

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

NOTICE OF INTENTION TO DRILL

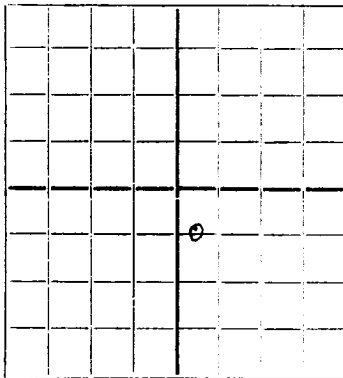
Notice must be given to the Oil Conservation Commission or its proper agent and approval obtained before drilling begins. If changes in the proposed plan are considered advisable, a copy of this notice showing such changes will be returned to the sender. Submit this notice in triplicate. One copy will be returned following approval. See additional instructions in Rules and Regulations of the Commission.

Hobbs, New MexicoSeptember 29, 1939

OIL CONSERVATION COMMISSION,
Santa Fe, New Mexico.
Gentlemen:

DUPLICATE

You are hereby notified that it is our intention to commence the drilling of a well to be known as Drilling & Exploration Co., Inc. State "E" Well No. 2 in NW-SE Company or Operator Lease of Sec. 24, T-17S, R-34E, N. M. P.M., Vacuum Field, Lee County.



AREA 640 ACRES
LOCATE WELL CORRECTLY

The well is 1980 feet (N.) (~~E~~) of the South line and 2310 feet (~~E~~) (W.) of the East line of Section 24
(Give location from section or other legal subdivision lines. Cross out wrong directions.)

If state land the oil and gas lease is No. _____, Assignment No. _____

If patented land the owner is _____

Address _____

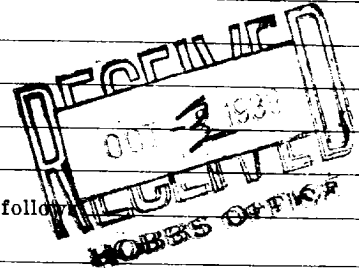
If government land the permittee is _____

Address _____

The lessee is _____

Address _____

We propose to drill well with drilling equipment as follows:



The status of a bond for this well in conformance with Rule 39 of the General Rules and Regulations of the Commission is as follows: Have blanket bond.

We propose to use the following strings of casing and to land or cement them as indicated:

Size of Hole	Size of Casing	Weight Per Foot	New or Second Hand	Depth	Landed or Cemented	Sacks Cement
<u>11"</u>	<u>8-5/8"</u>	<u>28#</u>	<u>New</u>	<u>1650'</u>	<u>Cemented</u>	<u>650</u>
<u>7-7/8"</u>	<u>5-1/2"</u>	<u>17#</u>	<u>New</u>	<u>4260'</u>	<u>Cemented</u>	<u>275</u>

If changes in the above plan become advisable we will notify you before cementing or landing casing. We estimate that the first productive oil or gas sand should occur at a depth of about 4525 feet.

Additional information:

This well will be drilled by the Drilling and Exploration Co., Inc.

Approved OCT 3 - 1939, 19_____
except as follows:

Sincerely yours,

Drilling & Exploration Co., Inc.
Company or Operator

By [Signature]

Position Office Manager

Send communication regarding well to

OIL CONSERVATION COMMISSION,
By Ray Garlrough
OIL & GAS INSPECTOR

Name Drilling & Exploration Co., Inc.

Address P.O. Box 1575, Hobbs, New Mexico

Mathematical Analysis

Chapter 1

1.1. Introduction

The purpose of this chapter is to introduce the basic concepts of mathematical analysis, including the real number system, limits, and continuity. We will discuss the properties of real numbers and the definition of limits, which are fundamental to the study of calculus.

1.2. The Real Number System

The real number system is the foundation of mathematical analysis. It includes the rational numbers and the irrational numbers. We will explore the properties of real numbers, such as the completeness property, which states that every non-empty set of real numbers that is bounded above has a least upper bound.

