

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

N.M. Oil Order
1301
Artesia, NM

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

C15F

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMLC-029387-D
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		6. If Indian, Allottee or Tribe Name
2. Name of Operator Chi Operating, Inc.		7. If Unit or CA Agreement, Name and No. 29112
3a. Address P.O. Box 1799 Midland, TX 79702		8. Lease Name and Well No. Big Red Federal Com., Well # 1
3b. Phone No. (include area code) (915) 685-5001		9. API Well No. 30-015-32113
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 660' FSL & 1830' FSL At proposed prod. zone same Unit N		10. Field and Pool, or Exploratory N. Shugart Morrow
14. Distance in miles and direction from nearest town or post office* 16 road miles S. of Loco Hills, NM		11. Sec., T., R. M., or Blk. and Survey or Area Sec. 30-T18S R31E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 664.14'	16. No. of Acres in lease 151	12. County or Parish Eddy
17. Spacing Unit dedicated to this well 301.68	13. State NM	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 660'	19. Proposed Depth 12,500'	20. BLM/BIA Bond No. on file NM-1616
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3564' GL	22. Approximate date work will start* 10/1/01	23. Estimated duration 3 weeks

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.
2. A Drilling Plan.
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
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 08/29/01
Title Agent for Chi Operating, Inc.		
Approved by (Signature) <i>/s/ LESLIE A. THEISS</i>	Name (Printed/Typed) <i>/s/ LESLIE A. THEISS</i>	Date NOV 21 2001
Title FIELD MANAGER		
Office CARLSBAD FIELD OFFICE		

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, are attached.

APPROVAL FOR 1 YEAR

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.

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED



George R. Smith
George R. Smith, agent

RECEIVED
2001 AUG 29 PM 1:16
BUREAU OF THE GOVT
ROSWELL OFFICE

District I
1825 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 Resources

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, N M 87505

Form C-102

Revised March 17, 1999
Submit to Appropriate District Office

State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

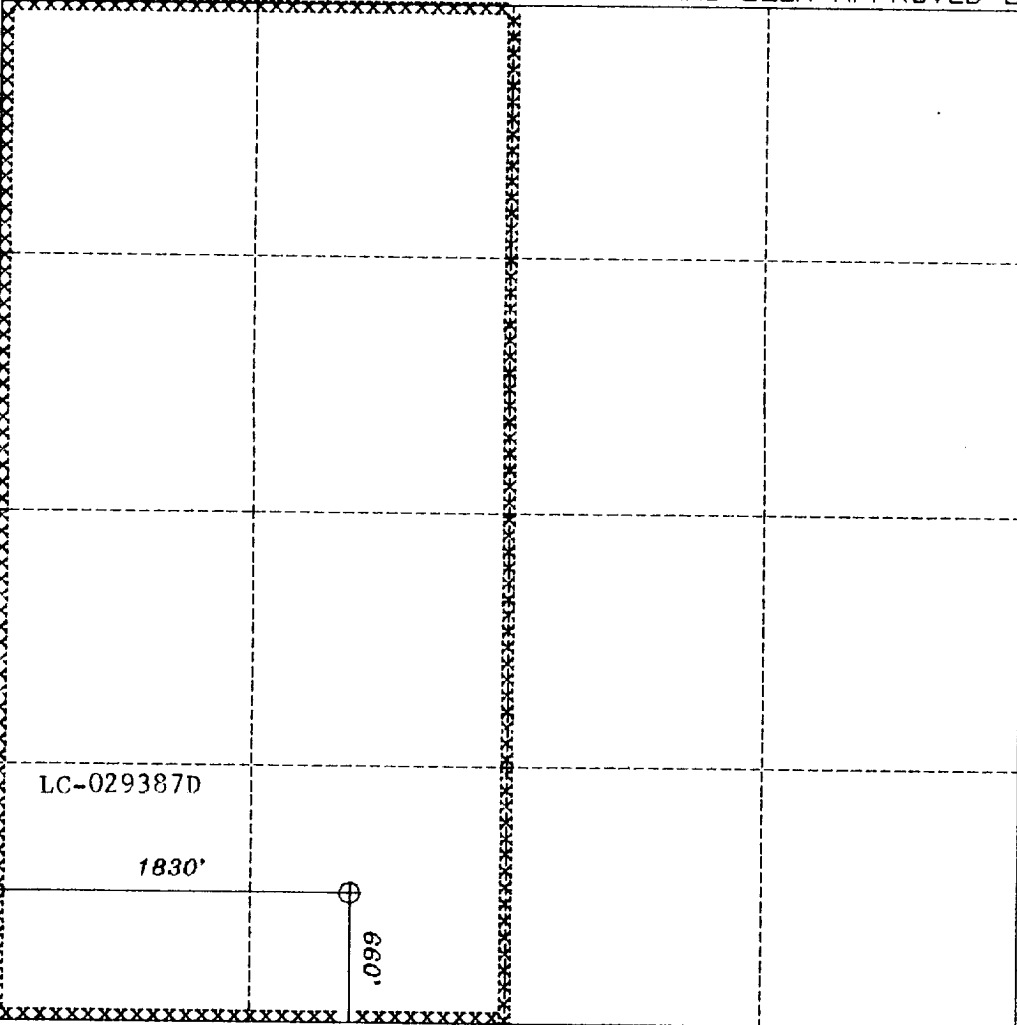
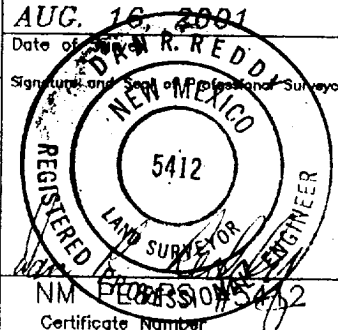
WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name N. Shugart Morrow
Property Code	Property Name BIG RED FEDERAL COM	Well Number 1
OGRID No.	Operation Name CHI OPERATING INC.	Elevation 3564

