

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

OCT 15 '90

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL [X] DEEPEN [] PLUG BACK []

b. TYPE OF WELL

OIL WELL [] GAS WELL [X] OTHER [] SINGLE ZONE [X] MULTIPLE ZONE []

2. NAME OF OPERATOR

GREAT WESTERN DRILLING COMPANY (Kenneth Smith) (505-396-5538)

3. ADDRESS OF OPERATOR

P.O. Box 1659, Midland, Texas 79702

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

At surface 1980' FNL & 660' FEL

At proposed prod. zone

Same

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

27.5 air miles north-northeast of Roswell, New Mexico

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) (660')

16. NO. OF ACRES IN LEASE

1759.06

17. NO. OF ACRES ASSIGNED TO THIS WELL

160.0

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 2000'

19. PROPOSED DEPTH

4300' Abo

20. ROTARY OR CABLE TOOLS

Rotary

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

3931.8' G.L.

22. APPROX. DATE WORK WILL START*

October 7, 1990

23. PROPOSED CASING AND CEMENTING PROGRAM

Table with 5 columns: SIZE OF HOLE, SIZE OF CASING, WEIGHT PER FOOT, SETTING DEPTH, QUANTITY OF CEMENT. Includes rows for 14-3/4" and 9-7/8 & 7-7/8" holes.

9-7/8" hole will be reduced to 7-7/8" at ±1800' (200-300' below top of the Glorieta). Production casing will be cemented with sufficient cement to come back to a minimum of 600' above the Abo.

Abo pay zone will be selectively perforated and stimulated as needed for optimum production.

- Attached are: 1. Well Location & Acreage Dedication Plat 2. Supplemental Drilling Data 3. Surface Use Plan

Gas for this acreage is not 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] JERRY W. LONG TITLE Permit Agent DATE September 27, 1990

