Form 9-331 C
(May 1963)

M. O. C. C. COPY

SUBMIT IN TRIP. E*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK: DRILL XX DEEPEN ☐ PLUG BACK ☐

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

2. NAME OF OPERATOR: Cleary Petroleum Corporation

3. ADDRESS OF OPERATOR: P. O. Drawer 2358, Midland, TX 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 660' FSL & 660' FWL
At proposed prod. zone: 660' FSL & 660' FWL

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O. C. C.
ARTESIA, OFFICE

5. LEASE DESIGNATION AND SERIAL NO.: NM 11963 (920 total acres)
6. IF INDIAN, ALLOTTEE OR TRIBE NAME: --
7. UNIT AGREEMENT NAME: --
8. FARM OR LEASE NAME: Federal "15"
9. WELL NO.: 1
10. FIELD AND POOL, OR WILDCAT: Wildcat
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 15, T-7-S, R-30-E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 12 miles southwest of Kenna
12. COUNTY OR PARISH: Chaves
13. STATE: 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: 320
17. NO. OF ACRES ASSIGNED TO THIS WELL: 40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: none
19. PROPOSED DEPTH: 4000'
20. ROTARY OR CABLE TOOLS: Rotary
21. ELEVATIONS (Show whether DF, RT, GR, etc.): 4216' GL (estimated)
22. APPROX. DATE WORK WILL START*: December 1, 1976

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11"	8-5/8"	24#	300'	200 sx
7-7/8"	4-1/2"	9-1/2#	4000'	225 sx

Drill well to test the San Andres "P-3" Zone. The "P-2" and "P-4" Zones are secondary intervals of interest.

Operations are expected to be completed 21 days after spud.

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ARTESIA, NEW MEXICO

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 W. E. Lorenz TITLE District Production Manager DATE 11-19-76
W. E. Lorenz
(This space for Federal or State office use)

PERMIT NO. APPROVAL DATE

APPROVED
DEC 20 1976
/s/ Berham
ACTING DISTRICT ENGINEER

APPROVED BY TITLE DATE
CONDITIONS OF APPROVAL, IF ANY:

THIS APPROVAL IS RESCINDED IF OPERATIONS ARE NOT COMMENCED WITHIN 3 MONTHS.
EXPIRES MAR 20 1977

*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	Lease	Well No.
CLEARY PETROLEUM CORP.	Federal 15	1

Unit Letter	Section	Township	Range	County
M	15	7 South	30 East	Chaves

Actual Footage Location of Well:
660 feet from the south line and 660 feet from the west line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
	San Andres	Wildcat	40 Acres

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

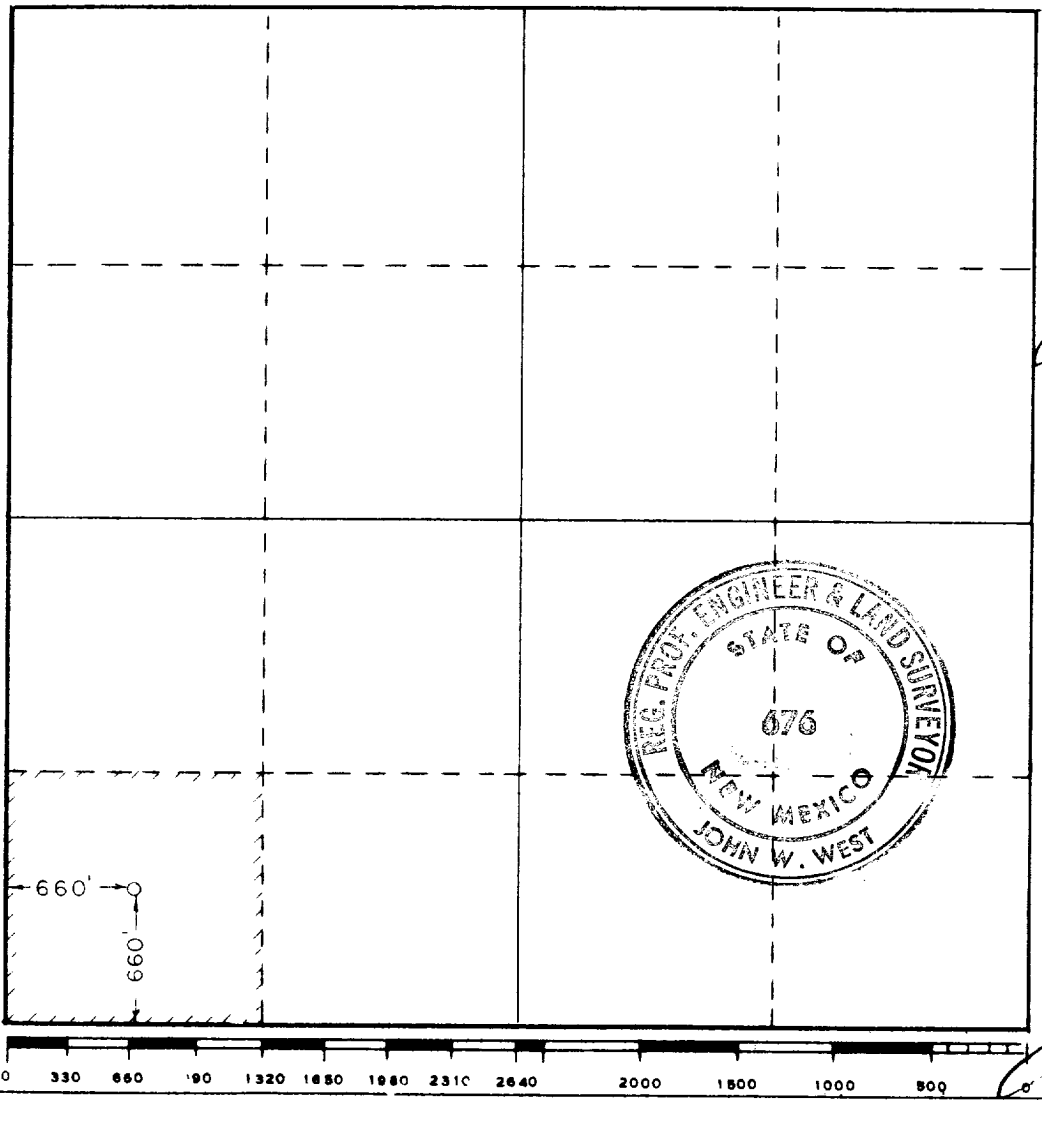
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the 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: John W West

