

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

ARTESIA, NM (Other instructions on reverse side)

## 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

Chi Operating, Inc. 4378

## 3. ADDRESS AND TELEPHONE NO.

P. O. Box 1799

Midland, Texas 79702

## 4. LOCATION OF WELL (Report location clearly and in accordance with the State of New Mexico)

At surface

1980' FSL &amp; 660' FEL

At proposed prod. zone

Same

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

16 miles N of Carlsbad, NM

## 10. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.

(Also to nearest drig. unit line, if any)

660'

## 16. NO. OF ACRES IN LEASE

200

## 17. NO. OF ACRES ASSIGNED TO THIS WELL

320

## 18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

N/A

## 19. PROPOSED DEPTH

9,300'

## 20. ROTARY OR CABLE TOOLS

Rotary

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

3466' GL

## 22. APPROX. DATE WORK WILL START

Oct. 1, 1997

## 23.

## PROPOSED CASING AND CEMENTING PROGRAM

## ROSWELL CONTROLLED WATER BASIN

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17"	3 3/8" J-55	48.0#	300'	Circ. 300 sx
11"	9 5/8" J-55	36.0#	2,200'	Circ. 700 sx
8 3/4"	5 1/2" J-55	17.0#	9,300'	Pieback w/750 sx "C"

## Mud Program

0' - 350': Fresh water Gel/Lime:  
 350' - 1,500': Cut Brine:  
 1,500' - 8,500': Cut Brine, seep. control:  
 8,600' - 9,300': Cut Brine seep. control:

## Mud Wt.

8.6- 9.0 ppg  
 10.0-10.2 ppg  
 10.0-10.2 ppg  
 10.0-10.5 ppg

## - Vis.

34 - 36  
 28 - 29  
 28 - 29  
 36 - 40

## - W/L Control

No W/L control  
 No W/L control  
 No W/L control  
 W/L control 10cc+/ft

will installed on the 13 3/8" casing. Casing and BOP will be tested daily.

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

Agent for:

Chi Operating, Inc.

DATE Sept. 12, 1997

APPROVAL DATE

equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

MINERALS

APPROVED BY

TITLE

DATE

\*See Instructions On Reverse Side



District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
PO Drawer DD, Artesia, NM 88211-0719  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-102  
Revised February 10, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>30-015-29872</b>		Pool Code <b>96743</b>	Pool Name <b>Wildeat</b>
Property Code	Property Name <b>ANGELL FEDERAL COM</b>		Well Number <b>1</b>
OGRID No.	Operator Name <b>CHI OPERATING, INC.</b>		Elevation <b>3466.</b>

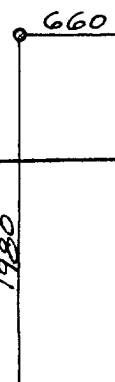
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	3	19-S	27-E		1980	SOUTH	660	EAST	EDDY

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres <b>320</b>		<sup>13</sup> Joint or Infill <b>N</b>		<sup>14</sup> Consolidation Code <b>C</b>		<sup>15</sup> Order No.			

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

<sup>16</sup>						<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  <i>George R. Smith</i> Signature George R. Smith, agent for: Printed Name Chi Operating, Inc. Title September 12, 1997 Date
						<sup>18</sup> 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. AUGUST 26 1997 Date of Survey Signature and Seal of Professional Surveyor REGISTERED PROFESSIONAL ENGINEER LAND SURVEYOR JATZ Certificate Number NM PE&PS NO. 5412

## APPLICATION FOR DRILLING

### CHI OPERATING, INC.

Angell Federal Com., Well No. 1  
1980' FSL & 660' FEL, Sec. 3-T19S-R27E  
Eddy County, New Mexico  
Lease No.: NM-97124  
(Exploratory Well)

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Chi Operating, Inc. submits the following items of pertinent information in accordance with BLM requirements:

1. The geologic surface formation is recent Permian with quaternary alluvium and other surficial deposits.
2. The estimated tops of geologic markers are as follows:

Grayburg	1275'	Wolfcamp	7775'
San Andres	1700'	Cisco Dolomite	9250'
Glorietta	3100'	T.D.	9300'
Bone Spring 1st Sand	4800'		

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

Water: Surface water between 100' - 300'.

