Form 9-330

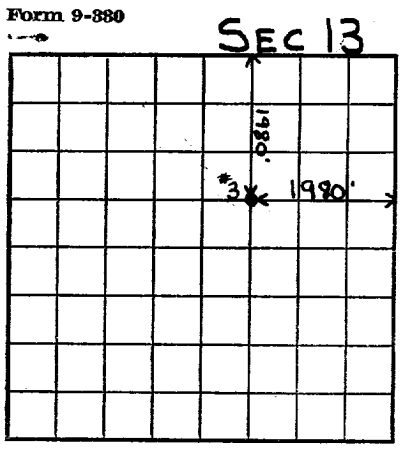
COPY TO O. C. C. HOBBS

Budget Bureau No. 42-R355.2.
Approval expires 12-31-52.

U. S. LAND OFFICE ~~Santa Fe~~ Las Cruces

SERIAL NUMBER 065884

LEASE OR PERMIT TO PROSPECT



LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

RECEIVED
MAR 9 - 1953
U. S. GEOLOGICAL SURVEY
HOBBS, NEW MEXICO

LOG OF OIL OR GAS WELL

Company Magnolia Petroleum Co. Address Box 633, Midland, Texas

Lessor or Tract Matthews-Federal Field Bough State New Mexico

Well No. 3 Sec. 13 T. 9S R. 35E Meridian N.M.P.M. County Lea

Location 1980 ft. {N./S.} of N Line and 1980 ft. {E./W.} of E Line of Section 13 Elevation 4106'
(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 R. J. Bunman

Date March 2, 1953 Title Division Superintendent

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

Commenced drilling September 18, 1953 Finished drilling November 19, 1952

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 9542' to 9613' No. 4, from (Bough Pay) to

No. 2, from to No. 5, from to

No. 3, from to No. 6, from to

IMPORTANT WATER SANDS

No. 1, from No Water Well Drilled 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 From—	Perforated To—	Purpose
10-3/4	35.75	8 RT	SBC	440	Hallib				
7-5/8	24.0	8 RT	H40	3261					
7-5/8	26.4	8 RT	J55	1006	Hallib				
5-1/2	17.0	8 RT	J55	5413	Hallib				
2	4.7	8 RT	J55	9611					

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
10-3/4	440	400 Sacks	Pump & Plug		
7-5/8	4267	1700 Sacks	Pump & Plug		
5-1/2	5413	1450 Sacks	Pump & Plug		

FOLD | MARK

PLUGS AND ADAPTERS

Heaving plug—Material NONE Length Depth set

Adapters—Material NONE Size

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out
No Nitro Shooting						
See Perf. Record						

TOOLS USED

Rotary tools were used from 0 feet to 9625' feet, and from - - - feet to - - - feet

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

DATES

Potential Test February 15, 1953 Put to producing Potential Tested February 15, 1953

The production for the first 24 hours was 154.2 barrels of fluid of which 100 % was oil; 0 % emulsion; 0 % water; and 0 % sediment. Gravity, °Bé. 49.0 @ 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

Southeastern Drilling Co. (Rotary), Driller ..., Driller

901 Employers Ins. Bldg, Dallas, Texas, Driller ..., Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	1708	1708	Red Bed
1708	2004	296	Anyh. - Shale
2004	2487	483	Shale
2487	2698	211	Shale - Anhy - Salt
2698	3145	447	Red Bed - Salt
3145	3520	375	Salt - Anhy
3520	4055	535	Anhy
4055	4160	105	Lime
4160	4178	18	Lime - Anhy
4178	6130	1952	Lime
6130	6180	50	Sand - Lime
6180	7561	1381	Lime
7561	7625	64	Lime - Shale
7625	7695	70	Shale - Lime
7695	7753	58	Lime - Shale
7753	8128	375	Shale
8128	8200	72	Shale
8200	8230	30	Shale - Lime
8230	8404	174	Shale
8404	8515	111	Shale - Lime
8515	9088	573	Lime
9088	9109	21	Lime - Chert
9109	9261	152	Lime
9261	9281	20	Shale
9281	9335	54	Shale - Lime