Position: Agent

Company: CLEARY PETROLEUM CORP.

Date: Nov. 19, 1976

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: Nov. 12, 1976

Registered Professional Engineer and/or Land Surveyor

John W. West

Certificate No. 676

CLEARY PETROLEUM CORPORATION
P. O. DRAWER 2356
MIDLAND, TEXAS 79701
(915) 683-4793

405 WALL TOWERS EAST
MIDLAND DISTRICT OFFICE

November 19, 1976

United States Department of the Interior
Geological Survey
P. O. Drawer U
Artesia, New Mexico 88200

Attention: Mr. Leon Beekman, Assistant District Engineer

RE: Federal "15", Well No. 1
660' FSL & FWL
Section 15, T-7-S, R-30-E
Chaves County, New Mexico

Gentlemen:

In compliance with the NTL-6 requirements the following information is provided as an attachment to the Form 9-331C, "Application for Permit to Drill, Deepen, or Plug Back":

1. The surface formation is Tertiary-Ogallala.

2. Formation tops are as shown on the, "Drilling Prognosis".

3. Depths of oil bearing formations (primary and secondary) are as shown on the, "Drilling Prognosis".

4. Casing as shown on the, "Drilling Prognosis".

5. Information on the "Blowout Preventer Hook-up" (as shown on the Schematic Attachment "1") with pertinent information on testing procedures and testing frequency (as shown on Attachment "1"-A).

6. Characteristics of circulating medium as shown on the, "Drilling Prognosis".

7. None required except those supplied by drilling contractor including kelly cocks and stabbing valve.

8. Testing and logging are as shown on the, "Drilling Prognosis".

9. No abnormal pressures or temperatures are expected to be encountered. Potential hazards such as hydrogen sulfide gas are also not expected but adequate equipment will be provided by drilling contractor should it be necessary.

10. The anticipated starting date of this operation is as soon as possible upon approval of request and should be completed in approximately 21 days after commencement of drilling.

Should any other information be required, we will supply it upon request.

Very truly yours,

CLEARY PETROLEUM CORPORATION

W. E. Lorenz
District Production Manager

WEL:RBW:ph

DRILLING PROGNOSIS

CLEARY PETROLEUM CORPORATION

Federal "15" Well No. 1

November 19, 1976

Wildcat
Chaves County, New Mexico

Location: 660' FSL & 660' FWL, Section 15, T-7-S, R-30-E, Chaves County, New Mexico

Elevation: 4216' GL (estimated) (Datum to be KB Elev.)

Proposed Total Depth: 4000' Est. (to be drilled with rotary tools).