Oil: Possible in the Grayburg below 1275' and the Bone Spring below 4800'.

Gas: Possible in the Cisco Canyon.

4. Proposed Casing Program: See Form 3160-3.
5. Proposed Control Equipment: See Form 3160-3 and Exhibit "E".
6. Mud Program: See Form 3160-3.
7. Auxiliary Equipment: Blowout Preventer, gas detector, Kelly cock, pit level monitor, flow sensors and stabbing valve.
8. Testing, Logging, and Coring Program:

Drill Stem Tests: None.

Logging: 0' to 2200': GR/CNL

2200' to T.D.: GR/DLL/MSFL/CNL/FDC/CAL.

Coring: As required, primarily in the Bone Spring 1st sand.

9. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered the proposed mud program will be modified to increase the mud weight. Estimated evacuated BHP = 3700 with a temperature of 150°.
10. H<sub>2</sub>S: None expected.
11. Anticipated starting date: October 1, 1997.  
Anticipated completion of drilling operations: Approximately 30 days.

## **MULTI POINT SURFACE USE AND OPERATIONS PLAN**

### **CHI OPERATING, INC.**

Angell Federal Com., Well No. 1  
1980' FSL & 660' FEL, Sec. 3-T17S-R27E  
Eddy County, New Mexico  
Lease No.: NM-97124  
(Exploratory Well)

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, to be followed in rehabilitating the surface environmental effects associated with the operations.

#### **1. EXISTING ROADS:**

- A. Exhibit "A" is a portion of the BLM Artesia Topo Quad map showing the location of the proposed well as staked. The well site location is approximately 23 road miles southeast of Artesia, NM. Traveling east of Artesia on U.S. Highway 82, there will be 21 miles of paved highway, plus 2.2 miles of existing gravel ranch and oilfield roads.
- B. Directions: Travel east from U. S. Highway #285 in Artesia, NM on U. S. Highway 82 for approximately 9 miles to County Road #204. Turn southeast (right) onto #204 for .3.6 miles; then south on #206 for 7 miles to County Rd. #236 (Neatherlin Rd). Turn right on #236 for 1.2 miles, passing ranch house, then turn northwest .9 mile to "Y" in road, take left road for .3 mile to road running north. Take this road for .5 mile to the Yates Fed. HF well site, continue northeast for .5 mile to the start of proposed access road on the left side of road. The proposed access road will start at this point and run west for approximately 500 feet to the SE corner of the proposed well site.

#### **2. PLANNED ACCESS ROAD:**

- A. Length and Width: There will be approximately 500 feet of new access road 12 feet wide (24' Max.). The proposed and existing roads are color coded on Exhibits "A" and "B".
- B. Construction: The new access road will be constructed by grading and topping with compacted caliche. The surface will be properly drained.
- C. Turnouts: None required.
- D. Culverts: None.
- E. Cuts and Fills: None required.
- F. Gates, Cattle guards: None required.
- G. Off Lease . None required.

#### **3. LOCATION OF EXISTING WELLS:**

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

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES;
  - A. There are no production facilities on the lease at this time.
  - B. If the well proves to be commercial, the necessary production facilities, gas production-process equipment and tank battery, if required, will be installed on the drilling pad.
5. LOCATION AND TYPE OF WATER SUPPLY:
  - A. It is planned to drill the proposed well with fresh water that will be obtained from private or commercial sources and will be transported over the existing and proposed access roads
6. SOURCE OF CONSTRUCTION MATERIALS:
  - A. Caliche for surfacing the proposed access road and well site pad will be obtained from a pit on the location, if available, or from a State pit in the SE $\frac{1}{4}$ NE $\frac{1}{4}$ , Sec. 14-T19S-R27E. No surface materials will be disturbed except those necessary for actual grading and leveling of the drill site and access road.
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. All pits will be fenced with normal fencing materials to prevent livestock from entering the area.
  - D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or a separate disposal application will be submitted to the BLM for approval.
  - E. Oil produced during operations will be stored in tanks until sold.
  - F. Current laws and regulations pertaining to the disposal of human waste will be complied with.
  - G. Trash, waste paper, garbage and junk will be contained in trash bins to prevent scattering by the wind and will be removed for deposit in an approved sanitary land fill within 30 days after finishing drilling and/or completion operations.
8. ANCILLARY FACILITIES:
  - A. None required.

