

N.M. Oil Cons. DIV-D-2
1301 W. Grand Avenue
Artesia, NM 88210FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-104649
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. 4375		7. If Unit or CA Agreement, Name and No. 29130
3a. Address P.O. Box 1799 Midland, TX 79702		8. Lease Name and Well No. Nugget Federal Com., Well # 1
3b. Phone No. (include area code) (915) 685-5001		9. API Well No. 30-015-32132
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 1650' FSL & 1963' FEL At proposed prod. zone same Unit J		10. Field and Pool, or Exploratory Happy Valley Morrow
14. Distance in miles and direction from nearest town or post office* 7 road miles W. of Carlsbad, NM		11. Sec., T., R., M., or Blk. and Survey or Area Sec. 11-T22S-R25E
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 406.17	12. County or Parish Eddy
17. Spacing Unit dedicated to this well 320	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. N/A	13. State NM
19. Proposed Depth 11,500'	20. BLM/BIA Bond No. on file NM-1616	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3460' GL	22. Approximate date work will start* 10/15/01	23. Estimated duration 4 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. | 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 09/6/01
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 DEC 11 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.

Carlsbad Controlled Water Basin

APPROVAL FOR 1 YEAR

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.

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED*George R. Smith*
George R. Smith, agent

BUREAU OF LAND MGMT
ROSWELL OFFICE

2001 SEP - 6 PM 2: 35

RECEIVED

District I
1625 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

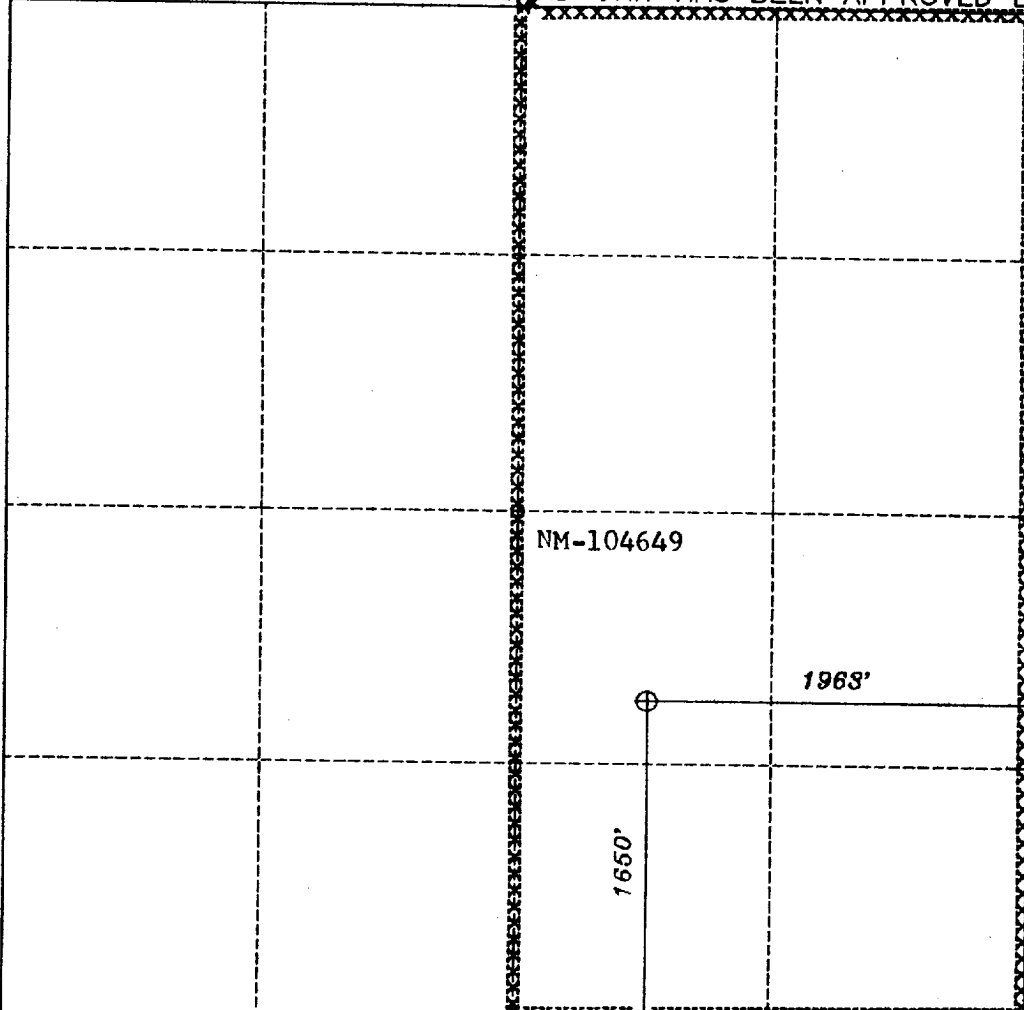
WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code	Pool Name Happy Valley Morrow	
Property Code	Property Name NUGGET FED COM			Well Number 1
OGRID No.	Operation Name CHI OPERATING, INC.			Elevation 3460