Hole and Mud Program:

11" to 300', drill with fresh water spud mud (Bentonite & lime), viscosity 50-70 sec.,
7-7/8" to 4000', drill with salt water gel with paper for wall cake control and corn starch for water loss control. Magcobar Mud.

Weight	10.4 to 10.7#/gal
Viscosity	30 to 40 sec/1000 cc
Water Loss	10 cc

Logging Program:

(1) Formation Density Compensated Neutron (FDCNL)
(2) Microlaterolog (MLL)
(3) Laterolog (LL_3)
(4) Temperature Survey - Top cement behind 4-1/2" casing
(5) Gamma Ray/Collar Locator Correlation Log

Drill Stem Test: San Andres - Possibly one (1) test.

Casing and Cementing Program:

8-5/8" to 300', 24#, J-55, 8RT (ST&C) new casing to be set approximately in anhydrite above Redbed section and cemented to surface with 200 sacks Class "C" (2% CaCl). Cement to be displaced by pump and plug method. Use a guide shoe and three (3) centralizers. Test to 600 psi for 30" (after cement has set 18 hrs.) prior to drilling out.

4-1/2" to 4000', 9.5# (or better), J-55, 8RT (ST&C) new casing to be set sufficiently below the "P-3" porosity zone and cemented with 225 sacks Pozmix "C" (2% gel) with 3# salt/sack and mixed 0.5% CFR-2. Run guide shoe with insert float valve on top first joint and five (5) centralizers.

Formation Tops:

Russler	1101	(+3155')
Yates	1508	(+2748')
Seven Rivers	1600	(+2656')
Queen	2228	(+2028')
Grayburg	2238	(+2018')
San Andres	2636	(+1620')
Phi Marker	3145	(+1111')
P-1	3297	(+ 959')
P-2**	3390	(+ 866')
P-3*	3470	(+ 786')
P-4**	3750	(+ 551')
Glorieta	3940	(+ 316')

*Possible pay zones (oil bearing)
** Possible secondary pay zones (oil bearing)

Surface Formation: Tertiary-Ogallala

SUGGESTED PROCEDURE

1. Drill 11" hole with fresh water spud mud (Bentonite & lime) to approx. 300'.

2. Run 8-5/8", 24# casing and cement w/200 sacks cement with enough volume to circulate to surface. Use a guide shoe and three (3) centralizers on bottom 100'. Pump plug down with water and wait on cement (WOC). Pressure to 600 psi after eighteen (18) hours and test for 30" (drop should not be more than 100 psi).

3. If tests OK, drill out with 7-7/8" bit and salt water gel. Use paper for lost circulation material to control "filter cake build-up" in the porous sands under the surface pipe.

4. Have water loss control in mud prior to topping the "P-2" porosity zone at approximately 3390'.

5. At approximately 4000' (proposed TD picked by geologist) circulate hole clean and run (1) Formation Density Compensated Neutron (FDCNL); (2) Laterolog (LL_3) and (3) Microlaterolog (MLL).

6. Run 4-1/2" (9.5# or better) casing and cement w/225 sacks Pozmix "C". This should be a column of cement 1050' high (using 30% excess) and will fill to approximately 2950'. Use a guide shoe with an insert float valve in top of the first collar and five (5) centralizers spaced on depths from the caliper survey. Pump plug with 2% KCL water mixed 1 gal/1000 gal Moreflo (demulsifying agent).

7. Wait on cement eighteen (18) hours and cut-off and hang 4-1/2" casing in wellhead and release rig.
   NOTE: Run Temperature survey inside 4-1/2" casing (after 12 hrs. WOC) to establish top of cement behind 4-1/2" casing.

8. Move in double drum unit (after setting deadmen) and run Gamma Ray/Collar Locator Log. Correlate with Formation Density Compensated Neutron Log.

9. Perforate 1 shot per foot in San Andres porosity.

10. Run 4-1/2" X 2-3/8" packer on tubing and circulate 15% NE acid over perfs. Pull up and set packer above perfs. and acidize w/500 gals 15% NE acid.