9. WELL SITE LAYOUT:

- A. Exhibit "D" shows the relative location and dimensions of the well pad, reserve pits, and major rig components. The pad and pit area has been staked and flagged, 400' X 400'.
- B. Mat Size: 250' X 175', plus 100' X 100' reserve pits on the north.
- C. Cut & Fill: The location is level but will require a 1.5 - 2 foot cut on the east with fill to the west.
- D. The surface will be topped with compacted caliche and the reserve pits will be plastic lined.

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 well site in an aesthetically pleasing a condition as possible.
- B. Any unguarded pits containing fluids will be fenced and screened until they are filled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled as soon as they are dry enough to be worked.

11. OTHER INFORMATION:

- A. Topography: The well site and access road are located in a relatively level surface with an overall 2% slope to the west from an elevation of 3466' GL.
- B. Soil: The topsoil at the well site is a light tan colored clay soil underlain with some gyp rock and other gravel scatter of the Reeves - Gypsum Land complex Series.
- C. Flora and Fauna: The vegetation cover is a fair to good grass cover of threeawn, grama, dropseed and Hall's Panic, along with plants of mesquite, broomweed, yucca, fourwing saltbush, cacti creosote and javelina bush and miscellaneous weeds and wildflowers. The wildlife consists of rabbits, coyotes, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
- D. Ponds and Streams: None in the area.
- E. Residences and Other Structures: None in the area, except production facilities.
- F. Land Use: Cattle grazing.

11. OTHER INFORMATION: cont....

- G. Surface Ownership: The proposed well site and access road is on Federal surface and minerals.
- H. There is no evidence of any archaeological, historical or cultural sites in the area. An archaeological survey is being conducted by Desert West Archaeological Service, P. O. Box 645, Carlsbad NM 88220, and their report will be submitted to the appropriate government agencies.

12. OPERATOR'S REPRESENTATIVE:

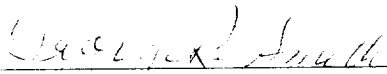
- A. The field representative for assuring compliance with the approved use and operations plan is as follows:

David Harrison  
Chi Operating, Inc.  
P. O. Box 1799  
Midland, Texas 79701  
Office Phone: (915) 685-5001  
Home Phone: (915) 684-8825

