

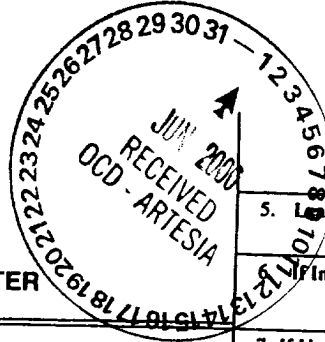
c15P

N. M. Oil & Gas Division
 800 S. 11th St.
 ARTESIA, N.M. 88210-1100

Form 3160-3
 (August 1999)

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER



FORM APPROVED
 OMB No. 1004-0136
 Expires November 30, 2000

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		7. If Unit or CA Agreement, Name and No. 26000	
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		8. Lease Name and Well No. Ironsides Federal #1	
2. Name of Operator Chi Operating, Inc		9. API Well No. 30-015-31171	
3a. Address PO Box 1799 Midland, TX 79702		10. Field and Pool, or Exploratory WC Crow Flat; Morrow SE	
3b. Phone No. (include area code) (915) 685-5001		11. Sec., T., R., M., or Blk. and Survey or Area Sec. 3-T17S-R28E	
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 1650' FNL & 660' FWL At proposed prod. zone Same Unit E Not 5		12. County or Parish. Eddy	
14. Distance in miles and direction from nearest town or post office* 18 miles NE of Artesia, NM		13. State NM	
15. 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 577	17. Spacing Unit dedicated to this well 320	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 2970'	19. Proposed Depth 10,150'	20. BLM/BIA Bond No. on file NM-1616	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3524' GL	22. Approximate date work will start* 04/21/00	23. Estimated duration 30 days	

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>George R. Smith</i>	Name (Printed/Typed) George R. Smith	Date 04/05/00
Title Agent for: Chi Operating, Inc.		
Approved by (Signature) <i>GLARRY D. BRAY</i>	Name (Printed/Typed) GLARRY D. BRAY	Date MAY 31 2000
Title Assistant Field Manager, Lands And Minerals		
Office ROSWELL FIELD OFFICE		

Application approval does not warrant or certify the 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, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

*(Instructions on reverse)

Lease Responsibility Statement: Chi Operating, Inc. accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof.

George R. Smith
 George R. Smith, agent

RECEIVED
2000 APR -6 A 9 05
THE JOINT LEGISLATIVE
POSTAL OFFICE

District I

1023 N. French Dr., Hobbs, NM 88240

District II

811 South First, Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural ResourcesOIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505Form C-102
Revised March 17, 1999Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code		Pool Name WC Crow Flat; Morrow SE	
Property Code		Property Name IRONSIDE FEDERAL			Well Number 1
OGRID No.		Operator Name CHI OPERATING, INC.			Elevation 3524.

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	3	17-S	28-E		1650	NORTH	660	WEST	EDDY

11 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
Dedicated Acres 320		Joint or Infill		Consolidation Code		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

	12 OPERATOR CERTIFICATION	
	I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
	Signature: <u>George R. Smith</u> Printed Name: George R. Smith Title: Agent for: Chi Oper., Inc. Date: April 5, 2000	
	13 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.	
	MARCH 25, 2000 Date of Survey Signature and Seal of Professional Surveyor 	

APPLICATION FOR DRILLING

CHI OPERATING, INC.

Ironsides Federal, Well No. 1
1650' FNL & 660' FWL, Sec. 3-T17S-R28E
Eddy County, New Mexico
Lease No.: NM-012897
(Development 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:

Yates	400'	Strawn	8810'
Penrose	1350'	Atoka Morrow	9350'
San Andres	1920'	Morrow Clastic	9650'
Glorietta	3300'	Mississippian	9850'
Tubb	4650'	Chester	10,000'
Wolfcamp	6550'	T.D.	10,150'
Upper Penn	7750'		

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 Cisco below 7750'.

Gas: Possible in the Grayburg below 1,750', Atoka below 9,350' and the Morrow below 9650'.

4. Proposed Casing Program:

HOLE SIZE	CASING SIZE	WEIGHT	GRADE	JOINT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	48.0#	H-40	ST&C	425' *	Circ. 350 sx "C"
12 1/4"	8 5/8"	32.0#	J-55	ST&C	2,000'	Circ. 650 sx "C" cement.
7 7/8"	5 1/2"	15.5# 17	N-80	LT&C	10,150'	475 sx of "H" to 8,000'

* at top of salt
WITNESS

5. Proposed Control Equipment: A 12" 5000 psi wp Shaffer Type LWS Double Gate BOP will be installed on the 13 3/8" casing. Casing and BOP will be tested before drilling out with 12 1/4" and will be tested daily. See Exhibit "E".

