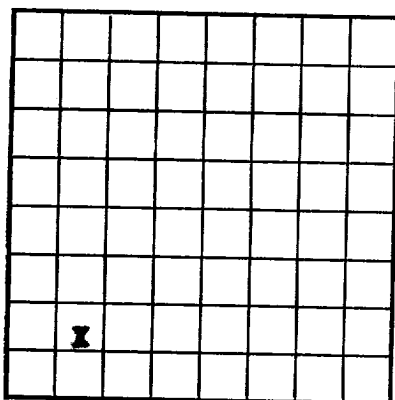


U. S. LAND OFFICE San JuanSERIAL NUMBER 078511

LEASE OR PERMIT TO PROSPECT

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYSEP 5 1951
OIL CON. COM.
DIST. 3

LOCATE WELL CORRECTLY

LOG OF OIL OR GAS WELL

Company San Juan Production Company Address Box 997, Farmington, New Mexico
Lessor or Tract Howell Field Blanco-La Plata State New Mexico
Well No. 1-E Sec. 29 T. 30N R. 8W Meridian N. M. P. M. County San Juan
Location 790 ft. [N.] of S. Line and 790 ft. [E.] of W. Line of Section 29 Elevation 5801
(Derives 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 E. J. KeelDate September 4, 1951 Title Petroleum Engineer

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

Commenced drilling July 4, 1951 Finished drilling August 10, 1951OIL OR GAS SANDS OR ZONES
(Denote gas by G)

No. 1, from 2471 to 2580 (G) No. 4, from 4768 to 4872 (G)
No. 2, from 4140 to 4226 (G) No. 5, from _____ to _____
No. 3, from 4226 to 4768 (G) No. 6, from _____ to _____

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—	
<u>9-5/8"</u>	<u>298</u>	<u>8</u>	<u>Young</u>	<u>150</u>	<u>Circulated</u>	<u>4096</u>			<u>Production</u>
<u>6-5/8"</u>	<u>4096</u>	<u>8</u>	<u>Young</u>	<u>300</u>	<u>Single Stage</u>	<u>4096</u>			<u>Tubing</u>

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
<u>9-5/8"</u>	<u>298</u>	<u>150</u>	<u>Circulated</u>		
<u>6-5/8"</u>	<u>4096</u>	<u>300</u>	<u>Single Stage</u>		

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
<u>Quartz</u>	<u>Regular</u>	<u>B.H.G.</u>	<u>1545</u>	<u>8-11</u>	<u>4150-4870</u>	<u>4870</u>

TOOLS USED

Rotary tools were used from 0 feet to 4096 feet, and from 4096 feet to 4870 feet
Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet

DATES

Put to producing August 29, 1951

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 4,390,000 Gallons gasoline per 1,000 cu. ft. of gas _____Rock pressure, lbs. per sq. in. 1094

