

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☒

GAS
WELL ☐

OTHER ☐

SINGLE
ZONE ☐

MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Chi Operating, Inc.

3. ADDRESS OF OPERATOR

P. O. Box 1799

Midland, Texas 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State regulations)

At surface

1982' FSL & 831' FWL (Actual survey correction)

At proposed prod. zone 1980' FSL & 990' FWL (Previous APD location)

Same

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

8 miles west of Carlsbad, NM

10. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drig. unit line, if any)

831'

16. NO. OF ACRES IN LEASE

330

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

1661'

19. PROPOSED DEPTH

4300'

20. ROTARY OR CABLE TOOLS

Rotary

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

3634' GL

AREA OF MAJOR CONCERN TO
THE CITY OF CARLSBAD

22. APPROX. DATE WORK WILL START*

March 27, 1991

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
* 17 1/2"	13 3/8"	48.0#	347'	370 sx "C" circulated
* 12 1/4"	9 5/8"	32 & 36#	2350'	Circ 500 sx "C" & 955 HL
New 7 7/8"	5 1/2"	15.5-17#	4300'	Tieback w/600 sx "C"

* Existing casing and cement.

Propose to re-enter well plugged and abandoned by Sun Exploration & Prod., Co. in May, 1985 and test the Delaware below 2200' after drilling out cement plugs with tops of:
surface, 321', 2299', 4160'.
Former Hackberry Fed. #1
OTD: 10,940'

MUD PROGRAM: 0' - 2350' Drill out cement plugs as shown above in existing casing.
2350' - 4300' Below the 9 5/8" existing casing, will drill with fresh water and native mud to clean up hole and drill out additional plugs.

BOP PROGRAM: A 10" 3000 psi wp Series 900 Cameron SS Space Saver BOP will be installed on the 9 5/8" casing. Casing and BOP will be tested before drilling out with 7 7/8". The BOP will be used as a 2000 psi wp system and will be tested daily.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED George Smith Agent for: Chi Operating, Inc. DATE April 3, 1991

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE 4-19-91

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

**NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

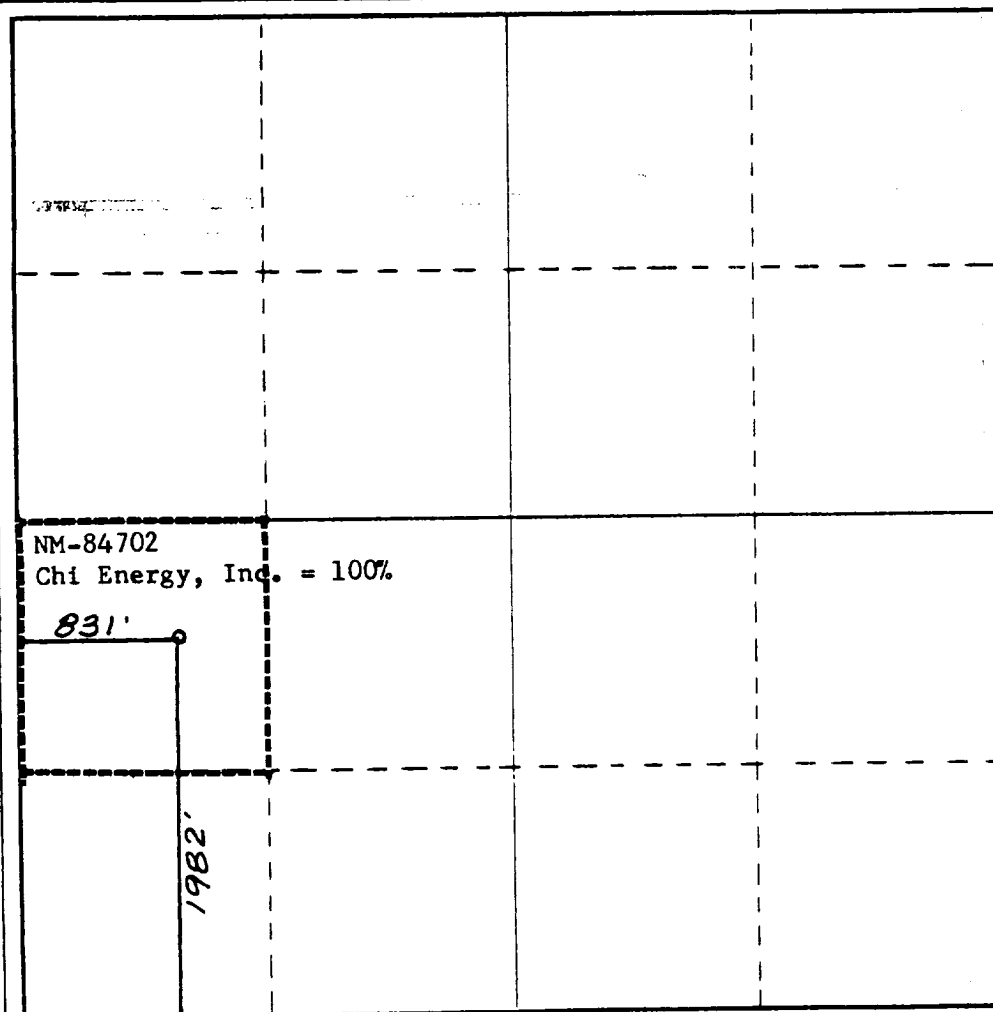
Operator CHI OPERATING INC.			Lease Azotea Federal		Well No. 3
Unit Letter L	Section 3	Township 22 South	Range 25 East	County Eddy County, N.M.	
Actual Footage Location of Well: 1982 feet from the South line and 831 feet from the West line					
Ground Level Elev. 3634.	Producing Formation Delaware		Pool Wildcat		Dedicated Acreage: 40 Acres

