

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

b. TYPE OF WELL

OIL
WELL ☐GAS
WELL ☒

OTHER

SINGLE
ZONE ☐MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Chi Operating, Inc.

4378

915/685-5001

3. ADDRESS AND TELEPHONE NO.

P. O. Box 1799

Midland, Texas 79702

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

At surface

600' FNL & 510' FEL

At proposed prod. zone

Same

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

15 miles N of Carlsbad, NM

10. DISTANCE FROM PROPOSED*

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

510'

18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

2701'

16. NO. OF ACRES IN LEASE

280

19. PROPOSED DEPTH

11,500'

NO. OF ACRES ASSIGNED
TO THIS WELL

320

20. START OR CABLE TOOLS

Rotary

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

3274' GL

22. APPROX. DATE WORK WILL START*

December 15, 1997

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8" H-40	48.0#	350'	Circ. 335 sx "C"
11"	8 5/8" J-55	32.0#	3,200'	Circ. 605 sx "C"
7 7/8"	5 1/2" J-55	* 15.5/17# as required	11,500'	2 stage tieback 1595 sx "H"

Mud Program

0' - 350': Fresh water Gel/Lime:
350' - 3,200': Cut Brine:
3,200' - 10,500': Cut Brine, seep. control:
10,500' - 11,500': Brine seep. control:

Mud Wt.

8.6- 9.0 ppg
10.0-10.2 ppg
10.0-10.2 ppg
10.0-10.5 ppg

- Vis.

34 - 36
28 - 29
28 - 29
36 - 40

- W/L Control

No W/L control
No W/L control
No W/L control
W/L control 10cc+/-

BOP Program:

A 11" 5000 psi wp Shaffer Type LWS BOP will installed on the 13 3/8" casing. Casing and BOP will be tested before drilling out with 11" and will be tested daily.

Posted ID-1
NL & API
12-29-97

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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 R. Smith

TITLE

Agent for:
Chi Operating, Inc.

DATE

Nov. 25, 1997

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

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:

ADM. MINERALS

APPROVED BY

(Signature)