EMPLOYEES

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

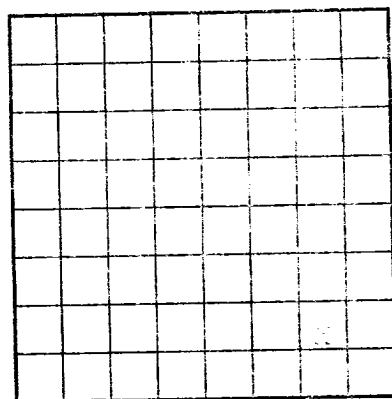
FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
<u>0</u>	<u>695</u>	<u>695</u>	<u>Tan coarse-grained ss. w/shale streaks.</u>
<u>695</u>	<u>1190</u>	<u>495</u>	<u>Variogated shales w/thin shale breaks.</u>
<u>1190</u>	<u>1415</u>	<u>225</u>	<u>Gray to tan coarse-grained ss. interbedded gray shales.</u>
<u>1415</u>	<u>1480</u>	<u>65</u>	<u>Q's Alamo ss. Coarse-grained white sand.</u>
<u>1480</u>	<u>2135</u>	<u>655</u>	<u>Kirtland fm. Gray shales interbedded w/fine-grained gray ss.</u>
<u>2135</u>	<u>2471</u>	<u>336</u>	<u>Fruitland formation. Gray carbonaceous shales w/scattered coals & fine-grained gray ss.</u>
<u>2471</u>	<u>2580</u>	<u>109</u>	<u>Pictured Cliffs fm. Gray fine, dense argill. ss. Top Pictured Cliffs 2471.</u>
<u>2580</u>	<u>4140</u>	<u>1560</u>	<u>Lewis fm. White to gray shale, dense silty sil.ss</u>
<u>4140</u>	<u>4226</u>	<u>86</u>	<u>Cliff House ss. Gray fine, dense silty ss. Top Cliff House 4140.</u>
<u>4226</u>	<u>4768</u>	<u>542</u>	<u>Manefee fm. Gray fine-grained porous sd., carbonaceous shales & coals. Top Manefee 4226.</u>
<u>4768</u>	<u>4872 TD</u>	<u>104</u>	<u>Point Lookout fm. Gray fine-grained sil. porous sil. ss. w/shale breaks. Top Point Lookout 4768.</u>

FORMATION RECORD—Continued

PLEASE OR PERMIT TO PROSPECT
SERIAL NUMBER
U. S. LAND OFFICE

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



LOCATE WELL CORRECTLY

LOG OF OIL OR GAS WELL

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.

Location of the [S] of [N] of [E] of [W] Line of Section 29 Elevation 200
Sec. 29 T. 36 N. R. 34 W. Meridian N. M. S. County San Juan

Lessor or Tract Newell Field Black Hills State San Antonio

Company Indian Production Company Address Box 117, Farmington, New Mexico

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

Date February 1, 1957 Time 10:00 AM Signed W. J. [illegible]

Commenced drilling _____ 1951 _____ Finished drilling _____ 1951 _____

OIL OR GAS SANDS OR ZONES

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(F) int smp_store()
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No. 1, from	100	to	200 (1)	No. 4, from	200	to	300 (2)
No. 2, from	300	to	400 (1)	No. 5, from	400	to	500
No. 3, from	500	to	600 (1)	No. 6, from	600	to	700

IMPORTANT WATER SANDS

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

CASING RECORD

[illegible]

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 attacked 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, state for what purpose, and of material used, position, and results of pumping or running.

HISTORY OF OIL OR GAS WELL

MUDDING AND CEMENTING RECORD

Station	Where set	Number bags of cement	Method used	Kind of gravel	Amount of mud used
1	100	10	100	100	100
2	100	10	100	100	100
3	100	10	100	100	100
4	100	10	100	100	100
5	100	10	100	100	100
6	100	10	100	100	100
7	100	10	100	100	100
8	100	10	100	100	100
9	100	10	100	100	100
10	100	10	100	100	100

PLUGS AND ADAPTERS

[illegible]

SHOOTING RECORD

Size	Shells used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out
70-80	600 lbs.	400 lbs.	100	July 1945	415-450'	415'

TOOLS USED

test	to test	from	test	to test	from	test	to test	from	test	to test	from
test	to test	from	test	to test	from	test	to test	from	test	to test	from

DATE

The production for the first 24 hours was _____ _____% water; and _____% sediment _____ Put to producing _____ 19____	If gas well, cu. ft. per 24 hours _____ Gallons gasoline per 1,000 cu. ft. of gas _____ Gravity, °Bé _____ _____ barrels of fluid of which _____% was oil: _____% _____ 19____
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EMPLOYEES

