Form 9-331 C
(May 1963)

NM OIL CONS. COMMISSION
Drawer DD
Artesia, New 88210

SUBMIT IN TRIPL' E*
(Other instruction reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-015-24940

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

C/SF

RECEIVED
APR 19 1982
O. C. D.
ARTESIA, OFFICE

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL
OIL WELL [ ] GAS WELL [X] OTHER SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR
QUANAH PETROLEUM, INC. ✓

3. ADDRESS OF OPERATOR
14800 Quorum Drive, Suite 500, Dallas, Texas 75240

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface
1980' FSL, 660' FWL
At proposed prod. zone

5. LEASE DESIGNATION AND SERIAL NO.
NM 20949

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
HAY C FEDERAL

9. WELL NO.
1

10. FIELD AND POOL, OR WILDCAT
~~WILDCAT~~

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Ut-L
Sec. 13, T26S, R27E

12. COUNTY OR PARISH
EDDY

13. STATE
NM

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
13 miles southwest of Malaga

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
660'

16. NO. OF ACRES IN LEASE
160

17. NO. OF ACRES ASSIGNED TO THIS WELL
160

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
2640'

19. PROPOSED DEPTH
8400'

20. ROTARY OR CABLE TOOLS
ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
3121.2' GL

22. APPROX. DATE WORK WILL START*
APRIL 6, 1982

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
~~14-3/4"~~	~~11-3/4"~~	~~as available~~	~~500'~~	~~200 sx Cl C~~ CIRCULATE
~~11"~~	~~8-5/8"~~	~~24#~~	~~2400'~~	~~850 sx Cl C~~ CIRCULATE
7-7/8"	4-1/2"	11.6#	8400'	450 sx 50/50, 200 Cl H

SEE FOLLOWING ATTACHMENTS:

1. SURVEYORS PLAT
2. MULTI-PURPOSE SURFACE USE AND OPERATIONS PLAN W/MAPS
3. 10-POINT DRILLING PROGRAM
4. BOP SCHEMATIC
5. ARCHAEOLOGICAL SURVEY

GAS NOT DEDICATED.

RECEIVED
APR 6 1982
OIL & GAS
U.S. GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

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 Ben Lawrence TITLE Drlg. Supt. DATE 4-2-82

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY (Orig. Sgd.) GEORGE H. STEWART TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

APR 16 1982
FOR
JAMES A. GILLHAM
DISTRICT SUPERVISOR

Posted ID-1
API + NL Book
4-23-82

N MEXICO OIL CONSERVATION COMMISS.

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	Lease	Well No.
QUANAH PETROLEUM CORPORATION	C Hay Federal	1

Unit Letter	Section	Township	Range	County
L	13	26 South	27 East	Eddy

Actual Footage Location of Well:
1980 feet from the South line and 660 feet from the West line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3121.2'	BONE SPRINGS		160 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

