

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

Eastern Petroleum Company

3. ADDRESS OF OPERATOR

P. O. Box 291, Carmi, Illinois 62821

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

At surface

2017 FNL and 469 FEL

At proposed prod. zone

Same

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

Nine miles south of Shiprock, New Mexico

15. DISTANCE FROM PROPOSED*

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

660 feet

16. NO. OF ACRES IN LEASE

2560 acres

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

*

19. PROPOSED DEPTH

600 feet

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40 acres

20. ROTARY OR CABLE TOOLS

Rotary

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

5221 Grd.

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
9"	7"	20#	20 feet	6 sacks
6X"	4 1/2"	9 1/2#	600 feet	25 sacks
	15			

*Note: This 150 feet east of Champlin No. 1-12 Navajo well which was drilled to a depth of 7327 feet and plugged and abandoned in July 18, 1968.

Propose to drill and test the Gallup sandstone. If productive then will set and cement 4 1/2" casing.

RECEIVED

FEB 1 1969

U. S. GEOLOGICAL SURVEY
FARMINGTON, N. M.

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

Robert E. Lauth

TITLE

Agent-Geologist

DATE

Feb. 17, 1969

(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 re-drill 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, notations 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.

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.

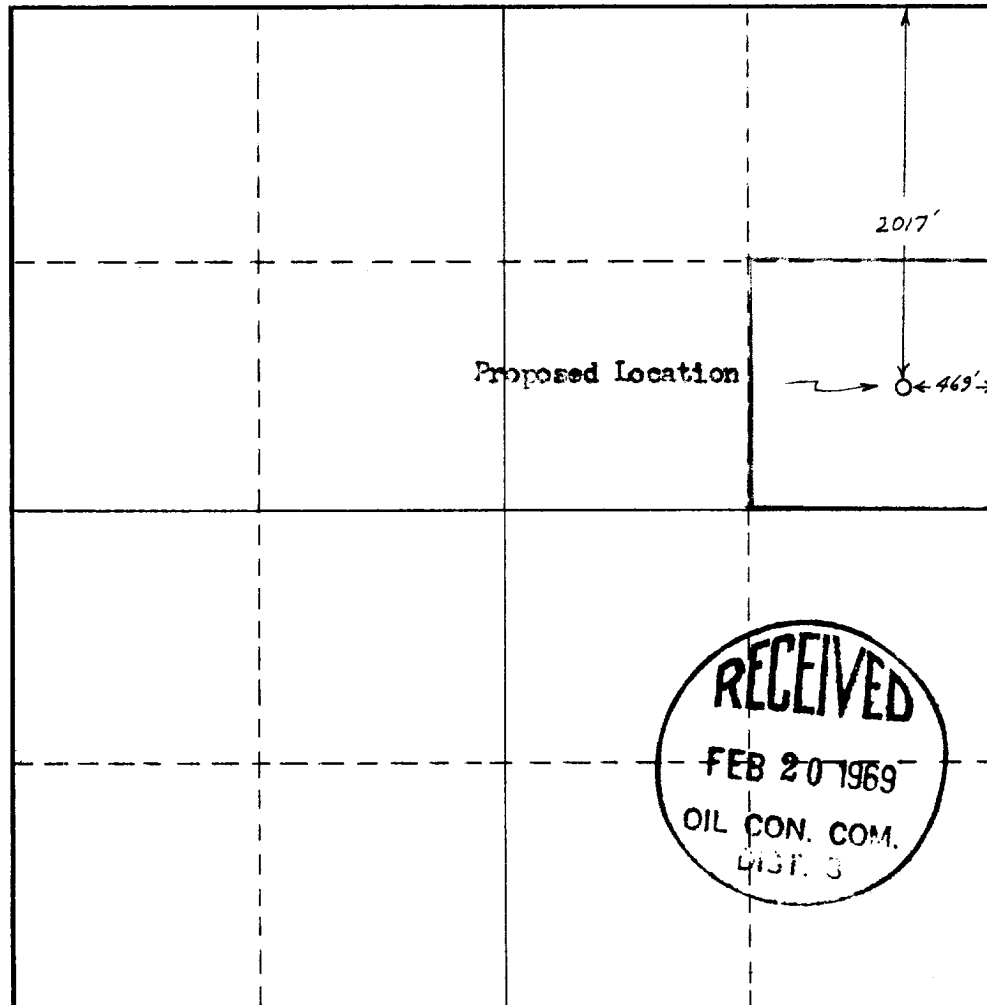
Operator Eastern Petroleum Co.			Lease Amerada-Sulphur Springs		Well No. 3
Unit Letter H	Section 13	Township 28 N	Range 18 W	County San Juan	
Actual Footage Location of Well: 2017 feet from the North line and 469 feet from the East line					
Ground Level Elev. 5221	Producing Formation Gallup		Pool Wildcat-Sulphur Springs		Dedicated Acreage: 40 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 One lease

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.

Robert E. Lauth

Name
Robert E. Lauth
Position
Agent-Geologist
Company
Eastern Petroleum Co.
Date
February 17, 1969

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
Feb. 13, 1969
Registered Professional Engineer
and/or Land Surveyor

Frederick H. Rick

Certificate No. **3795**



1. The first part of the paper is devoted to the study of the

properties of the function $f(x)$ defined by the equation

$$f(x) = \int_0^x \frac{1}{1+t^2} dt, \quad (1)$$

where x is a real number.

It is easy to see that

$$f(x) = \arctan x, \quad (2)$$

and hence $f(x)$ is a continuous function.

Moreover, it is known that

$$\lim_{x \rightarrow \infty} f(x) = \frac{\pi}{2},$$

and $f(x)$ is a strictly increasing function.

Let us now consider the function

$$g(x) = \int_0^x \frac{1}{1+t^2} dt, \quad (3)$$

where x is a real number.

It is easy to see that

$$g(x) = \arctan x, \quad (4)$$

and hence $g(x)$ is a continuous function.

Moreover, it is known that

$$\lim_{x \rightarrow \infty} g(x) = \frac{\pi}{2},$$

and $g(x)$ is a strictly increasing function.

Let us now consider the function

$$h(x) = \int_0^x \frac{1}{1+t^2} dt, \quad (5)$$

where x is a real number.

It is easy to see that

$$h(x) = \arctan x, \quad (6)$$

and hence $h(x)$ is a continuous function.

Moreover, it is known that

$$\lim_{x \rightarrow \infty} h(x) = \frac{\pi}{2},$$

and $h(x)$ is a strictly increasing function.

Let us now consider the function

$$k(x) = \int_0^x \frac{1}{1+t^2} dt, \quad (7)$$

where x is a real number.

It is easy to see that

$$k(x) = \arctan x, \quad (8)$$

and hence $k(x)$ is a continuous function.

Moreover, it is known that

$$\lim_{x \rightarrow \infty} k(x) = \frac{\pi}{2},$$

and $k(x)$ is a strictly increasing function.

Let us now consider the function

$$l(x) = \int_0^x \frac{1}{1+t^2} dt, \quad (9)$$

where x is a real number.

It is easy to see that

$$l(x) = \arctan x, \quad (10)$$

and hence $l(x)$ is a continuous function.

Moreover, it is known that

$$\lim_{x \rightarrow \infty} l(x) = \frac{\pi}{2},$$

and $l(x)$ is a strictly increasing function.