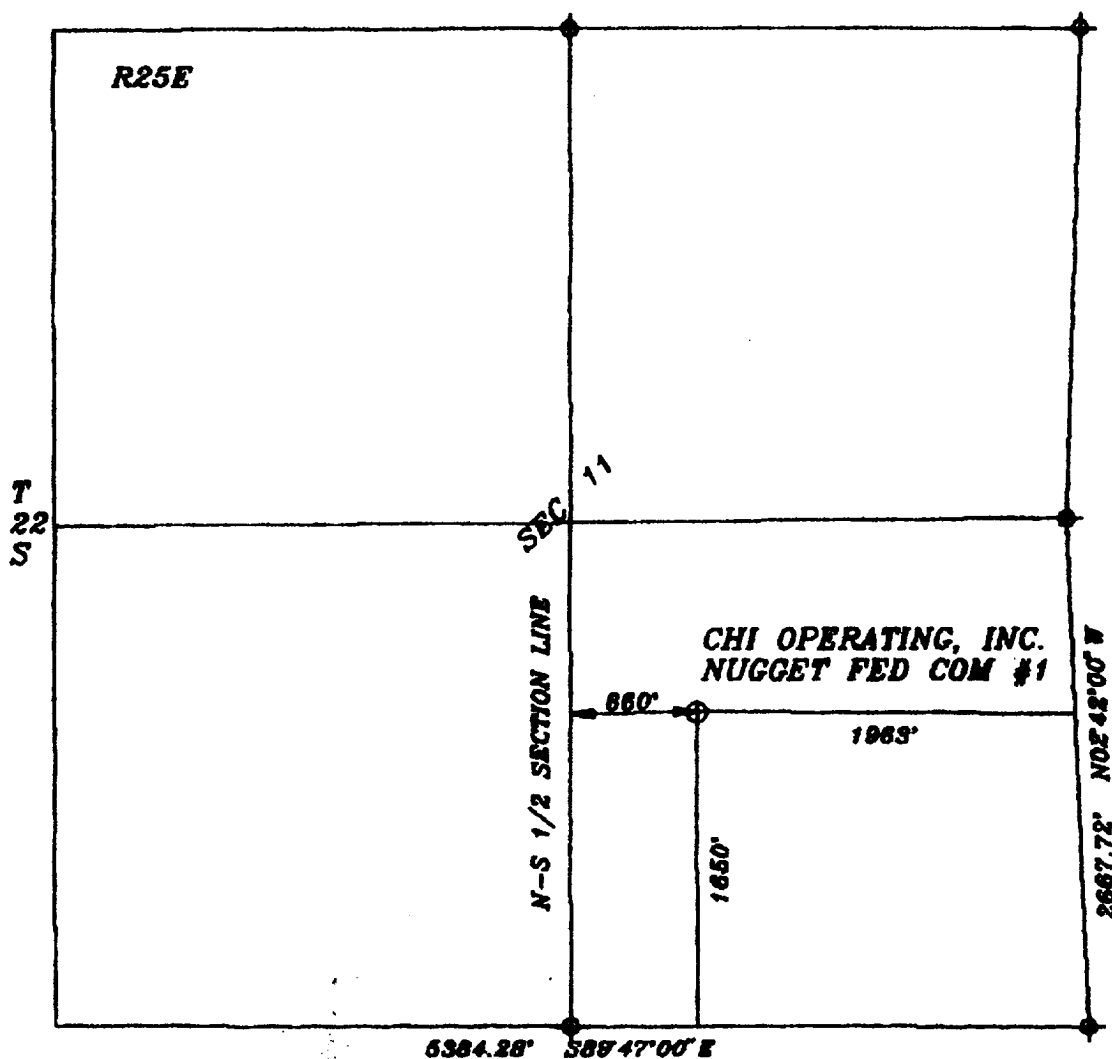
Surface Location									
UL or Lot No. J	Section 11	Township 22-S	Range 25-E	Lot Idn.	Feet from the 1650	North/South line SOUTH	Feet from the 1963	East/West line EAST	County EDDY