FERGUSON

TITLE

DATE

12/12/97

*See Instructions On Reverse Side



BOARD OF LAND MGMT.
ROSWELL OFFICE

NOV 26 4 10: 03 PM

RECEIVED

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

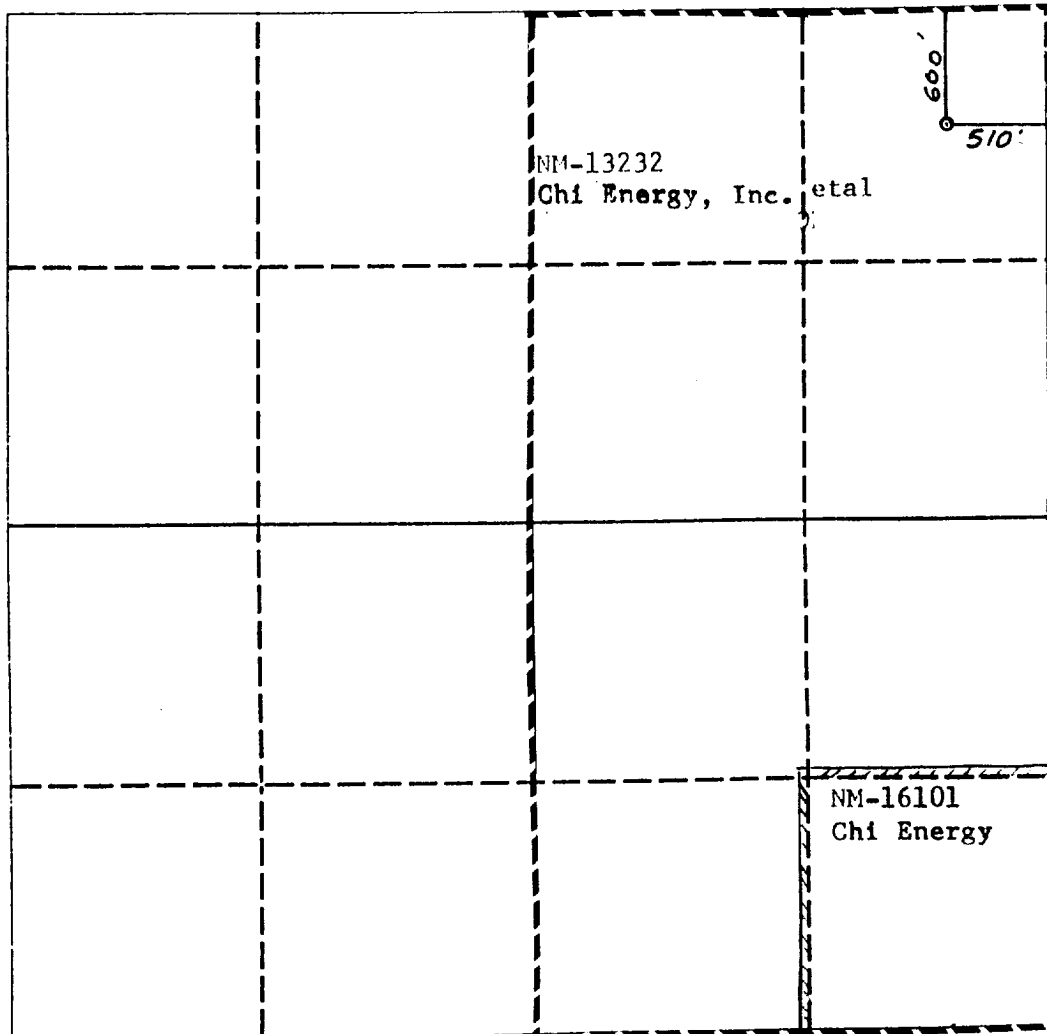
WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

30-015-29964

Operator CHI OPERATING, INC			Lease USA "9" FEDERAL COM.		Well No. 2
Unit Letter A	Section 9	Township 20 SOUTH	Range 28 EAST	County EDDY COUNTY, NM	
Actual Footage Location of Well: 600 feet from the NORTH line and 510 feet from the EAST line					
Ground level Elev. 3274 .	Producing Formation Morrow		Pool Burton Flat Morrow		Dedicated Acreage: 320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interest 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 interest, has been approved by the Division.



OPERATOR CERTIFICATION

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

Signature
George R. Smith
Printed Name
George R. Smith
Position
Agent for:
Company
Chi Operating, Inc.
Date
November 25, 1997

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.

Date Surveyed
APRIL 19, 1994
Signature & Seal of Registered Professional Surveyor
Raymond Eddy
NEW MEXICO
REGISTERED PROFESSIONAL SURVEYOR
No. 3412
NM PR&PS NO. 3412

TIMBER/SI/ARP DRILLING

B.O.P. Equipment Intended for use on Rig # 23

Well To Be drilled for CHI OPER

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

* All Accumulators are Koomey 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: _____ Type: Shaffer

Annular PSI: 5000

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

BOP Type SHAFER - LWS

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

BOP Size: 11 " - 5000 PSI

Rams in top gate: BLIND

Rams in bottom: 4 1/2

Rotating Head Type Williams : furnished By Cont.