FROM—	TO—	TOTAL FEET	FORMATION

(OVER)

16—43094-2

FORMATION RECORD—Continued

FROM—	TO—	TOTAL FEET	FORMATION

16—43094-1 U. S. GOVERNMENT PRINTING OFFICE

HISTORY OF OIL OR GAS WELL

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 to test for water, state kind of material used, position, and results of pumping or bailing.

FROM	TO	TOTAL FEET	FORMATION
9335	9370	35	Lime - Shale
9370	9359	89	Lime
9459	9471	12	Shale - Lime
9471	9570	99	Lime
9570	9582	12	Shale - Lime
9582	9603	21	Lime - Shale
9603	9625	22	Lime

PRODUCTION TESTS AND POTENTIAL TEST DATA:

Potential Test completed on February 15, 1953, in the Lime formation, Bough zone top @ 9542', bottom @ 9613', open hole from 9568' to 9613'. Well flowed on 24 hr test, rate per day 154.2 barrels oil, no water, 190 MCF gas, GOR 1232-1, 32/64" choke, tubing pressure 110#, casing pressure sealed with packer, API Gravity 49 @ 60 deg, allowable 170 barrels per day, Magnolia Pipe Line Co. Connected.

HISTORY OF WELL:

Date:	Operations
9-17-52	Commenced drilling (Spud Date)
9-17-52	Set 10-3/4" Casing @ 440' W/400 Sacks Cement
9-25-52	#1 B.J. Calliper Survey 0-4119'
9-28-52	Set 7-5/8" Casing @ 4267' W/1700 Sacks Cement
9-28-52	#1 B.J. Temperature Survey 0 - 1500'
11-14-52	#1 Schlumberger Electrical Log 4264-9493'.
11-17-52	#1 Core 9570-9615'
11-18-52	#1 DST 9563-9615' Bough
11-19-52	Completed Drilling Total Depth.
11-19-52	#2 Core 9615-1625'
11-19-52	#1 Schlumberger Micro Log 9400-9615'
11-20-52	#2 B.J. Caliper Survey 4215-9615'
11-21-52	#2 B.J: Temperature Survey 3487-5247'
11-22-52	Set 5½" Liner @ 9570' W/1450 Sacks Cement
12-1-52	Western Co. Acidize Open Hole 9570-9585' W/500 Gal.
12-2-52	Western Co. Re-Acidize Open Hole 9570-9585' W/1000 Gal.
12-3-52	McCollough Cone Shot Open Hole 9568-9578' W/3 SPF Jet.
12-7-52	Western Co. Re-Acidize Open Hole 9568-9578' W/1000 Gal.
12-9-52	#1 Lane Wells Gamma Ray & Neutron Log 0-9585'
12-10-52	#2 Lane Wells Gamma Ray & Neutron Log 9300-9595'.
12-10-52	Halliburton Squeezed Open Hole 9568-9585' W/100 Sacks Cement.
12-13-52	Western Co. Washed Open Hole 9595-9570' W/250 Gal Mud Acid.
12-15-52	[redacted] McCollough perf Open Hole 9580-9585' W/3 SI Jet.
12-16-52	Western Co. Washed open Hole 9570-9595' W/250 Gal.
12-17-52	Halliburton attempted to squeeze open hole 9530-9595 W/50 Sack Packer Failed.
12-19-52	Western Co. acidize open hole 9570-9595 W/1000 Gal Acid.
1219-52	Halliburton Squeezed open hole 9570-9595 W/25 Sacks Cement.
12-2252	Western Co. attempt to acidize open hole 9598-9615 W/250 Gal. Acid.
1-4-53	McCollough cone shot open hole 9618-9628' W/3 SPF Jet.
1-12-53	Western Co. attempted to re-acidize open hole 9618-9628' W/25(Gal Acid.
1-13-53	Western Co. attempted to reacidize open hole 9618-9628' W/25(Gal. Acid.
1-15-53	Western Co. re-acidize open hole 9618-9639' W/250 Gal. Acid.
1-17-53	Western Co. Acidize open hole 9615-9628' W/500 Gal Acid.
1-24-53	McCollough cone shot open hole @ 9570-9615' W/3 SPF - Jet.
1-25-53	Western Co. attempted to acidize open hole 9570-9615' W/750 Ga Acid.
1-27-53	Western Co. acidized open hole 9570-9615' W/750 gal Acid.
1-28-53	Western Co. acidized open hole 9570-9615' W/1000 Gal. Acid.
1-29-53	Western Co. re-Acidize open hole 9570-9615' W/2000 Gal Acid.
2-1-53	Western Co. perf. liner 9563-9570' W/4 SPF - Jet (Final Perf)
2-1-53	Western Co. acidized perf in liner W/500 Gal. Acid.
2-2-53	Western Co. re-acidize perf W/1000 Gal Acid.
2-3-53	Western Co. re-acidize perf W/1000 Gal Acid.
2-6-53	Lane Wells cone shot open hole 9574-9586' W/2 SPF - Jet.
2-7-53	Western Co. acidized open hole 9574-9615 W/1000 Gal Acid.
2-8-53	Completed subsurface installations.