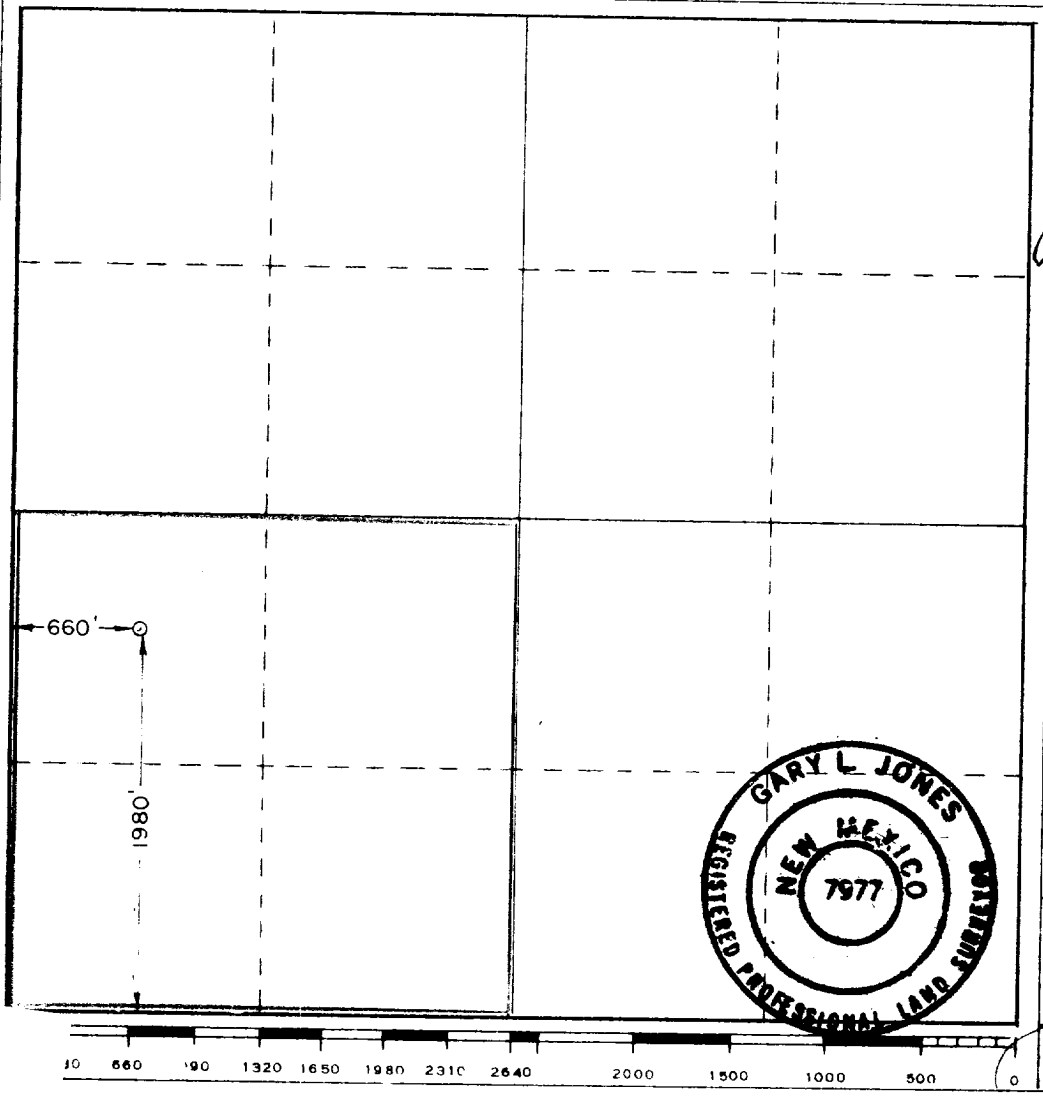
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the 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.

Linda Chapman

Name LINDA CHAPMAN

Position ENG TECH

Company QUANAH Petroleum

Date 4-8-82

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
March 25, 1982

Registered Professional Engineer and/or Land Surveyor

Gary L. Jones

Certificate No. 7977

QUANAH PETROLEUM, INC.

DRILLING OPERATIONS PLAN

HAY FEDERAL C WELL NO. 1

Section 13, T26S, R27E

1980' FSL and 660' FWL

ELEVATION: 3121.2' GL

EDDY COUNTY, NEW MEXICO

1. Geologic Name of Surface: Castile

Salt	1300	Brushy Canyon	4390
Salt (Base)	1870	Bone Spring	6065
Delaware Lime	2315	Third Bone Spring	8755
Delaware Sand	2370	Wolfcamp Shale	9090
Cherry Canyon	3210		

2. Estimated Tops of Important Geologic Markers.

Salt	1300	Brushy Canyon	4390
Salt (Base)	1870	Bone Spring	6065
Delaware Lime	2315	Third Bone Spring	8755
Delaware Sand	2370	Wolfcamp Shale	9090
Cherry Canyon	3210		

3. Estimated Tops of Anticipated Water, Oil, Gas or other Mineral Bearing Formations.

Delaware Sand	2370 (oil)	Bone Spring	6065 (oil)
Cherry Canyon	3210 (oil)	Third Bone Spring Sand	8755 (oil)
Brushy Canyon	4390 (oil)	Wolfcamp Shale	9090 (oil)

4a. The Proposed Casing Program.

Hole Size	Casing O.D.	Grade	Weight	Setting Depth	New or Used
14-3/4"	11-3/4"	As available		500'	New
11"	8-5/8"	K-55	24#	2400'	New
7-7/8"	4-1/2"	K-55	11.6#	1000'	New
7-7/8"	4-1/2"	K-55	10.5#	6200'	New
7-7/8"	4-1/2"	K-55	11.6#	8500'	New

4b. Cementing Program, Including Types, Amounts and Additives.
The 11-3/4" casing will be cemented to surface with 200 sacks of Class C cement with 2% $CaCl_2$ - W.O.C. time, 8 hours.

