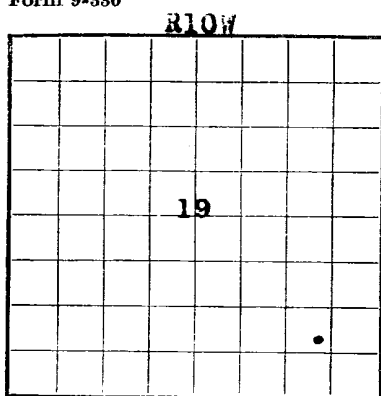


U. S. LAND OFFICE
SERIAL NUMBER **SF 01**
LEASE OR PERMIT TO PROSPEC.

LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company **The Frontier Refining & Co.** Address **4040 East Louisiana Ave. Denver 22, Colorado**
Lessor or Tract **Government Evensen** Field **Basin Dakota** State **New Mexico**
Well No. **2-GD** Sec. **19** T**27N** R**10W** Meridian **N.M.P.M.** County **San Juan**
Location **790** ft. **N** of **S** Line and **790** ft. **E** of **E** Line of **Sec. 19** Elevation **5976**
(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 **D. Murray**Date **March 9, 1961**Title **Petroleum Engineer**

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

Commenced drilling **May 2,** 19**59** Finished drilling **May 29**, 19**59**

OIL OR GAS SANDS OR ZONES

Dakota (Denote gas by G) **Gallup: P & A**
No. 1, from **(G) 6126'** to **6208'** No. 4, from **5514'** to **5536'**
No. 2, from _____ to _____ No. 5, from **Pictured Cliffs: Not perforated**
1672' to **1810'**
No. 3, from _____ to _____ No. 6, from _____ to _____

IMPORTANT WATER SANDS

Dakota:
No. 1, from **6302'** to **6360'** 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—	
10 3/4"	32.75	8Rd	H-40	268.48'					Surface
7 5/8"	26.40	8Rd	N-80	6382'	Halliburton		6128	6134	Prod
							6184	6196	Prod
							6302	6318	Squeezed
							6331	6336	Squeezed
							5523	5531	Squeezed
							6209	6210	Squeezed

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
10 3/4"	271'	200	Halliburton	10#/gal	
7 5/8"	6394'	275	Halliburton	9.4#/gal	*D.V. Tool @ 1872'.

PLUGS AND ADAPTERS

Heaving plug—Material **None** Length _____ Depth set _____
Adapters—Material **None** Size **Note: Bridgeplug set @ 6280'**

SHOOTING RECORD Cement p.b.t.d.: **6212'**

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

TOOLS USED

Rotary tools were used from **0** feet to **6294'** feet, and from _____ feet to _____ feet

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

DATES

January 21/22, 19**61** **Waiting on pipeline connection.**
Put to producing _____, 19____The production for the first 24 hours was **18.30*** barrels of fluid of which **100%** was oil; **0%** emulsion; **0%** water; and **0%** sediment. Gravity, °Bé. **xx 51° API @ 60° F**If gas well, cu. ft. per 24 hours **233,880** Gallons gasoline per 1,000 cu. ft. of gas **NG**Rock pressure, lbs. per sq. in. **1525 psig. (SI) *Note: 12/64" choke**

EMPLOYEES

Donald R. Murray, Driller **500 psi back pressure**
W. A. Pickett, Driller **0.7625 bbl distillate/hr**
E. C. Quine, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
			Kirtland 736'
			Fruitland 1442'
			Pictured Cliffs 1672'
			Chacra 2582'
			Cliff House 3281'
			Menefee 3310'
			Pt. Lookout 4110'
			Mancos 4395'
			Gallup 5162'
			Sanaztee 5650'
			Greenhorn 6013'
			Graneros Sh. 6070'
			1st Graneros S.S. 6098'
			2nd Graneros S.S. 6126'
			Dakota "A" 6180'
			Dakota "B" 6232'
			Dakota "C" 6294'
			Total Depth 6394'
			P.B.T.D. 6212'

[illegible]

It is of the greatest importance to have a complete history of the well. Please state in detail the dates of rearing, together with the reasons for the work and its results. If there were any changes made in the casing, size and type, and any casing was "sidetracked," of well 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 a test for water, state kind of material used, position, and results of pumping or bailing.

HISTORY OF OIL OR GAS WELL

IPC approval of gas sales contract with El Paso Natural Gas Co. received February 27, 1961. Waiting on pipeline connection.

Recovered 478.03 barrels of new oil in January, 1961.
Recovered 88.62 barrels of new oil in February, 1961.

Resumed blowing and testing (to clean up) in December, 1960. Recovered 465.68 barrels of oil (380.00 barrels of lost oil, plus 100.38 barrels of new oil) in December, 1960.

See U.S.G.S. Form 9-331a "Supplemental Well History" filed March 9, 1961, with this report:

Run 2" RUB tubing to 6189', and capped well in. Could not maintain flow.

Set RTIS tool @ 6165' and swabbed cement to 3600 psi. MGS 12:45 hours.

Set bridge plug @ 6280'. Perforated 6128' - 6134'. Bridge plug @ 6280'.
Productive. Proved no communication w/perforations 6184' - 6196'.
Found perforations 6302-6308. The 6307' - 6310' and block squeezed w/100 sacks

Drilled bridge pier @ 5624, and cleaned out to 6860'. Ran HTTS tool and casing @ 1500 psi 1:00 hour - OK.

swab tested gully section. Swabbed at 100 sacks cement to 3400 psi. WOC 12 ho

...tubing and drilled Model B production packer @ \$150.
...tubing and drilled Model B production packer @ \$150.

See U.S.G.P. Form 9-331A "Notice of Intention to Re-drill or Repair Well" filed 6-24-60.

GAS FLOWED @ 400 MCFD AFTER 24 HOURS.	
RECOVERED NO OIL, I.C. BDL WATER	

Released rotary tools 6-25-59; tested Dakota 7-14-59 (string)
8,200 MCFD absolute open flow potential; pins 31 bbl oil/3 hours.
tested gallop 7-22-59;

5501 (Gaining tubing string). Ran 2" EUE tubing to 6162. W/production
sand. Ran 2" EUE tubing to 6162. W/production packer @ 6160. (Dakota
tubing string). Pulled tubing. Changed heads. Ran 2" EUE tubing to
6162. W/production packer @ 6160. (Dakota tubing string)

filled bridge plugs @ 6220' & 6324' and cleaned out to 6350'.
 Baker Model D production packer @ 6150'.
 Treated w/1092 barrels oil, 50,000 #

et bridge plug @ 6220.
perforated 6184' - 6196' (4/foot).
w/57,120 gallons water
100,000 # sand.
Treated w/1000 gallons acid followed

erlorated 6331 - 6336. (4/1001). Treated w/11,000 gallons water, # sand. Set bridge plug @ 6324. Perforated 6302 - 6318. (4/1001). Treated w/60,000 gallons water, 63,000 # sand. Screened out.

DST No. 3: 6253 - 0342

DST NO. 1:	55067	- 55467
DST NO. 2:	6225	- 6252

CORE NO. 4:	0292	-	0342	-	6360
CORE NO. 5:	6342	-	6342	-	6360

CORE NO. 1:	5913	-	5948
CORE NO. 2:	6210	-	6252
CORE NO. 3:	6252	-	6292
CORE NO. 4:	6292	-	6342

FROM-	TO-	TOTAL FEET	FORMATION
see U.S.G.S. Form 9-33a, "Supplementary Well History" filed 7-22-59:			

FORMATION RECORD—Continued