

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 ☒

RECEIVED
ZONE ☐

2. NAME OF OPERATOR

CNG Producing Co.-Tulsa Div.

3. ADDRESS OF OPERATOR

Box 2115, Tulsa, OK 74101-2115

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

At surface
2310' FSL & 1650' FEL Sec. 4-25S-29E

At proposed prod. zone

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

5 miles SE of Malaga

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

1650' from lease
990' from drig unit

18. NO. OF ACRES IN LEASE
640

17. NO. OF ACRES ASSIGNED
TO THIS WELL
320

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

3008

19. PROPOSED DEPTH
13900

20. ROTARY OR CABLE TOOLS
Rotary

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

2694.7 GR

22. APPROX. DATE WORK WILL START*

Upon approval

23. PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
|--------------|----------------|-----------------|---------------|--------------------|
| See attached | Drilling Plan | (Exhibit "B") | | |
| | | | | |
| | | | | |

Exhibits Attached

"A" Plat (NMOCC Form C-102)

"B" Drilling Plan

"C" Blow Out Preventor Equipment

"D" Surface Use Plan

"E" Vicinity Sketch, Access Roads

"F" Production Facilities Layout → not approved under this APD

"G" Wellsite Layout

"H" Existing Wells Within One Mile

RECEIVED
MAY 19 1 52 PM '88
FAC. 10-
429 API
627-18

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

Susan Lacy

TITLE

Engr. Tech.

DATE

4/15/88

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

5-18-88

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 1-4-85

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

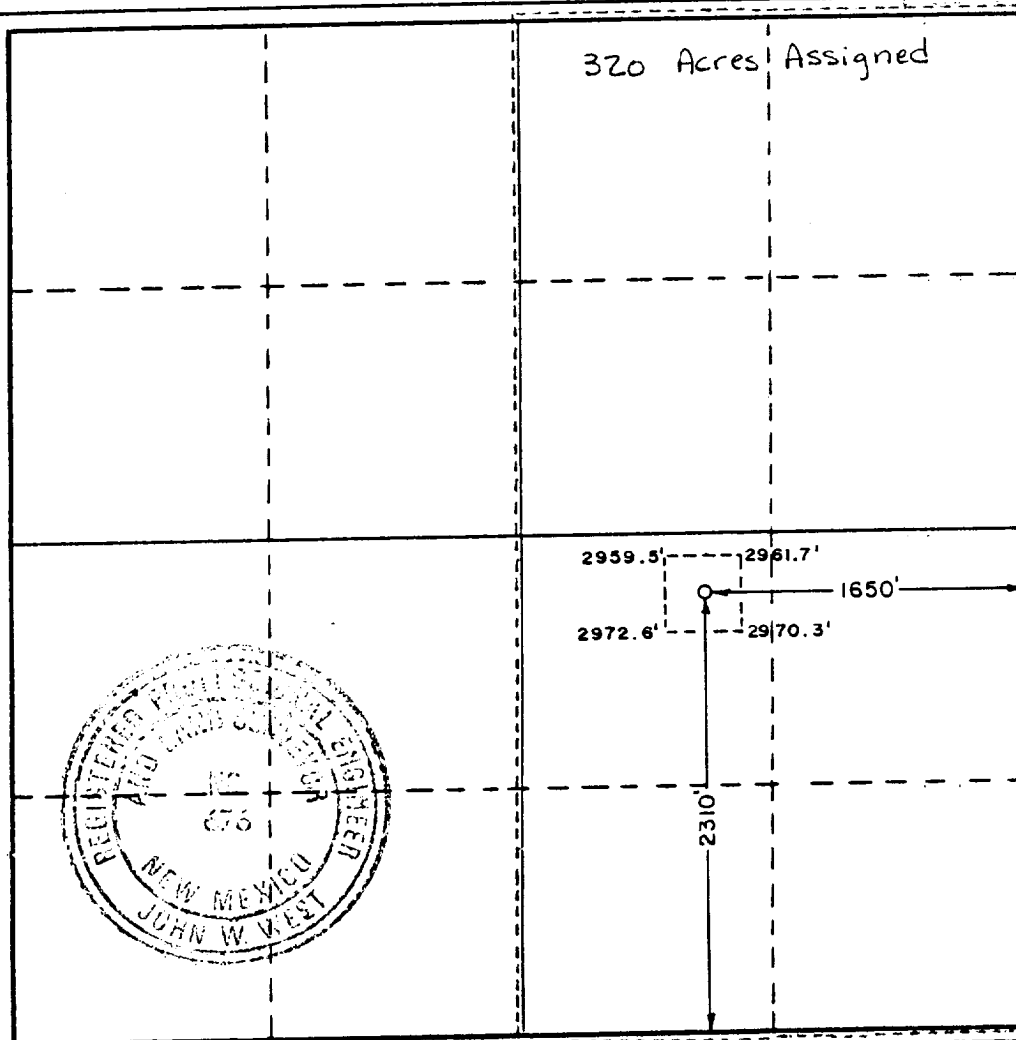
| | | | | | |
|--|------------------------------|-------------------------------------|----------------------------|---------------------------------|---------------|
| Operator CNG PRODUCING CO. | | | Lease CNG BAR 4 FEDERAL | | Well No. 2 |
| Unit Letter AJ | Section 4 | Township 25 SOUTH | Range 29 EAST | County EDDY | |
| Actual Footage Location of Well: 2310 feet from the south line and 1650 feet from the east line | | | | | |
| Ground Level Elev. 2964.7 | Producing Formation Atoka | Pool UND. Rustler Bluff Atoka | | Dedicated Acreage: 320 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.

