Form . 160-3 (August 1999) Previous well name: d Rush Federal Com., Well No. 1 Date APD appropriate 1.22 1.22 

**UNITED STATES** 

N. M. Oil Corts. New York on OMB No. 1004-0136 811 S. 13T ST. Expires November 30, 20 Expires November 30, 2000

| DEPARTMENT OF THE II BUREAU OF LAND MANA APPLICATION FOR PERMIT TO DI  | GEMENT                              | , NM 83210<br>F O    | LC-063613  6. If Indian, Allottee or T            | ribe Name             |
|--|-------------------------------------|----------------------|---|-----------------------|
| la. Type of Work:  | R                                   |                      | 7. If Unit or CA Agreeme                          | nt, Name and No.      |
| 1b. Type of Well: Oil Well Gas Well Other  | Single Zone Mu                      | Itiple Zone          | 8. Lease Name and Well N<br>Wizard Federal Com,., |                       |
| 2. Name of Operator Chi Operating, Inc.  |                                     |                      | 9. API Well No.                                   | -31715                |
| 3a. Address  | 3b. Phone No. (include area code)   | 1                    | 10. Field and Pool, or Expl                       | oratory               |
| P.O. Box 1799 Midland, TX 79702  | (915) 685-5001                      |                      | N. Hackberry Morrow                               |                       |
| 4. Location of Well (Report location clearly and in accordance with  | any State requirements. *)          |                      | 11. Sec., T., R., M., or Blk                      | and Survey or Area    |
| At surface 1750' FSL & 760' FEL  | •                                   |                      |   |                       |
| At proposed prod. zone same $\bigcup_{\mathcal{N}}$  | πI                                  |                      | Sec. 1-T19S-R30E                                  |                       |
| 14. Distance in miles and direction from nearest town or post office*  | and<br>disk                         | ी के जीव<br>- किसमें | 12. County or Parish                              | 13. State             |
| 16 road miles S. of Loco Hills, NM   |                                     | . WARE               | Eddy  | ММ                    |
| 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 760' | 16. No. of Acres in lease           | 17. Spacin           | g Unit dedicated to this well                     |                       |
| 18. Distance from proposed location*   | 280                                 | 40 01111             | 320   |                       |
| to nearest well, drilling, completed, applied for, on this lease, ft.  1553'   | 19. Proposed Depth                  |                      | BIA Bond No. on file M-1616                       |                       |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.)  | 22. Approximate date work will      | start*               | 23. Estimated duration                            |                       |
| 3477' GL   | 4/5/01                              |                      | 4 weeks   |                       |
|  | 24. Attachments                     |                      | 1   | ì                     |
| The following, completed in accordance with the requirements of Onsho  | re Oil and Gas Order No.1, shall be | attached to this     | s form:   |                       |
| <ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> </ol>                                | 4. Bond to cover Item 20 above      |                      | s unless covered by an exist                      | ing bond on file (see |

- 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).
- 5. Operator certification.
- 6. Such other site specific information and/or plans as may be required by the authorized officer.

| 25. Signature           | $\alpha = \ell$ | Name (Printed Typed) | Date   |     |
|-------------------------|-----------------|----------------------|--|-----|
| - Deal-                 | ran Dmitte      | George R. Smith      | 03/16/01   |     |
| Title                   | 9               |                      |  |     |
| Agent for Chi Operation | ng, Inc.        |                      |  |     |
| Approved by (Signature) | 361 : .         | Name (Printed Typed) | Date   | , ] |
| Title                   |                 | Office               | and the second s |     |
|                         |                 |                      | and the same of th |     |

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

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, agent

BUREAU OF LAND MGMT. ROSWELL OFFICE

2001 MAR 16 PM 1: 43

BECEINED

District I PO Box 1980, Hobbs, NM 88241-1986 District II PO Drawer DD, Artesia, NM 88211-0719 District [II]

# State of New Mexico Energy, Minerals & Natural Resources Department

Form C-102 Revised February 10, 1994 Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies Fee Lease - J Copies

