

13
Citizen Service Oil Co. Risley #4
1650' N. & 330' W. of Center (SE NE NW)
Sec. 16-29S-1E, Butler County, Kansas
Elev: 1210' R.T.B. (5' above G.L.)
Note: All measurements from R.T.B.

015

(4)

P & A
2-15-67

Drlg. Comms: 10-26-57
Drlg. Comps: 11-3-57
Drld. By: White & Ellis Drilling Co.
Drill In: White & Ellis Drilling Co.

10' samples were saved from 1000' to 2100'.
5' samples were saved from 2100' to T.D.

2' drilling time log from 1000' to 1500'.
1' drilling time log from 1500' to T.D.

10 3/4" surface casing cem. @ 222' w/192 sax.

Circ. for samples:

2100' 56 min.
2130' 45 min.
2133' 45 min.
2150' 45 min.
2240' 45 min.
2294' 45 min.
2755' 45 min.
2760' 30 min.
2778' 60 min.
2782' 45 min.
2790' 45 min.
2793' 60 min.
2796' 45 min.
2803' 45 min.
2805' 45 min.

Steel Line Measurement:

1022' = 1022'
1994' = 1996'
2455.99' = 2456.50'

Straight Hole Survey:

1022' O.K.
1996' O.K.
2456.50' O.K.

Cuttings description corrected to drilling time log.

1000-1018 Sh., lt. gy.-gy., mica., sl. sdy.
1079 Ls., wh., dull, dense w/med. calc. xls., vy. leached, low w/scat. med. por., N.S.O. w/interbedded sh., gy.
1088 Sh., gy.
1096 Sd., clear-brn., vy. fn. gr., low-med. por., N.S.O.
1148 Sh., gy., sl. sdy.
1151 Ls., wh.-tan, med. xn., leached, low por., N.S.O.
1154 Sh., gy.
1231 Ls., wh.-gy., fn.-med. xn., oolitic in part, leached, some scat. med. por., N.S.O.
1252 Sh., gy., pyr.
1256 Ls., wh.-gy., fn. xn. w/scat. tan calc. xls.
1260 Sh., gy.
1262 Ls., wh.-lt. gy.-tan, dull, fn. xn., sl. leached, low por., N.S.O.
1274 Sh., blk.
1282 Ls., wh.-gy.-tan, dense-fn. xn., vy. leached, low por., N.S.O.
1301 Sh., gy.
1314 Sd., gn., fn.-med. gr., mica., glauc., med.-well cem., N.S.O.
1337 Sh., gy.
1346 Ls., gy.-tan, fn.-med. xn., low-med. por., N.S.O.
1352 Sh., gy.
1372 Ls., wh.-lt. gy., fn.-med. xn. w/scat. crse. calc. xls., low w/scat. med. por., N.S.O.

Cuttings description (cont'd.)

- 1372-1377 Sh., gy.
 1380 Ls., wh.-lt. gy., fn. xn. w/scat. crse. calc. xls., low por., N.S.O.
 1392 Sh., gn., limy.
 1400 Sh., blk.
 1434 Ls., wh.-gy., dense-fn. xn. w/scat. tan, calc. xls., vy. leached in part, low por. w/scat. low-med. por., N.S.O.
 1486 Sh., dk. gy.
 1511 Ls., wh.-lt. gy.-lt. tan, fn. xn., leached in part, low por. becoming med. por. in last 5', w/scat. sh., gy.
 1514 Sh., gn., sdy.
 1528 Ls., wh.-gy., fn.-med. xn., sl. leached, low por., N.S.O.
 1533 Sh., blk.
 1554 Sh., gy.
 1570 Ls., wh., dull, fn. xn., leached, low por. w/scat. med. por., N.S.O.
 1593 Sh., gy.
 1596 Ls., wh., dull, fn. xn., leached, low por., N.S.O.
 1600 Sh., gy.
 1606 Sh., gn., mica., vy. sdy.
 1608 Sd., clear, med. gr., ang., mica., med.-well w/scat. well cem., N.S.O.
 1613 Sh., gn.-gy., sdy.
 1671 Sh., gy. w/vy. thin sd. (as above) strks., N.S.O.
 1682 Sd., clear-lt. gy., med. gr., well cem. w/vy. scat. towards base, med. por., N.S.O.
 1698 Sh., gy., foss. (Form.)
 1751 Sd., clear-brn., med. gr., med.-well cem., N.S.O., w/interbedded sh., gy.
 1805 Sh., gy., sl. sdy.
 1873 Ls., wh.-lt. gy., fn.-med. xn., leached, med. por., N.S.O.
 1883 Sh., dk. gy.
 1887 Ls., gy., fn. xn., low por., N.S.O.
 1888 Sh., as above.
 1980 Ls., as above, w/scat. tan, med. xn., low-med. por., N.S.O.
 2126 Sh., gy., pyr. in part.
 2147 Ls., lt. gy.-tan, med.-crse. xn. w/scat. dense-fn. xn., low por., vy. sl. & vy. scat. sl. staining.
 2161 Ls., wh.-gy., fn. xn., low w/scat. low-med. por., N.S.O.
 2169 Ls., lt. gy.-gy., fn. xn., leached, low-med. w/scat. med. por., N.S.O.
 2186 Ls., wh., dense-fn. xn., leached, low por., N.S.O.
 2188 Ls., wh., crse. xn., med. por., N.S.O.
 2193 Ls., as above, low por., N.S.O.
 2197 Ls., as above, med. por., N.S.O.
 2200 Ls., as above, low por., N.S.O.
 2215 Ls., wh., fn. xn., leached, med. por., N.S.O.
 2229 Ls., as above, low por., N.S.O.
 2242 Ls., wh.-lt. gy., crse. xn., leached, med. por., N.S.O.
 2269 Ls., wh.-gy., fn. xn., sl. leached, low por., N.S.O.
 2271 Ls., as above, med. por., N.S.O.
 2301 Ls., wh.-gy., dense-fn. xn., sl. leached, foss., low por., N.S.O.
 2309 Ls., wh.-lt. gy., fn.-med. xn., vy. sl. leached, med. por., N.S.O. w/interbedded sh., gy.-blk.
 2344 Ls., lt. gy., crse. xn., low por., N.S.O. w/interbedded sh., gy.-blk.
 2372 Sh., dk. gy.
 2380 Ls., wh.-gy.-tan, fn. xn., glauc., vy. sl. leached, low por., N.S.O.
 2391 Sh., dk. gy.
 2401 Sd., gy., vy. fn.-fn. gr., loosely-med. cem., med. por., N.S.O.
 2428 Sh., dk. gy.-gn.
 2445 Ls., lt. gy.-tan, dense w/scat. crse. xn., low por., N.S.O.

