

WELL RECORD

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Company Cities Service Oil Company Well No. 1 Farm Moore "B"
 Location 660' North and 660' West of SE Corner Sec. 30 T. 19 R. 21E
 Elevation 2288 K.B., 2280 Gr. County Ness State Kansas
 Initial Prod. Potential 122 oil, no water, 24 hours, Contractor Peel Bros., Inc.
9-12-63.
 Acid None Drlg. Comm. 8-9-63
 T.D. 4494'. P.B.T.D. 4464½' Drlg. Comp. 8-24-63

Casing Record:

8-5/8" at 491' with 300 sacks cement.
 5-1/2" at 4493' with 225 sacks cement,

Formation Record:

surface clay and shale	0-60
shale and shells	496
shale	525
sand	660
shale & shells	930
sand	1195
shale	1295
shale and red bed	1509
Anhydrite	1546
shale and shells	2255
shale and lime	2310
lime	2738
lime and shale	2800
shale and lime	2895
lime and shale	3120
shale and lime	3275
lime and shale	3505
lime, shale and chalk	3600
lime and shale	3767
lime	4185
lime and shale	4305
shale	4312
lime	4326
cored lime & shale (rec. 25')	4351
lime	4365
lime and shale	4396
lime and chert	4420
chert	4495

4495 Rotary T.D.=4494 GRN log

DST 4420-30/70' Rec 557' GIP

693' Free Gey Oil 451 M+ GCO
 FP 1100-0 FSIP 1200 #

DST 4430-40/65' Rec. 290' GIP 996' Free

Gey Oil 130' SWF Wt+
 FP 120-420 FSIP 1330 #

The following data corrected by GRN
 log K.B. measurement and elevation.

Topeka	3487
Heebner	3762 (-1474)
Toronto	3778
Lansing	3208 (-1521)
Base Kansas City	4182 (-1844)
Marmaton	4153
Pawnee	4228 (-1940)
Fort Scott	4310 (-2022)
Mississippi	4401 (-2113)
Pen.	93'
T.D	4494

P.B.T D 4464½'

Perforated 60 shots 4401-12

380' oil in 1 hour.
 675' oil in 2 hours.
 1616' oil in 6 hours.

Slope Tests (Syfo):

500'	- 1°
1000'	- 1°
1500'	- 1°
2000'	- 1°
2500'	- 1°
3000'	- 1°
3500'	- 0°
4000'	- 1°

DST from Completion Card

DST 4315-25/70' Rec. 2302' GIP 178' MO
 124' HOCN
 FP 30-105 FSIP 190

~~DST 4304-51/111 Rec.~~

DST 4380-96/14- Rec. 5' M FP-30-40
 FSIP 0 #

DST 4396-4410/111- Rec 489' GIP 766'
 Clean Oil 514 V H MC Gey Oil
 FP 185-390
 1 3/8" BHP 1255 #

DST 4410-20/24 Rec. 289' GIP 176' O:1
 2 3/8" HG 40 & MCO
 FP 70-200 FSIP 1360 #

Drill Stem Test #1, 430' - 4325', 12' anchor, open 10 min, initial shut in 30 minutes, 1 hour, final shut in 30 minutes, recovered 2302' gas in pipe, 178' emulsified muddy, 124' very heavily oil cut mud, initial shut in pressure 255#, initial flow pressure 105#, final flow pressure 105#, final shut in pressure 190#, 39° gravity at 60° F.

Core #1, 4326 - 4351'.

4326-4330.6 Tan finely crystalline hard dense limestone, high-angle and vertical fracture, irregular shale partings, no show.

4330.6-4332.4 Black coaly shale.

4332.4-4333 Green, gray shaley limestone, slightly sandy, finely crystalline.

4333-4337.6 Shaley limsy hard well indurated fine to medium sand, becoming conglomeratic, bottom 2.6 feet look wet, no show, no visible porosity and permeability.

4337.6-4347.5 Crumbly red, green, black and gray shale, slightly coaly, mud stone.

4347.5-4350.5 Green, brown very calcareous shale and very shaley finely crystalline dense hard limestone, no show.

4350.5-4351 Crumbly red, green shale.

4351-4360 Red, green and gray shale, slightly silty with streaks shaley hard dense limestone.

4360', Circulated, to clean up hole, mix mud, and look at samples before drilling ahead.

4360-4370 Red, green and gray shale with trace green, brown hard shaley sandstone, buff finely crystalline dense hard limestone, trace white opaque blocky chert.

4370-4386 Red, green and gray shale with light gray shaley finely crystalline chalky dense limestone.

4386', Circulated, one hour, limestone and shale as above, some grains sand scattered in shale.