Surface Location									
UL or Lot No.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
N	30	18 -S	31-E		660	SOUTH	1830	WEST	EDDY

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 301.68	Joint or Infill	Consolidation Code com	Order No.						

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

	OPERATOR CERTIFICATION I HEREBY CERTIFY THAT THE INFORMATION HEREIN IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.
	Signature <i>George R. Smith</i>
	Printed Name George R. Smith, agent
	Title for: Chi Operating, Inc
	Date August 29, 2001
	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.
	AUG. 16, 2001 Date of Survey
	Signature and Seal of Professional Surveyor 
	NM PROFESSIONAL SURVEYOR Certificate Number

APPLICATION FOR DRILLING

CHI OPERATING, INC.
Big Red Federal Com., Well No. 1
660' FSL & 1830' FWL, Sec. 30-T18S-R31E
Eddy County, New Mexico
Lease No.: NM-029867
(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	2,050'	3 rd SD	9,330'
7 – Rivers	2,325'	Wolfcamp	9,780'
Queen	3,160'	Strawn	10,930'
Penrose	3,420'	Atoka	11,260'
Lower Brushy Can	5,338'	Lower Atoka	11,300'
Bone Spring	5,930'	Morrow Clastic	11,800'
1st SD	7,760'	Lower Morrow	12,040'
2 nd SD	8,510'	T.D.	12,500'

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 Queen, Delaware and Bone Spring

Gas: Possible in the Atoka below 11,300' and the Morrow below 11,800'.

4. Proposed Casing Program:

Capitan Controlled Water Basin

HOLE SIZE	CASING SIZE	WEIGHT	GRADE	JOINT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	48.0#	J-55	ST&C	0' - 475'	Circ. 450 sx "C" + add.
11"	8 5/8"	32.0#	J-55	ST&C	0' - 3,200'	Circ. 1300 sx 65/35 sx "C" + POZ.
7 7/8"	5 1/2"	20.0#	N-80	LT&C	0' - 2,400'	
7 7/8"	5 1/2"	17.0#	N-80	LT&C	2,400' - 9,600'	
7 7/8"	5 1/2"	20.0#	N-80	LT&C	9,600' - 12,500'	1500 sx of "H" + add.

5. Minimum Specifications for Pressure Control Equipment:

A 12" 5000 psi WP Shaffer, LWS Double Gate BOP will be installed on the 13 3/8" casing and tested per order #2.

Request waiver to operate as a 3,000 psi WP system and test to the maximum expected surface pressure of 2,800 psi WP Casing and BOP will be tested before drilling out with the 11" and will be tested daily.

6. MUD PROGRAM:	MUD WEIGHT	VIS.	W/L CONTROL
0' - 475': Fresh water mud:	8.4 - 8.5 ppg	32 - 38	No W/L control
475' - 3200': Brine mud:	10.0 - 10.1 ppg	32 - 38	No W/L control
3200' - 9700': Fresh water mud:	8.4 - 8.5 ppg	32 - 38	No W/L control
9700' - 10,900': Cut Brine mud:	9.2 - 9.5 ppg	32 - 38	No W/L control
10,900' - 11,700': Brine (starch) mud:	9.5 - 9.7 ppg	35 - 38	W/L control 15 cc +/-
11,700' - 12,500': Controlled Brine	9.5 - 9.7 ppg	38 - 42	W/L control 10 cc +/-

7. **Auxiliary Equipment:** Blowout Preventer, gas detector, Kelly cock, pit level monitor, flow sensors and stabbing valve.