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

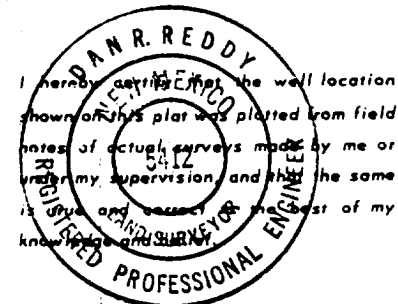
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name
George R. Smith

Position
Agent for:

Company
Chi Operating, Inc.

Date
March 13, 1991



Date Surveyed
February 19, 1991

Registered Professional Engineer
and/or Land Surveyor

Dan R. Reddy
Certificate No.

NM PE&PS NO. 5412

APPLICATION FOR DRILLING

CHI OPERATING, INC.
Azotea Federal, Well No. 3
1982' FSL & 831' FWL, Sec. 3-T22S-R25E
Eddy County, New Mexico
Lease No.: NM-84702
(Exploratory Well-Re-entry)

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:

Capitan Reef	600'
Base Capitan Reef	2032'
Cherry Canyon	2032'
Brushy Canyon	2890'
Bone Springs	4210'
T.D.	4300'
3. The estimated depths at which water, oil or gas formations are anticipated to be encountered:

Water: Surface water between 100' - 350'.

Oil: Possible in the Delaware below 2200'.

Gas: None.
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, unless required by well site geologist.

Logging: T.D. to intermediate casing: CNL-CDL, DLL/msfl
Intermediate casing to surface: GR/CNL

Coring: None, unless required by well site geologist.
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.
10. Anticipated starting date: April 20, 1991.
Anticipated completion of drilling operations: Approximately 2 weeks.

MULTI POINT SURFACE USE AND OPERATIONS PLAN

CHI OPERATING, INC.
Azotea Federal, Well No. 3
1982' FSL & 831' FWL, Sec. 3-T22S-R25E
Eddy County, New Mexico
(Exploratory Well*Re-entry)

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 Topographic Carlsbad Quadrangle map showing the location of the proposed well as staked. The well site location is approximately 8 road miles west of Carlsbad, New Mexico. Traveling west of Carlsbad from Happy Valley Rd. on County Rd. 427 there will be 2.8 miles of paved county road, plus 5.2 miles of gravel county and oilfield roads.
- B. Directions: Travel west from Carlsbad, NM on County Rd. 427 for approximately 7 miles to the crossing of Boyds Canyon. Turn northwest (right) onto gravel road just before crossing the Boyds Canyon arroya and continue NW for 1.3 mile. The start of the existing access road to be upgraded is on the east side of the Llano pipeline access road and runs east for approximately 1000 feet to the southwest corner of the existing well site.

