

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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

3. ADDRESS OF OPERATOR

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

At proposed prod. zone

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

15. DISTANCE FROM PROPOSED*
LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. line, if any)18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

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

16. NO. OF ACRES IN LEASE

19. PROPOSED DEPTH

17. NO. OF ACRES ASSIGNED
TO THIS WELL

20. ROTARY OR CABLE TOOLS

22. APPROX. DATE WORK WILL START*

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17"	15 1/8"	43	10'	100 lbs
15"	13 1/2"	30 1/2	500' 100'	500 lbs

We propose to drill this well to supply additional water for injection in the Harwood
unit. Four water supply wells in this unit. Do not supply sufficient water for efficient
operation of the unit. We propose to locate water supply wells deeper than the
Harwood formation which is producing in the other four wells. Objectives of this
test are the interval 1000', 1000' and 1000'.

RECEIVED

OCT 5 1964

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

24.

SIGNED

TITLE

DATE

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

Instructions

General: This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

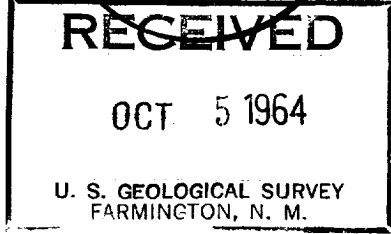
Items 15 and 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

Item 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

11/5/64

Operator **ATLANTIC REFINING CO.** Field **HORSESHOE GALLUP UNIT**
 Well No. **5 W** Unit Letter **N** Section **33** Township **31 NORTH** Range **16 WEST**
 Elevation **1110** Feet From **SOUTH** Line **1345** West
 County **SAN JUAN** G.A. Elevation **5221.6**
 Name of Producing Formation

1. Is the Operator the only owner in the indicated acreage outlined on this plat?
 Yes ☒ No ☐
2. If the answer to question one is "No", have the interests of all the owners been ascertained and approved? Yes ☒ No ☐ If answer is "No", list the interests.

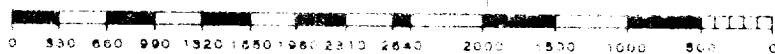
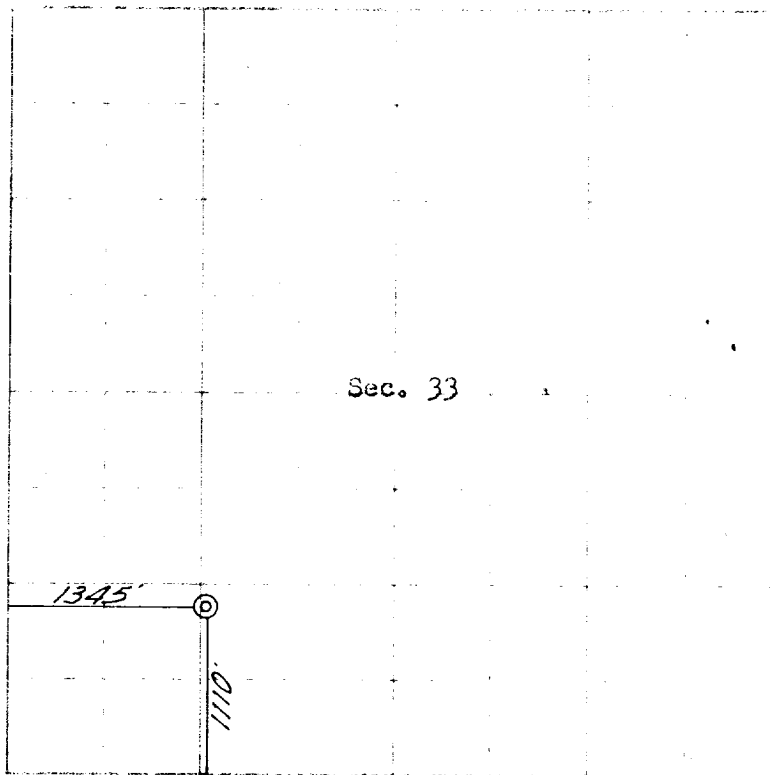


I hereby certify that the information on this plat is true and complete to the best of my knowledge and belief.

THE ATLANTIC REFINING

W. G. Ward
 (Signature)
 1110
 (Address)
 Farmington, N. M.

Note: All distances stated on this plat are in feet.



Scale 4 inches equal 1 mile

Ref. GLO plat dated unsurveyed



This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

Date Surveyed **October 2, 1964**

James A. Keane
 Registered Professional Engineer and/or Land Surveyor