PERMIT NO. APPROVAL DATE

APPROVED BY [Signature] TITLE Area Manager DATE OCT 11 1990

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

RECEIVED SEP 27 2 57 PM '90

Part FD-1 10-19-90 Murtic x API

EOBCL-2AG-SE

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OIL CONSERVATION DIVISION

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

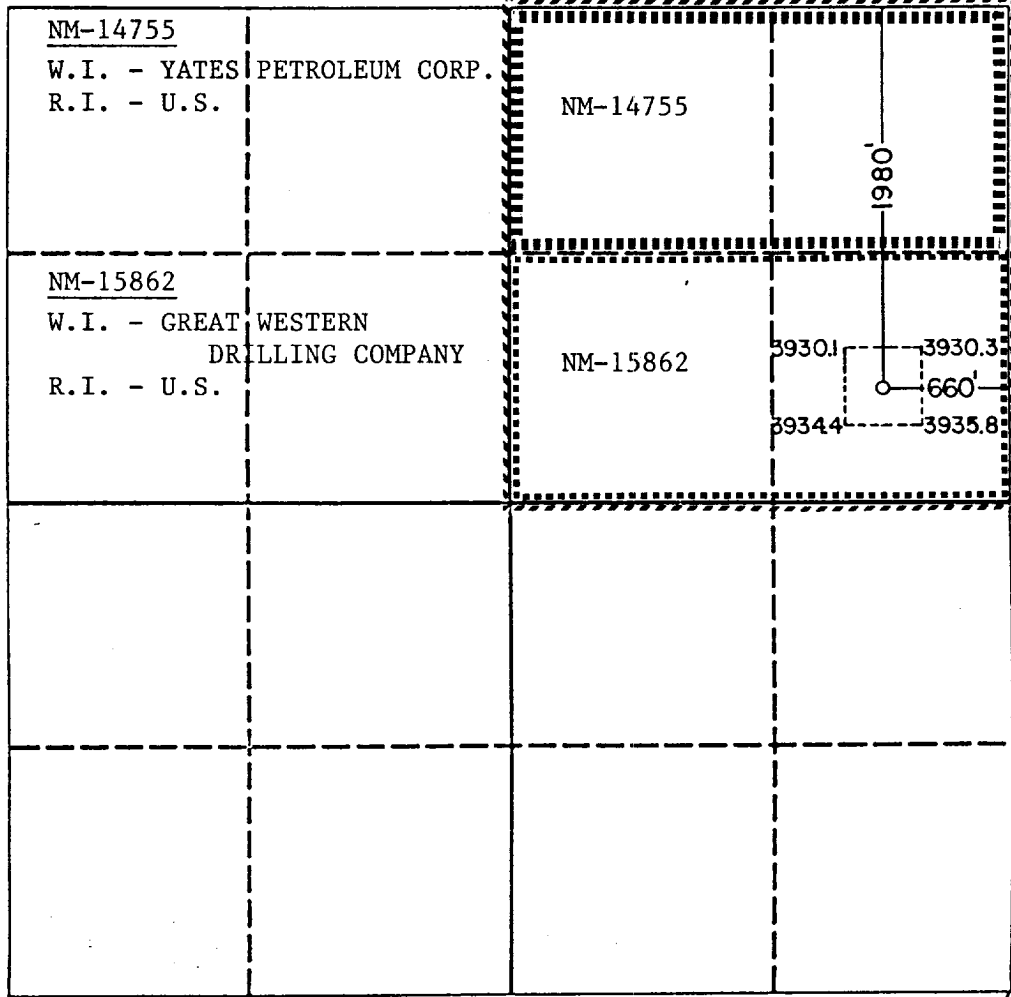
Operator GREAT WESTERN DRILLING CO.			Lease Quail Federal "Com"		Well No. 9
Unit Letter H	Section 21	Township 6 South	Range 25 East	County Chaves	
Actual Footage Location of Well: 1980 feet from the North line and 660 feet from the East line					
Ground level Elev. 3931.8	Producing Formation Abo		Pool Pecos Slope Abo	Dedicated Acreage: 160 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 Communitization Pending

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 is true and complete to the best of my knowledge and belief.

Signature: *Jerry W. Long*

Printed Name: **JERRY W. LONG**

Position: **Permit Agent**

Company: **GREAT WESTERN DRILLING CO.**

Date: **September 27, 1990**

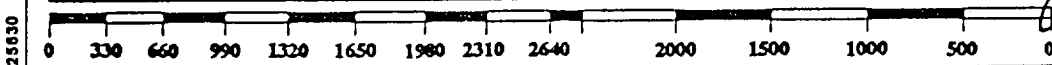
SURVEYOR CERTIFICATION

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: **September 10, 1990**

Signature & Seal of Professional Surveyor: *Ronald J. Eidson*

Certificate No. **JOHN W. WEST, 676**
RONALD J. EIDSON, 3239



125830

SUPPLEMENTAL DRILLING DATA

GREAT WESTERN DRILLING COMPANY
No.9 Quail Federal "Com"
1980'FNL 660'FEL Sec.21-6S-25E
Chaves County, N.M.

NM-15862

The following items supplement Form 3160-3 in accordance with instructions contained in Onshore Oil and Gas Order No.1:

1. SURFACE FORMATION: Artesia Group of Permian Age

2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

San Andres	770'
Glorieta	1580'
Tubb	3020'
Abo	3675'

3. ESTIMATED DEPTHS TO WATER, OIL OR GAS FORMATION:

Water - 50' to 150' and 500' to 650'

Oil - 950' to 1200'

Gas - 3675' to 4300'

4. PROPOSED CASING PROGRAM:

10-3/4" Casing - 900' of 32.75#, H-40, ST&C

4-1/2" Casing - 4300' of 9.5#, K-55, ST&C

The surface and production casing strings will be tested to 1000 psi.

5. PRESSURE CONTROL EQUIPMENT: Pressure control equipment will include a 2000#WP blowout preventer stack, with Series 900 blind and pipe rams. The BOP stack will include a kill line and choke manifold tested to 1000 psi. BOP hydraulic controls will be operated at least daily. A diagrammatic sketch of the BOP stack is attached as Exhibit "D".