[redacted]

2-9-53	Western Co. re-acidize open hole 9574-9586' W/2000 Gal. Acid
2-9-53	Completed well head installations.
2-9-53	Plug Back (Final)
2-11-53	Western Co. acidize open hole 9574-9586' W/4000 Gal. Acid.
2-11-53	Commenced bringing in (final)
2-11-53	Well Cleared (Final)
2-15-53	Potential Test Completed.

Geological Tops:

Formation	Top
Anhydrite	2206'
Yates	2756'
San Andres	4005'
Glorietta	5449'
Tubb	6850'
Abo	7648'
Permo Penn	8874'
Bough	9542'

DRILL STEM TESTS:

No. 1, 11-18-52, from 9563' - to 9615', Open Hole, Tool set @ 9563', 5/8 X 1" choke, No WC. Tested for 2 hours.

2 packers, gas to surface 1 hour & 55 minutes, too small to measure, recovered 90' oil and gas cut drill-ing mud plus 360' clean oil, SFP 0#, BHFP - 0#, SI 15 min. SIP 665#, HH 5255# in and 5190# out - Bough.

PERFORATING AND SQUEEZE RECORD:

McCollough cone shot open hole 9568-9578' W/3 SPF - Jet (12-3-52)

Halliburton cemented open hole 9568-9585' W/100 sacks sloset cement, pressured 0-6000#, reversed out 35 sacks. (12-10-52)

McCollough perforated open hole 9580-9585' W/3 SPF - Jet (12-15-52)

Halliburton attempted to squeeze open hole 9530-9595', spotted 50 sacks cement, retainer @ 9530' gave way, (@ 5800#), reversed out 50 sacks cement.

Halliburton squeezed open hole 9570-9595' W/75 sacks, pressured 3000#-6000#, reversed out 40 sacks.

CORE RECORD:

No.	From	To	Recovered	Description of Core
1.	9570'	9615'	44½'	5' - Fine crystalline to medium crystalline brown lime W/trace small vuggy porosity. 5' - Dark green & black shale. 4½'- Very fine crystalline brown lime W/ shale partings. 6' - Dark green shale 6½' -Fine crystalline brown lime W/green shale partings. 17½ - Very fine crystalline tan lime.
2.	9615'	9625'	9'	6' - Very fine crystalline tan lime (dense) W/thin green shale partings 3' - Dark gray shale.