

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Land Office New Mexico

Lease No. 048

Unit Storage

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		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)

December 4, 1953

Well No. 1-A is located 990 ft. from N line and 990 ft. from E line of sec. 35

NE Section 35 32N 11W N. M. P. M.
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)
Blanco San Juan New Mexico
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is 6333 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)

It is intended to drill a well with rotary tools through the Mesaverde, drilling the pay with gas circulation, and to shoot the entire Mesaverde with two quarts of S.E.G. per foot. Total depth 5425'.

Casing Program:

9-5/8" at 170' with 125 sacks of regular cement circulated to surface.
7" at 4765' with 500 sacks of regular cement.

The N/2 of Section 35 is dedicated to this well.

THE N/2 W/4 BE COMMUNITIZED

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

Company EL PASO NATURAL GAS COMPANY

Address BOX 997

PASADENA, NEW MEXICO

By [Signature]

Title Petroleum Engineer.

1. Introduction

The purpose of this paper is to study the properties of the function $f(x)$ defined by the equation

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

and to prove that

$$f(x) = \arctan x$$

for all x in the interval $(-\infty, \infty)$. We will use the following theorem:

Theorem 1. Let $f(x)$ be a function defined on the interval $(-\infty, \infty)$ such that

$$f'(x) = \frac{1}{1+x^2}$$

for all x in the interval $(-\infty, \infty)$. Then $f(x) = \arctan x + C$ for some constant C .

$$f(0) = \arctan 0 + C = 0 + C = C$$

$$f(0) = \arctan 0 = 0$$

Therefore $C = 0$ and $f(x) = \arctan x$ for all x in the interval $(-\infty, \infty)$.

$$f(x) = \arctan x$$

Q.E.D.

□

$$f(x) = \arctan x$$

The function $f(x)$ is defined on the interval $(-\infty, \infty)$ and is continuous.

..... $f(x) = \arctan x$

..... $f(x) = \arctan x$

..... $f(x) = \arctan x$

..... $f(x) = \arctan x$

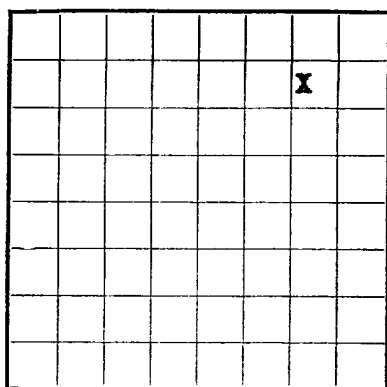
..... $f(x) = \arctan x$



U. S. LAND OFFICE **New Mexico**

SERIAL NUMBER

LEASE OR PERMIT TO PROSPECT



LOG OF OIL OR GAS WELL

Company El Paso Natural Gas Company Address Box 997, Farmington, New Mexico
Lessor or Tract Storey Field Blanco State New Mexico
Well No. 1-A Sec. 35 T. 32N R. 11W Meridian N.M.P.M. County San Juan
Location 990 ft. SE of N Line and 990 ft. SE of E Line of Section 35 Elevation 6333

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed Lawell H. Aldrich

Date February 9, 1954

The summary on this page is for the condition of the well at above date.

Commenced drilling 12-8-53, 1953 Finished drilling 1-12-54, 1954

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

(Denote gas by G)

No. 1, from <u>3081</u> to <u>3178 (G)</u> No. 2, from <u>4830</u> to <u>4980 (G)</u> No. 3, from <u>4980</u> to <u>5320 (G)</u>	No. 4, from <u>5320</u> to <u>5417 (G)</u> No. 5, from _____ to _____ No. 6, from _____ to _____
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IMPORTANT WATER SANDS

No. 1, from _____ to _____ No. 3, from _____ to _____
No. 2, from _____ to _____ No. 4, from _____ to _____

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated		Purpose
							From—	To—	
9-5/8"	25.4	8. W.	Armco	160'	Armco				Surface
7-1/2"	23	8 Rd.	Armco	2917'	Armco				Prod. Csg.
7-1/2"	23	8 Rd.	Armco	2917'	Armco				Prod. Csg.
2	4.7	8 Rd.	Young	5010					Prod. Tbg.

MUDDING AND CEMENTING RECORD

[illegible]

PLUGS AND ADAPTERS

Heaving plug—Material _____ Length _____ Depth set _____
Adapters—Material _____ Size _____

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out
		Sand Oil				

TOOLS USED

Rotary tools were used from 0 feet to 4789 feet, and from 4789 feet to 5470 feet.

Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet.

DATES

Put to producing _____, 19____

The production for the first 24 hours was _____ barrels of fluid of which _____% was oil; _____% emulsion; _____% water; and _____% sediment. Gravity. °Bé. _____

If gas well, cu. ft. per 24 hours 3,132,000 Gallons gasoline per 1,000 cu. ft. of gas _____

Rock pressure, lbs. per sq. in. ----- 991

EMPLOYEES

_____, Driller _____, Driller
_____, Driller _____, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	893	893	Tan cr-grn ss w/thin sh breaks.
893	1347	454	Variegated sh w/thin ss breaks.
1347	2270	923	Tan to gry cr-grn ss interbedded w/gry sh.
2270	2392	122	Ojo Alamo ss. White cr-grn s.
2392	2698	306	Kirtland formation. Gry sh interbedded w/tight gry fine-grn ss.
2698	3081	383	Fruitland formation. Gy carb sh, scattered coals and gry, tight, fine-grn ss.
3081	3178	97	Pictured Cliffs formation. Gry, fine-grn tight, varicolored soft ss.
3178	4830	1652	Lewis formation. Gry to white dense sh w/silty to shaly ss. breaks.
4830	4980	150	Cliff House ss. Gry, fine-grn, dense sil ss.
4980	5320	340	Manefee formation. Gry, fine-grn s, carb sh and coal.
5320	5417	97	Point Lockout formation. Gry, very fine sil ss w/frequent sh breaks.
5417	5470	53	Mancos formation. Gry carb sh.
			Tops
			Ojo Alamo 2270
			Kirtland 2392
			Fruitland 2698
			Pictured Cliffs 3081
			Point Lockout 5320
			Mancos 5417