A request for pressure test Variance is attached.

6. CIRCULATING MEDIUM: Fresh water mud conditioned for control of weight, viscosity and water loss.
7. AUXILIARY EQUIPMENT: A full-opening safety valve, to fit the drill string in use, will be kept on the rig floor at all times.
8. TESTING, LOGGING AND CORING PROGRAM:
 - Samples: Samples will be caught at 10' intervals below 900'.
 - DST and Cores: At discretion of well site geologist.
 - Logging: Neutron - Density Log (Surface to TD)
9. ABNORMAL PRESSURES, TEMPERATURES OR HYDROGEN SULFIDE:
None anticipated. Bottom-Hole pressure anticipated to be less than 900#.
10. ANTICIPATED STARTING DATE: Drilling will commence as soon as approval is obtained. Drilling and completion operations will last about 30 days.

PERTINENT INFORMATION

For

GREAT WESTERN DRILLING COMPANY
No.9 Quail Federal "Com"
1980'FNL 660'FEL Sec.21-6S-25E
Chaves County, N.M.

LOCATED: 27.5 air miles north-northeast
of Roswell, New Mexico

FEDERAL LEASE NUMBER: NM-15862

LEASE ISSUED: July 1, 1972 - Held by Production

ACRES IN LEASE: 1759.06 Ac.

RECORD LESSEE: Great Western Drilling Company - 64.476%
Davoil, Inc. - 35.524%

BOND COVERAGE: Operators \$150,000 Nationwide Bond

AUTHORITY TO OPERATE: Operating Agreement

SURFACE OWNERSHIP: Public

GRAZING PERMITTEE: Thomas S. Cooper
410 First National Tower
Las Cruces, New Mexico 88004
Ph.505-523-4933

POOL RULES: 160 Ac. (Pecos Slope Abo Gas Pool)

EXHIBITS: A. Road and Contour Map
B. Lease and Well Map
C. Rig Layout
D. BOP Diagram

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

GREAT WESTERN DRILLING COMPANY
No.9 Quail Federal "Com"
1980'FNL 660'FEL Sec.21-6S-25E
Chaves County, N.M.

NM-15862

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the 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 operation so that a complete appraisal can be made of the environmental effects associated with the operation.

1. EXISTING ROADS:

- A. Exhibit "A" is a portion of a road map showing the location of the proposed well as staked. The well is approximately 27.5 air miles north-northeast of Roswell, N.M.
- B. Directions: From Chaves County Courthouse in Roswell, N.M., go 30 miles north on Hwy. 285 to County Road C-38A. Turn east and go 7.9 miles. Turn southeast and go 1.5 miles on C.R. C-45. Turn south on lease road and go 1 mile. Turn east and go 1.75 mile. Turn south and go 0.9 mile. Turn west and go 0.2 mile to the No.4 Quail Federal. Go 0.35 mile southwest on new road to No.9 drillsite.

2. PLANNED ACCESS ROAD:

- A. Length and Width: The new road will be about 2000' long and about 20' wide, including the shoulders. The road centerline has been flagged.
- B. Surfacing Material: The new road will be constructed of material-in-place, unless weather conditions dictate surfacing with caliche.
- C. Maximum Grade: Less than 1%
- D. Turnouts: Since the road is essentially flat, no traffic turnouts are necessary.