MUD PROGRAM:	MUD WEIGHT	VIS.	W/L CONTROL
0' - 425': Fresh water mud:	8.4 - 8.7 ppg	32 - 34	No W/L control
425' - 2000': Brine mud:	10.0 - 10.2 ppg	28 - 29	No W/L control
2000' - 6600': Fresh water mud:	8.3 - 8.4 ppg	28 - 29	No W/L control
6600' - 9100': Cut Brine mud:	9.6 - 10.0 ppg	28 - 29	No W/L control
9100' - 9500': Cut Brine mud:	9.6 - 10.0 ppg	32 - 36	W/L control 10 cc +/-
9500' - 10,150': Cut Brine mud:	9.6 - 10.0 ppg	42 - 48	W/L control 8 cc +/-

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: Possible in the Strawn and Atoka.

Logging: T.D. to 6500': GR-CAL-CNL-LDT-DLL-MICRO

T.D. to Surface: GR-Neutron

Coring: As dictated for the Atoka and Morrow.

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 = 4200 with a temperature of 164°.
10. H₂S: None expected.
11. Anticipated starting date: May 1, 2000.
Anticipated completion of drilling operations: Approximately 30 days.

MULTI POINT SURFACE USE AND OPERATIONS PLAN

CHI OPERATING, INC.
Ironsides Federal, Well No. 1
1650' FNL & 660' FWL, Sec. 3-T17S-R28E
Eddy County, New Mexico
Lease No.: NM-012897)
(Development 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 and environmental effects associated with the operations.

1. EXISTING ROADS:

- A. Exhibit "A" is a portion of a BLM Public Access map showing the location of the proposed well as staked. The well site location is approximately 18 road miles east of Artesia, NM. Traveling east of Artesia on U.S. Highway 82 and county roads, there will be 13 miles of paved highway, plus 5 miles existing gravel County Rd. #208 and oil field road.
- B. Directions: Travel east from Artesia, NM on U. S. Highway 82 for approximately 13 miles to the County Rd #208 (Red Lake Road). Turn north on County Rd. #208 for 3.8 miles to a crossroads and the end of the County Rd #208. Continue north 1.2 mile on a good gravel road to the location of the proposed well site. The center stake is located on the left (west) side of the road. The proposed access road will detour around the west side of the pad.

2. PLANNED ACCESS ROAD:

- A. Length and Width: The proposed access road and detour will be approximately 600 feet long. The proposed and existing roads are color coded on Exhibits "A" and "B".
- B. Construction: The proposed access roads 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: Minor cuts of 3 - 6 foot dunes will be required.
- F. Gates, Cattle guards: None required.
- G. Off lease right of way: 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. Chi Operating, Inc. has no production facilities on the lease at this time.
- B. If the well proves to be commercial, the necessary production facilities, gas separation-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 on the location, if available, or from a Federal pit in NW4 NE4 Sec. 21-T17S-R28E. 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: 290' X 175', plus 110' X 120' with reserve pits on the north.
- C. Cut & Fill: The location will require a 2- foot cut on the east with fill to the west, including leveling 3 - 6 foot sand dunes.
- 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 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 proposed well site and access road are located on a gentle 1-2% slope to the southwest toward Red Lake. The surface has hummocky sand dunes at the location, which has an elevation of 3524' GL.
- B. Soil: The topsoil at the well site is a light tan sandy loam soil with surface scatter of gypsiferous and limestone rock from the Rock Land escarpment to the east. The soil is part of the Pajarito-Dune land complex.
- C. Flora and Fauna: The vegetation cover has very little to no grass, with the primary cover being plants of mesquite, yucca, fourwing saltbush, broomweed, Russian-thistle, cacti and miscellaneous weeds and wildflowers. The wildlife consists of rabbits, coyotes, antelope, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
- D. Ponds and Streams: Red Lake, a shallow currently dry pond like lake, is 1300 feet to the west.
- E. Residences and Other Structures: None in the immediate vicinity.
- F. Land Use: Cattle grazing.

Chi Operating, Inc.

Ironsides Federal, Well No. 1

Page 4

11. OTHER INFORMATION: cont.....

- G. Surface Ownership: The proposed well site and access road is on Federal surface and minerals.
- H. There may be some minor evidence of archaeological, historical or cultural sites in the staked area. An archaeological survey is being conducted by Archaeological Survey Consultants, P. O. Box D, Roswell, NM 88202, and their report will be submitted to the appropriate government agencies.