CHI Operating, Inc.

Big Red Federal Com., Well No. 1

Page 2

8. Testing, Logging, and Coring Program:

Drill Stem Tests: As deemed necessary.

Logging: Run #1: Pending shows: 2000' - 3000': GR/CAL/CNL/LDT/DLL/MSFL
Run #2: Pending shows: 3200' - 6450': GR/CAL/CNL/LDT/DLL/MSFL
Run #3: T.D. - 6450': GR/CAL/CNL/LDT/DLL/MSFL
T.D. - 6450: GR/CNL if runs 1 and/or 2 not performed.

Coring: As dictated by logs.

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 = 4960 psi and surface pressure of 2750 psi with a temperature of 185°.

10. H_2S : None expected.

11. Anticipated starting date: October 1, 2001.

Anticipated completion of drilling operations: Approximately 30 - 40days.

MULTI POINT SURFACE USE AND OPERATIONS PLAN

CHI OPERATING, INC
Big Red Federal Com., Well No. 1
660' FSL & 1830' FWL, Sec. 30 -T18S-R31E
Eddy County, New Mexico
Lease No.: NM-029867
(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 environmental effects associated with the operations.

1. EXISTING ROADS:

- A. Exhibit "A" is a portion of a BLM Hackberry Lake Topo map showing the location of the proposed well as staked. The well site location is approximately 41 road miles southeast of Artesia, NM or 17.5 road miles south of Loco Hills. Traveling east of Artesia on U.S. Highway 82 and County Road No. 222 and 250, there will be 40 miles of paved highway.
- B. Directions: Travel east from U. S. Highway #285 in Artesia, NM on U. S. Highway 82 for approximately 31 miles, turn south on Eddy County Rd. #222 for approximately 8.3 miles to CR-250 (Grubbs Rd.). Turn west on CR-250 for 1.6 mile to the start of the proposed access road on the north side. The proposed access will run north from the county road 250 feet to the southwest corner of the proposed well site.

2. PLANNED ACCESS ROAD:

- A. Length and Width: The proposed access road will be approximately 250 feet in length, 12 feet wide (24' Max.). The proposed and existing roads are color coded on Exhibit "A".
- B. Construction: The new access road will be constructed by grading and topping with compacted caliche. The existing access road will be graded and repaired as required.
- C. Turnouts: None required.
- D. Culverts: None required.
- E. Cuts and Fills: None required.
- F. Gates, Cattle guards: None required.
- G. Off Lease ROW: 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 production facilities on the lease at this time.
- B. If the well proves to be commercial, the necessary production facilities and gas production-process equipment and tank battery, if required, will be installed on the drilling pad. A flow line will be applied for under a separate Right of Way or Sundry Report.

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 Federal pit in the NW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 26-T18S-R30E. No surface materials will be disturbed except those necessary for actual grading and leveling of the drill site and access roads.

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 landfill 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 110 reserve pits on the north.
- C. Cut & Fill: The location will require a 1 – 1.5 foot cut on the northeast with fill to the southwest.
- 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 required 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 well site and access road are located in a area on top of the Niminem Ridge. There is an overall 1-1.5% slope to the southwest from an elevation of 3564' GL.
- B. Soil: The topsoil at the well site is a dark brown colored sandy loam. The soil is of the Berino Loamy Fine Sands complex series possibly underlain with fractured caliche at a 3 – 5 foot depth.
- C. Flora and Fauna: The vegetation cover is a sparse grass cover of threeawn, grama, dropseed, along with plants of mesquite, sage, javalina bush, broomweed, yucca, cacti and miscellaneous weeds and wildflowers. The wildlife consists of rabbits, antelope, coyotes, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
- D. Ponds and Streams: None in the immediate vicinity.
- E. Residences and Other Structures: None in the area except oil field equipment..
- F. Land Use: Cattle grazing.
- 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. Archaeological Survey Consultants, P. O. Box D, Roswell, NM 88202 are conducting an archaeological survey and their report will be submitted to the appropriate government agencies.

