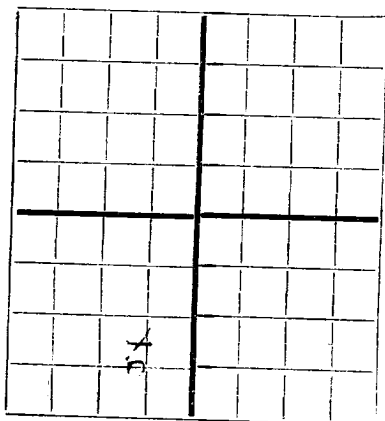
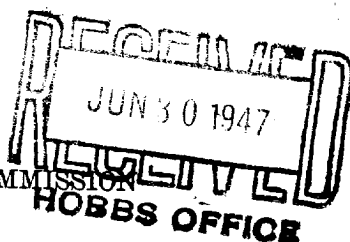


N


 AREA 640 ACRES
 LOCATE WELL CORRECTLY

 NEW MEXICO OIL CONSERVATION COMMISSION
 Santa Fe, New Mexico


WELL RECORD

Mail to Oil Conservation Commission, Santa Fe, New Mexico, or its proper agent not more than twenty days after completion of well. Follow instructions in the Rules and Regulations of the Commission. Indicate questionable data by following it with (?). SUBMIT IN TRIPLICATE. FORM C-110 WILL NOT BE APPROVED UNTIL FORM C-105 IS PROPERLY FILLED OUT.

Amarada Petroleum Corporation
 Company of Operator

B. Hardin Well No. 4 in SE 1/4 SW 1/4 of Sec. 18, T. 18S, R. 38E, N. M. P. M., Bowers Field, Lea County.

Well is 4620 feet south of the North line and 3380 feet west of the East line of Sect. 18-18S-38E.

If State land the oil and gas lease is No. Assignment No.

If patented land the owner is Address.

If Government land the permittee is Address.

The Lessee is Amarada Petroleum Corporation Address Box 2040, Tulsa 2, Okla.

Drilling commenced March 29, 1947 Drilling was completed April 16, 1947

Name of drilling contractor Two States Drilling Co. Address Dallas, Texas

Elevation above sea level at top of casing 3663 feet.

The information given is to be kept confidential until Not Confidential 19

OIL SANDS OR ZONES

No. 1, from 3243 to 3249 No. 4, from to
 No. 2, from to No. 5, from to
 No. 3, from to No. 6, from to

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from to feet.
 No. 2, from to feet.
 No. 3, from to feet.
 No. 4, from to feet.

CASING RECORD

SIZE	WEIGHT PER FOOT	THREADS PER INCH	MAKE	AMOUNT	KIND OF SHOE	CUT & FILLED FROM	PERFORATED		PURPOSE
							FROM	TO	
7 5/8"	24	8	Sales	440'	Float				
5 1/2"	14	8	Sales	3180'	Float				

MUDDING AND CEMENTING RECORD

SIZE OF HOLE	SIZE OF CASING	WHERE SET	NO. SACKS OF CEMENT	METHODS USED	MUD GRAVITY	AMOUNT OF MUD USED
9 7/8"	7 5/8"	440'	150	Halliburton		
6 3/4"	5 1/2"	3180'	600	Halliburton		

PLUGS AND ADAPTERS

Heaving plug—Material Length Depth Set
 Adapters—Material Size

RECORD OF SHOOTING OR CHEMICAL TREATMENT

SIZE	SHELL USED	EXPLOSIVE OR CHEMICAL USED	QUANTITY	DATE	DEPTH SHOT OR TREATED	DEPTH CLEANED OUT
4" x 8"		Nitroglycerin	20 qts	4-12-47	3242-50	to 3270'

Results of shooting or chemical treatment Cleaned out to bottom and well would not flow,
 installed pumping unit and started pumping well on June 16, 1947, will pump 5 bbls
 Oil per day

RECORD OF DRILL-STEM AND SPECIAL TESTS

If drill-stem or other special tests or deviation surveys were made, submit report on separate sheet and attach hereto.

None

TOOLS USED

Rotary tools were used from 0 feet to 3270 feet, and from feet to feet
 Cable tools were used from feet to feet, and from feet to feet

PRODUCTION

Put to producing June 16, 1947
 The production of the first 24 hours was 5 barrels of fluid of which 100% was oil;
 emulsion; % water; and % sediment. Gravity, Be.
 If gas well, cu. ft. per 24 hours Gallons gasoline per 1,000 cu. ft. of gas
 Rock pressure, lbs. per sq. in.

EMPLOYEES

A. P. Moore Driller E. L. Coppedge Driller
 W. W. Schwartz Driller

FORMATION RECORD ON OTHER SIDE

I hereby swear or affirm that the information given herewith is a complete and correct record of the well and all work done on it so far as can be determined from available records.

Subscribed and sworn to before me this 27

day of June, 1947

 Will Hail Taylor
 Notary Public

Commission expires

Monument, New Mexico June 27, 1947

Name E. L. Coppedge

Position Asst. Dist. Supt.

Representing Amerada Pet. Corp.

Address Drawer D, Monument, New Mexico

FORMATION RECORD

FROM	TO	THICKNESS IN FEET	FORMATION
0	221'	221'	Caliche and Sand
221'	450'	229'	Red Sand
450'	770'	320'	Red Sand
770'	1240'	470'	Red Sand and Blue Shale
1240'	1500'	260'	Red Sand and Shells
1500'	1588'	25'	Red Sand
1588'	1630'	1098	Anhydrite
1630'	1741'	110'	Red Sand and Shells
1740'	1814'	74'	Shells and Salt
1814'	1925'	111'	Anhydrite, Salt and Shells
1925'	2085'	160'	Anhydrite and Salt
2085'	2133'	48'	Shells and Salt
2133'	2400'	327'	Salt and Shells
2400'	2534'	74'	Salt
2534'	2648'	114'	Salt and Anhydrite
2648'	2675'	27'	Salt and Shells
2675'	3070'	395'	Anhydrite
3070'	3110'	40'	Anhydrite, and Lime Streaks
3110'	3160'	70'	Anhydrite
3160'	3243'	63'	Anhydrite
3243'	3248'	5'	Sand
3248'	3270'	22'	Anhydrite
3270'			Total Depth
<u>GRADIENT</u>			
420'			1 degree
700'			1 degree
1000'			straight
1200'			1 degree
1500'			1 degree
1741'			1 degree
2080'			1 degree
2140'			straight
2235'			1 degree
2300'			1 degree
2410'			1 1/2 degree
2480'			1 degree
2707'			1 degree
3050'			5/4 degree
<u>SPOT ELEVATIONS TO 0</u>			
Elevation Garrick floor			3073'
Elevation Ground			3603'
Base of Sand			1530'
Top of Salt			1630'
Base Salt			2675'
Top 1 (Yates)			2740'
Brown Line			3040'
Bowers Sand			3243-3248'