The 8-5/8" casing will be cemented to surface with approximately 650 sacks of Class C cement with 4% gel, 1/4 lb/bbl. flocele and 2% $CaCl_2$, tailed by 200 C with 2% $CaCl_2$ - W.O.C. time, 12 hours.

The 4-1/2" production casing will be cemented with 450 sacks 50/50 Poz-Mix H with 10% salt, tailed with 200 sacks Class H.

The 8 5/8" casing will be cemented to surface with approximately 650 sacks of Class "C" cement with 4% gel, 1/4 lb/bbl. flocele and 2% Ca Cl_2, tailed by 200 "C" with 2% Ca Cl_2 - W.O.C. time, 12 hours.

The 4 1/2" production casing will be cemented with 450 sacks 50/50 Pox-Mix "H" with 10% salt, tailed w/200 sx Class H.

5. B.O.P. Specifications and Testing (See attached Schematic for size and pressure rating.)

One annular BOP (Hydril) and dual ram type BOP with pipe rams and blind rams. All equipment to have a 3,000 # or better working pressure. The accumulator to close and open all components of the BOP stack without operating pump. Blind and pipe rams will be tested to 3000 psi and the annular preventer to 1500 psi before drilling out.

6. Mud Program.

Run a low solids, non-dispersed mud utilizing lime to flocculate gel.

As long as possible, mix sweeps 4-6 hours before pumping.

Utilize a desander to control weight and minimize water used and cut mud costs.

Do Not add oil, diesel, Soltex or Bentonite extenders to mud.

Do Not mix mud additives for water loss control.

Most of all, exercise prudent judgment on materials added, i.e., if you don't need it, don't add it.

For lost circulation: DO NOT pre-treat with LCM for circulation loss. In the event we do lose circulation, utilize the information available to you to decide your plan of action.

Mud weights will not exceed 10.0 ppg and will be less if water conditions will permit.

Materials planned for use in mud system are gel, caustic soda, lime and soda ash. Dick's mud seal and cottenseed hulls shall be used to control any possible lost circulation.

7a. Type of Drilling Tools and Auxiliary Equipment.

A drilling rate recorder, calibrated to record drilling time for each one foot interval will be used.

A kelly cock will be used, a TIW safety valve and inside BOP will be available on the rig floor. A float valve will be used at the bit.

The mud system will be monitored by use of manually placed floats and markers.

7b. Deviation Control.

Deviation will be monitored by wireline surveys, every 500' on surface hole and on bit trips thereafter. A maximum dogleg severity of 1 1/2° per hundred feet will be maintained with a maximum of 7° at total depth.

8. Sample, Logging, Testing and Coring Program.

Drill cutting samples will be taken every 10 feet from 3500' to total depth.

A guard foroxo and a density neutron log will be run from the base of the surface casing to total depth.

Drill stem tests and cores will be at the discretion of the wellsite geologist. Possible DST's may be run in the San Andres and ABO formations.