12. OPERATOR'S REPRESENTATIVE:

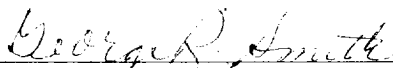
- A. The field representative for assuring compliance with the approved use and operations plan is as follows:

John Qualls
Chi Operating, Inc.
P. O. Box 1799
Midland, Texas 79701
Office Phone: (915) 685-5001
Home Phone: (915) 684-6847

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.

August 29, 2001



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

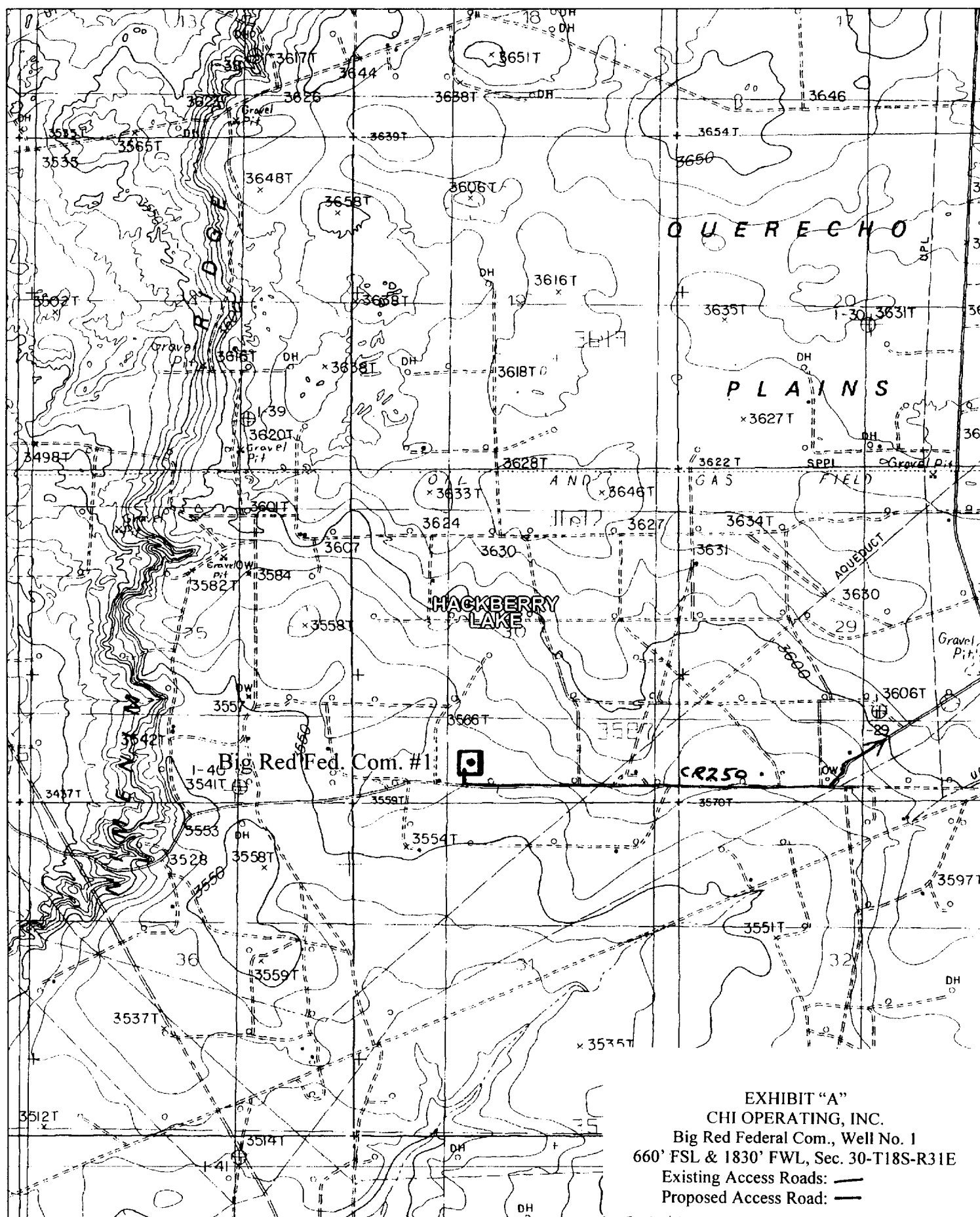


EXHIBIT "A"
 CHI OPERATING, INC.
 Big Red Federal Com., Well No. 1
 660' FSL & 1830' FWL, Sec. 30-T18S-R31E
 Existing Access Roads: —
 Proposed Access Road: - - -



