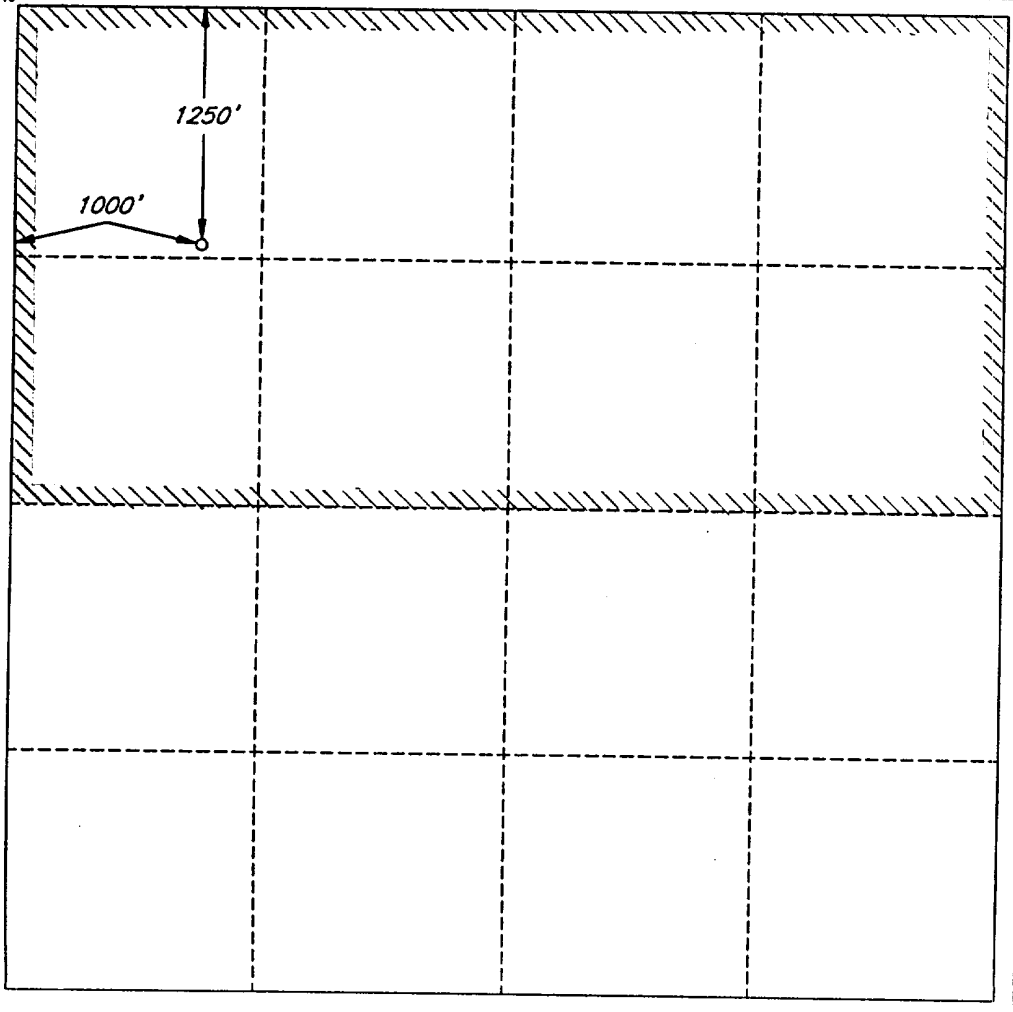
"BOTTOM HOLE LOCATION IF DIFFERENT FROM SURFACE

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
320			

NO ALLOWABLE WELL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16



OPERATOR CERTIFICATION

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

Signature
James P. "Phil" Stinson

Printed Name
James P. "Phil" Stinson

Title
Agent for Roden Oil Company

Date
12-14-99

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 belief.

Date of Survey
OCTOBER 14, 1999

Signature and Seal of Professional Surveyor

10-21-99

Certificate No.
V. L. BEZNER R.P.S. #7920

JOB #65753 / 21 SE / VHF

DRILLING PROGRAM
Roden Oil Company
MIRO "35" FEDERAL NO. 1
Section 35, T-26-S,R-35-E
Lea County, New Mexico

In conjunction with Form 3160-3, Application For Permit to Drill the subject well, Roden Oil Company submits the following ten items of pertinent information in accordance with Onshore Oil & Gas Order No. 1.

1. **Geologic Name of Surface Formation:** Alluvium

2. **Estimated Tops of Significant Geologic Markers:**

Rustler Anhydrite	950'
Delaware Lime	5140'
Bone Spring	9200'
Wolfcamp	12160'
Strawn	14300'
Atoka Lime	14950'
Morrow Sand	15602'
Total Depth	16500'

3. **The estimated depths at which water, oil, or gas formations are expected:**

Water	None expected in area
Gas	Wolfcamp @ 12160' to Morrow Sand @ 15600'

4. **Proposed Casing Program:** See Form 3160-3 and Exhibit A.

5. **Pressure Control Equipment:** See Exhibit B.

6. **Drilling Fluid Program:** See Exhibit C.

7. **Auxiliary Equipment:** A mud logging unit will be utilized to monitor penetration rate and hydrocarbon shows while drilling below the intermediate casing at 5150'.