12. OPERATOR'S REPRESENTATIVE:

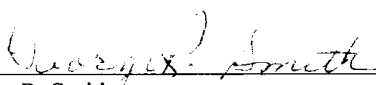
- A. The field representative for assuring compliance with the approved use and operations plan is as follows:

John Qualls
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.

April 5, 2000



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

RED LAKE QUADRANGLE

NEW MEXICO-EDDY CO.

7.5 MINUTE SERIES (TOPOGRAPHIC)

560 000 FEET 1/8 MI. TO N. MEX. ST.

104°07'30" 32°52'30"

(BASIN W)

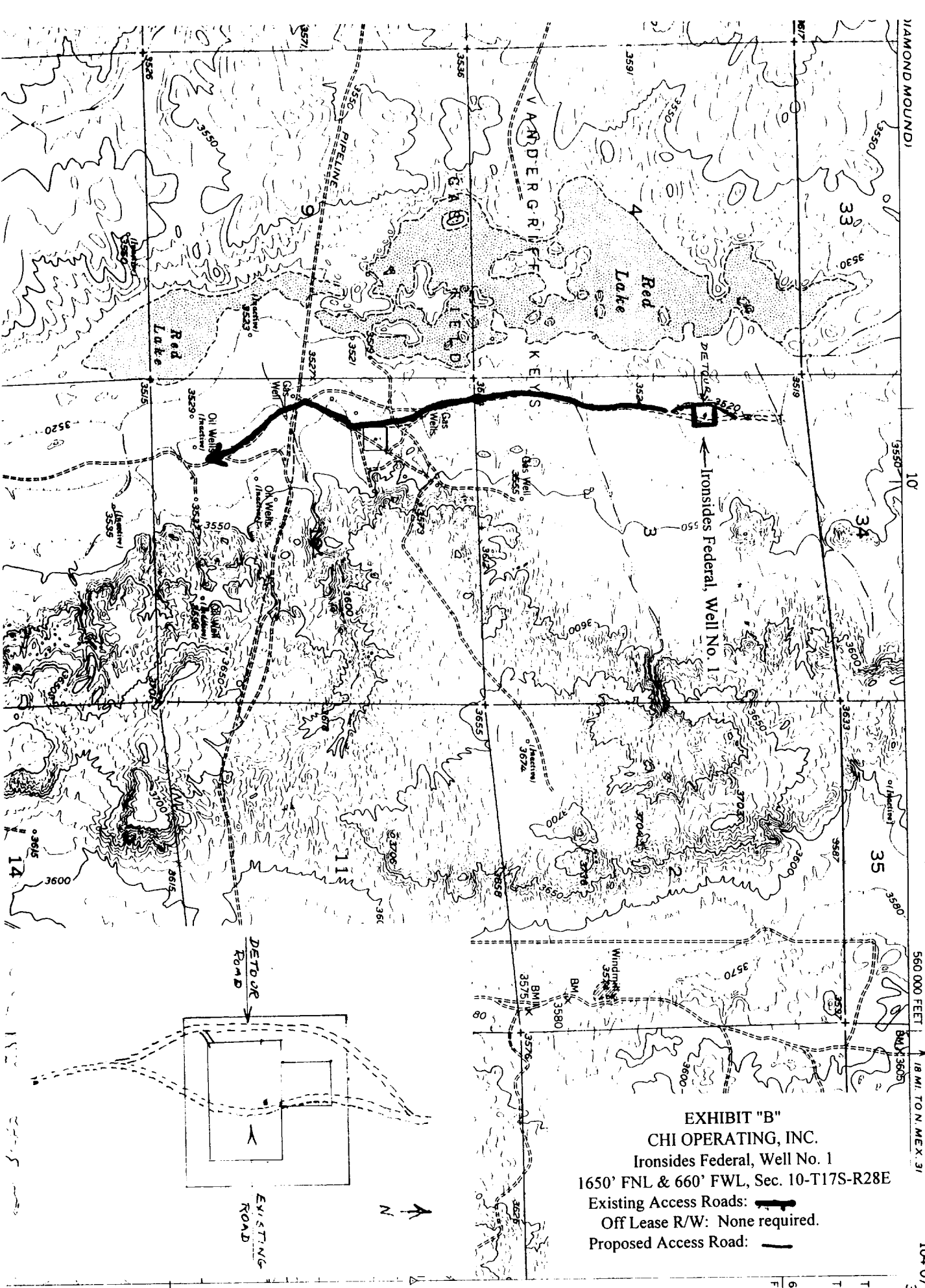




EXHIBIT "B" CHI OPERATING, INC.

