

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

MISCELLANEOUS NOTICES

Submit this notice in triplicate to the Oil Conservation Commission or its proper agent before the work specified is to begin. A copy will be returned to the sender on which will be given the approval, with any modifications considered advisable, or the rejection by the Commission or its agent, of the plan submitted. The plan as approved should be followed, and work should not begin until approval is obtained. See additional instructions in the Rules and Regulations of the Commission.

Indicate nature of notice by checking below:

NOTICE OF INTENTION TO TEST CASING SHUT-OFF	<input checked="" type="checkbox"/>	NOTICE OF INTENTION TO SHOOT OR CHEMICALLY TREAT WELL	
NOTICE OF INTENTION TO CHANGE PLANS		NOTICE OF INTENTION TO PULL OR OTHERWISE ALTER CASING	
NOTICE OF INTENTION TO REPAIR WELL		NOTICE OF INTENTION TO PLUG WELL	
NOTICE OF INTENTION TO DEEPEN WELL			

Midland, Texas

November 16, 1936

Place

Date

OIL CONSERVATION COMMISSION,
Santa Fe, New Mexico.

Gentlemen:

Following is a notice of intent to do certain work as described below at the

Humble Oil & Refining Company John D. Knox Well No. 7 in SW/4 of NE/4
 of Sec. 10, T. 21-S, R. 36-E, N. M. P. M., Bunice Field,
Lea County.

FULL DETAILS OF PROPOSED PLAN OF WORK

FOLLOW INSTRUCTIONS IN THE RULES AND REGULATIONS OF THE COMMISSION

SET CASING AS FOLLOWS:

<u>SIZE</u>	<u>WEIGHT</u>	<u>AMOUNT</u>	<u>SET AT</u>	<u>FORMATION</u>	<u>TOTAL DEPTH OF WELL</u>	<u>NO. SACKS & MAKE OF CEMENT</u>	<u>PLUG ON BOTTOM</u>
10-3/4"	35#	237'	252'	Red Beds	230'	100 Sacks El Toro	2:30 P.M. 11/15/36

Halliburton method used.

Will test casing by bailing dry on November 17, 1936.

DUPLICATE

Approved NOV 16 1936, 19____
 except as follows:

OIL CONSERVATION COMMISSION,

By [Signature]Title [Signature]

Humble Oil & Refining Company

Company or Operator

By [Signature]Position Division Superintendent

Send communications regarding well to

Name W. T. DohertyAddress Drawer "W" - Midland, Texas.

Mathematical Induction

Principle of Mathematical Induction

Let $P(n)$ be a statement involving n .

1. $P(1)$ is true. (Base Case)
2. If $P(k)$ is true, then $P(k+1)$ is true. (Inductive Step)

Then $P(n)$ is true for all $n \in \mathbb{N}$.

Example: Prove that $1 + 2 + 3 + \dots + n = \frac{n(n+1)}{2}$ for all $n \in \mathbb{N}$.

Base Case: $n=1$. $1 = \frac{1(1+1)}{2} = 1$. True.

Inductive Step: Assume $P(k)$ is true. Then $1 + 2 + \dots + k = \frac{k(k+1)}{2}$.

Now, $1 + 2 + \dots + k + (k+1) = \frac{k(k+1)}{2} + (k+1) = \frac{k(k+1) + 2(k+1)}{2} = \frac{(k+1)(k+2)}{2}$.

Thus, $P(k+1)$ is true. By induction, $P(n)$ is true for all $n \in \mathbb{N}$.

Example: Prove that $2^n > n$ for all $n \in \mathbb{N}$.

Base Case: $n=1$. $2^1 = 2 > 1$. True.

Inductive Step: Assume $2^k > k$. Then $2^{k+1} = 2 \cdot 2^k > 2 \cdot k$.

Since $2k > k+1$ for $k \geq 1$, $2^{k+1} > k+1$. True.

Example: Prove that $1 + 2 + 3 + \dots + n = \frac{n(n+1)}{2}$ for all $n \in \mathbb{N}$.

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