8. **Testing, Logging, and Coring Program:**

Drill Stem Tests: None Planned

Logging:

Compensated Neutron/Gamma Ray (thru csg)	Surf -5150'
Dual Laterolog w/MSFL and Gamma Ray	5150'-13000'
Dual Induction/Gamma Ray	13000'-16500'
Compensated Neutron/Litho-Density/Gamma Ray	5150'-16500'

Coring: None planned.

9. **Abnormal Conditions, Pressures, Temperatures, & Potential Hazards:**

Pressures and temperatures are expected to be normal to the Wolfcamp at 12160'. Abnormal pressures and temperatures are anticipated from 12160' to total depth. Estimated bottom hole pressure is 11000 psi and estimated bottom hole temperature is 200° at TD.

10. **Anticipated Starting Date and Duration of Operations:**

Road and location work will not begin until approval has been received from the BLM. The anticipated spud date is January 15, 2000. Once spudded the drilling operation should be completed in approximately 85 days. If the well is productive, an additional 30 days will be required for completion and testing before permanent facilities are installed.

EXHIBIT A
OPERATIONS PLAN
Roden Oil Company
MIRO "35" FEDERAL NO. 1
Section 35, T-26-S,R-35-E
Lea County, New Mexico

1. Set 20" 78.6 ppf PELP conductor casing in a 26" hole to approximately 40' below ground level with rathole machine before moving rig. Cement to cellar floor with approximately 5 yards of 5 sack ready mixed concrete.

2. Drill a 17-1/2" hole to approximately 1000'.

3. Run 13-3/8" 54.5 ppf J-55 ST&C casing to 1000'. Cement to surface with 700 sx Class "C" cement containing 4% gel and 2% $CaCl_2$ followed by 250 sx Class "C" cement containing 2% $CaCl_2$. Run centralizers on every 3rd joint above the bottom.

4. Wait on cement six hours prior to cutting off.

5. Install 13-5/8" 5000 psi annular BOP and test to 1000 psi. WOC 12 hours prior to drilling out.

6. Drill a 12-1/4" hole to approximately 5150'.

7. Run 1000' of 10-3/4" 51 ppf N-80 ST&C casing on bottom with 4150' of 10-3/4" 51 ppf K-55 ST&C casing to surface. Cement to surface with 1000 sx Premium Plus "Lite" cement containing 6% gel and 12 pps salt followed by 350 sx Premium Plus cement. Run centralizers on every 2nd joint to 500' from bottom and place 3 centralizers in surface casing.

8. Wait on cement six hours prior to cutting off.

9. Install three 13-5/8" 10000 psi ram type BOP and one 13-5/8" 5000 psi annular BOP system with 10000 psi choke manifold.

10. Test BOP system and 10-3/4" casing to 2500 psi. WOC 24 hours prior to drilling out.

11. Drill a 9-1/2" hole to approximately 13000' and run electric logs.

12. Run 7-5/8" 33.7 ppf P-110 LT&C casing to 13000'. Cement to 5000' from surface in two stages with DV tool at ±7500'. Cement around casing shoe at 13000' with 500 sacks Premium "Lite" cement containing 6% gel, 3 pps salt, 4 pps gilsonite and .4% fluid loss additive followed by 425 sx Premium Trinity cement containing .5% fluid loss additive and .3% retarder. Cement through DV tool at 7500' with 250 sacks Premium "Lite" cement containing 6% gel and .4% fluid loss additive followed by 250 sacks Premium cement containing .6% fluid loss additive. Run centralizers on every 2nd joint to 500' from bottom and 1 joint above and below the DV tool.

13. Utilize the BOP system and choke manifold from 9-1/2" hole section (step 9).

14. Test BOP system to 10000 psi. Test 7-5/8" casing to 3000 psi. WOC 24 hours prior to drilling out.

15. Drill a 6-1/2" hole to approximately 16500' and run electric logs.

16. Either run and cement 3900' of 5" 21.40# P-110 FL4S casing liner from 16500' to 12600' or plug and abandon as per BLM requirements.

PROPOSED 10-M BOPE AND CHOKE ARRANGEMENT

EXHIBIT B
Roden Oil Company
MIRO "35" FEDERAL NO. 1
1250' FNL & 1000' FWL
Section 35, T-26-S,R-35-E
Lea County, New Mexico