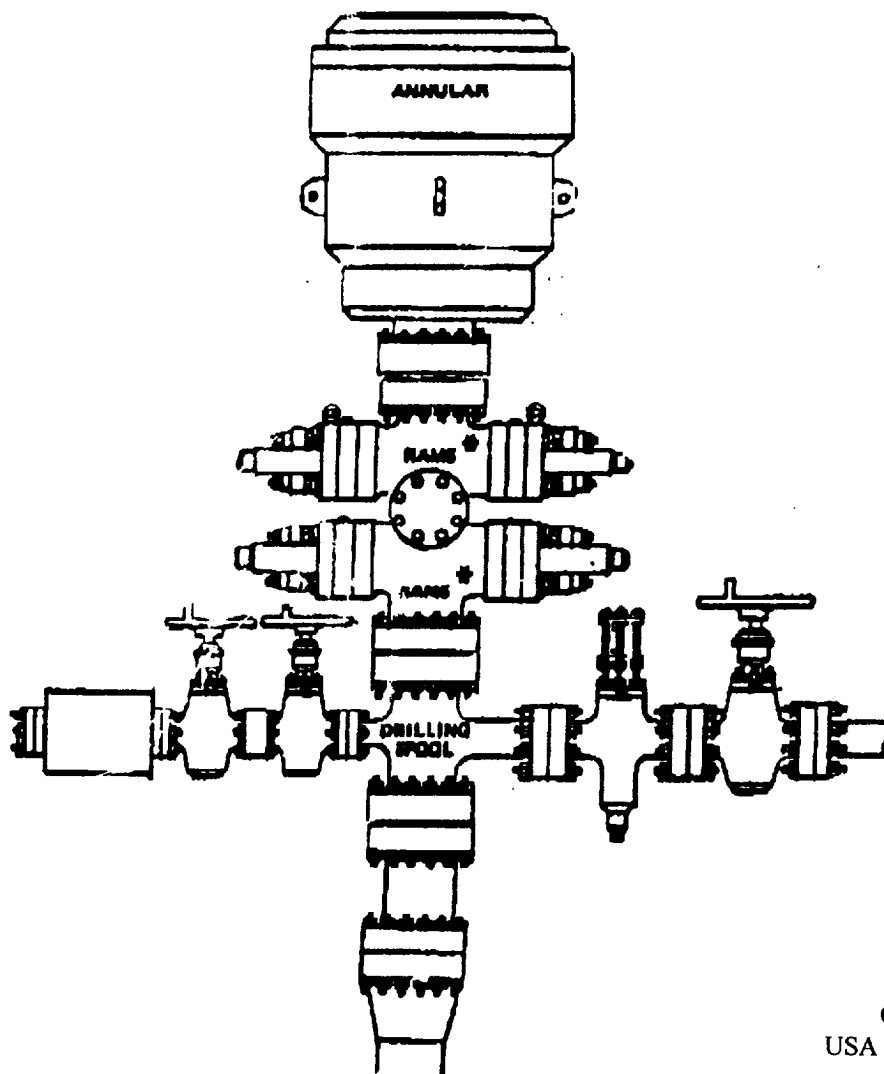


EXHIBIT "E"
CHI OPERATING, INC.
USA "9" Federal Com., Well No. 2
BOP Specifications

APPLICATION FOR DRILLING

CHI OPERATING, INC.

USA "9" Federal Com., Well No. 2
600' FNL & 510' FEL, Sec. 9-T20S-R28E
Eddy County, New Mexico
Lease No.: NM-13232
(Exploratory 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	1150'	Wolfcamp Lime	9,100'
Grayburg	1845'	Cisco Canyon C1	9,600'
San Andres	2265'	Cisco Canyon C2	9,800'
Delaware	3165'	Strawn Lime	10,200'
Bone Spring	4385'	Morrow Clastics	10,900'
1st Bone Spring	6175'	T.D.	11,500'

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 Bone Springs below 6175'.

Gas: Possible in the Bone Springs below 6175' and the Morrow below 10,900'.

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.
 - Logging: T.D. to 3200': GR/DIL/MSFL/CNL/FDC/Cal
3200' to surface: GR/CNL/Cal
 - Coring: None.
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 = 4600 psi/ft with a temperature of 175°.
10. H₂S: None expected since previously drilled wells in the vicinity did not produce any H₂S in formations to this depth.
11. Anticipated starting date: December 15, 1997.
Anticipated completion of drilling operations: Approximately 4-5 weeks.