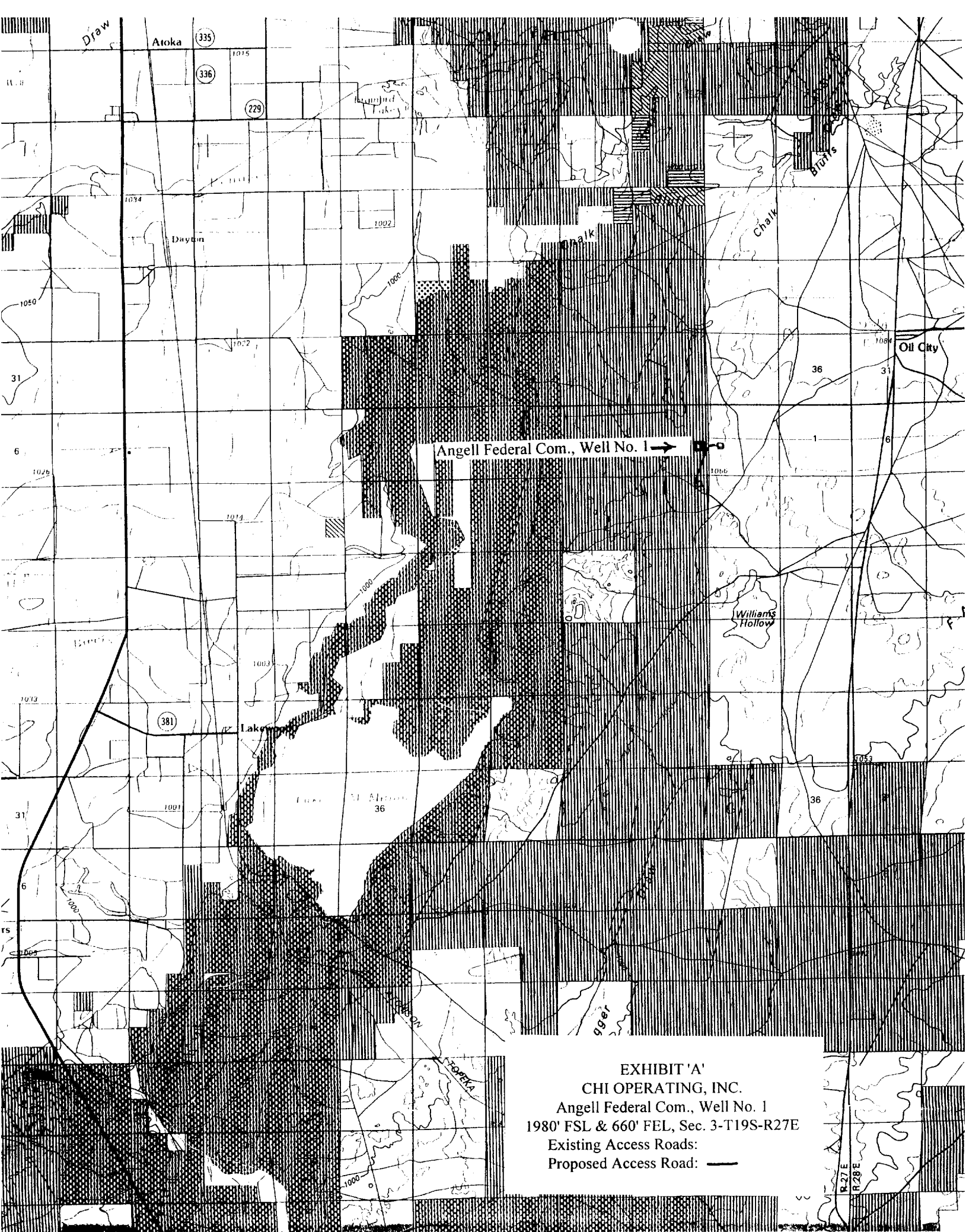
13. CERTIFICATION:

I hereby certify that I have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in the 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 Chi Operating, Inc. 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 the filing of a false statement.