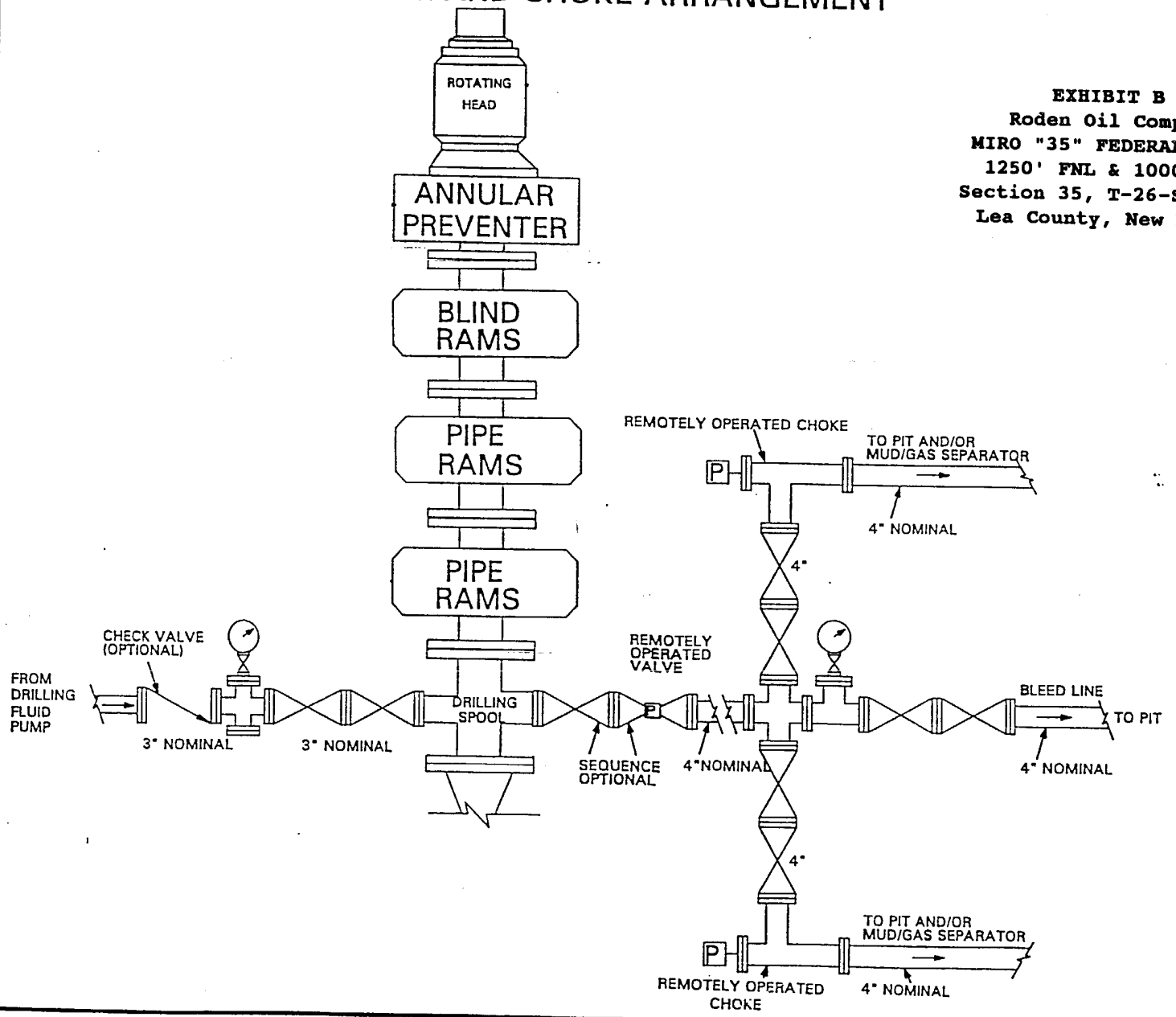


EXHIBIT C
DRILLING FLUID PROGRAM
Roden Oil Company
MIRO "35" FEDERAL NO. 1
Section 35, T-26-S,R-35-E
Lea County, New Mexico

0-1000'

Spud mud consisting of fresh water gel flocculated with lime. Use ground paper for seepage control and to sweep the hole. MW-8.5 ppg, Vis-40 and pH 10.0.

1000'-5150'

Drill out with brine water circulating the reserve pit. Utilize lime for pH control and ground paper mixed in prehydrated fresh gel sweeps to clean the hole. MW-10.0 ppg, Vis-28 and pH 10.0.

5150'-13000'

Drill out with brine water then add fresh water to cut brine to approximately 9.3-9.4 ppg (90,000 ppm chlorides) and continue circulating the reserve pit. Utilize lime for pH control to 8000' then switch to caustic. Utilize ground paper mixed in prehydrated fresh gel sweeps to clean the hole. MW-9.3 ppg, Vis-28, and pH 10.0.

13000'- 16500'

Drill out with inverted emulsion oil base mud weighted to 12.0 ppg with barite. Increase mud weight as necessary to control abnormally pressured shales or gas through this section.

EXHIBIT D
AUXILIARY EQUIPMENT
Roden Oil Company
MIRO "35" FEDERAL NO. 1
Section 35, T-26-S,R-35-E
Lea County, New Mexico

DRAWWORKS	OIME 1000 HP with Parmac 342 hydromatic brake and 1-1/4" drilling line.
ENGINES	Three Caterpillar D 3412 diesels rated at 485 HP each
ROTARY	Gardner Denver 27-1/2", 500 ton capacity
MAST	Parco 136' raised mast rated to 750,000 lb static hook load
SUB	Parco 23' height with 17' rotary beam clearance
TRAVELLING EQUIPMENT	Gardner-Denver 350 ton,5 sheave block w/Web Wilson 350 ton hook Gardner Denver 350 ton swivel
PUMPS	Gardner Denver 6-1/2" x 9" 1000 HP triplex driven by compound Gardner Denver 6-1/2" x 9" 1000 HP triplex driven by compound
STEEL PIT SYSTEM	1-Shale Pit 8'X8'X50' w/double screen shale shaker 1-Suction Pit 8'X8'X50' w/mud agitators 2-Centrifugal mud mixing pumps
LIGHT PLANT	Two Caterpillar D3412 diesel/300 KW generator sets
BOP EQUIP	Hydril 13-5/8" 10000 psi WP three ram hydraulic Hydril 13-5/8" 5000 psi WP annular hydraulic Koomey 10 station closing unit w/120 gallon accumulator 10000 psi WP choke manifold