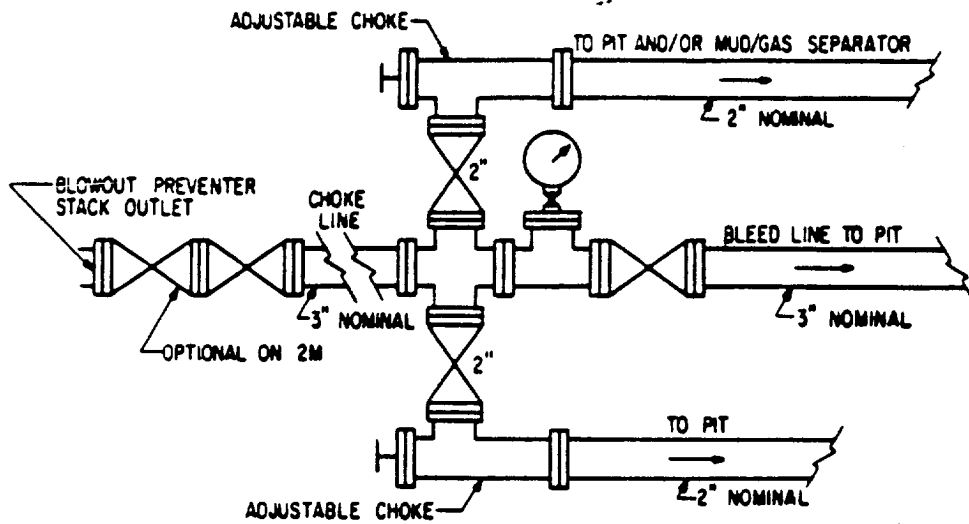
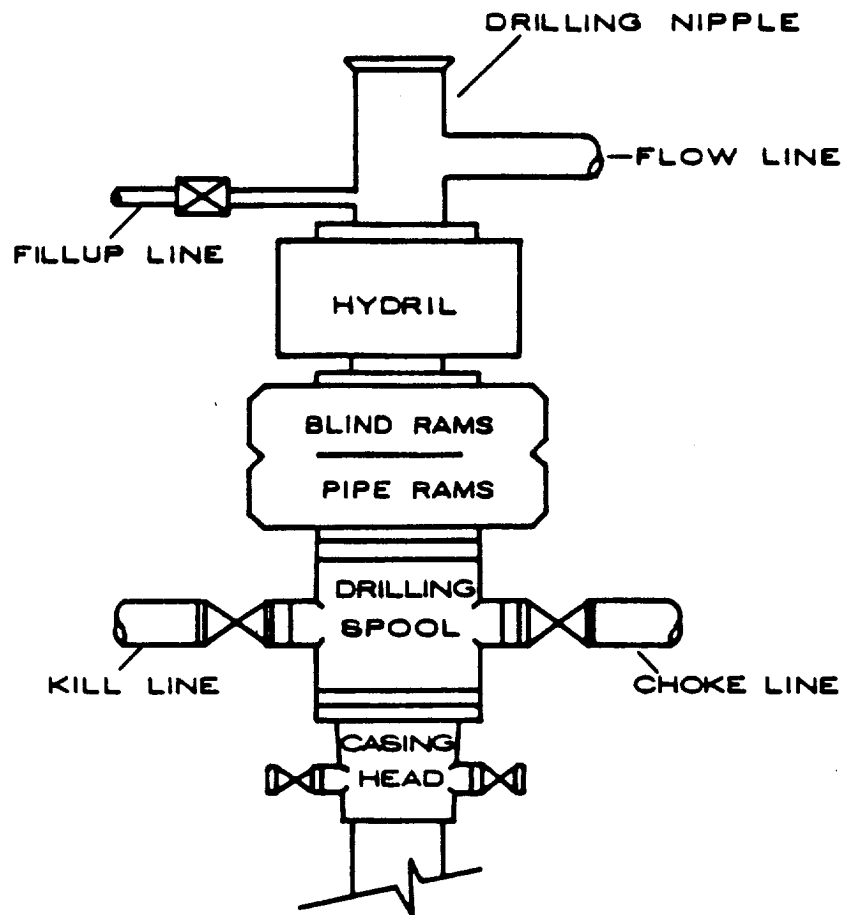
Susan Lacy
Name
Susan Lacy
Position
Engineering Technician
Company
CNG Producing Co-Tulsa Div.
Date
April 6, 1988