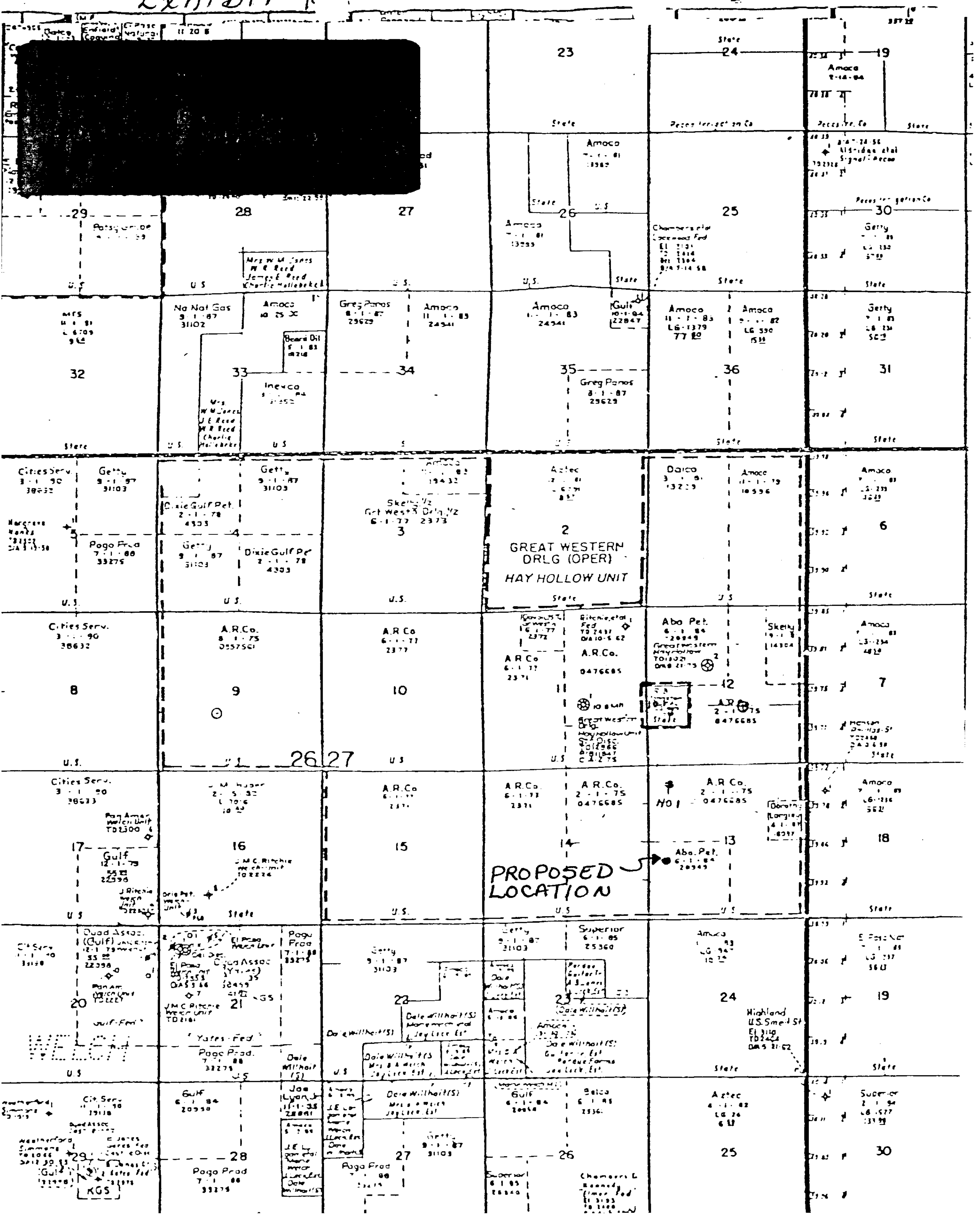
9. Anticipated Abnormal Pressure and Other Problems.

Normal pressure gradients are expected and no hydrogen sulfide or other potential hazards are expected.

10. Anticipated Starting Date and Duration.

The anticipated starting date, pending approval, will be April 6, 1982 due to rig availability. The duration will be approximately four weeks.