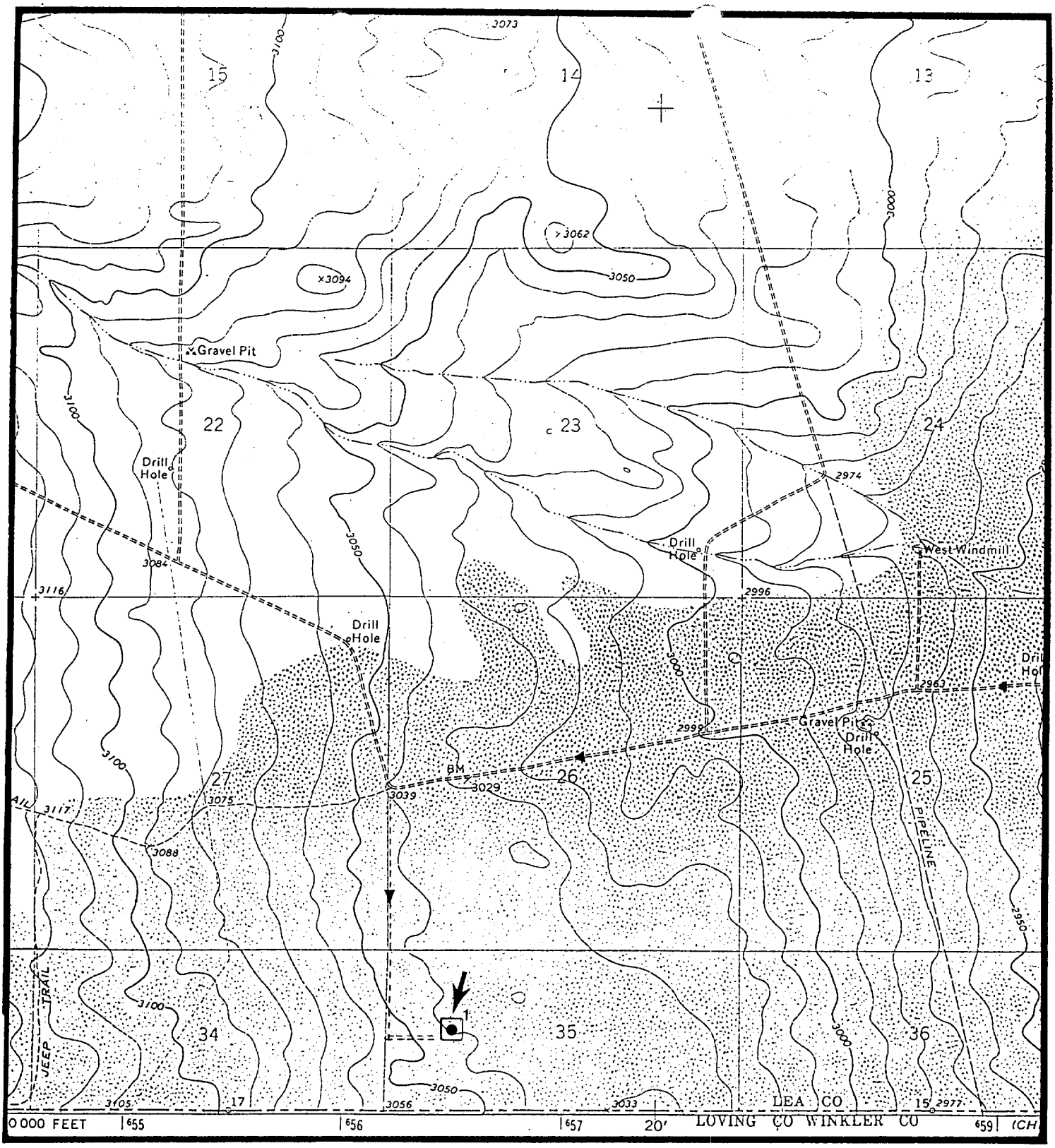


EXHIBIT E
TOPO MAP OF LOCATION AREA
Roden Oil Company
MIRO "35" FEDERAL NO. 1
1250' FNL & 1000' FWL
Section 35, T-26-S,R-35-E
Lea County, New Mexico