September 12, 1997

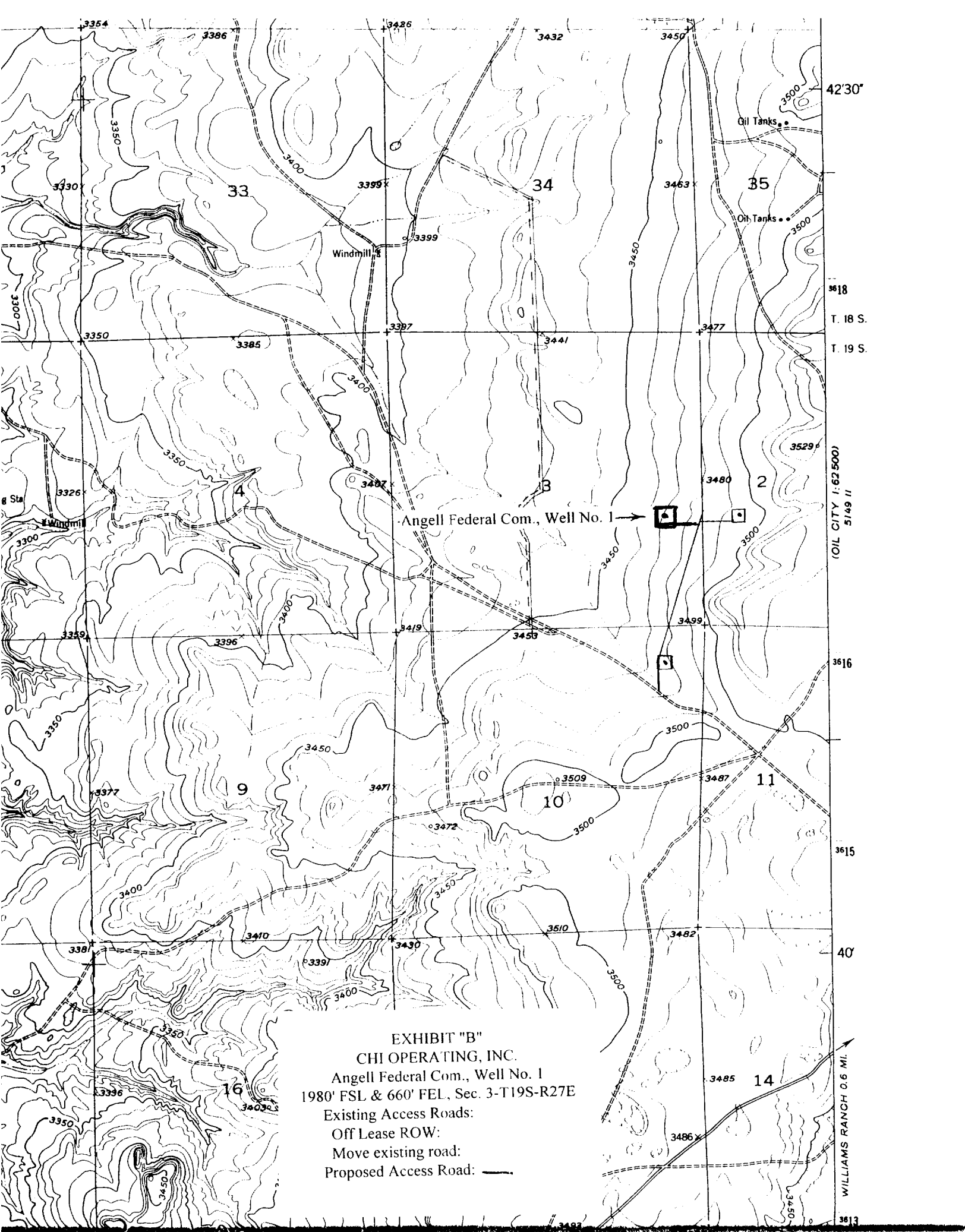
  
\_\_\_\_\_  
George R. Smith  
Agent for: Chi Operating, Inc.





Angell Federal Com., Well No. 1 →

EXHIBIT 'A'  
CHI OPERATING, INC.  
Angell Federal Com., Well No. 1  
1980' FSL & 660' FEL, Sec. 3-T19S-R27E  
Existing Access Roads: —  
Proposed Access Road: —