Exhibit 6



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23
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Amoco
State
Pecos Irrigation Co
29
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Amoco
Getty
Mrs. W. M. Jones
W. R. Reed
James E. Reed
Charlie Hollebeke
U.S.
State
No Nat Gas
Greg Panos
Gulf
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Inexco
Cities Serv.
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Dixie Gulf Pet.
Pogo Prod
Skelly 1/2
Great West. Drlg 1/2
Aztec
Daico
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GREAT WESTERN
DRLG (OPER)
HAY HOLLOW UNIT
A.R.Co.
Abo Pet.
Skelly
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Gulf
J. M. C. Ritchie
NO 1
PROPOSED
LOCATION
Abo Pet.
Superior
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Yates Fed
Pogo Prod.
Dale Willhoit (S)
Highland
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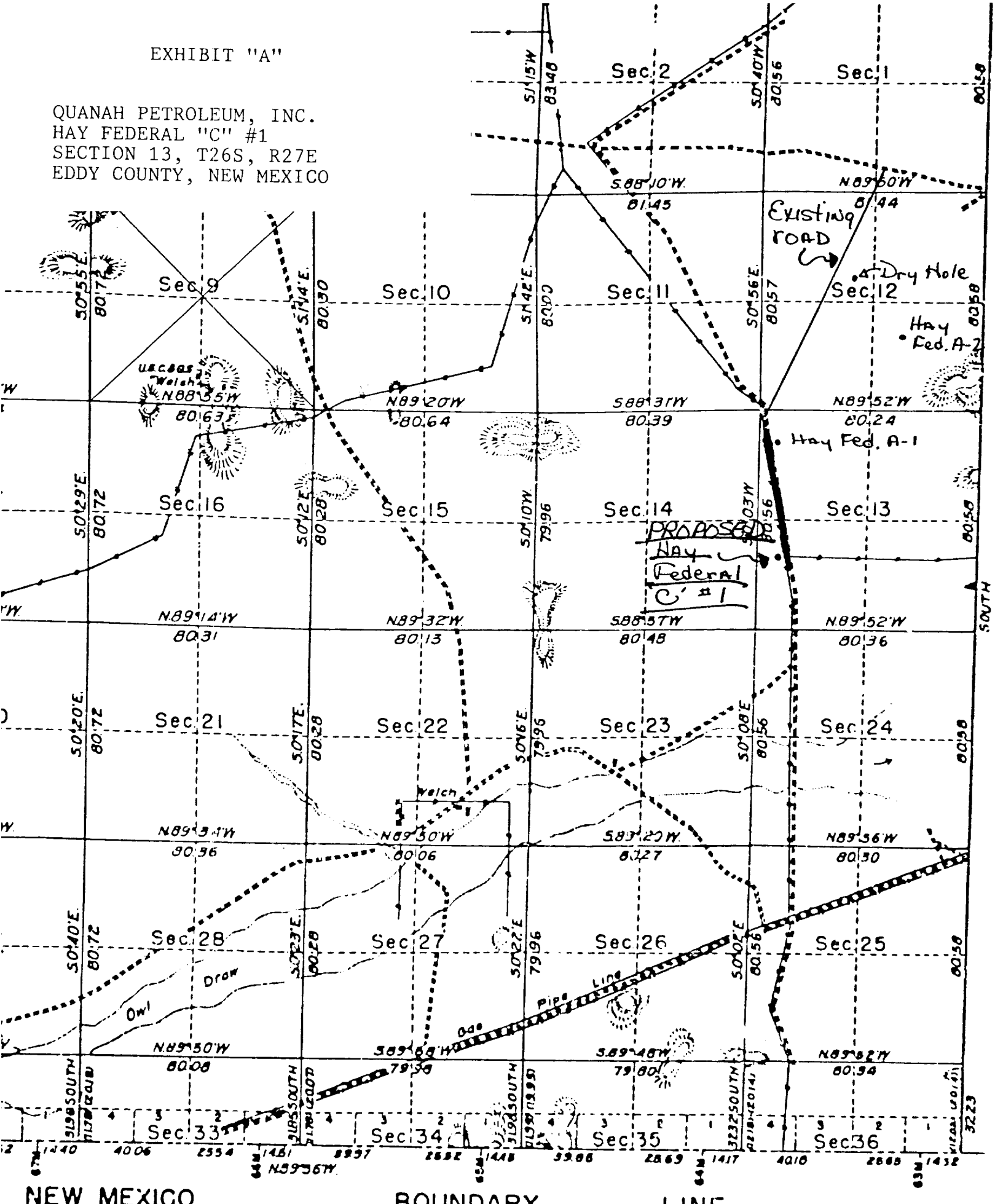
Gulf
Pogo Prod
Superior
Chambers L

EXHIBIT "A"

QUANAH PETROLEUM, INC.
HAY FEDERAL "C" #1
SECTION 13, T26S, R27E
EDDY COUNTY, NEW MEXICO



FICIAL PLAT
INSHIP 26 SOUTH, RANGE 27 EAST, N.M.P.M.

Drilling Contractor Plat

Approx Scale 1" = 50'