MULTI POINT SURFACE USE AND OPERATIONS PLAN

CHI OPERATING, INC.

USA "9" Federal Com., Well No. 2
600' FNL & 510' FEL, Sec. 9-T20S-R28E
Eddy County, New Mexico
Lease No.: NM-13232

(Exploratory 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 Color quad Artesia map showing the location of the proposed well as staked. The well site location is approximately 30 road miles southeast of Artesia, NM. Traveling east of Artesia on U.S. Highway 82 and county roads, there will be 27 miles of paved highway, plus 3.0 miles existing gravel oilfield roads.
- B. Directions: Travel east from Artesia, NM on U. S. Highway 82 for approximately 8.5 miles to the SPS Power Station. Turn southeast (right) onto Eddy County road #204 for 3 miles; then south on County road #206 for 12.7 miles to the Angel Ranch road (county road #237); then east on #237 for 2.5 miles to a gravel oil field road on the east (left) side of the road leading to a well site on a hill .25 mile east. Turn north at this well site for 1.75 miles, then east for .85 mile where the road turns north to the Winchester Fed., Well #1 well site. Continue east for 800 feet; then south for 1500 feet; turn west at the cattle guard toward the Colt Fed., #1 well site. The start of the proposed access road is on the left (south) side of the road and runs south for approximately 1300 feet to the southwest corner of the proposed location.

2. PLANNED ACCESS ROAD:

- A. Length and Width: There will be approximately 1300 feet of new access road 12 feet wide (24' Max.). The proposed and existing roads are color coded on Exhibits "A" and "B".
- B. Construction: The new access road will be constructed by grading and topping with compacted caliche. The surface will be properly drained.
- C. Turnouts: One turnout may be installed at the midpoint increasing the width to 20 feet for passing.
- D. Culverts: None.
- E. Cuts and Fills: None required.
- F. Gates, Cattle guards: None required.
- G. Off Lease ROW: The existing Right of Way No. 88445 will be amended to include the off lease portion of the proposed access road in Sec. 4-T20S-R28E as shown on 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 this time.
- B. If the well proves to be commercial, the necessary production facilities, gas separation-process equipment and tank battery 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 or a fast line beside existing roads may be used. .

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 NW4 SE4, Sec. 12-T20S-R27E. 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', including reserve pits on the north.
- C. Cut & Fill: The location will require a 1 - 1.5 foot cut on the south with fill to the north.
- 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 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 as soon as they are dry enough to be worked.

11. OTHER INFORMATION:

- A. Topography: The proposed well site and access road are located in the Burton Flats area and one mile west of Palmilla Draw with a southwesterly slope of .3% from an elevation of 3274' GL.
- B. Soil: The topsoil at the well site is a light colored, well drained, shallow calcareous soil over gypsum soil of rock of the Reeves Gypsum Series.
- C. Flora and Fauna: The vegetation cover is a fairly good grass cover of threeawn, black and gyp grama, gyp dropseed, along with plants of mesquite, broomweed, yucca, croton, gyp weed, 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 in the area.
- E. Residences and Other Structures: None in the area, except production facilities.
- F. Land Use: Cattle grazing.

