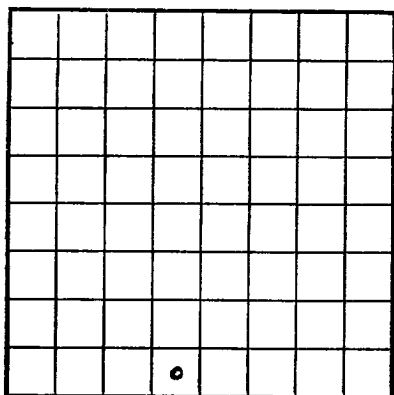


U. S. LAND OFFICE Las Cruces
SERIAL NUMBER 028755
LEASE OR PERMIT TO PROSPECT H. RussellUNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company Empire Gas and Fuel Address Bartlesville, Oklahoma
Lessor or Tract Henry Russell Field Artesia State New Mexico
Well No. 3-A Sec. 35 T. 17S R. 27E Meridian N.M.M.M. County Eddy
Location 330 ft. N. of 8 Line and 330 ft. XX of E Line of S.W. 1/4 Elevation _____
(Derrick floor relative to sea level)

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 /s/ Geo. E. DavisDate September 3, 1927Title District Foreman

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

Commenced drilling August 8, 1927 Finished drilling September 3, 1927

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 407' to 414' No. 4, from 1595' to 1610'
No. 2, from 870' to 875' (oil showing) No. 5, from _____ to _____
No. 3, from 1170' to 1175' G No. 6, from _____ to _____

IMPORTANT WATER SANDS

No. 1, from 695' to 710' No. 3, from _____ to _____
No. 2, from 910' to 935' 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—	
<u>10"</u>	<u>35#</u>	<u>8</u>	<u>Ygst.</u>	<u>46087'</u>	<u>Texas Pattern</u>				
<u>8"</u>	<u>28#</u>	<u>8</u>	<u>Central</u>	<u>987'</u>	<u>Texas Pattern</u>				

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used

PLUGS AND ADAPTERS

Heaving plug—Material _____ Length _____ Depth set _____
Adapters—Material 0 Size _____

SHOOTING RECORD

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

TOOLS USED

Rotary tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet
Cable tools were used from 0 feet to 1623 feet, and from _____ feet to _____ feet

DATES

_____, 19____ 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 _____ Gallons gasoline per 1,000 cu. ft. of gas _____