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 26, 1988

Registered Professional Engineer
and/or Land Surveyor

Ronald J. Eidson
Certificate No. JOHN W. WEST, 876
RONALD J. EIDSON, 3239

BOP STACK

ONSHORE OIL AND GAS ORDER NO. 1Drilling Plan

CNG Producing Company
 Bar 4 Federal No. 2
 Sec. 4-25S-29E
 2310' FSL & 1650' FEL
 Eddy Co. New Mexico

1. Estimated Tops of Important Geologic Markers

| <u>Formation</u> | <u>Depth</u> | <u>SS</u> |
|---------------------|--------------|-----------|
| Delaware Mtn. Group | 2950 | +35 |
| Wolfcamp | 10150 | -7165 |
| Atoka "Bank" LS | 12550 | -9565 |
| Lower Atoka LS | 12650 | -9665 |
| Morrow "A" SS | 13150 | -10165 |
| M. Morrow | 13450 | -10465 |
| L. Morrow | 13850 | -10865 |
| TD | 13900 | |

2. Estimated Depths of Anticipated Water, Oil, Gas or Minerals

| <u>Formation</u> | <u>Depth</u> | <u>SS</u> |
|------------------|--------------|-----------|
| Wolfcamp | 11150 | Gas |
| Strawn-Atoka | 12350 | Gas |
| Atoka Clastics | 12450 | Gas |
| Atoka Bank LS | 12600 | Gas |
| Morrow Clastics | 13150 | Gas |

3. Operators Minimum Specifications for Pressure Control

(See Exhibit "C")

Exhibit "C" is a schematic diagram of the BOPE. BOP's and choke manifold will be installed and pressure tested before drilling out 13 3/8" casing cement plugs. BOP's and choke manifold will be tested to 5,000 psi and annular type preventers will be tested to 1,500 psi. Pipe rams will be operated daily and blind rams as possible.

4. Proposed Casing Program

| <u>Size of Casing</u> | <u>Weight & Grade</u> | <u>HOLE SIZE</u> | <u>Setting Depth</u> | <u>Quantity of Cement</u> |
|-----------------------|---------------------------|------------------|----------------------|----------------------------|
| 30" | Conductor | | 0-66' | 1250 SXS CIRCULATE |
| 20" | 94# H-40 | 26" | 0-625' | 1250 SXS CIRCULATE |
| 13 3/8" | 61# K-55 | 17 1/2" | 0-3100' | 3100 SXS CIRCULATE |
| 10 3/4" | 55.5# P-110 | 12 1/4" | 0-8400' | 900 SXS |
| 10 3/4" | 60.7# P-110 | | 8400-10,400' | (total for 10 3/4" string) |
| 7 5/8" (liner) | 33.7# S-95 | 9 1/2" | 10000-12555' | 825 SXS |
| 5 1/2" (liner) | 17.0# S-95 | 6 1/2" | 12450-14000' | 200 SXS |

5. Proposed Mud Program

| <u>Depth Interval (ft)</u> | <u>Type Mud</u> | <u>Weight (ppg)</u> | <u>Viscosity (sec, API)</u> | <u>PH</u> | <u>Water Loss (cc/30M)</u> |
|----------------------------|-----------------|---------------------|-----------------------------|-----------|----------------------------|
| <u>From</u> <u>To</u> | | | | | |
| 0 625 | Spud Mud | 8.4-9.0 | 32-38 | 10.0 | N/C |
| 625 3100 | Brinewtr | 10.0-10.2 | 28-30 | 10.0-10.5 | N/C |
| 3100 10400 | Cut Brine | 9.1-9.3 | 28-30 | 10.0-10.5 | N/C |
| 10400 12550 | Cut Brine | 10.0-14.0 | 30-36 | 10.0-10.5 | 10-15 |
| | Water | | | | |
| 12550 13900 | xcPolymer | 10.0-11.0 | 36-40 | 10.0 | 4-5 |

6. Auxiliary Equipment to Be Used

- A) Kelly Cock
- B) Full opening valve on floor with DP connection for use when Kelly is not in drill string.

7. Testing, Logging and Coring Program

Mud Logging: Unit on location from 2850' to TD.

Testing: Five DST's are anticipated. See No.2 "Estimated Depths of anticipated Water, Oil, Gas or Minerals" for DST intervals.

Coring: None.