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 320		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. <i>George R. Smith</i> Signature George R. Smith, agent Printed Name for Chi Oper., Inc. Title September 6, 2001 Date
	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 17 2001 Date of Survey Signature and Seal of Registered Surveyor 5412 REGISTERED LAND SURVEYOR ENGINEER NM PE&PS #5412 Certificate Number

AS STAKED SKETCH



✦ FOUND GLO BRASS CAP

SKETCH PREPARED BY: DAN R. REDDY, NM PE&PS 5412

APPLICATION FOR DRILLING

CHI OPERATING, INC.
Nugget Federal Com., Well No. 1
1650' FSL & 1963' FEL, Sec. 11-T22S-R25E
Eddy County, New Mexico
Lease No.: NM-104649
(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:

Delaware	2200'	Strawn	9570'
Bone Spring	4450'	Atoka Morrow	9930'
1st sand	5510'	Morrow Clastic	10,560'
2nd sand	6200'	Lower Morrow	10,900'
3rd sand	7720'	T.D.	11,500'
Wolfcamp	8050'		
Upper Penn	9900'		

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

Water: Surface water between 100' - 1400'.

Oil: Possible in the Delaware below 2200' and Bone Spring 2nd sand..

Gas: Possible in the Wolfcamp, Upper Penn, Strawn between 8050' and 9900' and the L. Morrow below 10,900'.

4. Proposed Casing Program:

HOLE SIZE	CASING SIZE	WEIGHT	GRADE	JOINT	SETTING DEPTH	QUANTITY OF CEMENT	
17 1/2"	13 3/8"	48.0#	K-55	ST&C	400'	Circ. 300 sx "C" to surface.	WITNESS
12 1/4"	8 5/8 "	24.0#	J-55	ST&C	2,200'	Circ. 570 sx "C" to surface.	
7 7/8"	5 1/2"	17.0#	N-80	LT&C	11,500'	500 sx of "H" to 500' above to	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. Request a waiver to test to a maximum of 2530 psi, the expected maximum surface pressures. Casing and BOP will be tested before drilling out with 7 7/8" and will be tested regularly as required. See Exhibit "E".

6. MUD PROGRAM:		MUD WEIGHT	VIS.	W/L CONTROL
0' - 400':	Fresh water mud:	8.4 - 8.8 ppg	28	No W/L control
400' - 2200':	Fresh water mud	9.7 - 10.0 ppg	29	No W/L control
2340' - 8000':	Fresh water mud:	8.5 - 8.8 ppg	28	No W/L control
8000' - 10,400':	Cut Brine mud:	9.2 - 9.5 ppg	32 - 36	W/L control 15 cc +/-
10,400' - 11,500':	Cut Brine mud:	9.5 - 10.0 ppg	42 - 48	W/L control 8 cc +/-

7. Auxiliary Equipment: Blowout Preventer, gas detector, Kelly cock, and stabbing valve.

8. Testing, Logging, and Coring Program:

Drill Stem Tests: As deemed necessary.

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

T.D. to Surface: GR-Comp. Neutron

Coring: As dictated for the Morrow.

ALL CASING AND BOP TESTS MUST BE CONDUCTED
ACCORDING TO ONSHORE ORDER NO. 2

Chi Operating, Inc.
Nugget Federal Com., Well No. 1
Page 2

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 = 4520 with a temperature of 173°.
10. H₂S: None expected.
11. Anticipated starting date: October 15, 2001.
Anticipated completion of drilling operations: Approximately 30 - 40 days.

MULTI POINT SURFACE USE AND OPERATIONS PLAN

CHI OPERATING, INC.
Nugget Federal Com., Well No. 1
1650' FSL & 1963' FEL, Sec. 11-T22S-R25E
Eddy County, New Mexico
Lease No.: NM-104649
(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 minerals map showing the location of the proposed well as staked. The well site location is approximately 7 road miles west of Carlsbad, NM. Traveling west of Carlsbad (Happy Valley) on Jones Rd. (Cnty Rd. # 427) there will be approximately 7 miles of existing paved and gravel County Rd. #427.
- B. Directions: Travel west of the west truck bypass in Carlsbad (Happy Valley) on Jones Rd. (Cnty Rd. # 427) for 6.8 miles to a "Y". Take the south road, which is the old County Rd. #428 for .2 mile to the start of the proposed access road on the right (west) side of the county road, and will run west for approximately 40 feet to the SE corner of the proposed well pad.

