

COPY TO O. C. C.

U. S. LAND OFFICE

SERIAL NUMBER

LEASE OR PERMIT TO PROSPECT

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

LOCATE WELL CORRECTLY

Company Richardson & Bass Address Fort Worth, Texas
Lessor or Tract Federal-Cobb Field Wildcat State New Mexico
Well No. 1 Sec. 23 T. 29 N R. 31 E Meridian NMP County Eddy
Location 649 ft. ^[N.] of 3 Line and 660 ft. ^[E.] of W Line of SW 1/4 of Sec 23 Elevation 3515' ^(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.

Date June 30, 1953Signed [Signature] Title ASSISTANT DIVISION MANAGER

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

Commenced drilling May 29, 1952 Finished drilling June 1, 1953

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 7003' to 7190' (oil) No. 4, from _____ to _____
No. 2, from 12190' to 12560' (Gas) No. 5, from _____ to _____
No. 3, from _____ to _____ No. 6, from _____ to _____

IMPORTANT WATER SANDS

No. 1, from None 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>20"</u>	<u>84</u>	<u>8 rd</u>	<u>NAT'L</u>	<u>632</u>	<u>Baker</u>	<u>None</u>	<u>None</u>	<u>None</u>	
<u>13-3/8"</u>	<u>61</u>	<u>8 rd</u>	<u>J & L</u>	<u>2360</u>	<u>"</u>	<u>None</u>	<u>None</u>	<u>None</u>	
<u>9-5/8"</u>	<u>51</u>	<u>8 rd</u>	<u>J & L</u>	<u>902</u>	<u>"</u>	<u>None</u>	<u>None</u>	<u>None</u>	
<u>7"</u>	<u>43</u>	<u>8 rd</u>	<u>J & L</u>	<u>300</u>	<u>Baker</u>	<u>(Perf 1247' to 524' & fr 12534' to 554' (Tstd)</u>			
<u>2-3/8"</u>	<u>17</u>	<u>8 rd</u>	<u>J & L</u>	<u>696</u>	<u>None</u>	<u>7000</u>	<u>7003</u>		<u>Production</u>

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
<u>20"</u>	<u>653.75</u>	<u>850</u>	<u>Pump & Plug</u>	<u>10.8</u>	<u>Hole Full</u>
<u>13-3/8"</u>	<u>2390.07</u>	<u>2500</u>	<u>Pump & Plug</u>	<u>12.3</u>	<u>Hole Full</u>
<u>9-5/8"</u>	<u>9611.00</u>	<u>3050</u>	<u>Pump & Plug</u>	<u>9.5</u>	<u>Hole Full</u>
<u>7"</u>	<u>12462.00</u>	<u>600</u>	<u>Pump & Plug</u>	<u>9.6</u>	<u>Hole Full</u>
<u>2-3/8"</u>	<u>7002.47</u>	<u>None</u>	<u>PLUGS AND ADAPTERS</u>	<u>9.2</u>	<u>Hole Full</u>

Heaving plug—Material See attachment Length _____ Depth set _____

Adapters—Material _____ Size _____

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out
	<u>See attachment</u>					

TOOLS USED

Rotary tools were used from _____ feet to 16,459' feet, and from _____ feet to _____ feet

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

DATES

_____, 1953 Put to producing June 24, 1953The production for the first 24 hours was 136 barrels of fluid of which 74 % was oil; _____ %emulsion; 26 % water; and _____ % sediment. Gravity, °Bé. 10.1 at 60 deg.

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. G. Denny, Driller W. J. Harman, DrillerH. H. Frankfather, Driller _____, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
<u>0</u>	<u>160</u>	<u>160</u>	<u>Sand & Shale</u>
<u>160</u>	<u>640</u>	<u>480</u>	<u>Red Shale & Sand</u>
<u>640</u>	<u>690</u>	<u>50</u>	<u>Anhydrite & Sand</u>
<u>690</u>	<u>900</u>	<u>210</u>	<u>Anhydrite & Dolomite</u>
<u>900</u>	<u>1020</u>	<u>120</u>	<u>Anhy, Sand, Shale & Gypsum</u>
<u>1020</u>	<u>2280</u>	<u>1260</u>	<u>Anhydrite & Salt</u>
<u>2280</u>	<u>2165</u>	<u>185</u>	<u>Dolomite, Anhydrite & Gypsum</u>
<u>2165</u>	<u>2730</u>	<u>565</u>	<u>Dolomite & Lime</u>
<u>2730</u>	<u>4780</u>	<u>2050</u>	<u>Lime, Dolomite, Sand & Gypsum</u>
<u>4780</u>	<u>6950</u>	<u>2170</u>	<u>Sand, Lime, Dolomite & Shale</u>
<u>6950</u>	<u>7460</u>	<u>510</u>	<u>Sand & Shale</u>
<u>7460</u>	<u>7500</u>	<u>40</u>	<u>Sand, Lime & Shale</u>
<u>7500</u>	<u>8750</u>	<u>1250</u>	<u>Lime & Shale</u>
<u>8750</u>	<u>10660</u>	<u>1910</u>	<u>Lime, Shale, Sand & Chert</u>
<u>10660</u>	<u>11910</u>	<u>1250</u>	<u>Lime, Shale & Dolomite</u>
<u>11910</u>	<u>13428</u>	<u>1518</u>	<u>Sand, Shale, Lime & Coal</u>
<u>13428</u>	<u>13685</u>	<u>257</u>	<u>Shale</u>
<u>13685</u>	<u>14215</u>	<u>530</u>	<u>Lime & Chert</u>
<u>14215</u>	<u>14393</u>	<u>178</u>	<u>Sand & Lime</u>
<u>14393</u>	<u>15700</u>	<u>1307</u>	<u>Lime, Dolomite & Chert</u>
<u>15700</u>	<u>15950</u>	<u>250</u>	<u>Sand, Shale & Dolomite</u>
<u>15950</u>	<u>16400</u>	<u>450</u>	<u>Dolomite & Chert - Total Depth</u>
<u>16400</u>	<u>16457</u>	<u>57</u>	<u>Dolo + Granite</u>
<u>16457</u>	<u>16459</u>	<u>2</u>	<u>Plug Back Total Depth</u>
<u>Cored 16457</u>	<u>16459</u>	<u>2</u>	<u>Pink Granite</u>