Ironsides Federal, Well No. 1

1650' FNL & 660' FWL, Sec. 10-T17S-R28E

Existing Access Roads: 

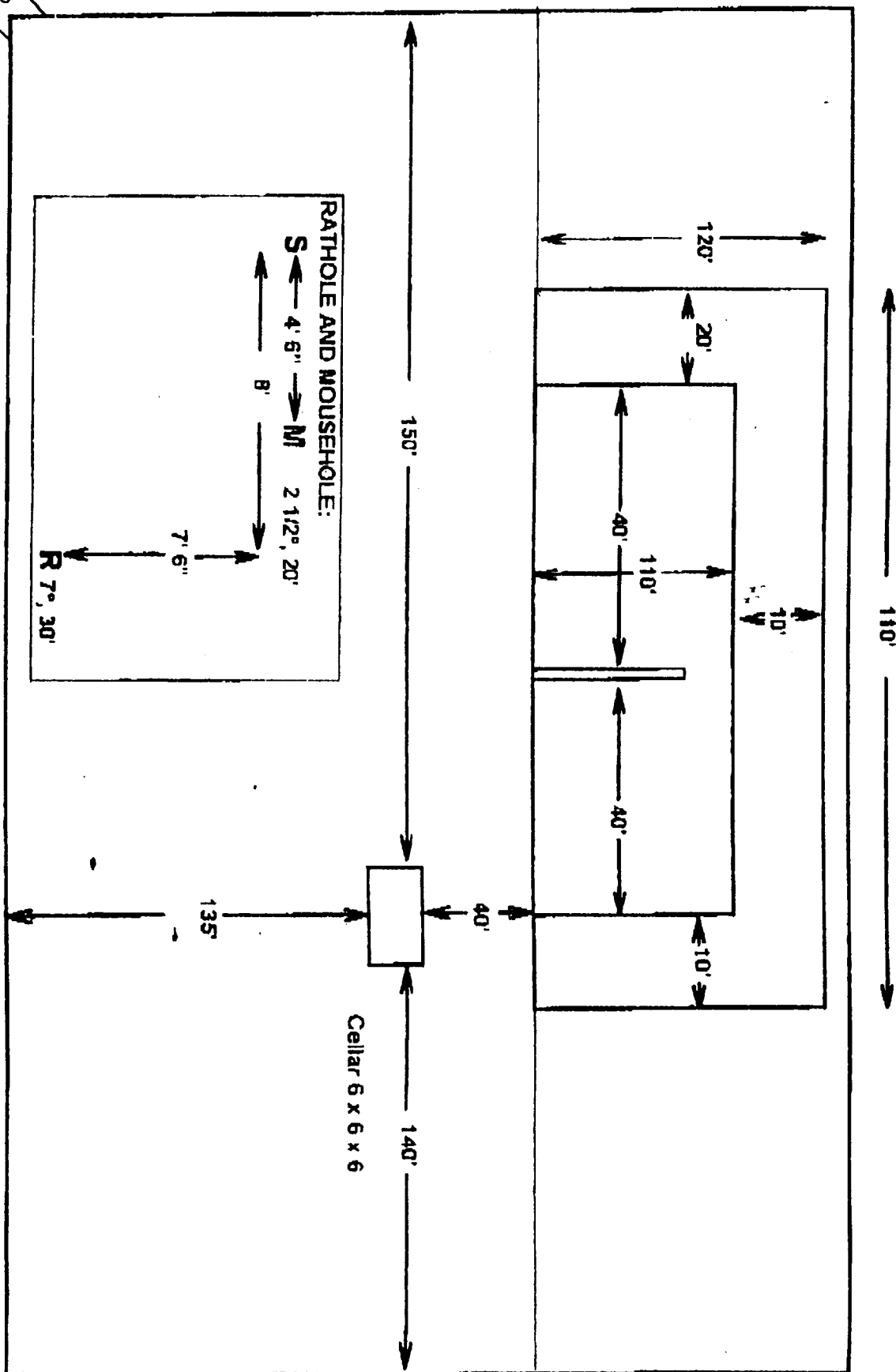
Off Lease R/W: None required.