2. PLANNED ACCESS ROAD:

- A. Length and Width: The proposed access roads will be approximately 40 feet long. The proposed and existing roads are color coded on Exhibit "A".
- B. Construction: The proposed 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 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 the location, if available, or use bottoms from a Federal pit in NE4 SW4 Sec. 11-T22S-R25E. 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 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 110' X 100' reserve pits on the Northeast.
- C. Cut & Fill: The location will require a 2-2.5 foot cut on the northwest with fill to the southeast.
- 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 proposed well site and access road are located on a 2.5% slope to the southeast toward the confluence of Boyds Canyon and the North Fork of Little McKittrick Draw. The surface of the location is flat with an elevation of 3460' GL.
- B. Soil: The topsoil at the well site is a moderately dark loamy soil with a possible layer of caliche below 48" in depth. The soil is part of the Reagan-Upton association.
- C. Flora and Fauna: The vegetation cover has a poor to fair grass, with the primary cover being plants of mesquite, creosote bush, yucca, mountain mahogany, cacti and miscellaneous weeds and wildflowers. The wildlife consists of rabbits, coyotes, antelope, deer, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
- D. Ponds and Streams: None except intermittent running draws and canyons when it rains.
- E. Residences and Other Structures: None in the immediate vicinity.
- 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 visible evidence of archaeological, historical or cultural sites in the staked 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) 684-8825

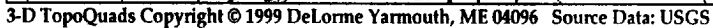
13. **CERTIFICATION:**

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.