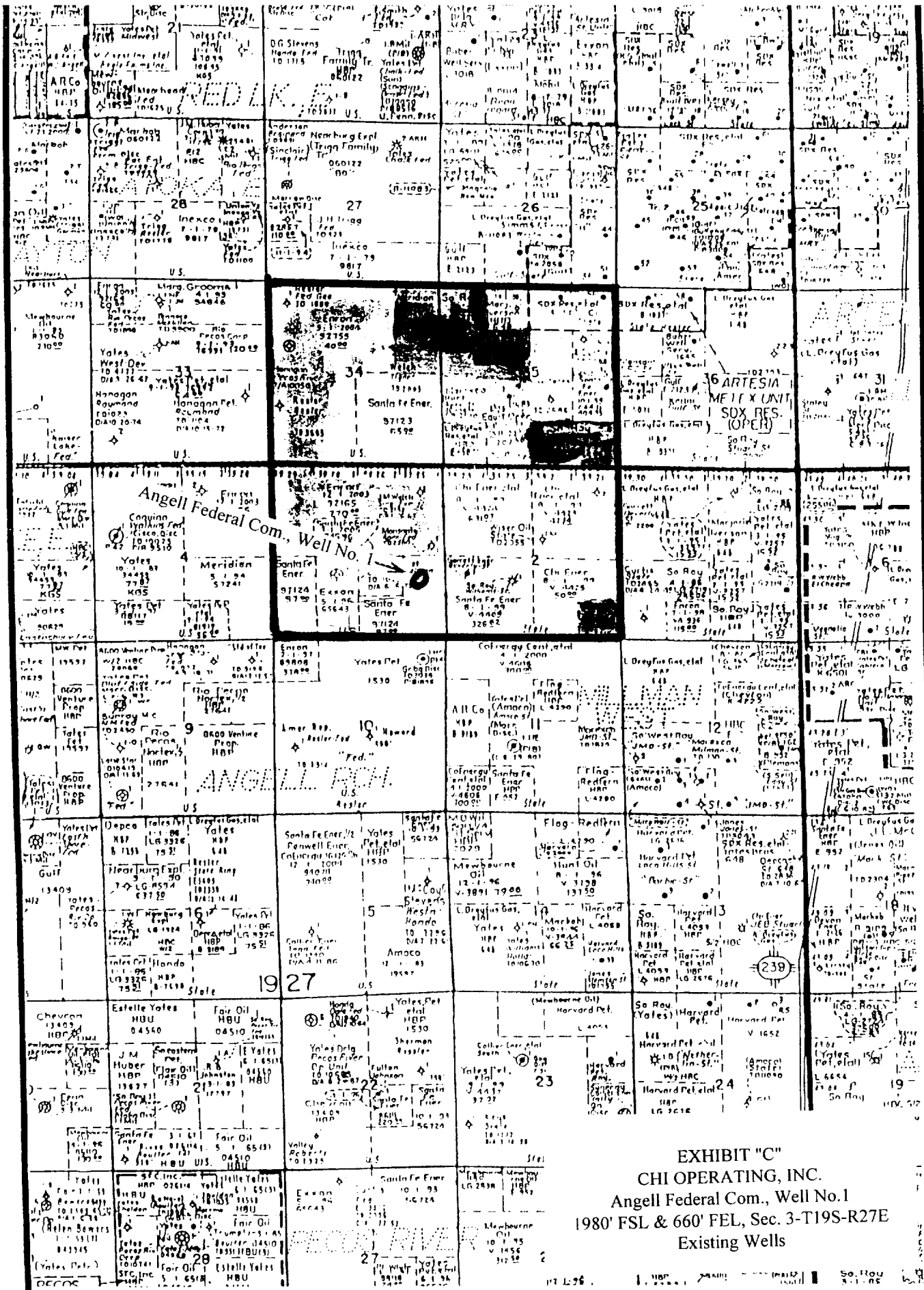


EXHIBIT "C"  
 CHI OPERATING, INC.  
 Angell Federal Com., Well No. 1  
 1980' FSL & 660' FEL, Sec. 3-T19S-R27E  
 Existing Wells

- LEGEND**
- ☒ Envron
  - ☐ CHI Acreage SF, Powell
  - ☐ Federal Parcel
  - ☒ State Tract
  - ☐ PRODUCERS
  - ☐ SA-On-Gbg