2. PLANNED ACCESS ROAD:

- A. Length and Width: There will be approximately 3000 feet of existing access roads to be upgraded 12 feet wide (24' Max.). The existing roads to be upgraded are color coded on Exhibits "A" and "B".
- B. Construction: The existing access road will be upgraded and repaired and grading and watering. The surface will be properly drained.
- C. Turnouts: One turnout may be required, increasing the width to 20 feet for passing.
- D. Culverts: None.
- E. Cuts and Fills: None required.
- F. Gates, Cattleguards: None required.
- G. Off Lease R/W: There will be approximately 3000 feet of additional R/W for existing access roads to tie in with and amend existing R/W No. NM-84573 through Federal surface to reach county maintained roads. See Exhibit "B".

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 production facilities on the lease at the Azotea Fed. #1 well site, 660' FSL & 660' FWL, Sec. 3-T22S-R25E.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES: cont.....

- B. If the well proves to be commercial, the necessary production facilities, gas will be installed on the drilling pad, and a surface flow line of Sched. SD 11, 160 psi 3" black polypipe, will be installed to the Azotea Fed. #1 tank battery.

5. LOCATION AND TYPE OF WATER SUPPLY:

- A. It is planned to drill the proposed plugged 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. Additional caliche, as required, for surfacing the existing access road and well site pad will be obtained from the location. The topsoil from the location will be stockpiled near the location for future rehabilitation use. 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 buried in a separate trash pit and covered with a minimum of 24 inches of dirt. All waste material will be contained to prevent scattering by the wind.
- H. All trash and debris will be buried or removed from the well site 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 existing pad and pit area will be used with no additional disturbance.

9. WELL SITE LAYOUT: cont.....

- B. Mat Size: 220' X 145', plus reserve pits.
- C. Cut & Fill: None required. The pad will require blading to clean surface and repair location.
- D. The surface will is currently 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 within 90 days after abandonment or when pits or dry enough to work.

11. OTHER INFORMATION:

- A. Topography: The well site and access road are located in the rocky foothills of the Guadalupe Mountains with an overall 8% slope to the west from an elevation of 3634' GL.
- B. Soil: The topsoil at the well site is a light colored, calcareous, gravelly, shallow soil of the Upton Gravelly Series with considerable caliche cobble scatter on the surface and is underlain with hard fractured caliche at a depth of a foot or less and considerable rocky outcrops.
- C. Flora and Fauna: The vegetation cover is a poor to fair grass cover of grama, three-awn, tobosa and burro grass, along with plants of creosote bush, javelina bush, sumac, broom snakeweed, yucca, mesquite, cacti and miscellaneous weeds and wildflowers. The wildlife consists of rabbits, deer, coyotes, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
- D. Ponds and Streams: Nothing in the area except dry intermittent arroyos.
- E. Residences and Other Structures: There is a Llano, Inc. gas pipeline pump station 2500 feet southwest of the location.
- F. Land Use: Cattle grazing.
- G. Surface Ownership: The proposed well site and access road is on Federal surface and minerals.

11. OTHER INFORMATION: cont.....

- H. There is no evidence of any archaeological, historical or cultural sites in the area. The well was plugged and abandoned in 1985 and no additional surface disturbance will be required. An archaeological survey should not be necessary. The surface flow line will be a new disturbance and will be cleared before construction. A Sundry Report and archaeological survey will be submitted at that time.

12. OPERATOR'S REPRESENTATIVE:

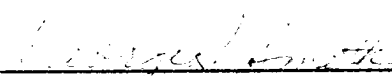
- A. The field representative for assuring compliance with the approved surface use and operations plan is as follows:

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.