- E. Drainage Design: The road will be constructed with about 4" of crown at the centerline. Water turnouts will be constructed at 300' intervals.
- F. Culverts: None necessary
- G. Cuts and Fills: The well pad will require about 2' of cut on the southeast side and about 2' of fill on the northwest side. About 5" of topsoil from the pad will be stock-piled on the north and west sides of the pit for use in rehabilitation.
- H. Gates, Cattleguards: None
- I. Right-of-Way: Existing Right-of-Way NM-77767 from C.R. C-45 to No.4 Quail Federal will be utilized.
3. LOCATION OF EXISTING WELLS:
- A. Existing wells are indicated on EXHIBIT A.
4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:
- A. If the well is productive, production, storage and measurement facilities will be constructed on the wellpad.
5. LOCATION AND TYPE OF WATER SUPPLY:
- A. Water for drilling operations will be purchased from a commercial water hauler.
6. SOURCE OF CONSTRUCTION MATERIALS:
- A. It is planned to use material-in-place for construction. If necessary, caliche for surfacing the road and pad will be obtained from a privately-owned pit located in the NWSE Sec.7-6S-26E. No caliche will be taken from Public land without prior approval.
7. METHODS OF HANDLING WASTE DISPOSAL:
- A. Drill cuttings will be disposed of in the drilling pits.
- B. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.
- C. Water produced during test will be disposed of in the drilling pits. Oil produced during test will be stored in test tanks until sold.
- D. Current laws and regulations pertaining to the disposal of human waste will be complied with.

- E. Trash, waste paper, garbage, and junk will be buried in a separate trash pit and covered with a minimum of 24 inches of soil. All waste material will be contained to prevent scattering by the wind. The trash pit will be located adjacent to the mud pit.
 - F. All trash and debris will be buried or removed from the wellsite within 30 days after finishing drilling and/or completion operations.
8. ANCILLARY FACILITIES:
- A. None necessary
9. WELL SITE LAYOUT:
- A. The wellsite and 400' X 400' area have been surveyed and flagged. Tentative location of the mud pit has been flagged at the request of BLM.
 - B. Dimensions and relative location of the drill pad, pit and equipment are shown on EXHIBIT C.
 - C. Top soil for rehabilitation will be stock-piled on the north and west sides of the location.
10. PLANS FOR RESTORATION OF THE SURFACE:
- A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the wellsite in an aesthetically pleasing condition as possible.
 - B. Any unguarded pits containing fluids will be fenced until they are filled.
 - C. If the well is non-productive, the disturbed area will be rehabilitated to Federal Agency requirements and will be accomplished as expeditiously as possible.
11. OTHER INFORMATION:
- A. Topography: The regional terrain is a rolling alluvial plain sloping to the east toward the Pecos River. The access road is essentially level. The drillsite slopes northwest.
 - B. Soil: The soil at the wellsite is sandy clay loam with associated gravels.

- C. Flora and Fauna: Flora consists of range grasses with some yucca and mesquite. No wild life was observed. Fauna probably includes reptiles, rodents and various birds.
- D. Ponds or Streams: There are no ponds near the wellsite. The Pecos River is 6 miles east.
- E. Residences and Other Structures: There are no occupied dwellings within 2 miles.
- F. Archaeological, Historical and Other Cultural Sites: Archaeology Survey Consultants, of Roswell, N.M., has made a survey of the proposed new road and wellsite. They have recommended that construction work be approved.
- G. Land Use: The vicinity surrounding the wellsite is semi-arid rangeland, used primarily for grazing.
- H. Surface Ownership: The new access road and wellsite are on Public Surface, within the lease boundary. The grazing lessee is Thomas S. Cooper, 410 First National Tower, Las Cruces, New Mexico 88004.

12. OPERATOR'S REPRESENTATIVE:

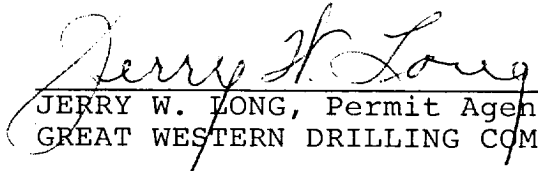
Representative responsible for assuring compliance with the approved Surface Use Plan:

Mr. Kenneth W. Smith, Division Supt.
10 West Adams
Lovington, New Mexico 88260
Phone 505-396-5538

13. CERTIFICATION:

I hereby certify that I, or person 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; that the work associated with the operations proposed herein will be performed by GREAT WESTERN DRILLING COMPANY and its sub-contractors 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 the filing of a false statement.