(OVER)

FEDERAL CORP NO. 1
ATTACHMENT #1

This well was drilled to a total depth of 16,459'. Plug back operation began June 4, 1953. 300 sks cement were spotted at 16,355', 200 sks at 14,391', 125 sks at 12,850'. Top cement at 12,582. Drilled out to 12,621' & ran 79 joints of 7" OD 29 & 32# casing, a total of 3201.78'. Set liner at 12,621' & cemented w/300 sks. Top cement ^{at} inside liner 9685. Drilled out cement to 12,573'. Perforated 7" liner from 12,492' to 12,524' & from 12,536' to 12,554' w/4 shots per ft. Gel fractured w/2000 gals 8# sand per gallon. Max. pressure pumping in diesel 6000# at rate of 3/4 bbl. per minute. Max. pressure pumping in gel & sand 7400#. Overflushed w/15 bbls. Several swabbing tests were made but very small amount of oil & gas was recovered. Ran tubing & set at 12,556'. Packer at 12,364'. Perforated nipple at 12,553' to 12,556'. Acidized w/750 gallons mud acid. Max flush pressure 6750#. Overflushed w/10.5 bbls. Swabbing tests recovered small amount of oil & gas. Started plugging well back again June 17, 1953. Spotted 20 sks slo-set at 12,563'. Set retainer at 7207' & spotted 25 sks cement. Reversed out at 7163'. Perforated casing at 6900' w/4 shots. Set retainer at 6867' & squeezed perforations at 6900' w/50 sks slo-set broke at 2900#, squeezed out 40 sks at 2000#. Drilled retainer at 6867', cement to 6906', circulated to 7173' (Top cement plug). Perforated from 7003' to 7016' & from 7022' to 7035' w/6 jet shots per foot. Ran tubing & set at 7003', Packer at 6938'. Tubing perforation at 7000' to 7003'. Displaced tubing mud w/water & started swabbing. Recovered very small amount of fluid. Sand fractured w/2500 gals oil w/1# of sand per gal. Broke formation w/2900#, back to 2200#. Max pump pressure 3250#. Flushed w/89 bbls diesel oil. Swabbed well off. Flow tests shown on attached form.

MEMORANDUM FOR THE RECORD ATTACHMENT #1

This well was drilled to a total depth of 12,423'. Pump back operation began June 11, 1953. 300 lbs cement were spotted at 12,375', 200 lbs at 12,331', 125 lbs at 12,250'. Top cement at 12,248'. Drilled out to 12,621', a run 19 shots of 7" of 2 1/2" casing, a total of 3201'. See liner at 12,511', a cemented 4 1/2" shot. Top cement inside liner 2662'. Drilled out cement to 12,573'. Perforated 7" liner from 12,412' to 12,524', a run 12,536', a 12 1/2" shot per ft. Gel fractured w/2000 gals 84 sand per gallon. Max. pressure pumping in diesel 6000 psi rate of 3 1/2 bbl. per minute. Max. pressure pumping in gel & sand 7000 psi. Overlapped w/12 bbls. Several swabbing tests were made but very small amount of oil & gas was recovered. Run tubing & set at 12,525'. Packer at 12,301'. Perforated nipple at 12,273' to 12,250'. Acidized w/250 gallons mud acid. Max. fluid pressure 6700 psi. Overlapped w/10.5 bbls. Swabbing tests recovered small amount of oil & gas. Started pumping well back again June 17, 1953. Spotted 20 lbs cement at 12,483'. Gel retained at 1201' & spotted 25 lbs cement. Recovered out at 1193'. Perforated casing at 1181' w/1 shot. Gel retained at 686', a spaced perforations at 690', w/10 lbs cement. Perforations at 2900', spaced out 10 lbs at 2000'. Drilled out at 686', cement to 6906', circulated to 7113' (top cement plug). Perforated from 7073' to 7016', a run 1032' to 7032' w/6 jet shots per foot. Run tubing & set at 1193', Packer at 6930'. Perforations at 1030' to 1013'. Perforated tubing and casing. Sealed w/10 bbls. Recovered very small amount of fluid. Sand fractured w/2500 gals oil w/1/2 of sand per gal. Broke formation w/2000', back to 2200'. Max. pump pressure 3250 psi. Flashed w/20 bbls diesel oil. Sealed well off. Flow tests shown on attached form.