11. Swab test perfs. to test tank.

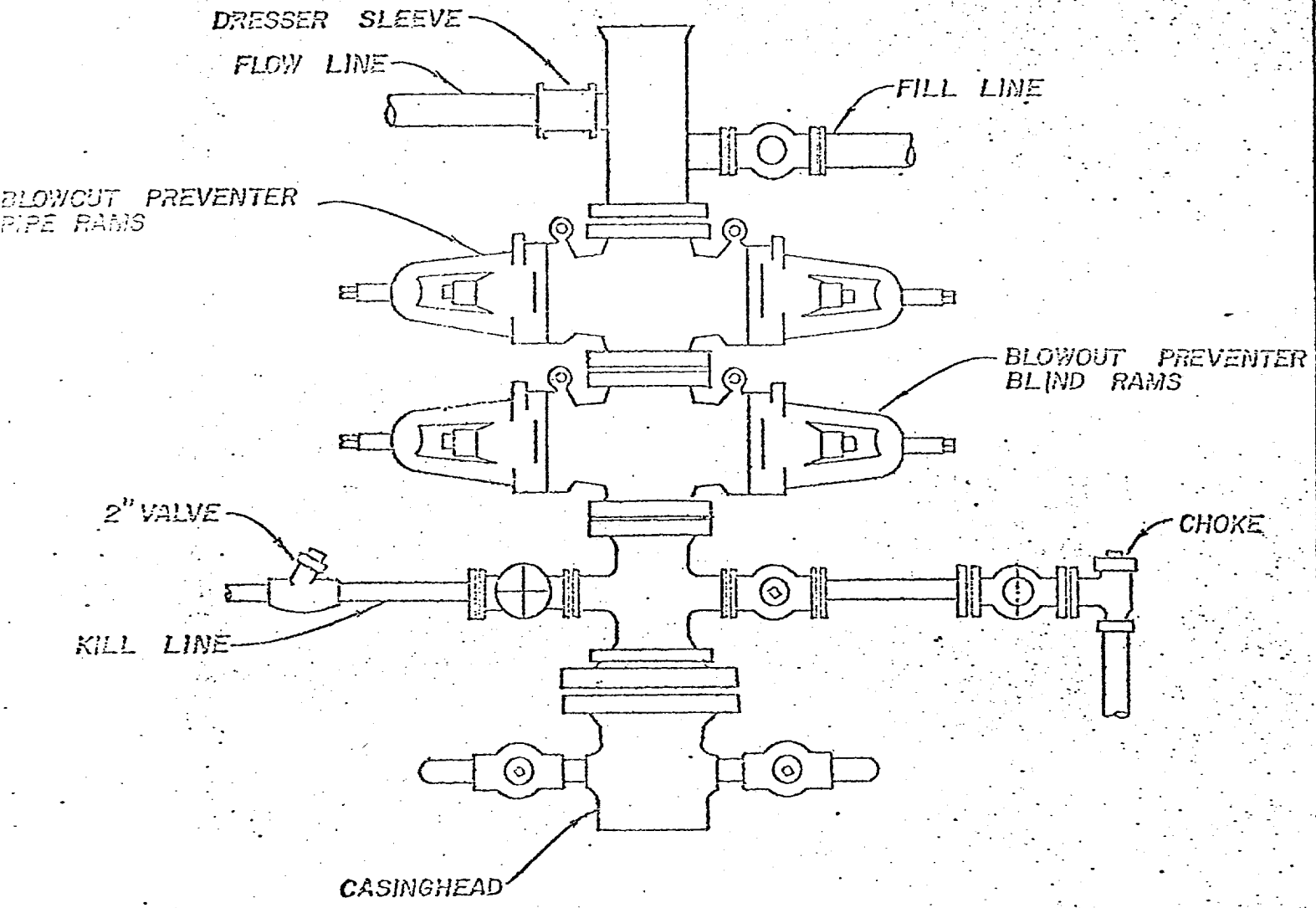
12. Any subsequent work will be planned after testing.

WEL:RBW:ph

11-19-76

BLOWOUT PREVENTER HOOK-UP

2000 PSI WORKING PRESSURE



ATTACHMENT "1"
CLEARY PETROLEUM CORPORATION
Well No. 1 - Federal "15"
660' FSL & 660' FWL
Section 15, T-7-S, R-30-E
Chaves County, New Mexico

RBW:ph

BLOWOUT PREVENTER OPERATING AND TESTING PROCEDURE

Prior to installation, all blowout preventer equipment will be inspected by operator's representative. This inspection will include visual inspection of ring grooves, bonnet seals, connecting rods and body bore and pressure testing of the opening and closing chambers to pressure limits approved by manufacturer.

The Ram type preventer will be pressure tested to 200-300 psi and casing working pressure upon installation. The full blowout preventer stock will be pressure tested weekly and after each Ram change to 200-300 psi and to the lower of the following maximums:

1. Required working pressure on Ram type preventer.

2. Wellhead working pressure.

3. Casing working pressure.

An operational test of the blowout preventer will be performed on each round trip but no more than one (1) each day. The pipe Ram preventer will be closed on pipe and the blind Rams closed while out of the hole. A drilling crew proficiency test to perform the well shut in procedure will be performed at least once each week with each drilling crew.