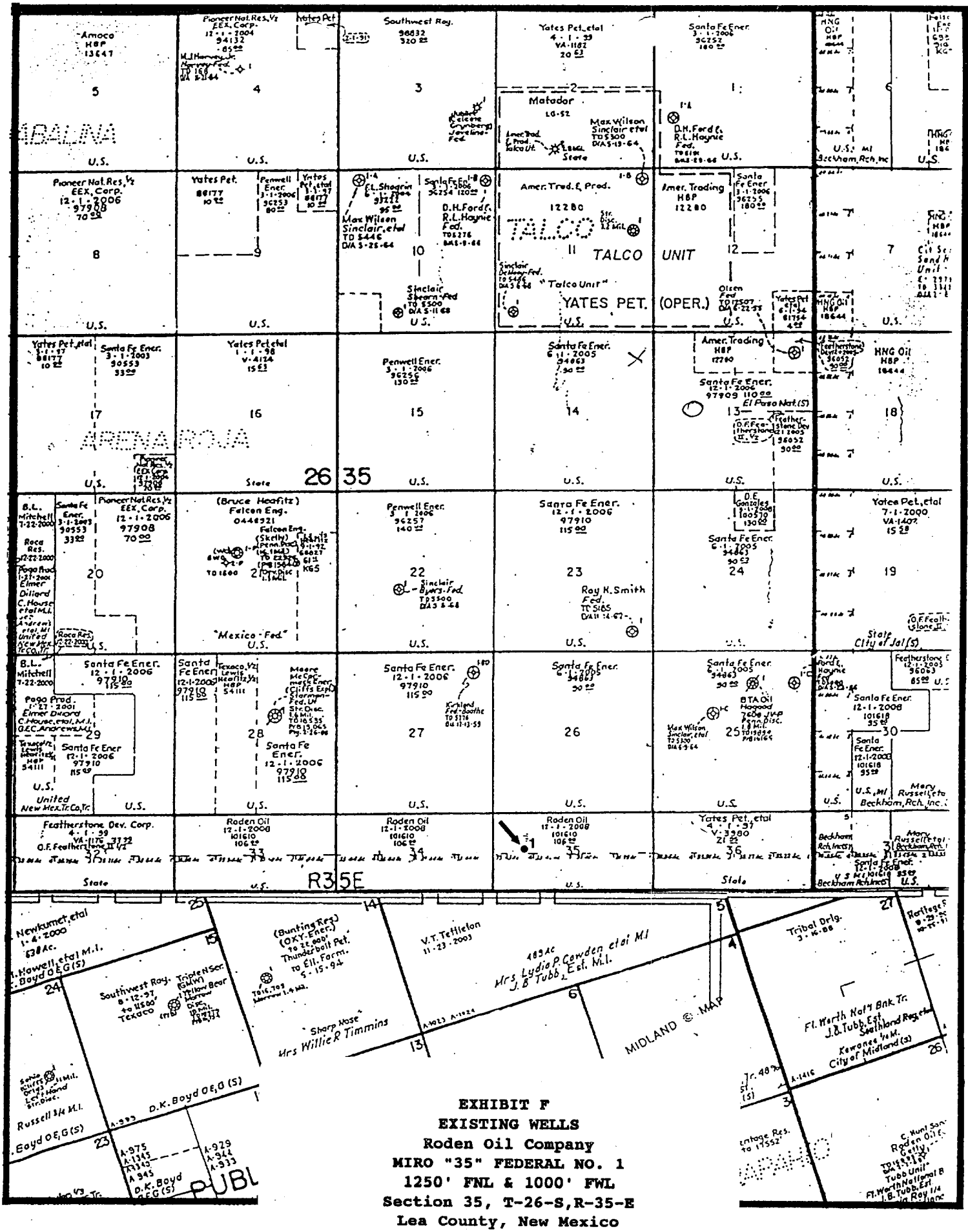
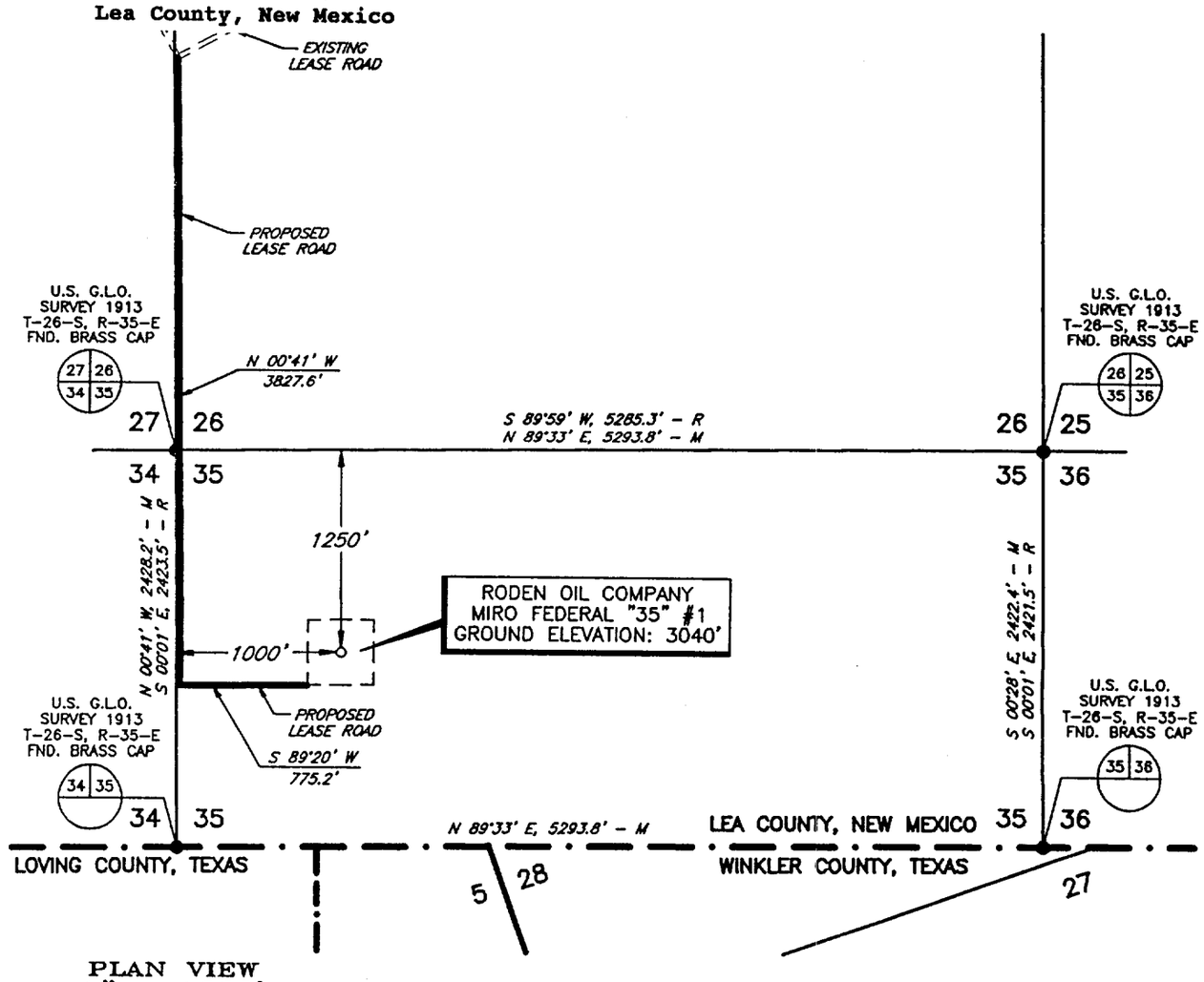