SE-43

CN'D SLO

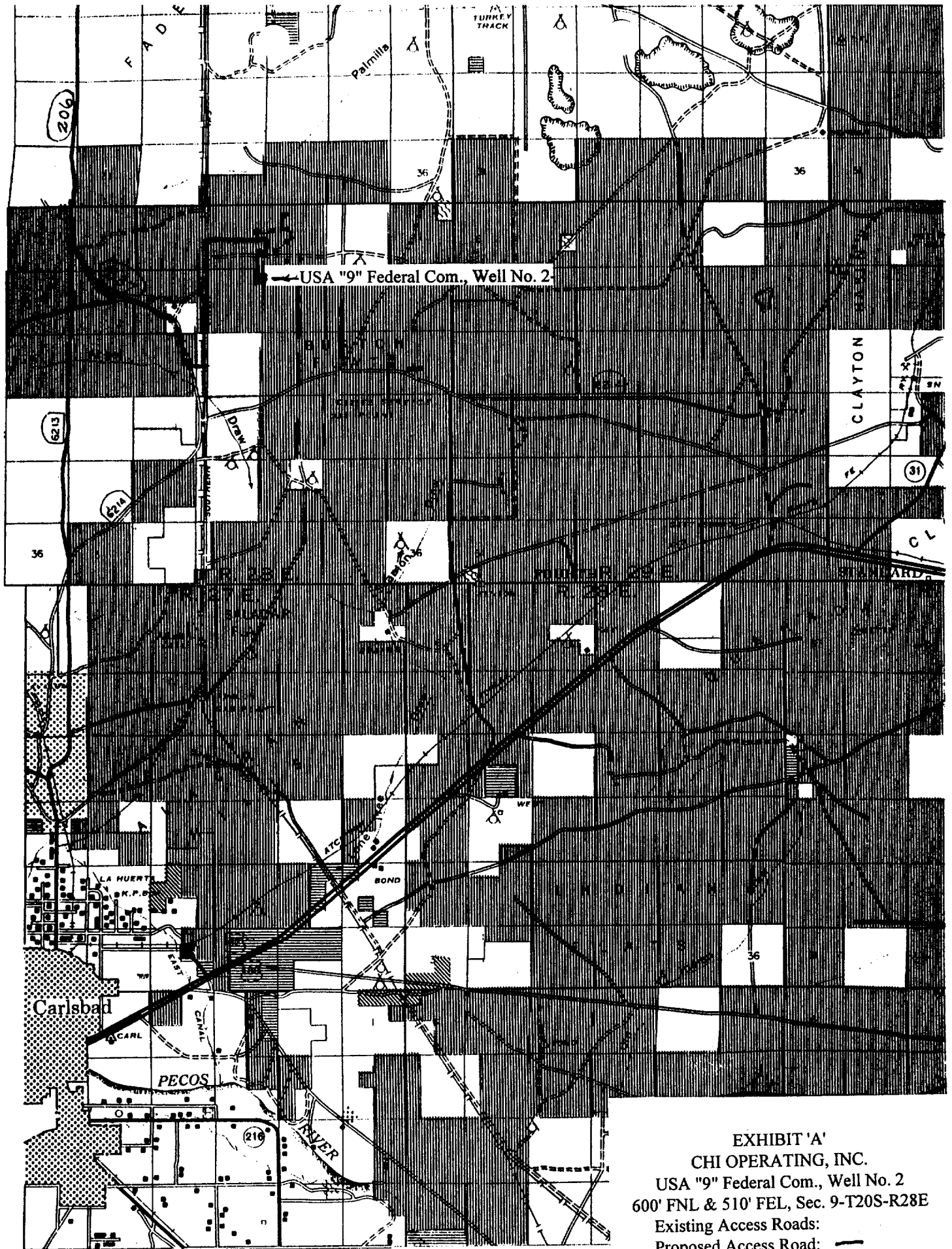