ATTACHMENT "1"-A
CLEARY PETROLEUM CORPORATION
Well No. 1 - Federal "15"
660' FSL & 660' FWL
Section 15, T-7-S, R-30-E
Chaves County, New Mexico

RBS:ph

ph

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

CLEARY PETROLEUM CORPORATION
WELL NO. 1 - FEDERAL "15"
660' FSL & 660' FWL, Sec. 15-7S-30E
CHAVES COUNTY, NEW MEXICO
LEASE NO. 11963

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 highway map showing the location of the proposed well as staked. At Kenna (65 miles west of Roswell on U.S. 70) go 8 miles south on an improved road and continue approximately 3.6 miles southwesterly on the same improved road on the right fork in the road. Turn right and go north approximately 3/4 mile on a lease road (referred to as the Forest Road).

   B. Exhibit "B" is a plat showing all existing roads within a three mile radius of the wellsite, and the planned access road. The access road shown in blue coloring is a caliche surfaced road over which oil field traffic enters the existing Cato Field to the south.

   C. No existing roads are available from this point to the wellsite.

2. PLANNED ACCESS ROADS:

   A. Length and Width: New roads will be 12' wide and 21,780' long. This road is shown in red coloring on Exhibit "B". The center line of the proposed new road from the beginning to the wellsite has been flagged with the stakes being visible from one to the next.

   B. The road will be graded across the natural surface (where loose sand is not present) and will be watered and compacted. Where loose sand is present (at the northeast corner of Section 13 for approximately 200' and along the west line of the SW/4 Sec. 15 for approximately 600'), 6" of caliche will be spread, watered, compacted and graded.

   C. Maximum Grade: 3 percent.

   D. Turnouts: None required.

   E. Drainage Design: New roads will have a drop of six inches from center line on each side.

F. Culverts: None required.

G. Cuts and Fills: None required.

H. Gates, Cattleguards: Two cattleguards will be installed in the fence at the middle of the north line of Section 13 and at the northwest corner of Section 13. Location is shown on Exhibit "B".

3. LOCATION OF EXISTING WELLS:

A. Existing wells within a two-mile radius are shown on Exhibit "B".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

A. There are no existing production facilities (battery, lines, etc.) presently on the lease.

B. If the proposed well is completed for production, the tank battery and flow line will be located on the northwest corner of the pad and no additional surface disturbance will occur.

5. LOCATION AND TYPE OF WATER SUPPLY:

A. Water for drilling will be purchased from Mr. Bud Bilberry from a tank (approximately five miles south of Kenna) and transported by tank truck to the wellsite over the existing and proposed roads shown on Exhibits "A" and "C".

6. SOURCE OF CONSTRUCTION MATERIALS:

A. Since there is no existing caliche pit in the area, caliche for surfacing the road (where applicable) and the well pad will be obtained from a new pit to be located on patented surface (over Federal minerals) in the SW/4 of the SE/4 of Section 15. The location of the pit to be opened is shown on Exhibit "B" and the corners have been staked and flagged. Approval to open the pit has been obtained from the Bureau of Land Management provided that they are furnished a letter of consent from the surface owner (Mr. Bud Bilberry at Kenna).

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 pits are dry.

C. Water produced during tests will be disposed of in the drilling pits. Oil produced during tests 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 dirt. All waste material will be contained to prevent scattering by the wind. Location of trash pit is shown on Exhibit "D".

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

8. ANCILLARY FACILITIES:

A. None required.

9. WELLSITE LAYOUT:

A. Exhibit "D" shows the relative location and dimensions of the well pad, mud pits, reserve pit, trash pit and location of major rig components.

B. Only minor levelling of the wellsite will be required. No significant cuts and fills will be necessary.

C. The reserve pit will be plastic lined.

D. The pad and pit area has been staked and flagged.

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 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. After abandonment of the well, surface restoration will be in accordance with the agreement with the surface owner. Pits will be filled and location will be cleaned. The pit area, well pad, and all unneeded access road will be ripped to promote revegetation. Rehabilitation should be accomplished within 90 days after abandonment.

11. OTHER INFORMATION:

A. Topography: Land surface is generally flat from an elevation of 4216' GL (estimated) at the wellsite, the land surface slopes gently toward the southwest at about 5 feet to the mile.

B. Soil: Soil is a shallow to medium deep fine sand underlain by clay and caliche.

C. Flora and Fauna: The vegetative cover is generally sparse and consists of beargrass yucca, sandsage and perenial native range grasses. Wildlife in the area is that typical of semi-arid desert land and includes coyotes, rabbits, rodents, reptiles, dove, quail, and an occasional antelope.