Log/Interval: CNL-LDT, MLL, BHC Sonic, & DLL-MSFL or DI-SFL/2950' to TD; CNL/Surface to 2950'

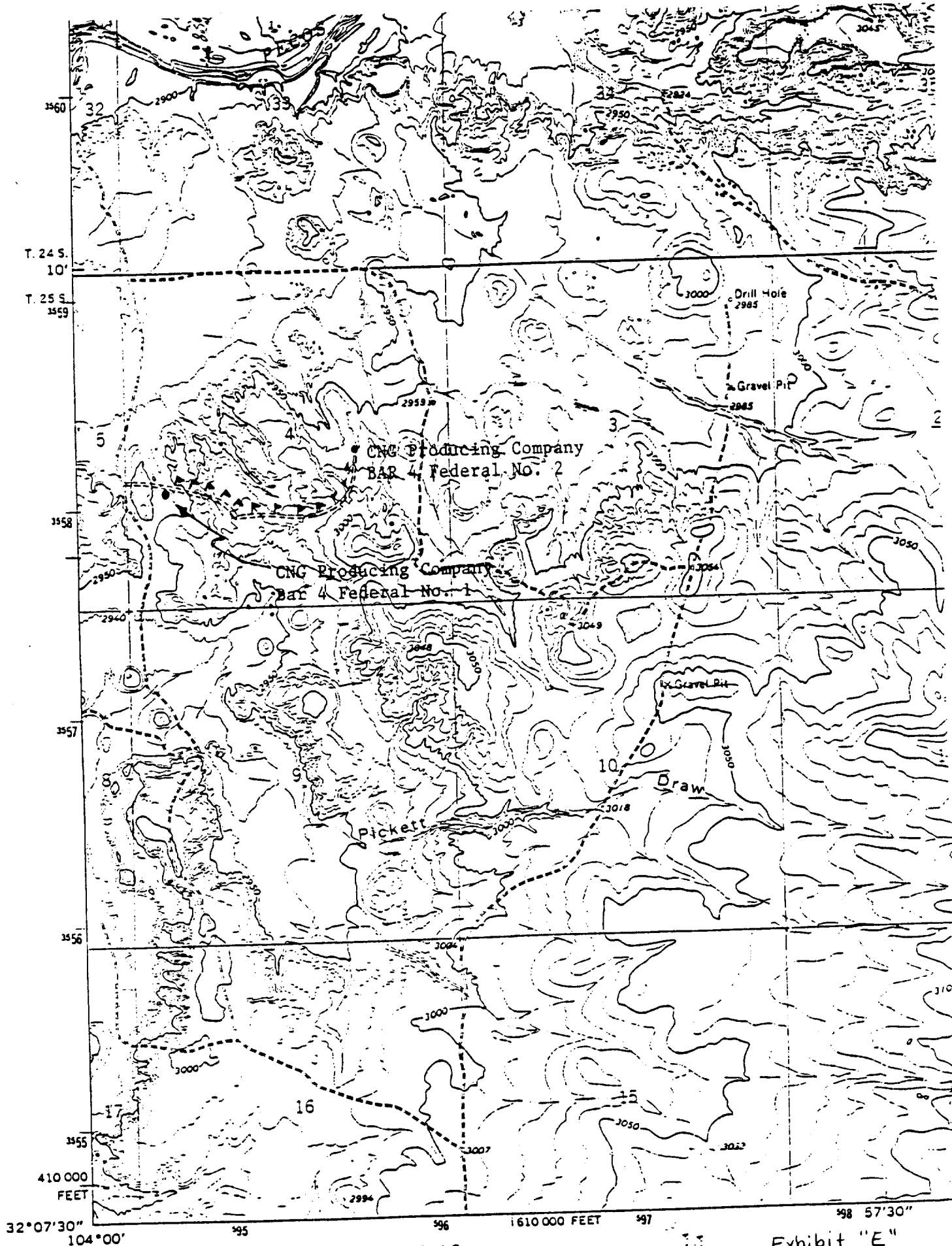
8. Any Abnormal Pressure or Temperatures

Anticipated possible abnormal pressures from Wolfcamp through the Atoka. The formations to be penetrated are not known to contain H₂S gas. Maximum anticipated BHP is 8,000 psi at total depth.

9. Anticipated Starting Date and Duration of Operations

Starting Date: July 1, 1988

Duration: 85 days



5148 II
(MALAGA)
1:62 500

Mapped, edited, and published by the Geological Survey
Control by USGS and USC&GS
Topography by photogrammetric methods from aerial
photographs taken 1967. Field checked 1968
Polyconic projection. 1927 North American datum

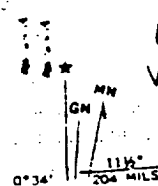


Exhibit "E"
Vicinity Sketch,
Access Road

CNG Bar 4 Federal #2
Drilling Pad Layout

Exhibit "G"

SLL
3-25-88