Proposed Access Road: 

680 000
T. 16 S.
T. 17 S.
FEET

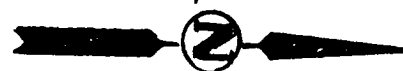
DETOUR ACCESS ROAD

TMBR/Sharp Rig #22



REV 2/7/96

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



RIG #22

BLOWOUT PREVENTOR ARRANGEMENT

11" SHAFFER TYPE LWS, 5000 psi WP

11" CAMERON SPHERICAL, 5000 psi WP

120 GALLON, 5 STATION KOOMEY ACCUMULATOR

5000 psi WP CHOKE MANIFOLD

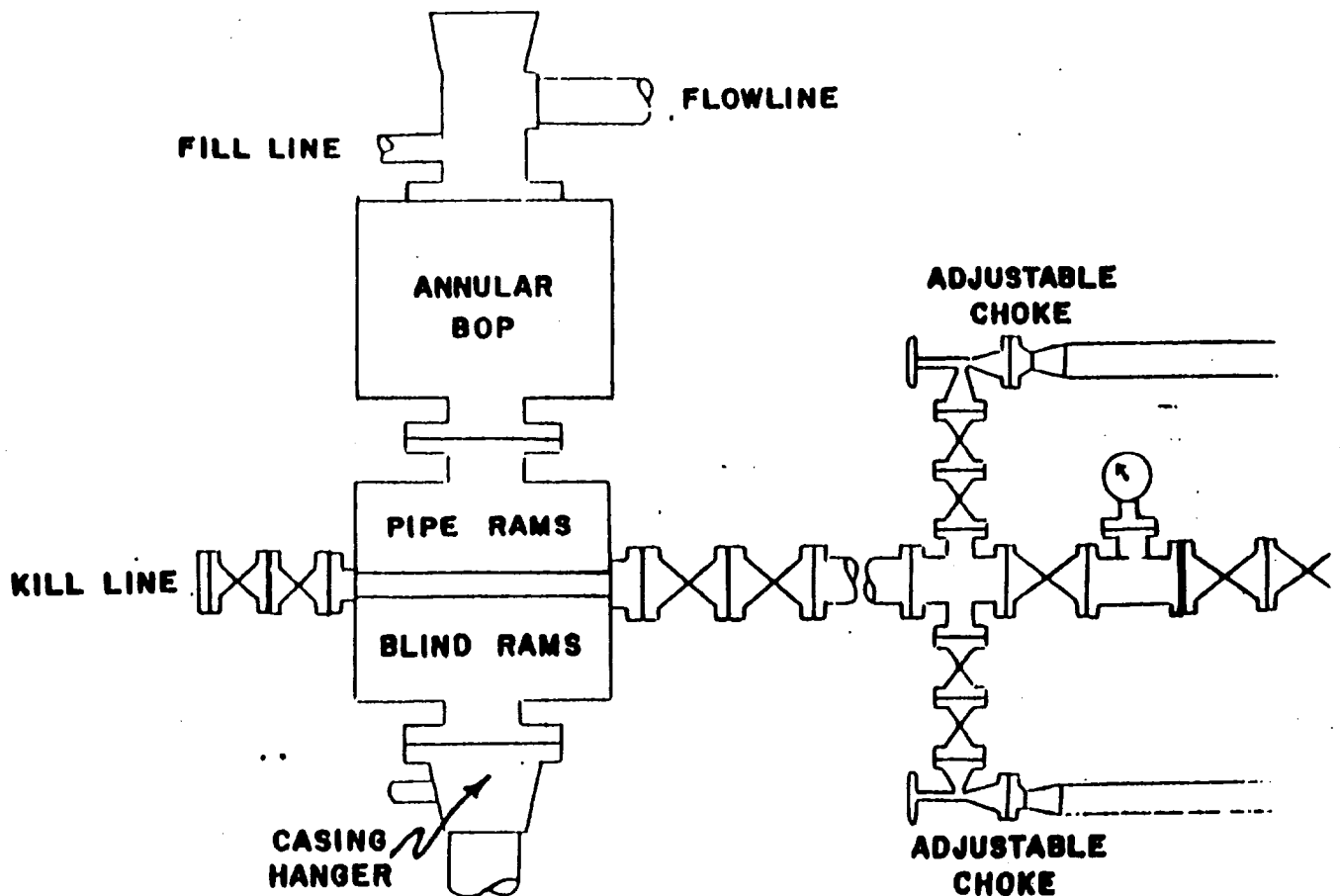


EXHIBIT "E"
CHI OPERATING, INC.
Ironsides Federal, Well No. 1
BOP Specifications