Driller	Driller
Driller	Driller

FORMATION RECORD

FROM	TO	TOTAL FEET	FORMATION
10	100	90	Point Ledge at the base of the hill. The point is a small, rocky outcrop.
10	110	100	Cliff House (see page 100).
10	120	110	Cliff House (see page 100).
10	130	120	Cliff House (see page 100).
10	140	130	Cliff House (see page 100).
10	150	140	Cliff House (see page 100).
10	160	150	Cliff House (see page 100).
10	170	160	Cliff House (see page 100).
10	180	170	Cliff House (see page 100).
10	190	180	Cliff House (see page 100).
10	200	190	Cliff House (see page 100).
10	210	200	Cliff House (see page 100).
10	220	210	Cliff House (see page 100).
10	230	220	Cliff House (see page 100).
10	240	230	Cliff House (see page 100).
10	250	240	Cliff House (see page 100).
10	260	250	Cliff House (see page 100).
10	270	260	Cliff House (see page 100).
10	280	270	Cliff House (see page 100).
10	290	280	Cliff House (see page 100).
10	300	290	Cliff House (see page 100).
10	310	300	Cliff House (see page 100).
10	320	310	Cliff House (see page 100).
10	330	320	Cliff House (see page 100).
10	340	330	Cliff House (see page 100).
10	350	340	Cliff House (see page 100).
10	360	350	Cliff House (see page 100).
10	370	360	Cliff House (see page 100).
10	380	370	Cliff House (see page 100).
10	390	380	Cliff House (see page 100).
10	400	390	Cliff House (see page 100).
10	410	400	Cliff House (see page 100).
10	420	410	Cliff House (see page 100).
10	430	420	Cliff House (see page 100).
10	440	430	Cliff House (see page 100).
10	450	440	Cliff House (see page 100).
10	460	450	Cliff House (see page 100).
10	470	460	Cliff House (see page 100).
10	480	470	Cliff House (see page 100).
10	490	480	Cliff House (see page 100).
10	500	490	Cliff House (see page 100).
10	510	500	Cliff House (see page 100).
10	520	510	Cliff House (see page 100).
10	530	520	Cliff House (see page 100).
10	540	530	Cliff House (see page 100).
10	550	540	Cliff House (see page 100).
10	560	550	Cliff House (see page 100).
10	570	560	Cliff House (see page 100).
10	580	570	Cliff House (see page 100).
10	590	580	Cliff House (see page 100).
10	600	590	Cliff House (see page 100).
10	610	600	Cliff House (see page 100).
10	620	610	Cliff House (see page 100).
10	630	620	Cliff House (see page 100).
10	640	630	Cliff House (see page 100).
10	650	640	Cliff House (see page 100).
10	660	650	Cliff House (see page 100).
10	670	660	Cliff House (see page 100).
10	680	670	Cliff House (see page 100).
10	690	680	Cliff House (see page 100).
10	700	690	Cliff House (see page 100).
10	710	700	Cliff House (see page 100).
10	720	710	Cliff House (see page 100).
10	730	720	Cliff House (see page 100).
10	740	730	Cliff House (see page 100).
10	750	740	Cliff House (see page 100).
10	760	750	Cliff House (see page 100).
10	770	760	Cliff House (see page 100).
10	780	770	Cliff House (see page 100).
10	790	780	Cliff House (see page 100).
10	800	790	Cliff House (see page 100).
10	810	800	Cliff House (see page 100).
10	820	810	Cliff House (see page 100).
10	830	820	Cliff House (see page 100).
10	840	830	Cliff House (see page 100).
10	850	840	Cliff House (see page 100).
10	860	850	Cliff House (see page 100).
10	870	860	Cliff House (see page 100).
10	880	870	Cliff House (see page 100).
10	890	880	Cliff House (see page 100).
10	900	890	Cliff House (see page 100).
10	910	900	Cliff House (see page 100).
10	920	910	Cliff House (see page 100).
10	930	920	Cliff House (see page 100).
10	940	930	Cliff House (see page 100).
10	950	940	Cliff House (see page 100).
10	960	950	Cliff House (see page 100).
10	970	960	Cliff House (see page 100).
10	980	970	Cliff House (see page 100).
10	990	980	Cliff House (see page 100).
10	1000	990	Cliff House (see page 100).

FORMATION RECORD—Continued