4386-4396 Red, green and gray shales with imbedded sand grains, yellow, white and tan mottled cherts, some weathered, mostly fresh, some white to light gray medium crystalline limestone, no odor in sample, some scattered stain.

Drill Stem Test #2, 4380-4396', open 1 hour and 10 minutes, initial shut in 30 minutes, final shut in 30 minutes, recovered 5' mud, initial shut in pressure 40#, initial flow pressure 30#, final flow pressure 40#, final shut in pressure 0#.

4396-4410 Red and gray shales, with mostly white to yellow tan to buff chert, opaque, some fresh, some weathered, good live odor of oil, some free oil in weathered chert and staining, looks porous, some scattered saturation in tripolitic chert.

Drill Stem Test #3, 4396-4410', open 10 minutes, initial shut in 30 minutes, open one and one-half hours, final shut in 45 minutes, recovered 484' gas in pipe, 766' clean gassy oil, 514' heavy mud cut gassy oil, initial shut in pressure 1255#, initial flow pressure 185#, final flow pressure 390#, final shut in pressure 675# ?, 42.6° gravity at 98° F.

4410-4430 White to tan fresh sharp opaque and tripolitic chert with good oil stains on weathered surfaces some tan to buff finely crystalline sucrosic dolomite.

4430-4450 Mostly fresh white blocky opaque chert, some tripolitic with stain in weathered parts.

OP 76 REV.

WELL REPAIR RESULTS REPORT
(SEND ORIGINAL TO BARTLESVILLE)WELL Moore "B" #1
S 30 T 19 R 21WBlk
FIELD Schaben
COUNTY Ness
STATE KansasDescription of Job Reacidize with 500 gals. 28% acid.J. O. NO. Lse. Expense Total Cost of Job \$ 930 Date Job Completed 6-23-67Production Increase Credited Job 16 bbls. oil/dayOperating Improvements Credited Job NoneEstimated Time to Pay Out Job 0.7 month

COMPARATIVE OPERATING DATA

BEFORE WORK

PBSD 4464½
Depth 4494 Prod. Formation Miss.
Est. Average Mo. Operating Cost \$ \$295
Est. Average Mo. Net Earnings \$ 900

AFTER WORK

PBSD 4464½
Depth 4494 Prod. Formation Miss.
Est. Average Mo. Operating Cost \$ \$295
Est. Average Mo. Net Earnings \$ 2180

DAILY PRODUCTION							DAILY PRODUCTION						
Date	Oil (Bbls)	Water (Bbls)	Gas (MCF)	Hours Oper.	Flow Press or Lift Method	Test or Est.	Date	Oil (Bbls)	Water (Bbls)	Gas (MCF)	Hours Oper.	Flow Press or Lift Method	Test or Est.
6-7-67	15	20		24	Pump	Test	6-14-67	33	50		24	Pump	Test
							6-15-67	35	43		24	"	"
							6-18-67	30	39		24	"	"
							6-23-67	31	42		24	"	"

TREATING DATA

FIRST STAGE: Treated from 4401 to 4416, Material Used 500 gals. 28% acidTreating Summary Acidized with 500 gals. 28%, 30 bbls. water flush, 60 mins., pressures 1300-1200# apsd, 600# in 5 mins., shut-in. ATR 0.3 BPM. Total load 127 bbls. water.

SECOND STAGE: Treated from _____ to _____, Material Used _____

Treating Summary _____

THIRD STAGE: Treated from _____ to _____, Material Used _____

Treating Summary _____

(Treating Summary should include pertinent pressures, pumping rates, and test results for each stage.)

DATE August 20 1963

WELL NO. 1 LEASE Moore "B"

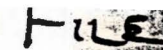
FIELD W/C

COUNTY Ness STATE Kansas

[illegible]

COMMENTS:

BY Charles M. Vinson



Acid Stage No. 7

Formation: Mississippi
Open Hole Size _____ T.D. 4494 ft. P.S. to _____

Company Representative Frank P. McCallister Wayne Kiker

TIME A.M./P.M.	PRESSURES		FLUID PUMPED DATA GAL/BBL				REMARKS
	TUBING	CASING	TOTAL FLUID PUMPED	FLUID IN FORMATION	PUMPED PER TIME PERIOD	PUMPED PER MIN.	
4:45	—	—	—	—	—	—	Start Acid To Spot
4:50	—	—	6	0	6	—	Finish Acid & St Water
5:03	—	100	17 1/2	0	11 1/2	—	Acid On Formation
5:18	—	100	17 1/2	0	0	0	Stop To Seal Form -
5:19	450	550					Start Pump
5:21	350	450					Repressure
5:25	400	600					Pressure bled 200# Repress
5:30	550	650					Press bled 200# Repressure
5:35	700	800					Press bled 250# Repressure
5:40	700	800					Pressure bled 250# Repressure
5:45	700	800	18 1/2	1	1	—	Repressure - Formation
6:00	700	800	21	3 1/2	2 1/2	.125	Taking Fluid 1 bbl in For
6:20	600	600	23	5 1/2	2	.133	Set Pump Speed Steady -
6:25	600	600	23 1/2	6	1/2	.125	Pressure dropped slightly
6:40	900	900					Acid in St Overflush
7:00	900	900					Pressure Press Increase
7:20	900	1000	30 1/2	13	7	.125	Finish Overflush & Treat