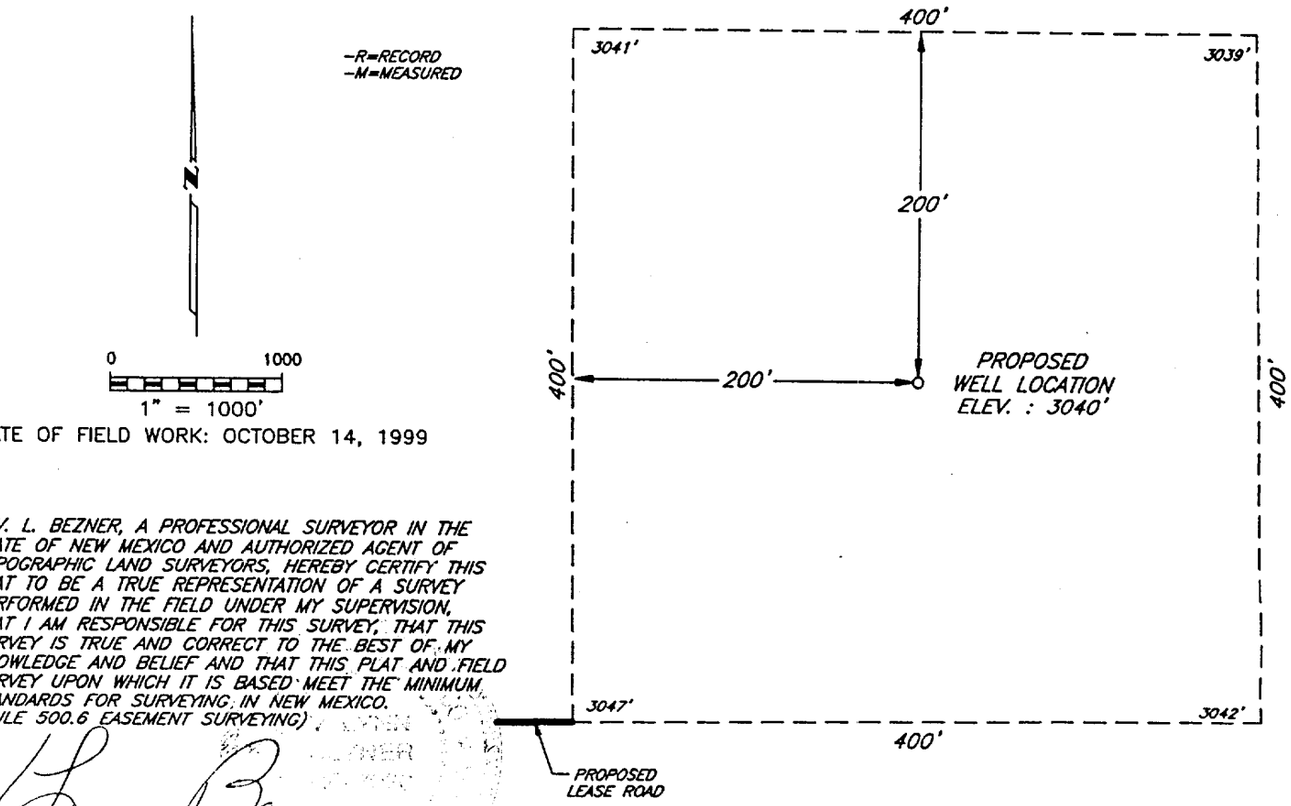


