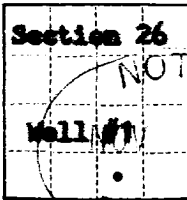


Form 9-331a  
(Feb. 1951)

(SUBMIT IN TRIPLICATE)

Land Office **Las Cruces**  
Lease No. **062478**  
Federal "G" Lease

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S



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
1962 NOV 9 PM 3 27

## SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....
NOTICE OF INTENTION TO TEST WATER SHUT-OFF..... <b>X</b>	SUBSEQUENT REPORT OF ALTERING CASING.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR.....
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

**November 5,** 1962

Well No. **1** is located **660** ft. from **[S]** line and **1980** ft. from **[E]** line of sec. **26**

**SW 1/4 of SE 1/4 of Sec. 26** **13-S** **30-E** **NMPH**  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)

**Wildcat - Scottwell Area** **Chaves** **New Mexico**  
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is **3929'** ft.

### DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Drilled 12-1/4" hole from 627' to 1701'. Reduced hole from 12-1/4" to 11" at 1701' and drilled to 3013'. Finished drilling 11" hole to 3013' at 8:30 AM 11-1-62. Ran 71 jts. 8-5/8" OD 24# and 22 jts. 8-5/8" OD 32# J-55 casing for a total of 93 jts. set at 3013' and cemented with 1400 sacks 50-50 Pozmix mixed 2% Gel and 100 sacks Incoor cement for a total of 1500 sacks saturated with salt. Cemented with maximum pump pressure of 1200#. Cement circulated. Tested casing before and after drilling cement plug with 1250#. Started drilling 7-7/8" hole from 3013' at 12:15 PM 11-3-62.

**NOV 6 1962**  
U. S. GEOLOGICAL SURVEY  
LAS CRUCES, NEW MEXICO

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company **Amarada Petroleum Corporation**

Address **P. O. Box 668**

**Hobbs, New Mexico**

By **[Signature]**

Title **District Superintendent**

1. The first part of the paper

is devoted to the study of

the properties of the function

defined by the equation

where  $\alpha$  is a real number

and  $\beta$  is a complex number

with  $\operatorname{Re} \beta > 0$ . The function

is called the  $\alpha$ -th order Bessel function

of the first kind. It is known that

the function  $J_\alpha(z)$  is entire

and has the following asymptotic

expansion for large  $|z|$ :

$$J_\alpha(z) \sim \sqrt{\frac{2}{\pi z}} \cos\left(z - \frac{\pi}{4} - \frac{\alpha^2}{2z}\right)$$

as  $|z| \rightarrow \infty$ . The function

is also entire and

has the following asymptotic

expansion for large  $|z|$ :

$$J_\alpha(z) \sim \sqrt{\frac{2}{\pi z}} \sin\left(z - \frac{\pi}{4} - \frac{\alpha^2}{2z}\right)$$

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