### OIL CONSERVATION DIVISION PO Box 2088 Santa Fe. NM 87504-2088

1000 Rie Brazos Rd., Astec. NM 87410 District [V MENDED REPORT PO Bez 2018. Santa Fe. NM 87504-2088 WELL LOCATION AND ACREAGE DEDICATION PLAT Pool Name API Number N. Hackberry Morrow ' Well Number 'Penery New: New Name: Property Code Previous Name: Wizard Federal Com. LAND RUSH FEDERAL ' Elevation Operator Name OGRID No. 3477 CHI OPERATING, INC 10 Surface Location County Fast/West Las North/South Mac Foot from the Feet from the Township Range Lot Ida Section LL or lot se. **EDDY** 760 **EAST** SOUTH 30-E 1750 19-S 11 Bottom Hole Location If Different From Surface Coustr North/South line Feet from the East West line Range Lot Ide Feet from the Section Township UL er lot se. 10 Comolidation Code " Order No. 12 Dedicated Acres 12 Joint or Infill Com-320 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 OPERATOR CERTIFICATION I hereby certify that the information contained heren is true and complete to the best of my browledge and boild Sienature George R. Smith, agent for Printed Name Chi Operating, Inc. March 16, 2001 "SURVEYOR CERTIFICATION LC-063613 I hereby cerufy that the well location shown on this plat O'Neill Prop. etal was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true 760 and correct to the best of my belief. 1998 JANUARY 31 Date of SaryENR. RED'D. 50

### APPLICATION FOR DRILLING

### CHI OPERATING, INC.

Wizard Federal Com., Well No. 1
Previous Name: Land Rush Federal Com., Well No. 1
1750' FSL & 760' FEL, Sec. 1-T19S-R30E
Eddy County, New Mexico
Lease No.: NM-063613
(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       | 2,200' | Strawn         | 10,800' |
|-------------|--------|----------------|---------|
| Queen       | 3,100' | Atoka          | 11,000' |
| Delaware    | 4,050' | Morrow Clastic | 11,600' |
| Bone Spring | 6,210' | Lower Morrow   | 12,000' |
| Avalon SD   | 6,400' | T.D.           | 12,400' |
| Wolfcamp    | 9.900' |                |         |

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 11,000' and the Morrow below 11,600'.

4. Proposed Casing Program:

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

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 11" and will be tested daily. See Exhibit "E".

| 6. | MUD PROGRAM:                           | MUD WEIGHT       | VIS.     | W/L CONTROL           |
|----|--|------------------|----------|-----------------------|
|    | 0' - 450': Fresh water mud:            | 8.4 - 8.5 ppg    | 32 - 38  | No W/L control        |
|    | 450' - 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        |
| İ  | 9700' - 10,600': Cut Brine mud:        | 9.2 - 9.5 ppg    | 32 - 38  | No W/L control        |
|    | 10,600' - 11,500': Brine (starch) much | l: 9.5 - 9.7 ppg | 35 - 38  | W/L control 12 cc +/- |
| ,  | 11,500' - 12,400': Controlled Brine    | 9.5 - 9.7 ppg    | 386 - 42 | 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: 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 with a temperature of 184°.
- 10. H<sub>2</sub>S: None expected.
- 11. Anticipated starting date: April 5, 2001.
  Anticipated completion of drilling operations: Approximately 30 days.

### MULTI POINT SURFACE USE AND OPERATIONS PLAN

### CHI OPERATING, INC

Wizard Federal Com., Well No. 1 1750' FSL & 660' FEL, Sec. 1 -T19S-R30E Eddy County, New Mexico Lease No.: NMLC-063613 (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 36 road miles southeast of Artesia, NM. Traveling east of Artesia on U.S. Highway 82, NM Hwy 360 and county roads No. 250 and 251, there will be 33 miles of paved highway, plus 3 miles of existing gravel oilfield roads.
- B. Directions: Travel east from U. S. Highway #285 in Artesia, NM on U. S. Highway 82 for approximately 14 miles, turn southeast on NM Hwy 360 for approximately 13 miles to paved County Rd #251. Turn north on #251 for 1.8 mile to County Rd. # 250, then turn right on #250 for 3.8 miles to top of Nimenim Ridge. Turn south onto a gravel oilfield road just west of a cattle guard with a pipeline buried near the road. Continue south for .8 mile to a large tank battery and injection pump house; turn right (west) for .25 mile to a pump jack, then south (left) for .5 mile to another pump jack. Turn left (east) for .2 mile to the start of the proposed access road on the right, which will run south 1500 feet to the southwest corner of the proposed well site.

### 2. PLANNED ACCESS ROAD:

- A. Length and Width: There will be approximately 1500 feet of new access roads 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: One increasing the road width to 20 feet for passing will be constructed at the midpoint
- D. Culverts: None required.
- E. Cuts and Fills: There will be some minor leveling of the surface.
- F. Gates, Cattle guards: None required.
- G. Off Lease ROW: An off lease ROW No. NM-102279 was issued with a previous APD covering the existing access road in the E2 of Sec. 1-T19S-R30E.

### 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 and gas production-process equipment and tank battery, if required, will be installed on the drilling pad. A three (3) inch poly gas flow line will be run 300' to the southwest to an existing gas flow line and will parallel this flow line to a gas hookup at a P&A well site, 2500' F&L & 1980 FEL Sec. 1-T19S-R30E.