*Chi Energy Inc.*

W E K R<sub>19</sub> #1

7/20/89

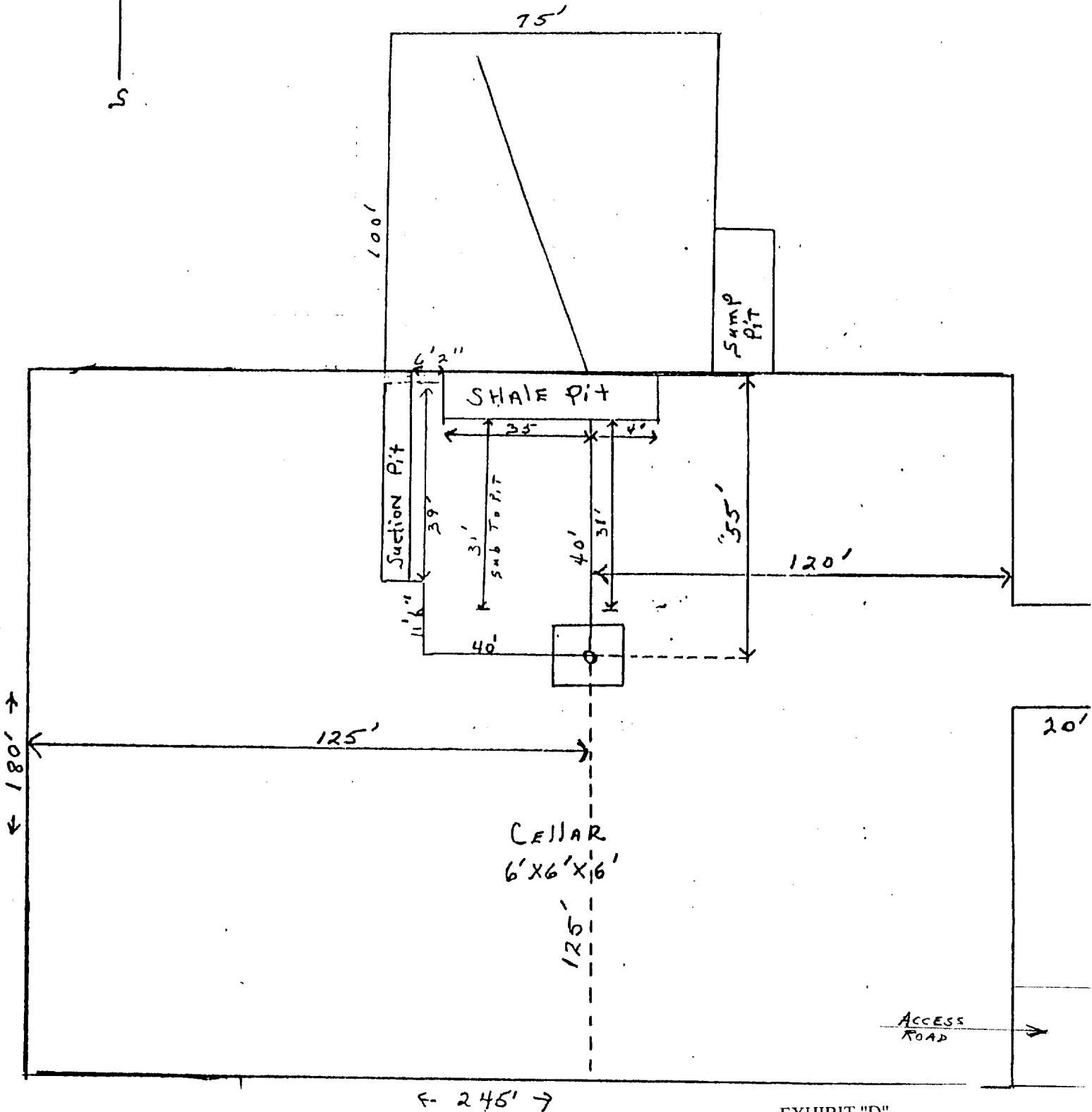
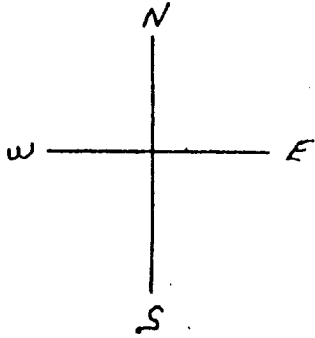


EXHIBIT "D"  
CHI OPERATING, INC.  
Angell Federal Com., Well No. 1  
Pad & Pit Layout



KEN REYNOLDS—PRESIDENT  
ARNIE NEWKIRK—VICE-PRESIDENT

DRILLING CO., INC. — OIL WELL DRILLING CONTRACTORS

P. O. Box 1498 ROSWELL, NEW MEXICO 88202-1498  
505/623-5070 505/746-2719  
ROSWELL, NM ARTESIA, NM

RIG # 1

BLOWOUT PREVENTOR ARRANGEMENT

11" SHAFFER TYPE LWS, 5000 psi WP  
11" GK HYDRIL, 5000 psi WP  
80 GALLON, 4 STATION PAYNE ACCUMULATOR  
3000 psi WP CHOKE MANIFOLD