September 27, 1990
Date:


JERRY W. LONG, Permit Agent for:
GREAT WESTERN DRILLING COMPANY

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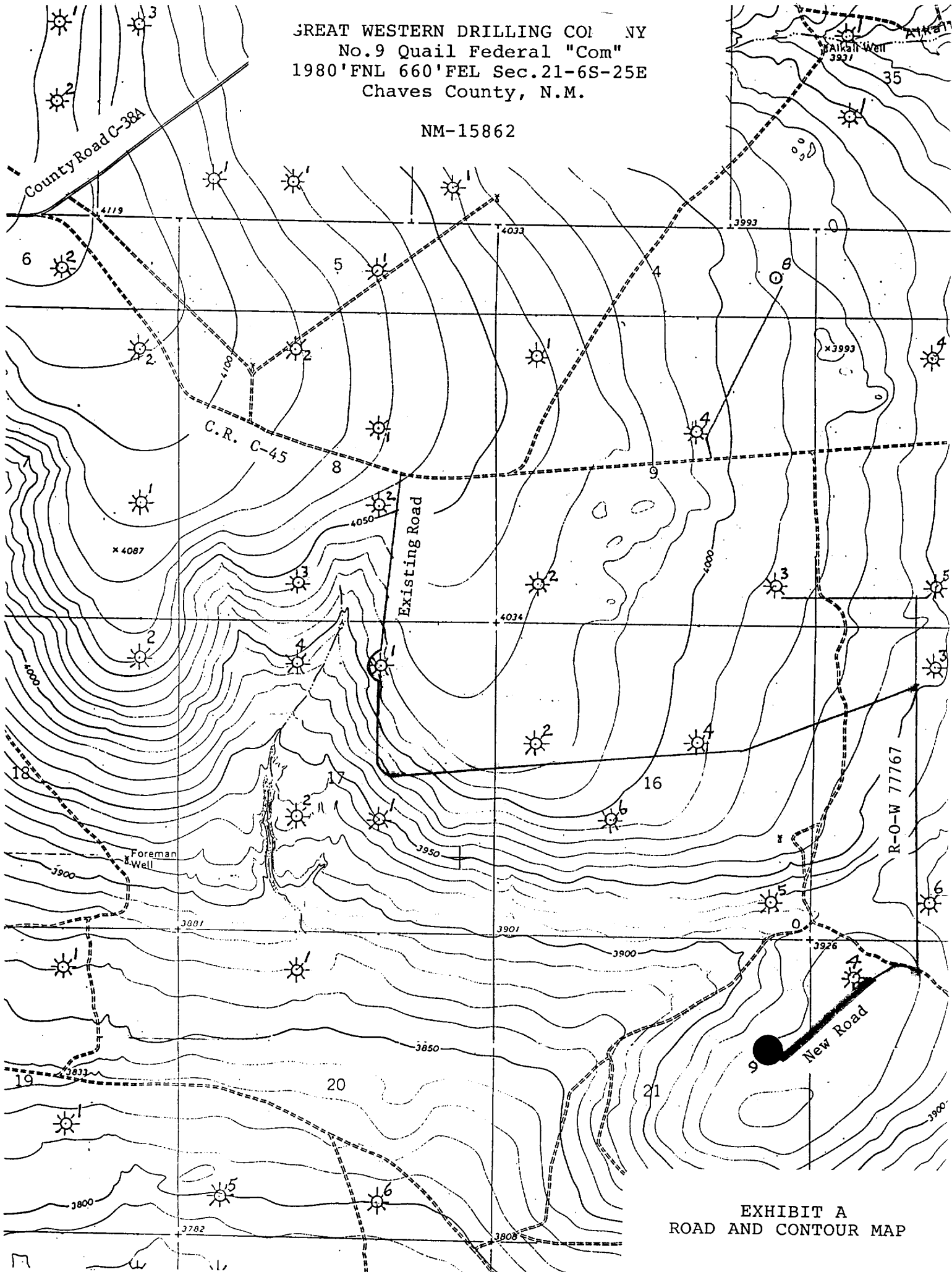


EXHIBIT A
ROAD AND CONTOUR MAP

GREAT WESTERN DRILLING COMPANY
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 Chaves County, N.M.