### 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\s\S\s\s\s'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 cut of 3-4 foot cut on the north with fill to the south.
- 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 with a draw 300 feet east of the location. There is an overall 2.5% slope to the southeast from an elevation of 3477' GL.
- B. Soil: The topsoil at the well site is a shallow dark brown colored gravely sandy loam over caliche rock. The soil is of the Potter-Simona complex series.
- C. Flora and Fauna: The vegetation cover is a fair to good grass cover of threeawn, grama, dropseed, fluff grass, along with plants of mesquite, creosote bush, broomweed, yucca, cacti 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 except an intermittent drainage draw 300 feet to the east running north/south.
- E. Residences and Other Structures: None in the area except oil field equipment and tank batteries and a gas pipeline pump station 1,400 feet southeast of the location
- 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 conducted an archaeological survey and their ASC Report No. 98-010 (NMCRIS NO. 59554), dated February 21, 1998, was 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

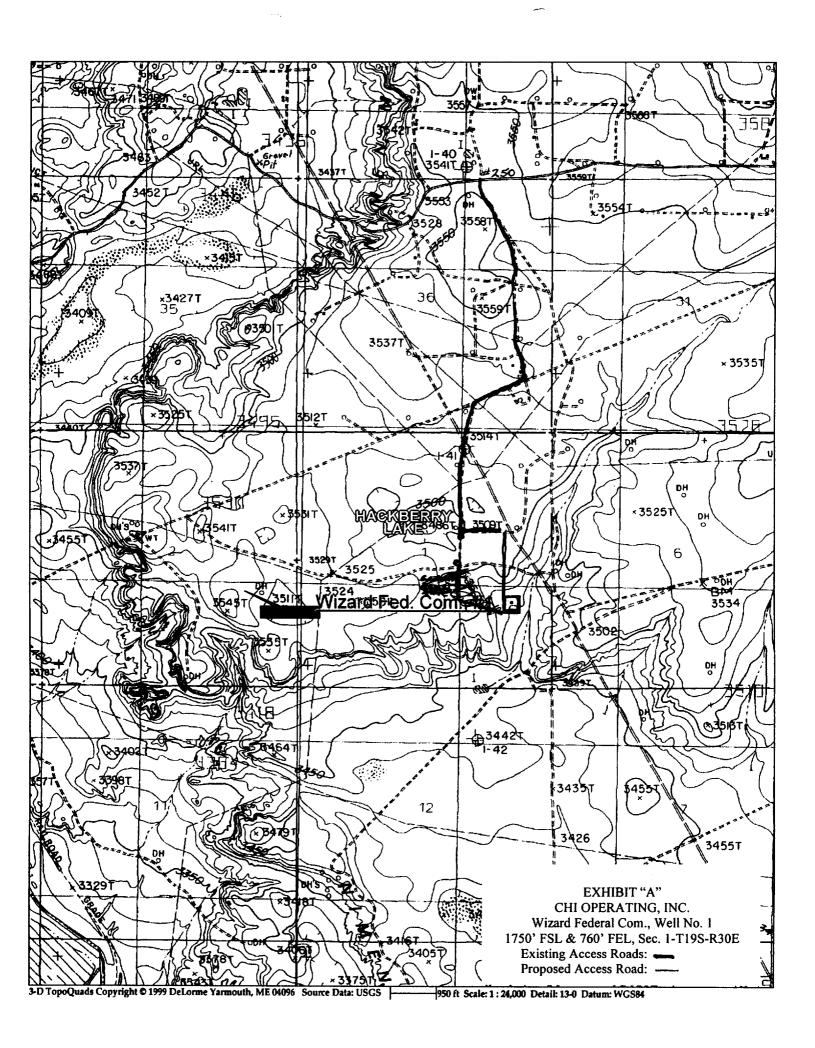
### 13. CERTIFICATION:

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.

March 16, 2001

George R. Smith

Agent for: Chi Operating, Inc.