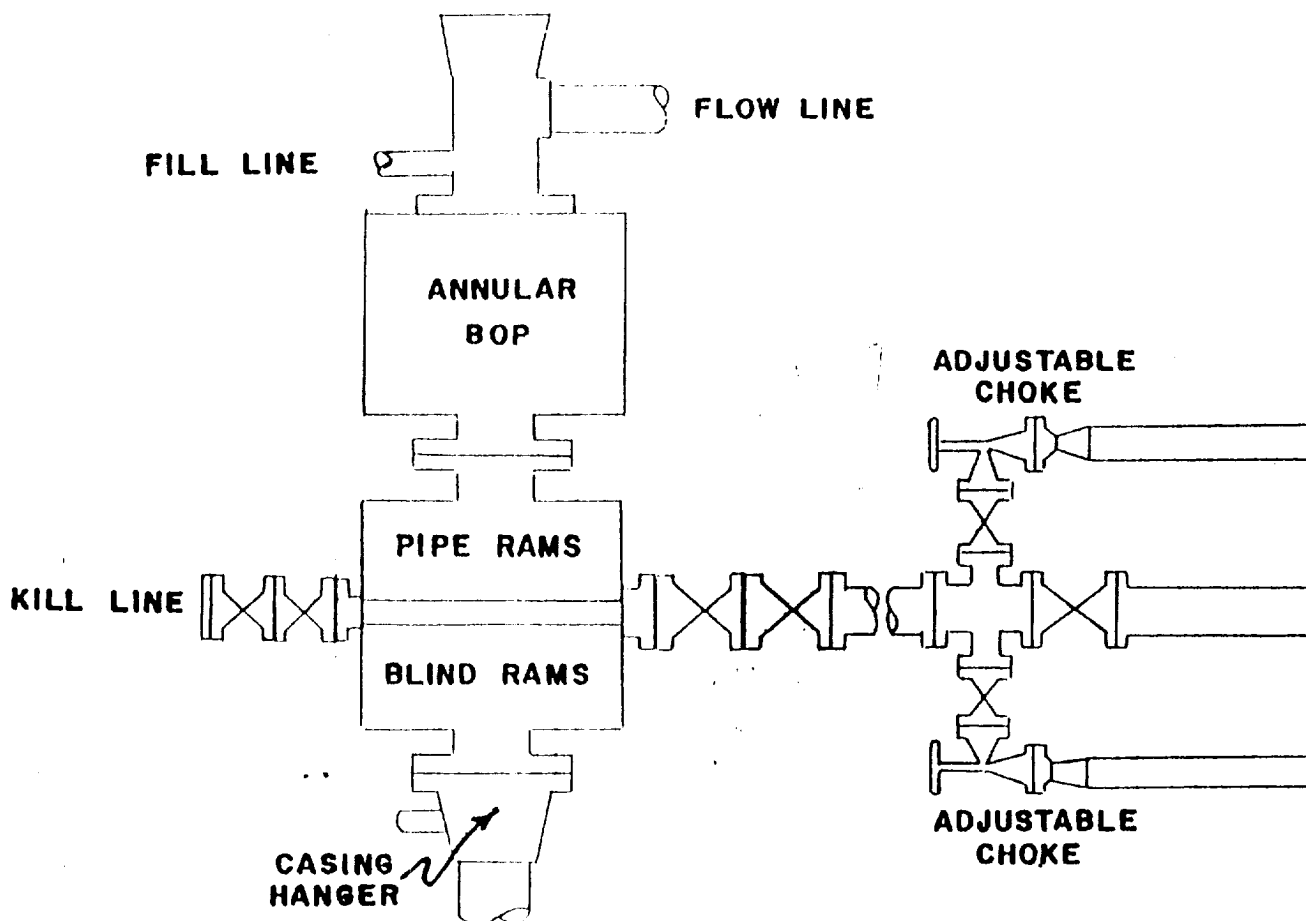


EXHIBIT "E"  
CHI OPERATING, INC.  
Angell Federal Com., Well No. 1  
BOP Specifications