

N.

AREA 640 ACRES
LOCATE WELL CORRECTLY

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

WELL RECORD

Mail to District Office, Oil Conservation Commission, to which Form C-101 was sent not later than twenty days after completion of well. Follow instructions in Rules and Regulations of the Commission. Submit in QUINTUPLICATE.

Cities Service Oil Company State BD
(Company or Operator) (Lease)

Well No. 1, in NE 1/4 of NE 1/4, of Sec. 15, T. 16-S, R. 33-E, NMPM.
Wildcat Pool, Lea County.

Well is 660 feet from North line and 660 feet from East line
of Section 15-16S-33E. If State Land the Oil and Gas Lease No. is E-1279

Drilling Commenced 3-22, 1957 Drilling was Completed 4-17, 1957

Name of Drilling Contractor Howard P. Holmes

Address Box 667, Hobbs, New Mexico

Elevation above sea level at Top of Tubing Head 4197' (Gr.) The information given is to be kept confidential until
1957

OIL SANDS OR ZONES

No. 1, from 4364 to 4394 (Grayburg) No. 4, from - to -
No. 2, from 3934 to 3948 (Penrose) No. 5, from - to -
No. 3, from 3924 to 3934 (Penrose) 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	NEW OR USED	AMOUNT	KIND OF SHOE	CUT AND PULLED FROM	PERFORATIONS	PURPOSE
8 5/8"	22.7#	New	360'	Armco	-	-	Surface
5 1/2"	14#	New	4442.21'	Baker	-	-	Production

MUDDING AND CEMENTING RECORD

SIZE OF HOLE	SIZE OF CASING	WHERE SET	NO. SACKS OF CEMENT	METHOD USED	MUD GRAVITY	AMOUNT OF MUD USED
12 1/2	8 5/8	371.47'	300	Plug	-	-
7 7/8	5 1/2	4453.51'	300	"	-	-

RECORD OF PRODUCTION AND STIMULATION

(Record the Process used, No. of Qts. or Gals. used, interval treated or shot.)

April 20, 1957 - acidized w/1000 gal. mud acid. (Grayburg)
April 22, 1957 - fraced w/15,000 gal. lse. crude, 15,000# sd, 1500# Western F-3 fluid loss additive. (Grayburg).
April 26, 1957 - acidized w/500 gal. mud acid. Reacidized w/1000 gal. XLST Acid (Penrose)
April 28, 1957 - Sand frac w/10,000 gal. lse crude 1/10# adomite/gal., 15,000# sand.
May 1, 1957 - Sand frac w/500# moth balls, 10,000 gal. lse crude w/.05# adomite/gal., 15,000 sand.

Result of Production Stimulation:

Approximately 780 bbls. load oil recovered. Approx. 915 bbls. load oil not recovered.

Not a commerical well - well to be P&A.

Depth Cleaned Out 4462' (TD 3984')

E WORD OF DRILL-STEM AND SPECIAL TEST

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

TOOLS USED

Rotary tools were used from 0 feet to 4462 feet, and from - feet to - feet.
Cable tools were used from - feet to - feet, and from - feet to - feet.

PRODUCTION

Put to Producing May 6, 19 57

OIL WELL: The production during the first 24 hours was - barrels of liquid of which - % was oil; - % was emulsion; - % water; and - % was sediment. A.P.I. Gravity -

GAS WELL: The production during the first 24 hours was - M.C.F. plus - barrels of liquid Hydrocarbon. Shut in Pressure - lbs.

Length of Time Shut in -

PLEASE INDICATE BELOW FORMATION TOPS (IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE):

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy. 1507'	T. Devonian	T. Ojo Alamo	
T. Salt	T. Silurian	T. Kirtland-Fruitland	
B. Salt	T. Montoya	T. Farmington	
T. Yates 2775'	T. Simpson	T. Pictured Cliffs	
T. 7 Rivers 2953'	T. McKee	T. Menefee	
T. Queen 3639'	T. Ellenburger	T. Point Lookout	
T. Grayburg 4060'	T. Gr. Wash	T. Mancos	
T. San Andres 4454'	T. Granite	T. Dakota	
T. Glorieta	T. Penrose 3814'	T. Morrison	
T. Drinkard	T.	T. Penn	
T. Tubbs	T.	T.	
T. Abo	T.	T.	
T. Penn	T.	T.	
T. Miss	T.	T.	

FORMATION RECORD

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	130	130	Sd, Caliche, surface soil	4265	4326	61	Dolomite
130	1145	1015	Red bed	4326	4343	17	Dolomite & gyp.
1145	1440	295	Red bed & shells	4343	4434	91	Dolomite & sd.
1440	2245	805	Anhy. & salt	4434	4462	28	Dolomite
2245	2620	375	Salt, anhy. & gyp				
2620	2879	259	Anhy. & gyp				
2879	2927	48	Anhy.				
2927	2985	58	Dolo.				
2985	3068	83	Anhy., dolo, & shale				
3068	3143	75	Anhy., dolo				
3143	3216	73	Anhy. & sand				
3216	3294	78	Anhy., salt & shells				
3294	3387	93	Anhy. & gyp				
3387	3515	128	Anhy., gyp, sand				
3515	3646	131	Anhy., shale, sand				
3646	3683	37	Anhy. & sand				
3683	3729	46	Anhy. & dolo.				
3729	3795	66	Anhy., sand, shells				
3795	3835	40	Anhy.				
3835	3924	89	Anhy., dolo.				
3924	3968	44	Anhy., sand, dolo.				
3968	3995	27	Anhy., sand				
3995	4072	77	Anhy., sand, shale				
4072	4075	3	Anhy., shale				
4075	4095	20	Anhy., shale, dolo.				
4095	4215	170	Dolo. & gyp.				

ATTACH SEPARATE SHEET IF ADDITIONAL SPACE IS NEEDED

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.

Company or Operator: Cities Service Oil Co.
Name: Geo. M. Geyer

Address: Box 97, Hobbs, New Mexico
Position or Title: Dist. Supt.
(Date) 8-13-57

DRILL STEM TESTS

DST No. 1 - Tested from 3917' to 3948' (31') Penrose, tool open 3 hrs., 1" TD, 5/8" BC, tool opened w/good blow, air immed., gas to surface in 61 min., no fluid to surface. Rec. 150' gas cut drlg. mud. IFP 55#, FFP 90#, 45 min. SIP 1340#, MCP 2250#.

DST No. 2 - Tested 4360-4434' (74') Grayburg. Tool open 2 hrs., 10 mins., TC 1", BC 5/8", tool opened w/weak blow. Air to surface immed., no gas to surface. Rec. in 4 1/2" drlg. pipe 120' oil & gas cut mud (approx. 1% oil). IFP 40#, FFP 100#, 30 min. SIP 440#, MCP 2460#.

1. Introduction

The first part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

- 1.1. The function $f(x)$ is continuous on the interval $[0, 1]$ and satisfies the condition $f(0) = 0$.
- 1.2. The function $f(x)$ is differentiable on the interval $(0, 1)$ and satisfies the condition $f'(x) = 1/x$.