NM-15862

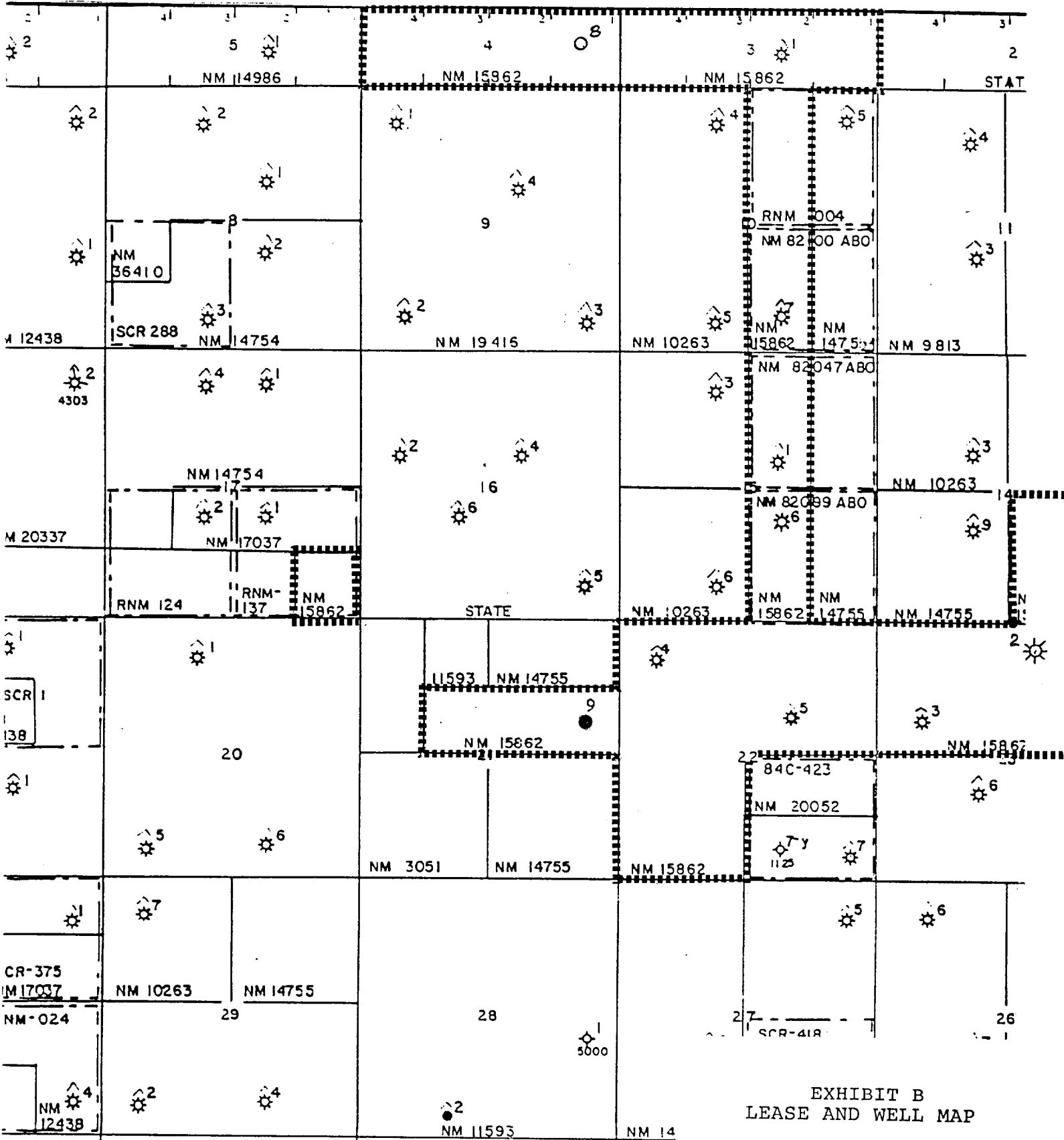