April 3, 1991



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

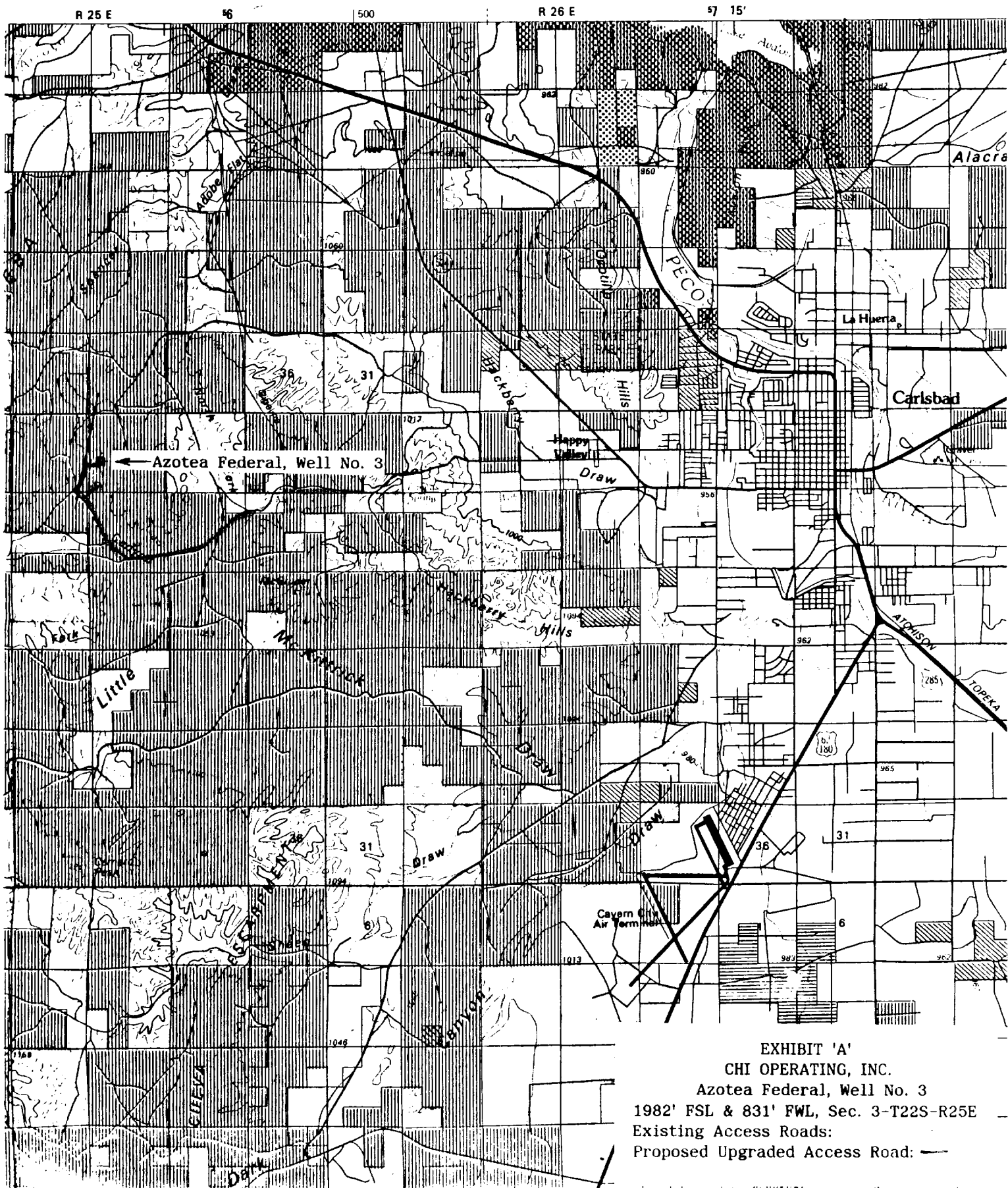


EXHIBIT 'A'
CHI OPERATING, INC.
Azotea Federal, Well No. 3
1982' FSL & 831' FWL, Sec. 3-T22S-R25E
Existing Access Roads: —
Proposed Upgraded Access Road: —