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

TIMBER // SHARP DRILLING

B.O.P. Equipment Intended for use on Rig # 24 + 22
Well To Be drilled for Timber/Sharp

- * All B.O.P equipment is H2S Trim *
- * All Accumulators are Kookey Type-80 : Dual Power Electric/Air *
- * Choke Manifold: * See sheet 2
- 4" Valves : Cameron F/FC, Shaffer DB Hydraulic
- 2" Check Valve: Cameron Type R
- 2" Valves : Cameron or Shaffer

Annular Shaffer Type: Spherical

Annular PSI: 3000

(If Shaffer: Spherical , If Hydril: Type GK)

BOP Type Shaffer LWS

(If Shaffer: LWS or SL, If Cameron: Type U)

BOP Size: 13 5/8 " - 5000 PSI

Rotating Head Type Smith

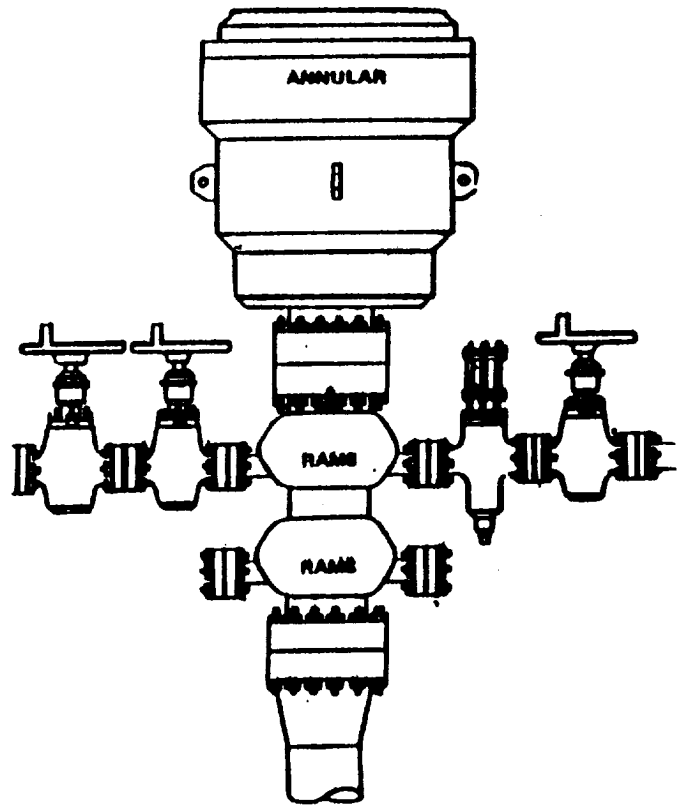
Rot-Head Furnished By Timber

Rams in top gate: 4 1/2 pipe

Rams in bottom: Blinds

Side Outlets used:
Bottom X Top

4" Valves on Tee



B.O.P. Equipment Intended for use on Rig # 24 + 22
Well To Be drilled for Timber/Sharp

- * All Valves (H2S) *

Choke Manifold:

Pressure Rating 3,000 or 5,000 (as Req.)

1 - 4" Valves

2 - 2" Valves

2 - 2" Adjustable Chokes

Valve Types Used:

Cameron - F or FC

Shaffer - B Floseal

WKM - type 2

Chokes - Cameron H2 or TC unbolt

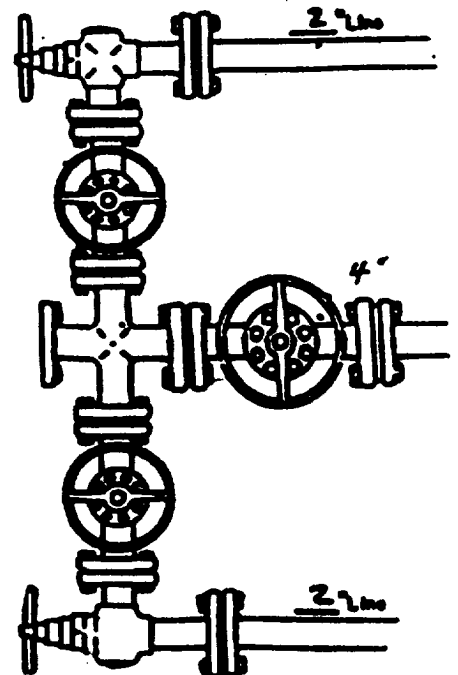


EXHIBIT "E"
CHI OPERATING, INC.
Big Red Federal Com., Well No. 1
BOP Specifications