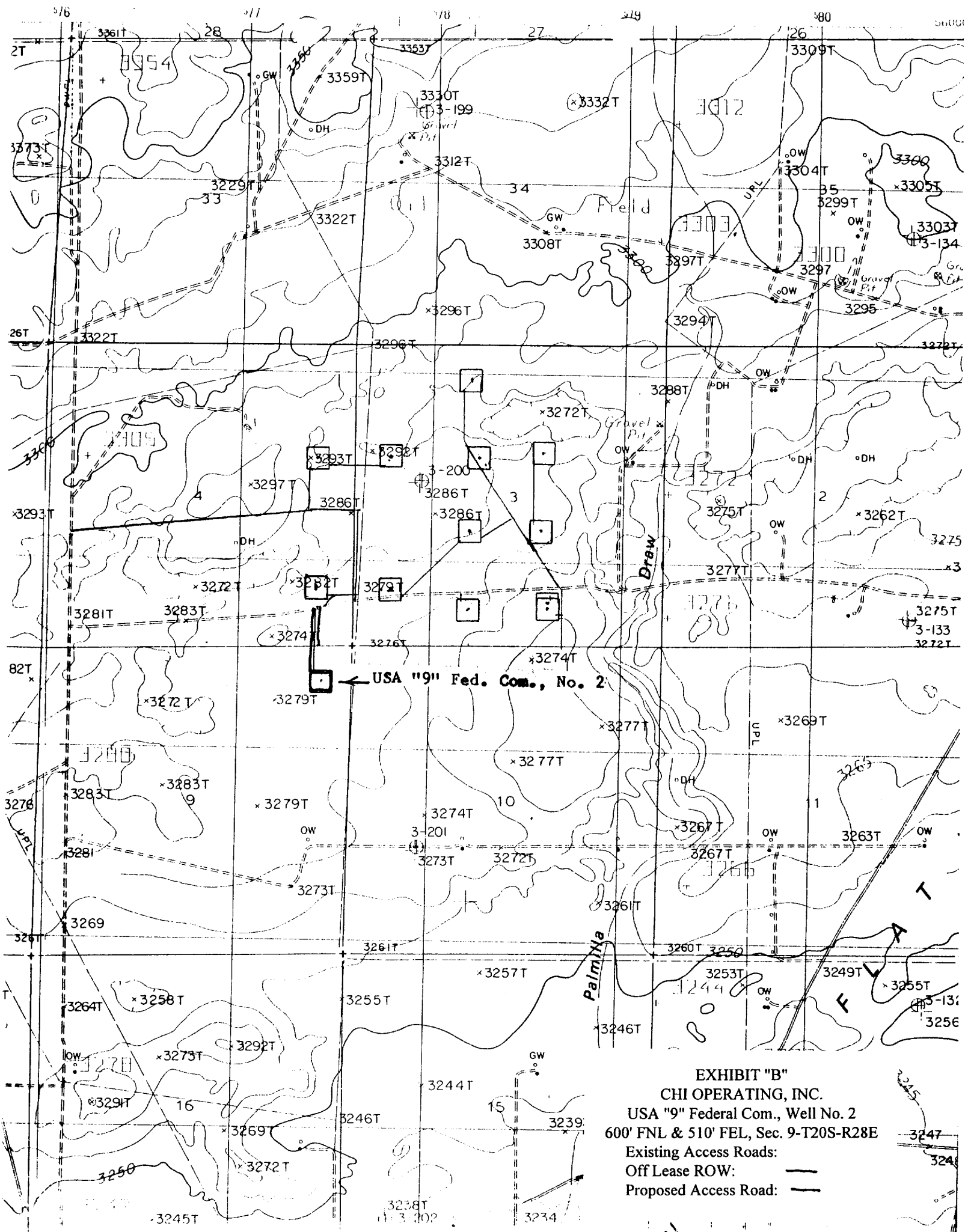