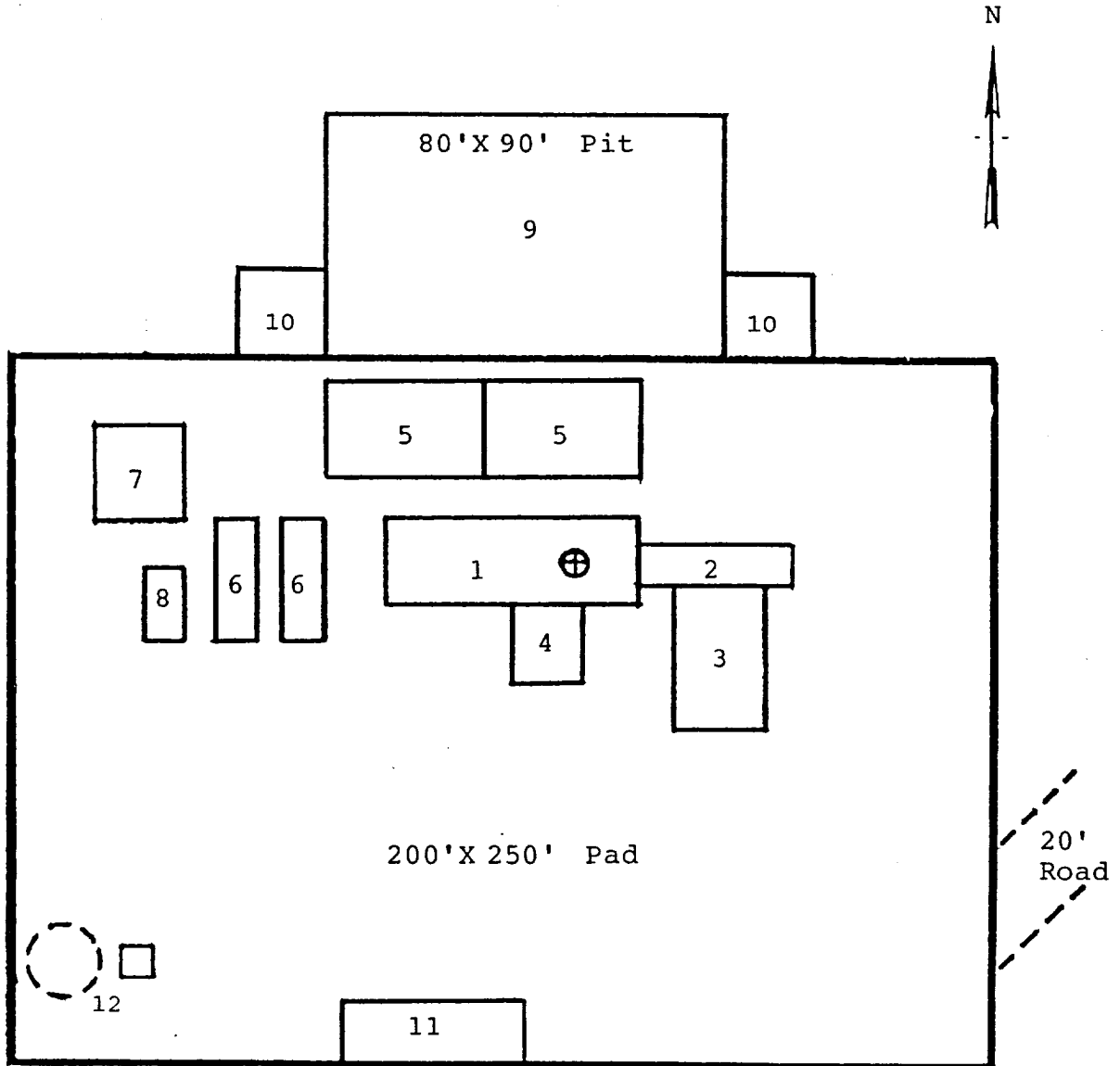