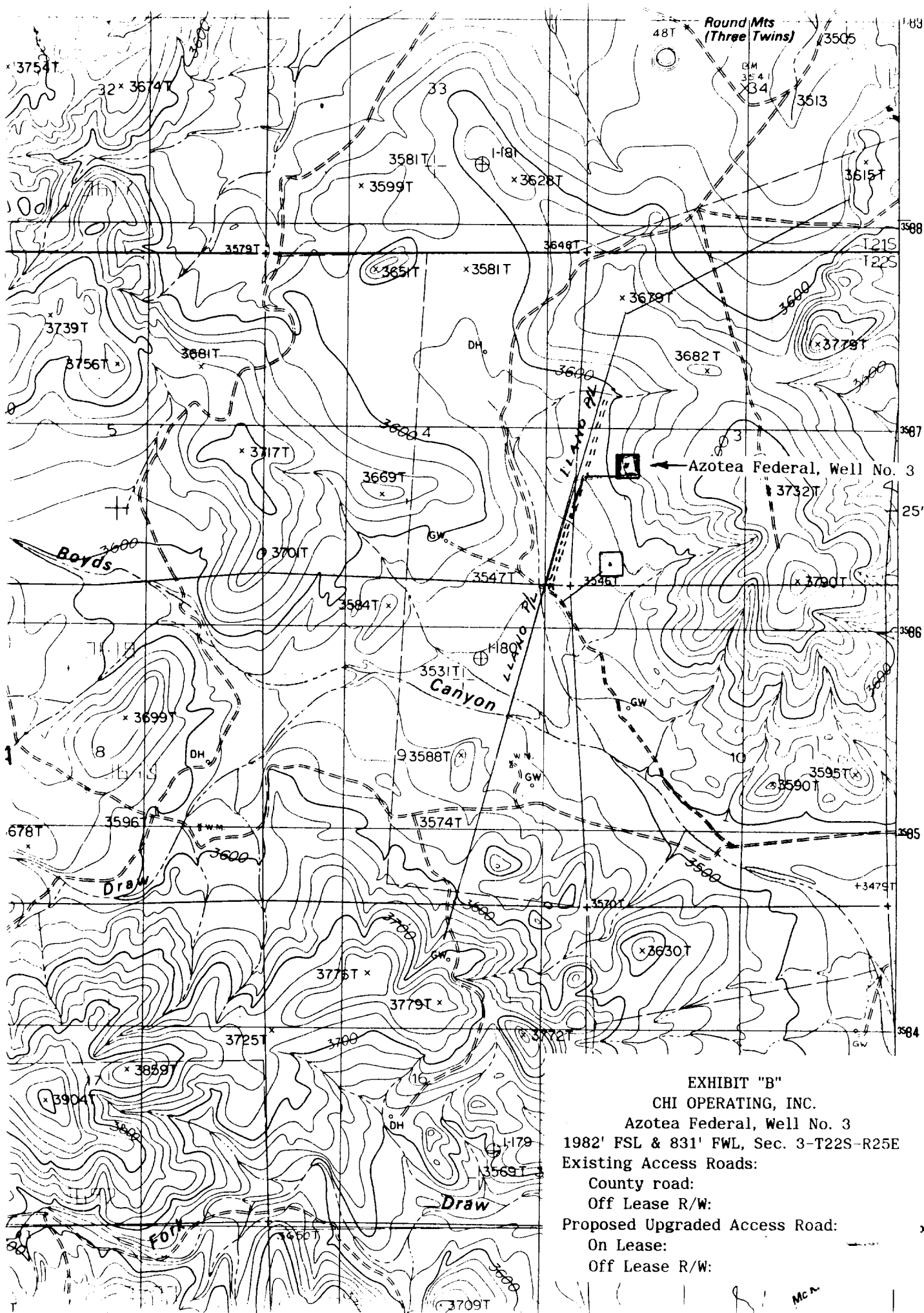


EXHIBIT "B"

CHI OPERATING, INC.