EXHIBIT 'A'
 CHI OPERATING, INC.
 USA "9" Federal Com., Well No. 2
 600' FNL & 510' FEL, Sec. 9-T20S-R28E
 Existing Access Roads:
 Proposed Access Road: —

SCALE: 1/2" = 1 MILE



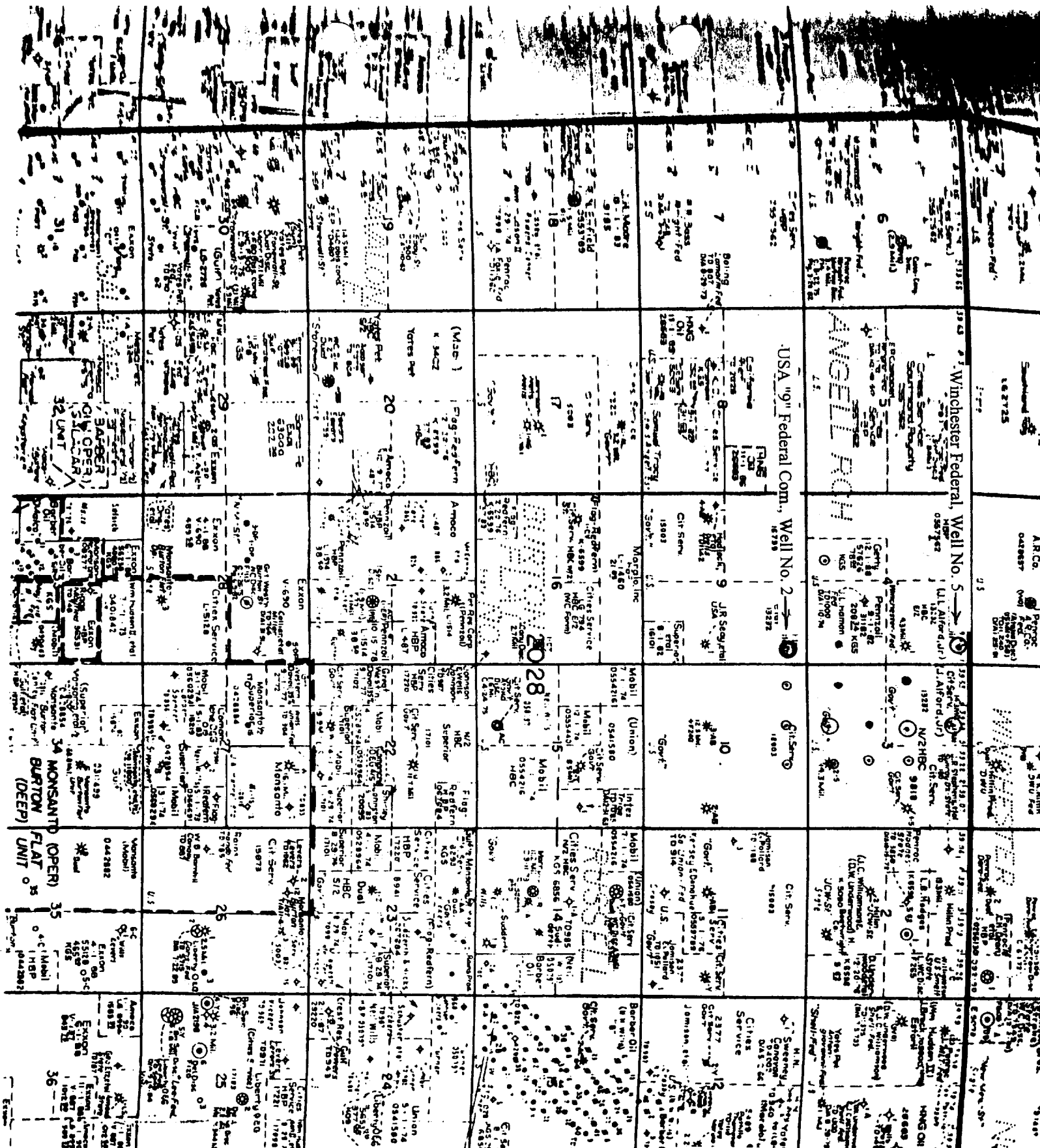


EXHIBIT "C"
 CHI OPERATING, INC.
 USA "9" Federal Com., Well No.2
 600' FNL & 510' FEL, Sec. 9-T20S-R28E
 Existing Wells

Pad & Pit Layout