SCHLUMBERGER WELL SURVEYING CORPORATION

Cities Secore Oil Company

Aug. 24, 1963

E. Moore "B" No. 1

SE-SE

30-TGS-R21W

Nass County

Interval	Porosity Ø in %	Water Saturation Sw in %	Remarks	Associated Data				Sw Chart Used
				Rw	m	ROS or Vm		
1402 to 04	15	58	Chert	3	.13	1.7	19.500	D-16
04 to 06	15	43	"					
06 to 08	15-19	42	"					
08 to 10	12	92	"					
10 to 12	14	75	"					
12 to 14	12	87	"					D-1
14 to 16	14-13	76-80	"					D-16
16 to 17	12-15	30-60	"					D-1
17 to 21	13-18	66-	"					
23 to 26	15	76						
26 to 28	11	100						D-1
31 to 32	17	52						
28 to 29	15	88						
31 to 32	11	100						D-1
36 to 38	13	68						D-16
40	11	20						
	7	100						
	3-8	100						
		60						
		107	D-16	.13	2.0	23.000		D-16

less, since all interpretations are opinions based solely on inferences from electrical or other measurements, Schlumberger Well Surveying Corporation shall not be liable or responsible for any loss, cost damages, or from this or any other interpretation.

[Signature]
Engineer

Company Cities Service Oil Co Date 8-20-1962
Lease & Well No MOORE B #1
Tested by Miller Testers
D.S.T. No. #1 TD 4325
Interval Tested From 4313 To 4325
Mud Wt. 10.4 Vis. 51 L.W. 7-2
Hole Size 7 7/8 D.P. D.C.
Surface Choke 1/2" B.H. Choke 1/2"
Tool Open 10 AM to 11 AM Surface Press
and/or Blow Good ~~Blow~~ Blow
Through cut Test
Tool Open 1 Hrs. Min.
Initial Shut-In Hr. 30 Min.
Final Shut-In Hrs. 30 Min.
Fluid Recovered 302' Ft.
178' Emulsified muddy oil
124 VERY Heavily oil cut mud
I.Hyd.P. 242.5 I.C.I.P. 255 I.F.P. 30
F.F.P. 105 F.C.I.P. 190 F.Hyd.P. 2430
Max. Temp. F. O.K. Mis-Run
Type Anchor Used 12' CEN
Remarks 2302' of Gas in Pipe
Gravity of oil 37° at 63 To

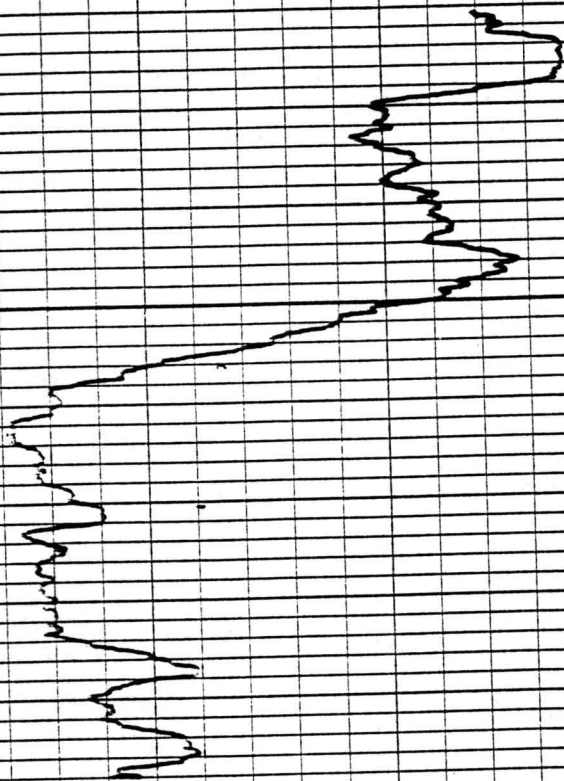
CITIZES SERVICE OIL CO

AFTER PERFORMING LOG

MOORE B" #1

SEC 30-195-21W

SE-SE



4400

Peak