Azotea Federal, Well No. 3

1982' FSL & 831' FWL, Sec. 3-T22S-R25E

Existing Access Roads:

County road:

Off Lease R/W:

Proposed Upgraded Access Road:

On Lease:

Off Lease R/W:

100m

Mc

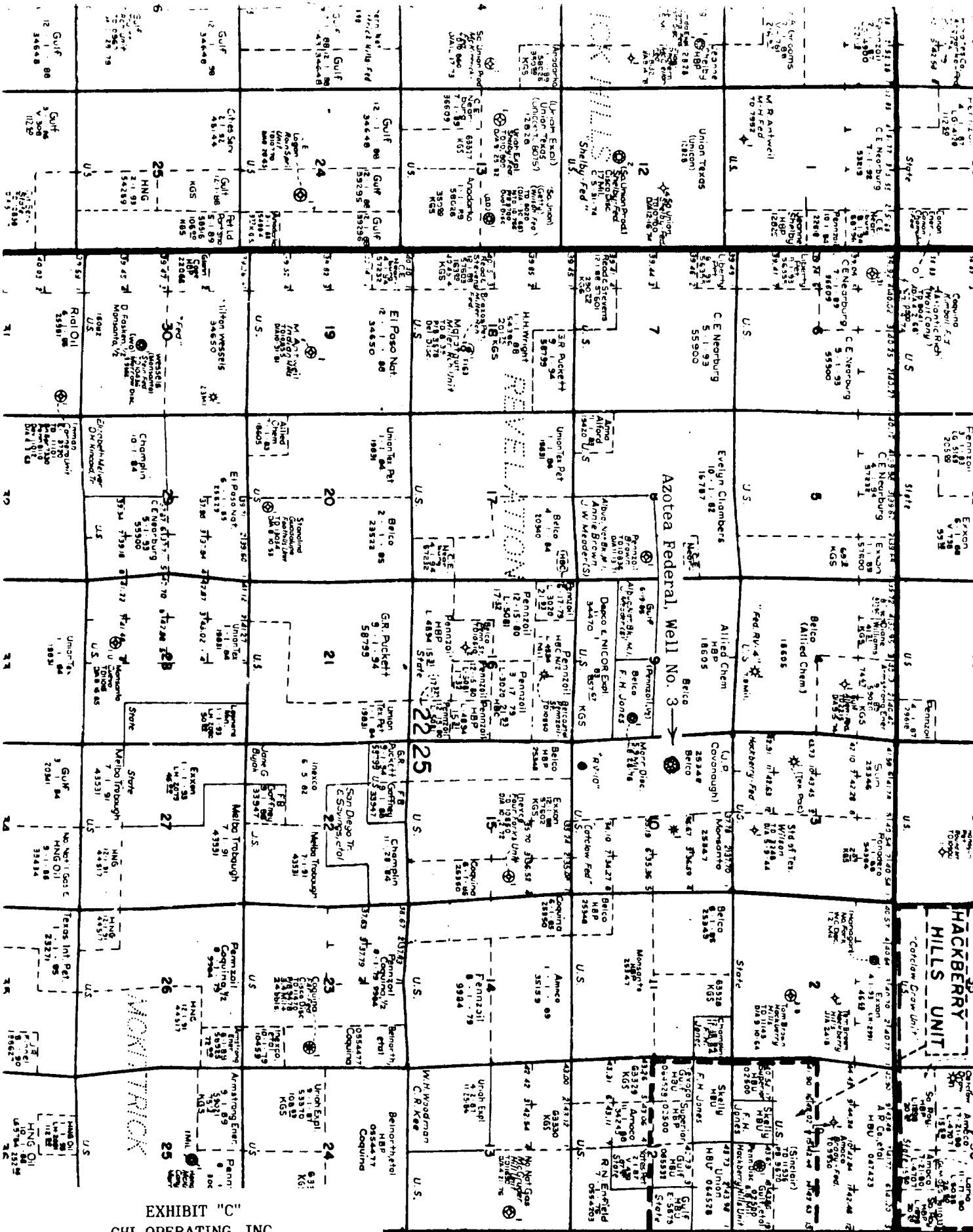


EXHIBIT "C"
CHI OPERATING, INC.