C. Ponds and Streams: There are no rivers, streams, lakes or ponds in the area.

E. Residences and Other Structures: The nearest occupied dwelling is a ranch house in excess of 6-1/2 miles northeast of the wellsite. The nearest water well is 2 miles northeast of the wellsite.

F. ARCHEOLOGICAL, HISTORICAL AND CULTURAL SITES: None observed in the area.

G. Land Use: Grazing.

H. Surface Ownership: Wellsite is on patented surface over Federal minerals.

12. OPERATOR'S REPRESENTATIVE:

The field representatives responsible for assuring compliance with the approved surface use and operations plan are as follows:

W. E. Lorenz
District Production Manager
405 Wall Towers East
Midland, Texas 79701
Office phone: 915-683-4793
Home phone: 915-682-5998

D. W. Rice
Assistant District Production Manager
405 Wall Towers East
Midland, Texas 79701
Office phone: 915-683-4793
Home phone: 915-684-4724

13. CERTIFICATION:

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 will be performed by Cleary Petroleum

Corporation and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

November 19, 1976

William E. Lorenz
District Production Manager

WEL:RBW:ph

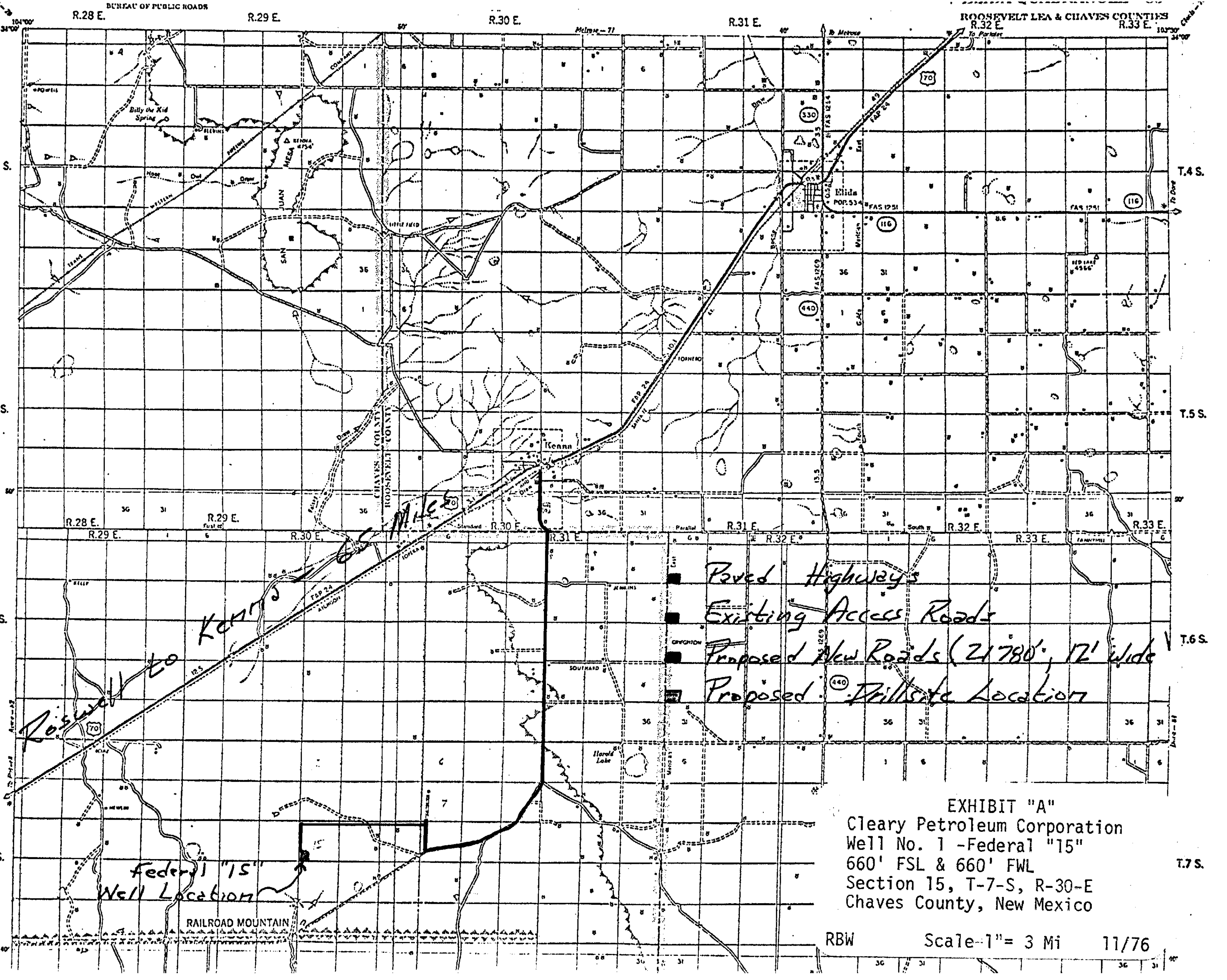


EXHIBIT "A"
Cleary Petroleum Corporation
Well No. 1 -Federal "15"
660' FSL & 660' FWL
Section 15, T-7-S, R-30-E
Chaves County, New Mexico

RBW Scale 1" = 3 Mi 11/76

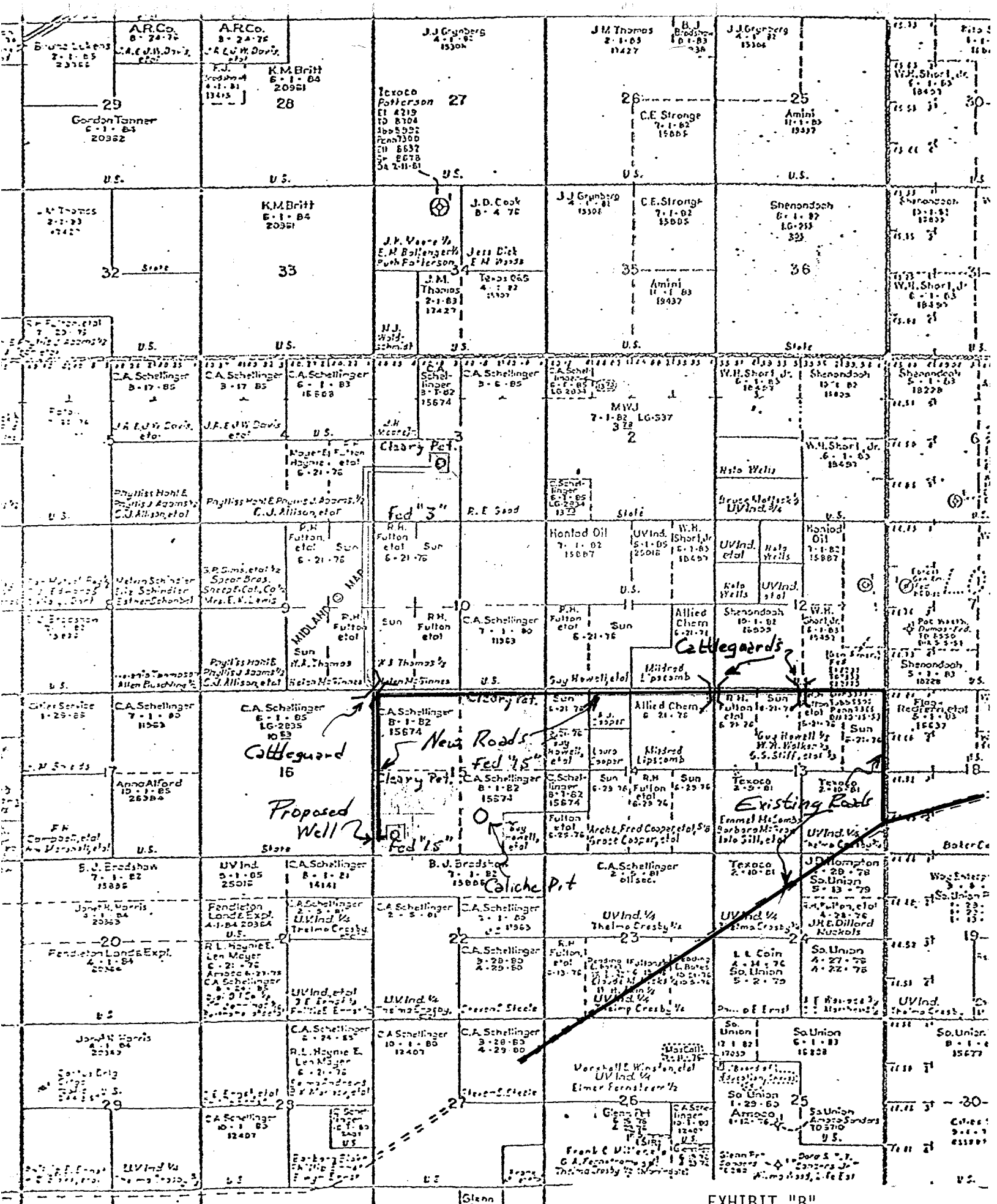


EXHIBIT "B"
Cleary Petroleum Corporation
Well No.1 Federal "15"
660' FSL & FWL, Sec. 15, T-7-S, R-30-E
Chaves Cty. New Mexico Scale: 1"=4000'