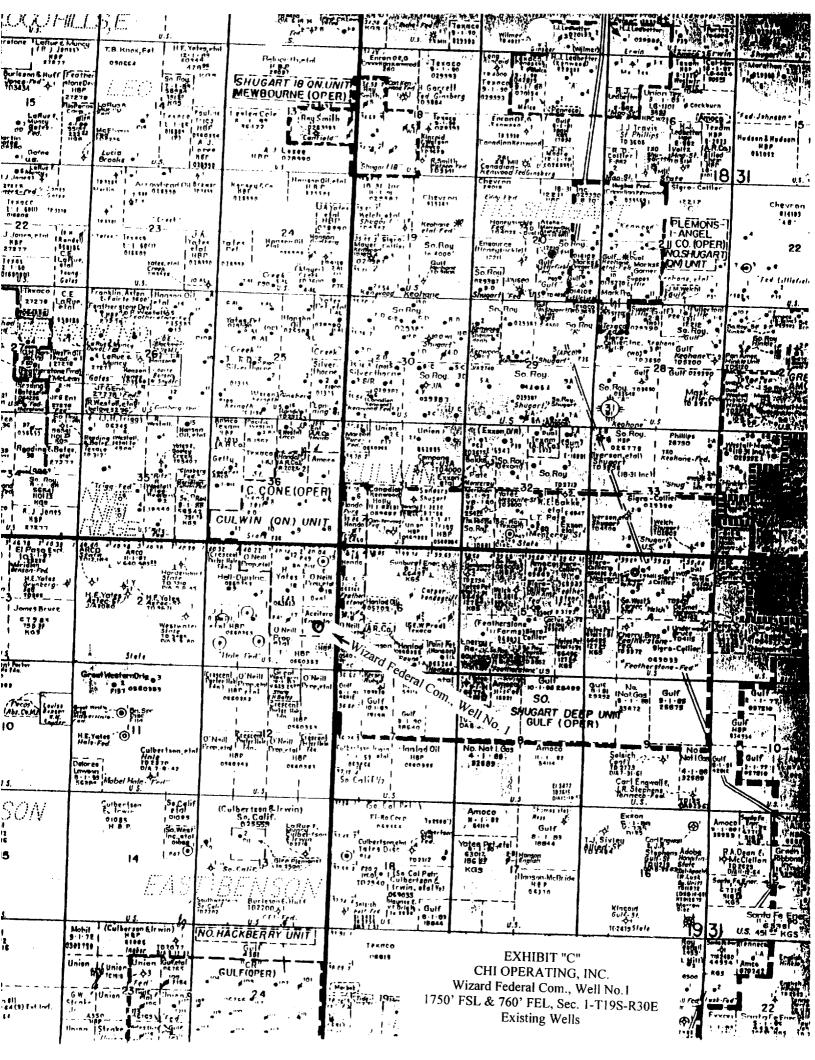


EXHIBIT "B" CHI OPERATING, INC. Wizard Federal Com., Well No. 1 Pad & Pit Layout



## TIMIBIA/SIH/AMP DMILLING

B.O.P. Equipment Intended for use on Rig #  $\frac{34}{24}$  4 22 Well To Be drilled for  $\frac{1}{2}$  Shap

'All B.O.P equipment is H2S Trim'

'All Accumulators are Koomey Type-80: Dual Power Electric/Air'

'Choke Manifold: 'See sheel 2

4' Valves: Cameron F/FC, Shaffer DB Hydraulla

2" Check Valve: Cameron Type R

2' Valves: Cameron or Shaffer

Annular Shaffer Type: Sphenkel

Annular PSI: 3000

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

BOP Type Statter LWS

(If Shaffer: LWS or SL, If Cameron: Type U) **BOP Size:** 13/2 " - 5000 PSI

Rotating Head Type 5-1th

Rot-Head Furnished By TMB?

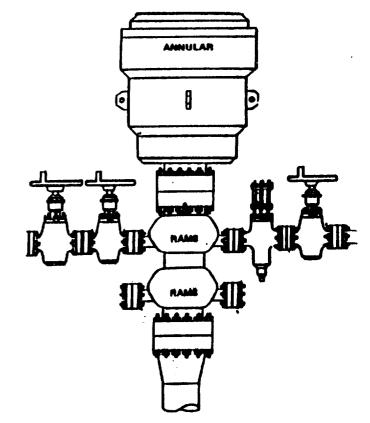
Rams in top gate: 41/2 Pipe

Rams in bottom: Blinds

Side Oullels used:

Bottom\_X\_ Top\_\_\_

4" Valves on Tee



Well To Be drilled for Imise Sharp

'All Valves (H28)'

Choke Manifole:

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 unibolt

11

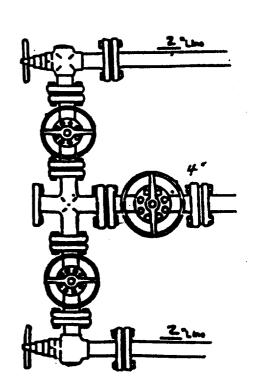


EXHIBIT "E"
CHI OPERATING, INC.
Wizard Federal Com., Well No. 1
BOP Specifications