Azotea Federal, Well No. 3
1982' FSL & 831' FWL, Sec. 3-T22S-R25E
Existing Wells

T22S

PLAT FOR PIT LOCATION FOR ARTESIA FISHING TOOL

Rigs #1 & #2; L & M DRILLING #2 and LARUE
DRILLING #2

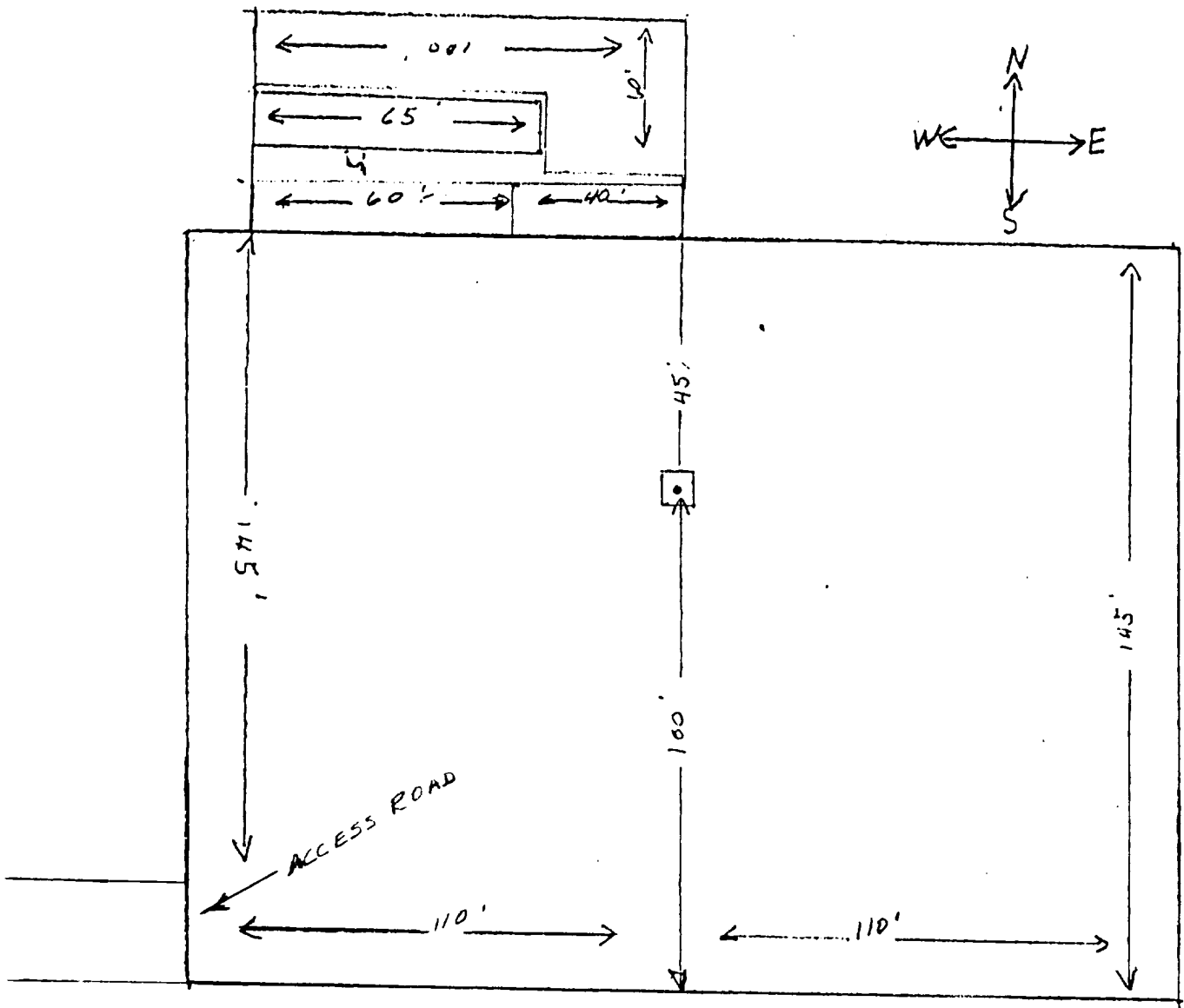
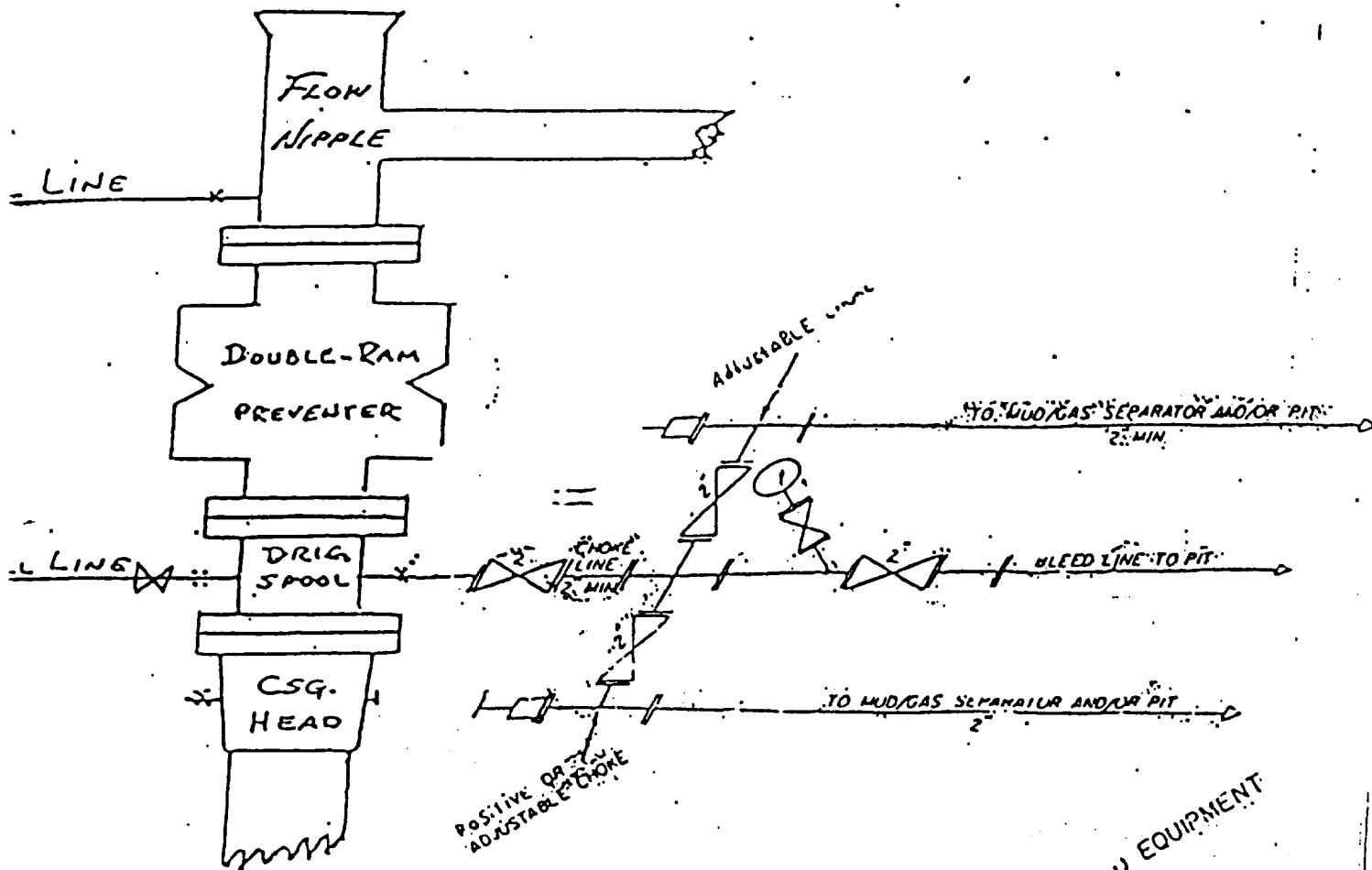


EXHIBIT "D"
CHI OPERATING, INC.
Azotea Federal, Well No. 3
Pad & Pit Layout

B O P & CHOKE MANIFOLD

10"/900 Cameron SS Space Saver
 3000# Working Pressure
 3000# Working Pressure Choke Manifold



2" CHOKE MANIFOLD EQUIPMENT

EXHIBIT "E"
 CHI OPERATING, INC.
 Azotea Federal, Well No. 3
 BOP Specifications