EXHIBIT B
 LEASE AND WELL MAP

GREAT WESTERN DRILLING COMPANY
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NM-15862

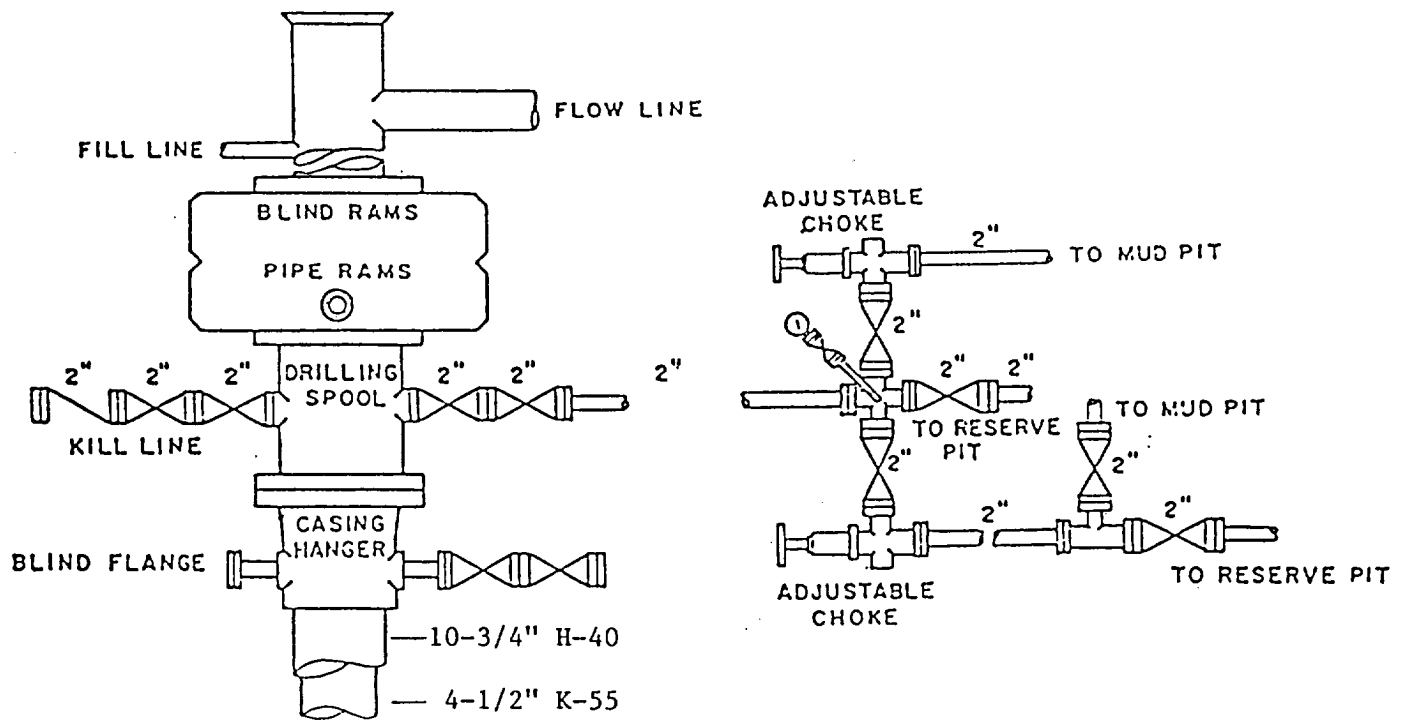


RIG LAYOUT

- | | |
|-----------------|---------------------------|
| 1. Substructure | 7. Water Tank |
| 2. Catwalk | 8. Light Plant |
| 3. Pipe Rack | 9. Reserve Pit |
| 4. Doghouse | 10. Trash Pit |
| 5. Mud Pits | 11. Trailer House |
| 6. Mud Pumps | 12. Production Facilities |

GREAT WESTERN DRILLING COMPANY
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Chaves County, N.M.

NM-15862



BOP DIAGRAM

2000# Working Pressure
Rams Operated Daily

EXHIBIT D