1.3. Limits and Continuity

One of the central concepts in mathematical analysis is the limit. We will define the limit of a function and discuss the conditions under which a function is continuous. Continuity is a property that ensures that a function does not have any jumps or breaks in its graph.

1.4. The Derivative

The derivative of a function is a measure of its instantaneous rate of change. We will define the derivative and discuss its properties, including the rules for differentiating sums, products, and quotients of functions.

1.5. The Integral

The integral is a mathematical operation that is the inverse of differentiation. It is used to calculate the area under a curve and to solve problems involving accumulation. We will define the definite integral and discuss its properties.

1.6. Applications of the Derivative and Integral

The derivative and integral have many applications in physics, engineering, and economics. We will discuss some of these applications, such as the use of the derivative to find the maximum and minimum values of a function.

1.7. The Mean Value Theorem

The Mean Value Theorem is a fundamental result in calculus. It states that if a function is continuous on a closed interval and differentiable on the open interval, then there is a point in the open interval where the derivative is equal to the average rate of change of the function over the interval.

1.8. The Chain Rule

The chain rule is a rule for differentiating composite functions. It states that the derivative of a composite function is the derivative of the outer function evaluated at the inner function, multiplied by the derivative of the inner function.

1.9. The Product Rule

The product rule is a rule for differentiating the product of two functions. It states that the derivative of the product of two functions is the derivative of the first function times the second function, plus the first function times the derivative of the second function.

1.10. The Quotient Rule

The quotient rule is a rule for differentiating the quotient of two functions. It states that the derivative of the quotient of two functions is the derivative of the numerator times the denominator, minus the numerator times the derivative of the denominator, all divided by the square of the denominator.

1.11. The L'Hôpital's Rule

L'Hôpital's Rule is a rule for evaluating limits of the form $\frac{0}{0}$ or $\frac{\infty}{\infty}$. It states that if the limit of the ratio of two functions is an indeterminate form, then the limit of the ratio of their derivatives is the same as the limit of the original ratio, provided the limit of the derivatives exists.

1.12. The Taylor Series

The Taylor series is a representation of a function as an infinite sum of terms that are calculated from the values of the function's derivatives at a single point. It is a powerful tool for approximating functions and for solving problems in calculus.

1.13. The Binomial Theorem

The binomial theorem is a formula for expanding the powers of a binomial. It states that the expansion of $(a+b)^n$ is a sum of terms, each of which is a binomial coefficient times $a^k b^{n-k}$, where k ranges from 0 to n .

1.14. The Binomial Coefficient

The binomial coefficient is a number that appears in the binomial theorem. It is denoted by $\binom{n}{k}$ and is equal to $\frac{n!}{k!(n-k)!}$, where $n!$ is the factorial of n .

1.15. The Binomial Distribution

The binomial distribution is a probability distribution that arises from a binomial experiment. It is a discrete probability distribution that gives the probability of getting a certain number of successes in a fixed number of trials.

1.16. The Binomial Test

The binomial test is a statistical test that is used to determine whether the probability of success in a binomial experiment is equal to a certain value. It is a hypothesis test that compares the observed number of successes to the expected number of successes.

1.17. The Binomial Confidence Interval

The binomial confidence interval is a range of values that is likely to contain the true probability of success in a binomial experiment. It is a statistical interval that is calculated from the observed number of successes and the sample size.

1.18. The Binomial Test Statistic

The binomial test statistic is a measure of the difference between the observed number of successes and the expected number of successes. It is a standardized version of the binomial test statistic that is used to calculate the p-value.

1.19. The Binomial P-value

The binomial p-value is the probability of getting a test statistic as extreme as the one observed, assuming that the null hypothesis is true. It is a measure of the strength of the evidence against the null hypothesis.

1.20. The Binomial Test Conclusion

The binomial test conclusion is the final result of the binomial test. It is a statement that either rejects the null hypothesis or fails to reject the null hypothesis, based on the p-value and the significance level.

1.21. The Binomial Test Assumptions

The binomial test assumptions are the conditions that must be met for the binomial test to be valid. These include the assumption of independence between trials and the assumption of a constant probability of success.

1.22. The Binomial Test Limitations