Rock pressure, lbs. per sq. in. _____

EMPLOYEES

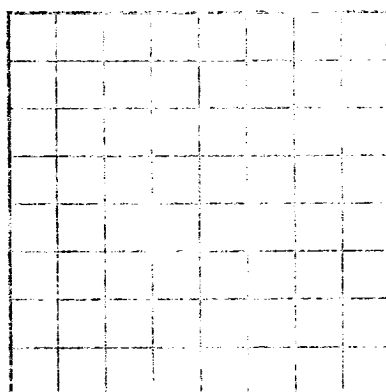
J. A. Gore, Driller _____, Driller
J. R. Evarts, Driller _____, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
<u>0</u>	<u>3</u>	<u>3</u>	<u>Soil</u>
<u>3</u>	<u>120</u>	<u>117</u>	<u>Gypsum</u>
<u>120</u>	<u>175</u>	<u>55</u>	<u>Red bed</u>
<u>175</u>	<u>200</u>	<u>25</u>	<u>Gypsum and red bed</u>
<u>200</u>	<u>210</u>	<u>10</u>	<u>Red bed</u>
<u>210</u>	<u>225</u>	<u>15</u>	<u>Gypsum</u>
<u>225</u>	<u>270</u>	<u>45</u>	<u>Gypsum and red bed</u>
<u>270</u>	<u>290</u>	<u>20</u>	<u>Gypsum</u>
<u>290</u>	<u>380</u>	<u>90</u>	<u>Gypsum and lime shells</u>
<u>380</u>	<u>407</u>	<u>27</u>	<u>Gypsum</u>
<u>407</u>	<u>414</u>	<u>7</u>	<u>Oil sand</u>
<u>414</u>	<u>419</u>	<u>5</u>	<u>Gray lime</u>
<u>419</u>	<u>425</u>	<u>6</u>	<u>Blue shale</u>
<u>425</u>	<u>460</u>	<u>35</u>	<u>Gypsum</u>
<u>460</u>	<u>480</u>	<u>20</u>	<u>Gypsum and lime</u>
<u>480</u>	<u>530</u>	<u>50</u>	<u>Gray lime</u>
<u>530</u>	<u>555</u>	<u>25</u>	<u>Gypsum</u>
<u>555</u>	<u>600</u>	<u>45</u>	<u>Gypsum and lime</u>
<u>600</u>	<u>625</u>	<u>25</u>	<u>Lime</u>
<u>625</u>	<u>650</u>	<u>25</u>	<u>Gypsum</u>
<u>650</u>	<u>675</u>	<u>25</u>	<u>Broken gypsum and lime</u>
<u>675</u>	<u>695</u>	<u>20</u>	<u>Gray lime</u>
<u>695</u>	<u>710</u>	<u>15</u>	<u>Salt water sand</u>
<u>710</u>	<u>715</u>	<u>5</u>	<u>Red bed</u>
<u>715</u>	<u>825</u>	<u>110</u>	<u>Gypsum</u>
<u>825</u>	<u>835</u>	<u>10</u>	<u>Red bed</u>

(over)

LOG OF CIRCULAR ROAD



Y. TROTSKY, NEW YORK

100-443887-100

FIGURE 20. POLYMER GEL PERMEATION CHROMATOGRAPHY

1. $\frac{1}{2} \frac{d}{dt} \int_{\mathbb{R}^n} |u|^2 dx = \int_{\mathbb{R}^n} u \Delta u dx = - \int_{\mathbb{R}^n} |\nabla u|^2 dx \leq 0$ and $\frac{1}{2} \frac{d}{dt} \int_{\mathbb{R}^n} |\nabla u|^2 dx = \int_{\mathbb{R}^n} \nabla u \cdot \nabla \Delta u dx = \int_{\mathbb{R}^n} \Delta u \Delta^2 u dx = \int_{\mathbb{R}^n} |\Delta u|^2 dx \geq 0$

[illegible]

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...and results of pumping or raising.

It is of the greatest importance to have a complete history of the well. Please state in detail the dates of redrilling, together with the reasons for the work and its results. If there were any changes made in the casing, state fully, and if any casing was "sidetracked" or left in the well, give its size and location. If the well has been dynamited, give date, size, position, and number of shots. If plugs or bridges were put in the test for water, state kind of material used, position, size, and date of placement, and number of shots.

HISTORY OF OIL OR GAS WELL

SECRET

FROM	TO	TOTAL FEET	FORMATION
835	880	45	Gypsum
880	905	25	Gray lime
905	910	5	Sandy lime
910	935	25	Red sand
935	940	5	Gypsum
940	970	30	White lime
970	1040	70	Gray lime
1040	1050	10	Gray lime and red shale
1050	1110	60	Gray lime
1110	1120	10	Broken gypsum
1120	1150	30	Gypsum and lime shells
1150	1175	25	Gray sandy lime
1175	1200	25	Gypsum and lime
1200	1210	10	Gypsum and lime
1210	1230	20	Lime and red shale
1230	1295	65	Gypsum and lime
1295	1335	40	Red lime and red shale
1335	1370	35	Gray lime
1370	1380	10	Gypsum and lime
1380	1405	25	Gray lime
1405	1420	15	Gypsum
1420	1490	70	Gray lime
1490	1555	65	Sandy lime
1555	1595	40	Gray lime
1595	1610	15	Gray oil sand
1610	1623	13	Gray lime

FORMATION RECORD—Continued