EXHIBIT F
EXISTING WELLS
Roden Oil Company
MIRO "35" FEDERAL NO. 1
1250' FNL & 1000' FWL
Section 35, T-26-S, R-35-E
Lea County, New Mexico

EXHIBIT F(A)
PLAT OF LOCATION
Roden Oil Company
MIRO "35" FEDERAL NO. 1
1250' FNL & 1000' FWL
Section 35, T-26-S,R-35-E
Lea County, New Mexico



PLAN VIEW
1" = 1000'



DATE OF FIELD WORK: OCTOBER 14, 1999

I, V. L. BEZNER, A PROFESSIONAL SURVEYOR IN THE STATE OF NEW MEXICO AND AUTHORIZED AGENT OF TOPOGRAPHIC LAND SURVEYORS, HEREBY CERTIFY THIS PLAT TO BE A TRUE REPRESENTATION OF A SURVEY PERFORMED IN THE FIELD UNDER MY SUPERVISION, THAT I AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND THAT THIS PLAT AND FIELD SURVEY UPON WHICH IT IS BASED MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO. (RULE 500.6 EASEMENT SURVEYING)

V. L. BEZNER, P.S. NO. 7920

DETAIL VIEW
1" = 100'

NO.	REVISION	DATE	BY

SURVEYED BY: R.J.O.
DRAWN BY: V.H.B.
APPROVED BY: V.L.B.

RODEN OIL COMPANY

SURVEYING AND MAPPING BY
TOPOGRAPHIC LAND SURVEYORS
MIDLAND, TEXAS

SCALE: AS SHOWN
DATE: OCTOBER 14, 1999
JOB NO.: 65753-F
QUAD NO.: 21 SE
SHEET : 1 OF 1

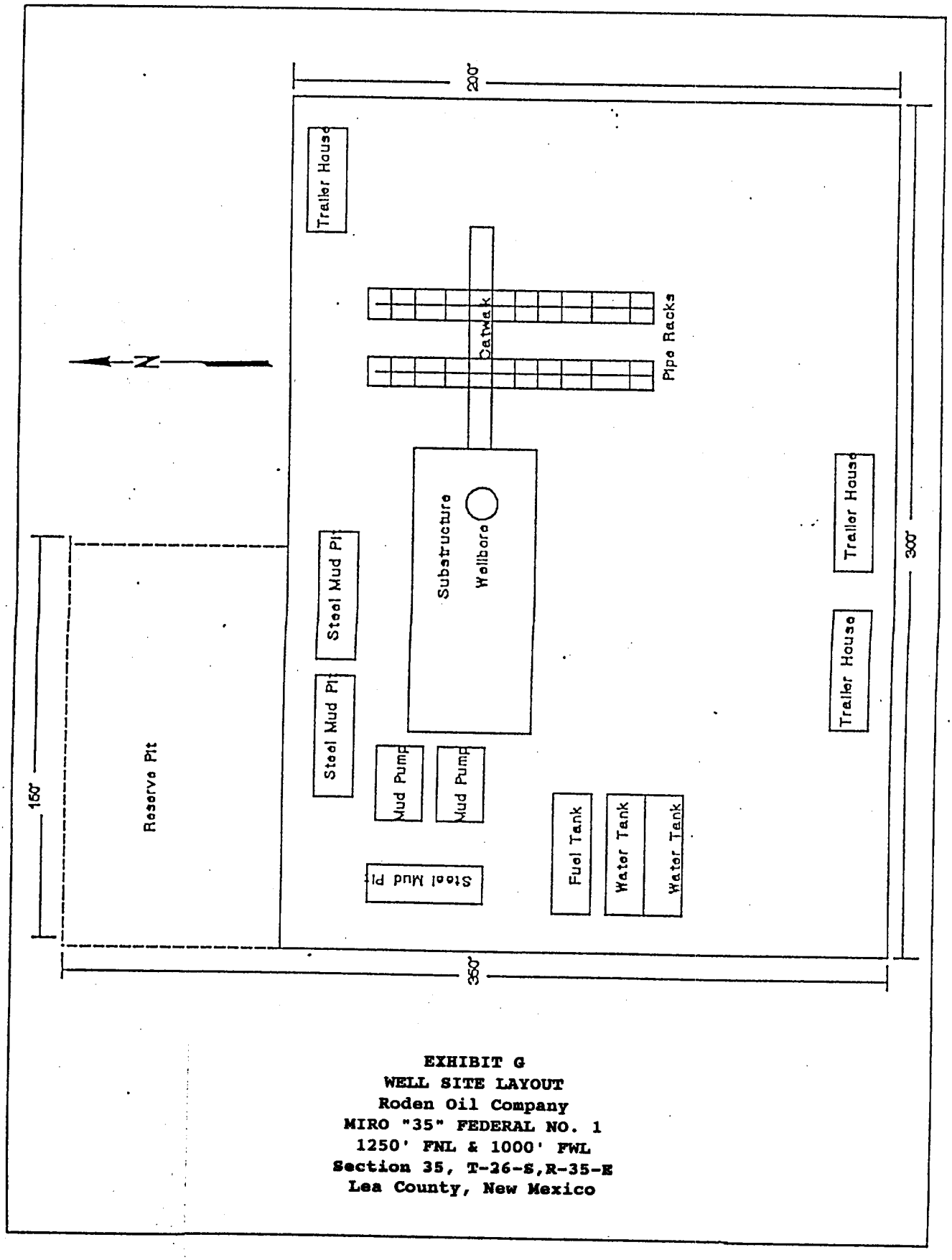


EXHIBIT G
WELL SITE LAYOUT
Roden Oil Company
MIRO "35" FEDERAL NO. 1
1250' FNL & 1000' FWL
Section 35, T-26-S,R-35-E
Lea County, New Mexico