Cuttings description (cont'd.)

2445-2478 Sh., dk. gy.
 2485 Ls., lt. gy.-tan, fn. xn., low por., N.S.O.
 2495 Sh., dk. gy.
 2536 Ls., wh.-tan, fn.-med. xn., vy. sl. leached, foss., low por., N.S.O.,
 w/interbedded sh., dk. gy.
 2630 Sh., gn., sdy. w/sh., blk.
 2641 Sh. ogl., containing some ls., mixed w/sh., all colors, & sdy., low
 per., N.S.O.
 2646 Ls., wh.-tan, fn. xn., low por., N.S.O.
 2652 Sh., blk.
 2691 Ls., wh.-gy., crse. xn., containing interbedded chert, low por., N.S.O.
 2743 Sh., gy. & gn.
 2801 Sh., gy. & brn., foss. (spores), sl. sdy., pyr.
 2803 Chert, clear-lt. gy., oolitic, sl. dol., med. por., G.S.O.
 2805 Dol., lt. gy.-tan, med.-crse. xn., med.-good por., well stained, vy.
 G.S.F.O., vy. good odor, sl. fluor.

R.T.D. 2805'

D.S.T. #1 2802-2805' Open 20 min. Closed 60 min.
 Strong blow immediately, gas to surface in 14 min.,
 oil to surface in 15 min. (No wtr. recovered.)
 I.F. 400#; F.F. 1050#; B.H.P. 1221#; H.M.P. 1515#.

Interpretation of formations from cuttings, time and Schlumberger logs.

Interpretation of Howard Ls.

Top Howard Ls.	1028' (+182)	
T.	24'	N.S.O.
Base	1052' (+158)	

Interpretation of Severy Sh.

Top Severy Sh.	1052' (+158)	
Top Sd.	1088' (+122)	
T.	8'	No stain. No fluor.
Base	1096' (+114)	Schlum. 20% por., 31-38% S.W.

Interpretation of Topeka Ls.

Top Topeka Ls.	1154' (+56)	
T.	79'	N.S.O.
Base	1231' (-21)	

Interpretation of Lansing Group.

Top Lansing Ls.	1805' (-595)	
T.	175'	N.S.O.
Base	1980' (-770)	

Interpretation of Kansas City Group.

Top Kansas City Sh.	1980' (-770)	
Top Kansas City Ls.	2126' (-916)	
T.	218'	N.S.O.
Base	2344' (-1134)	

Interpretation of Marmaton Group.

Top Altamont	2428' (-1218)	
T.	17'	N.S.O.
Base	2445' (-1235)	

Interpretation of Marmaton Group. (cont'd.)

Top Pawnee 2478' (-1268)
 T. 7' N.S.O.
 Base 2485' (-1275)

Top Fort Scott 2495' (-1285)
 T. 41' N.S.O.
 Base 2536' (-1326)

Interpretation of Mississippian Series.

Top Miss. ls. 2641' (-1431)
 T. 50' N.S.O.
 Base 2691' (-1481)

Interpretation of Kinderhook Sh.