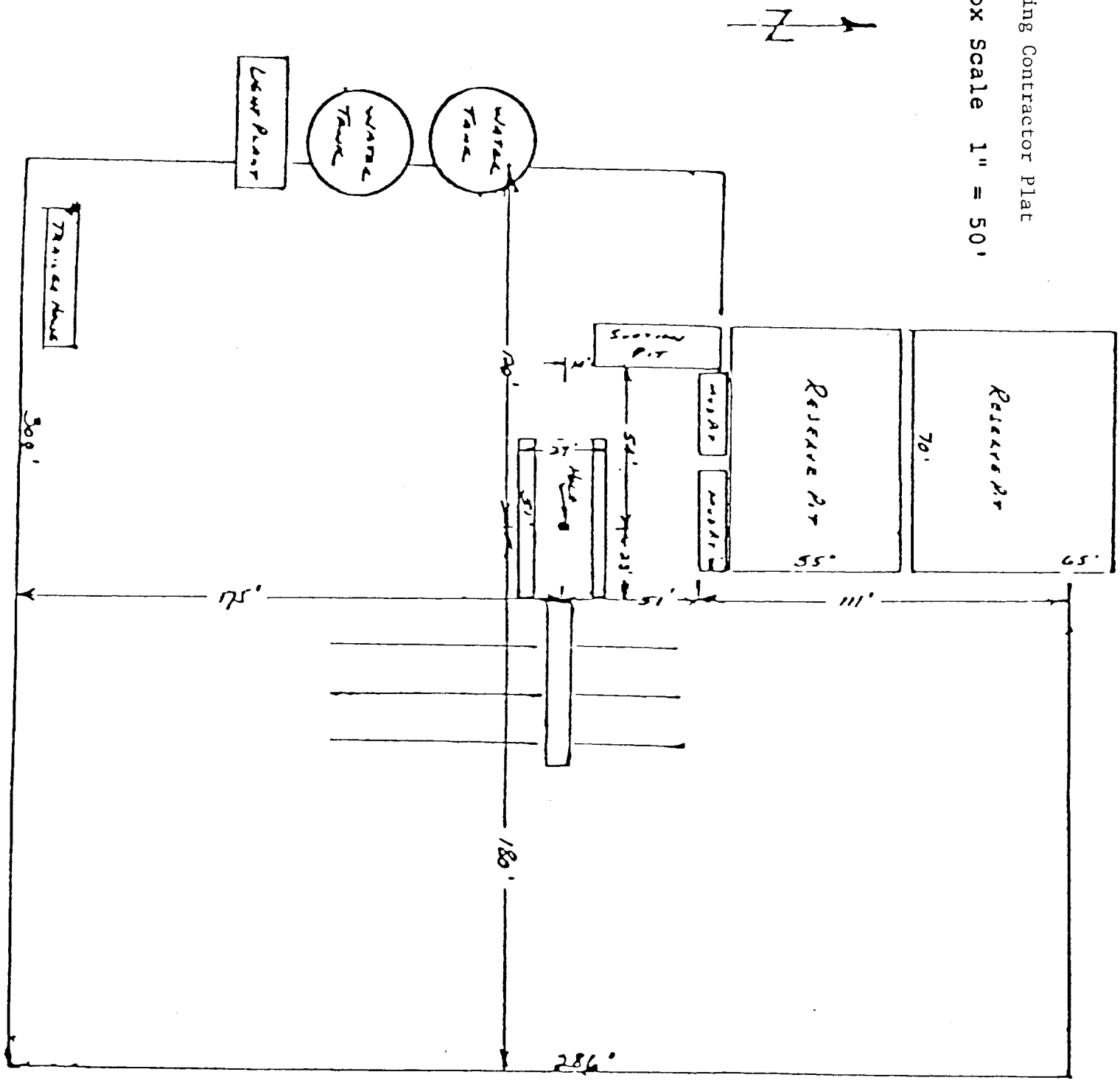
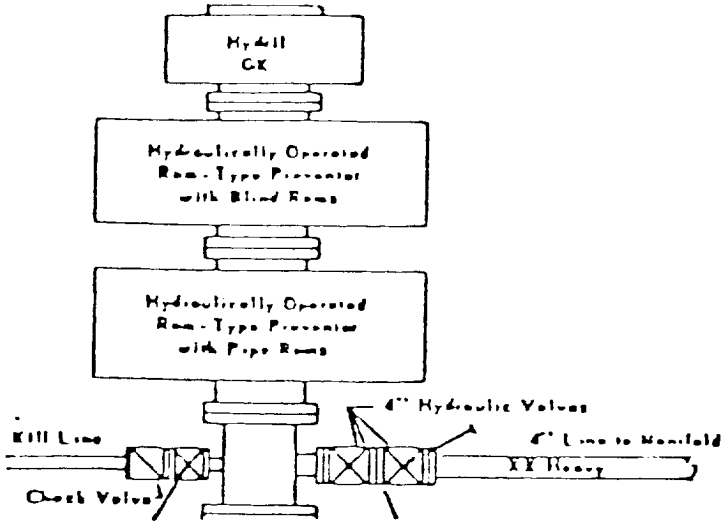


EXHIBIT "C"

QUANAH PETROLEUM, INC.
HAYS FEDERAL "C" #1
SECTION 13, T26S, R27E
EDDY COUNTY, NEW MEXICO

BOP SCHEMATIC

QUANAH PETROLEUM, INC.
HAY FEDERAL "G" NO. 1
SEC. 13 - T26S - R27E
EDDY COUNTY, NEW MEXICO



All preventers are rated 3000 psi working pressure.