MULTI-POINT SURFACE USE AND OPERATIONS PLAN
Roden Oil Company
MIRO "35" FEDERAL NO. 1
Section 35, T-26-S,R-35-E
Lea County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved, and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effects associated with the operation.

1. **EXISTING ROADS.**

   A. Exhibit E is a 7.5 minute topographic map which shows location of the proposed wellsite and roads in the vicinity. The proposed location is situated approximately 15 miles Southwest of Jal, New Mexico.

   DIRECTIONS:

   1. From Jal go ±7 miles South on Lea County Road #205. Turn right (West) on caliche road and go 5.3 miles. Turn left (South) 0.7 miles to the proposed location.

2. **PLANNED ACCESS ROAD.**

   A. A 16' wide compacted caliche road will be built from the existing road in section 26 south along the west section line ±3800' to the proposed location.

3. **LOCATION OF EXISTING WELLS.**

   A. The well locations in the vicinity of the proposed well are shown in Exhibits E & F.

4. **LOCATION OF EXISITING AND/OR PROPOSED FACILITIES.**

   A. There are no existing producing oil and gas wells on this lease at this time.

   B. In the event the well is productive, the necessary production equipment will be installed on the drilling pad.

5. **LOCATION AND TYPE OF WATER SUPPLY**

A. It is planned to drill the well with both fresh water and brine water systems. Fresh water will be piped approximately 3 1/2 miles from an existing water well located near the Beckham ranch house. Brine water will be trucked to location over existing roads from a commerical source.

6. **SOURCES OF CONSTRUCTION MATERIALS.**

A. Any caliche required for construction of the road and drilling pad will be obtained from a pit located off the wellsite.

7. **METHODS OF HANDLING WASTE DISPOSAL**

A. Drill cuttings will be disposed of in the reserve pits.

B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.

C. Water produced during operations will be either placed in the reserve pits and allowed to evaporate or collected in tanks until hauled to an approved disposal system or a separate disposal application will be submitted to the BLM for appropriate approval.

D. Oil produced during operations will be stored in tanks until sold.

E. Human waste will be disposed of per current standards.

F. Trash, waste paper, garbage, and junk will be collected in trash trailers and disposed of in an approved waste facility such as a land fill. The trash trailers will contain all material to prevent scattering by the wind.

G. All debris will be removed from the wellsite within 30 days after finishing drilling and/or completion operations.

8. **ANCILLARY FACILITIES**

A. None required for drilling operations.

9. **WELLSITE LAYOUT**

A. Exhibit G shows the dimensions of the well pad and reserve pits, and the location of major rig components.

B. The ground surface of the location is relatively flat. Minor cutting will be required to level the pad area. The location will be constructed by leveling the necessary terrain and covering with at least six inches of compacted caliche.

C. The reserve pits will be plastic lined.

D. A 400' x 400' work area which will contain the pad and pit area has been staked and flagged.

10. **PLAN FOR RESTORATION OF THE SURFACE**

A. After finishing drilling and/or completion operations, all equipment and other material not needed for further opeations will be removed. The location will be cleared of all trash and junk, to leave the wellsite in an aesthetically pleasing a condition as possible.

B. Unguarded pits, if any, containing fluid will be fenced until they have been filled.

C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management and the United States Geological Survey will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and levelled within 300 days after abandonment.

11. **TOPOGRAPHY**

A. The wellsite and access route are located in a relatively flat area.

B. The top soil at the wellsite is sandy.

C. The vegetation cover at the wellsite is moderately sparse with scattered mesquite, prairie grasses, and shinnery oak.

D. No wildlife was observed but it is likely that deer, rabbits, coyotes, and rodents traverse the area.

E. There are no ponds, lakes, streams, or rivers within one mile of the wellsite.

F. There is no evidence of any archaeological, historical, or cultural sites in the vicinity of the location.

12. **OPERATOR'S REPRESENTATIVES**

A. The field representatives responsible for assuring compliance with the approved surface use plan are:

Mickey Dobson
Vice President
OGE Drilling USA, Inc.
550 W. Texas, Suite 1140
Midland, Texas 79701
915-682-6373 - office
915-694-2747 - home
915-553-5518 - cellular

James P. (Phil) Stinson
Operations Manager
OGE Drilling USA, Inc.
550 W. Texas, Suite 1140
Midland, Texas 79701
915-682-6373 - office
915-362-6240 - home
915-528-3974 - cellular

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 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 Dusty Mac Resources Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

SIGNED this 14Th day of December, 1999. James P. "Phil" Stinson

James P. (Phil) Stinson
Agent for Roden Oil Company

FILE
ABOVE DATE DOES
INDICATE WHEN
CONFIDENTIAL
WILL BE