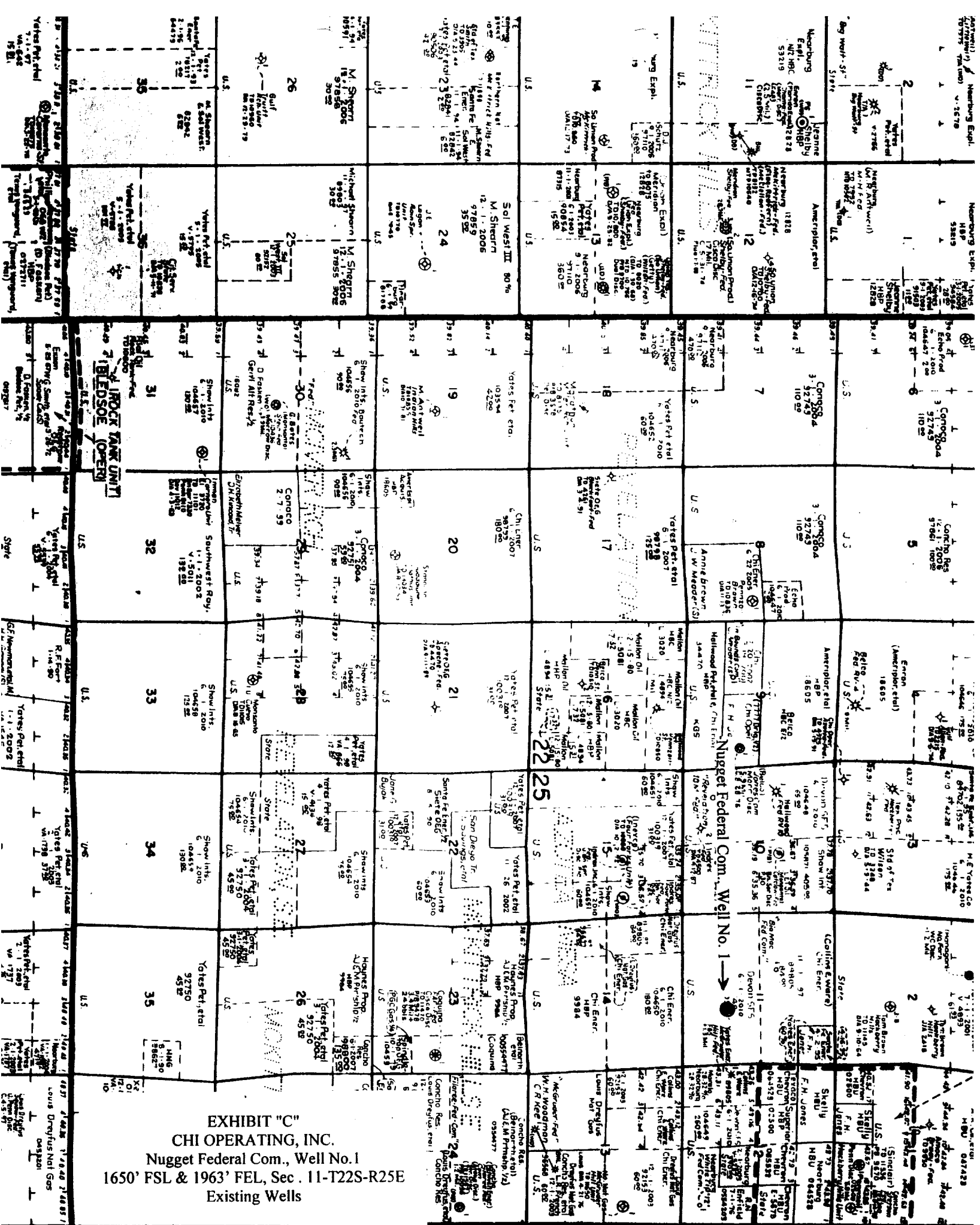
September 6, 2001



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



950 ft Scale: 1 : 24,000 Detail: 13-0 Datum: WGS84



TMBR/Sharp Rig #22

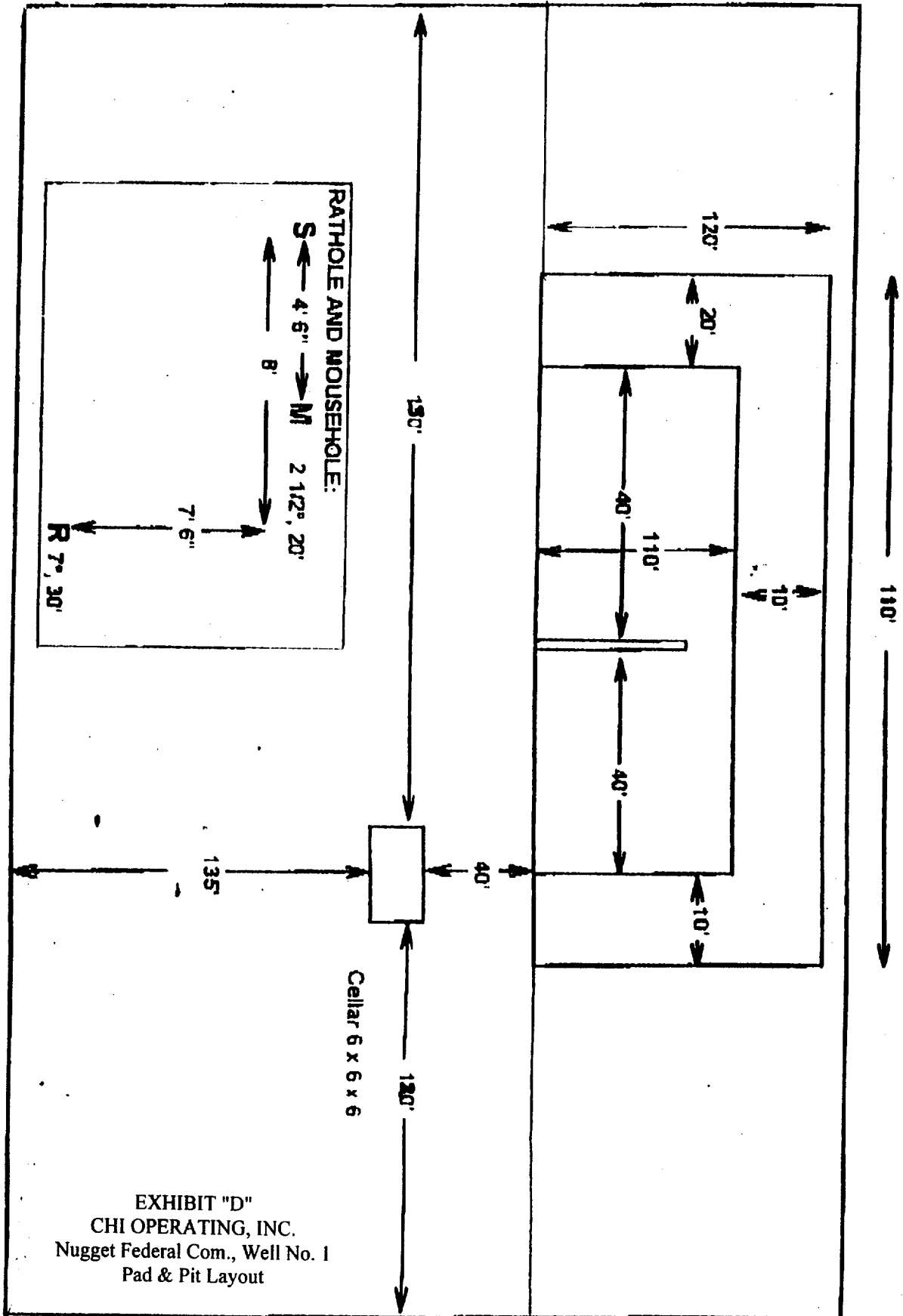


EXHIBIT "D"
CHI OPERATING, INC.
Nugget Federal Com., Well No. 1
Pad & Pit Layout

REV 2/7/95

ACCESS
ROAD

OLD CNTY RD #428

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 OK)