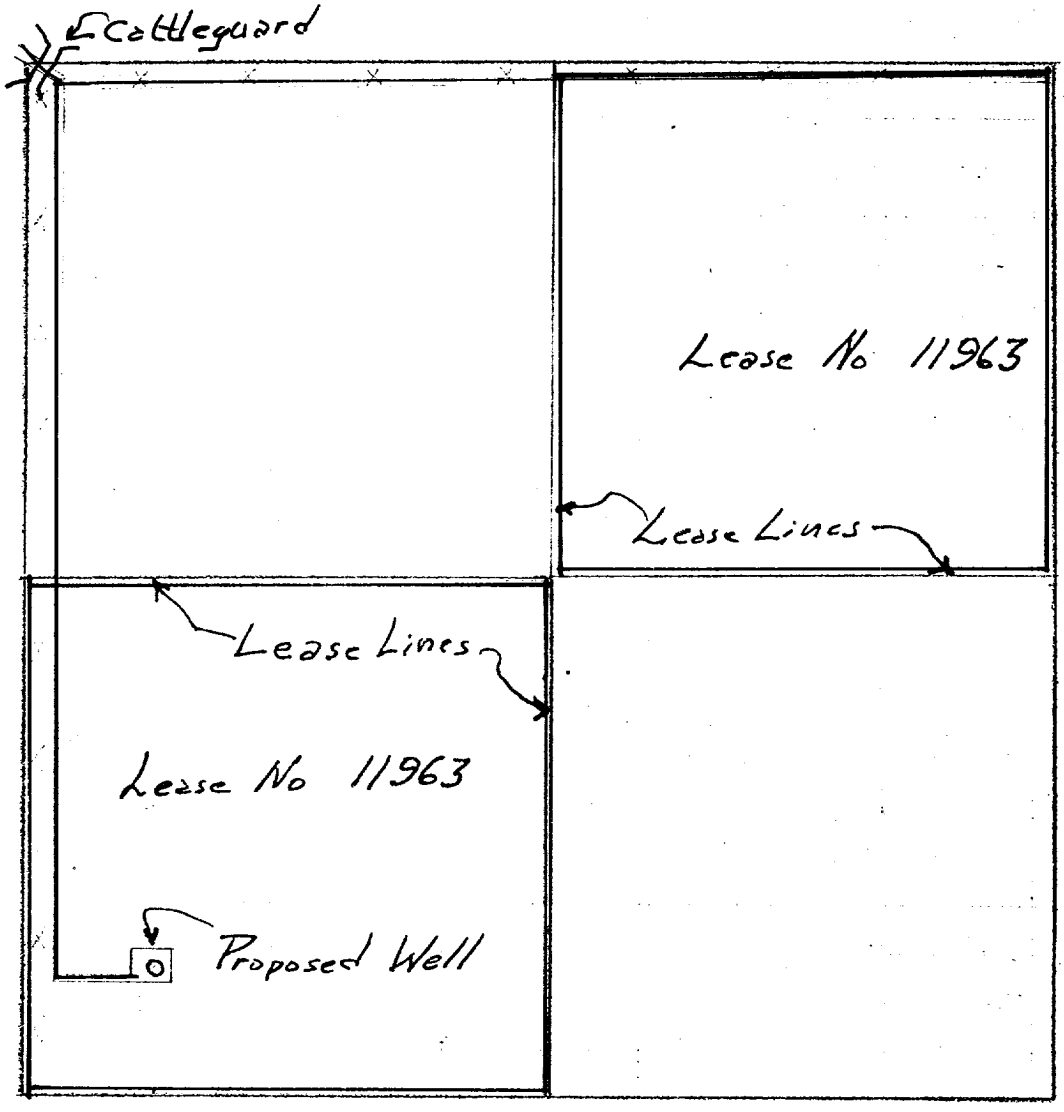


EXHIBIT "C"
Cleary Petroleum Corporation
Well No.1 Federal "15"
660' FSL & FWL, Sec. 15, T-7-S, R-30-E
Chaves Co., New Mexico, Scale: 1" = 1000'

EXHIBIT "D"
Cleary Petroleum Corporation
Rig Layout
Well No.1 Federal "15"
Scale: 1"=40'