Top Kinderhook Sh. 2691' (-1481)
 Top Chattanooga Sh. 2743' (-1533) N.S.O.
 Base 2801' (-1591)

Interpretation of Arbuckle Group.

Top Arbuckle ls. 2801' (-1591)
 Top Arbuckle Dol. 2803' (-1593)
 Pen. (total) 4' G.S.F.O.
 R.T.D. 2805'

Schlumberger Induction & Micrologs were run.

This well was not shot.

7" casing cem. @ 2802' w/250 sax.

Drill In:

11-17-57 M.I.C.T. C.O. & drld. cem. to 2805'. Hole loaded w/50 bbls. wtr.; flowed 12 bbls. oil, no wtr., through 1/2" choke. 55# W.H.P. 45 bbls. oil, no wtr., through 32/64" choke in 1 hr. 25# W.H.P. S.I.P. 57#.
 18 Affidavit Potential effective 11-18-57 for 57 bbls. oil - 0 wtr. - 3 hrs.
 12-17-57 301 bbls. oil - 0 wtr. - 24 hrs. through 15/64" choke. W.H.P. 42#.
 State Test.
Well complete.

E. A. (Pat) Paschal, Jr.
 Geologist

4-16-58

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Cities Service Petroleum Co. Risley #4
1650' N. & 330' W. of Center (SE NE NW)
Sec. 16-29S-4E, Butler County, Kansas
Elev: 1210' R.T.B. (5' above G.L.)

(O.W.D.D.)

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Id Informations:

Top Arbuckle Ls. 2801' (-1591)
Top Arbuckle Dol. 2803' (-1593)
Total Pen. 4'
R.T.D. 2805'

T.A. 7-6-61 (Prev. Pumped O oil - 512 B.W. - 24 hrs.)

New Informations:

3-5-62 M.I.C.T. S.L.M. 2805' T.D.

Sample description corrected to Gamma-Ray Neutron depths:
(Old total depth 2805'. S.L.M. on cable tools T.D. 2805')

- 2805-2808⁰⁸ Chert, wh.-lt. gy., glassy, opaque, translucent, hd., some w/free oil stain, colitic, F.S.F.O.
- 2816 Dolo., gy.-tan, med.-crse. xn., rhombic, est. good inter-xn. por., est. G.S.F.O.
- 2818* Dolo., lt. gy., fn. xn., vy. cherty, low por., good even stain & good show free oil. *Gamma-Ray Log indicates shales here. None was seen in samples, but they were very fine from being drilled under a hole full of oil and water.
- 2828 Dolo., lt. gy., med. xn., not vy. cherty, est. good por. & good show free oil.
- 2831* Dolo., wh., vy. fn. xn., low por., w/dk. gy. chert w/oil on sides. *Gamma-Ray Log indicates shale here again.
- 2846 Dolo., lt. gy., xn., fn.-med. xn., not vy. cherty, est. med.-good por., good stain, good odor, fair fluor., but uneven, not through whole sample. F.S.F.O. Some few pieces from 2841-45' were big enough to break open and they had free oil in them.
- 2853* Dolo., lt. gy., fn. xn., cherty w/wh. clear chert, poor stain & spotty fluor., no free oil. *Possibly shaley since Gamma-Ray Log indicates shale & some pale gy.-gn. shale was seen in sample.
- 2863 Dolo., wh., fn.-med. xn., sl. pyr., sl. stain & odor, no free oil.
- 2866 Dolo., tan, dense, vy. pyr. w/lots of wh.-gy. chert, est. low por. & vy. sl. S.O.
- 2870 Dolo., wh.-lt. gy., med. xn., good stain & fair odor, fair spotty fluor. & sl. show free oil.
- 2872 Dolo., as above, w/less oil show.

Note: Drillers total depth was 2870'.

After drilling from 2805-2815' under a hole full of oil and water, a drill stem test was taken with the following results:

1.S.T. #1 2808-2815' Open 23 min. Closed 30 min.
Open 30 min. Closed 30 min.

Strong blow for 7 minutes.

Recovered 2405' of salt water.

I.H.P. 1080#; I.B.H.P. 1080#/30 min.; I.F. 1015#; F.F.P. 1080#;
F.B.H.P. 1080#/30 min.

At drillers total depth of 2870', a Gamma Ray-Neutron Log was run which showed total depth to be 2872'. Both were zeroed at the same place and both showed Arbuckle top at 2802'.

Top Arbuckle Dol. 2802' (-1592)
Pen. 70'
New Total Depth 2872'

3-10-62 Set packer at 2818'. Swabbed rainbow show of oil and 280 barrels of water in 7 hours. Released tools.

T.A.

F. Judson Hipps
Warren L. Morris
Warren L. Morris
F. Judson Hipps
Geologists

-13-62
nm

2872
2802

70