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

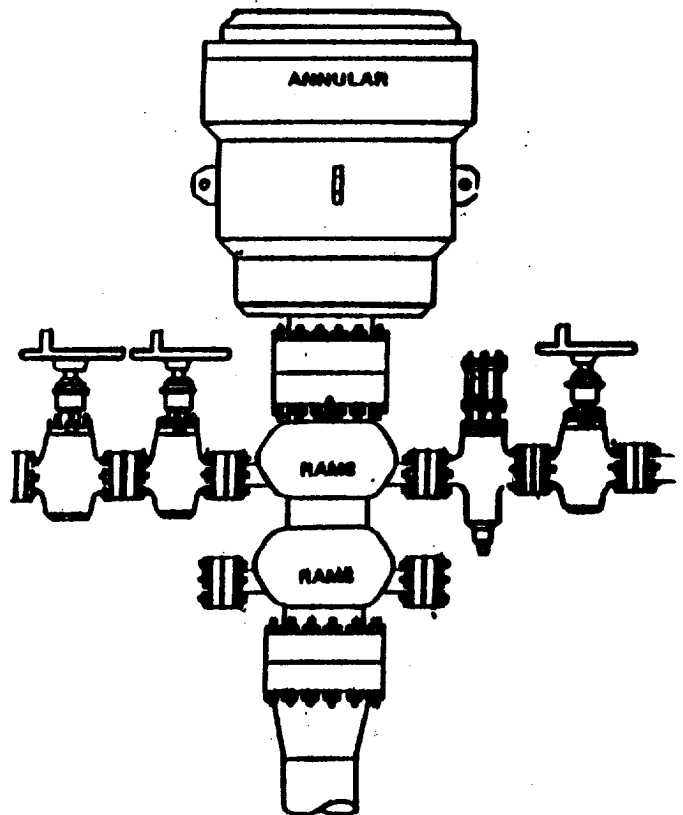
Rams in top gate: 4 1/2 pipe

Rams in bottom: Blinds

Side Outlets used:

Bottom X Top

4" Valves on Tee



B.O.P. Equipment Intended for use on Rig # 24

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

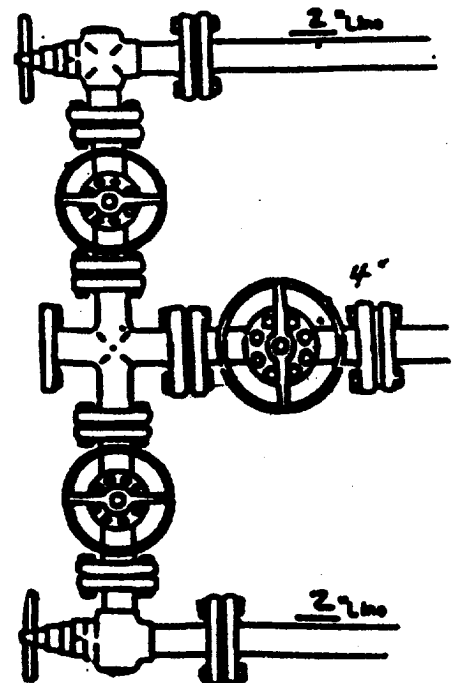


EXHIBIT "E"
CHI OPERATING, INC.
Nugget Federal Com., Well No. 1
BOP Specifications