

Geological Report

Hammond E. #39-18
2140' FNL; 1440' FEL
Sec. 8, T24S, R16E
Woodson County, Kansas
7/6/2018

Operator: Petroleum Resource Management Company
675 Bering Dr.
Houston, Texas 77057

Drilling Contractor: Leis Oil Services, Matt Leis, driller

Well-site Geologist: Julie Shaffer
480 Fox Rd
Toronto, Kansas 66777

Dates Drilled: June 28, 2018

Size Hole: 5 7/8"

Total Depth: 1102'

Elevation: 1054' (est.)

Drilling Fluid: Mud

Surface Casing: 42' of 7"

Electric Logs Run: CDL-CNL-DIL-TEMP.

Formation Tops: Formation tops were picked in the field and taken from sample bags

Rock Color Desc.: GSA rock color chart (dry cuttings)

Status: **OIL WELL**

Gas Shows: N/A

Oil Shows:

Upper Squirrel Sandstone	1000-1006'	Very Good
Upper Squirrel Sandstone	1006-1014'	Trace to Poor
Lower Squirrel Sandstone	1045-1047'	Fair to Good
Lower Squirrel Sandstone	1047-1050'	Trace

Notes: Well cuttings were collected and bagged at the drill rig by the drillers. Samples of the select zones of interest were saved and reviewed in the laboratory under the black light and microscope.

- 0-998' Samples not examined
- 998-1000' Siltstone, white to very light gray, well cemented, ~999' siltstone has very faint uniform pale yellow oil staining, uniform moderately-bright pale yellowish-green hydrocarbon fluorescence, minor loose chips of limestone

Top of the Upper Squirrel Sandstone @ 1000' (+54')

- 1000-1006' Sandstone, dark yellowish-brown oil stained cuttings, excellent saturation, very fine grain, sub-rounded to round grains, well sorted, hi sphericity quartz, silty, minor mica, 18-20% porosity, highly friable, strong petroliferous odor, uniform bright brownish-yellow with bright speckled yellow hydrocarbon fluorescence, no acid reaction
- 1006-1014' Sandstone, light gray, very fine grain, sub-rounded to round grains, abundant siltstone, friable, slight petroliferous odor, shaley, abundant mica, mottled moderate grayish-brown and speckled black oil staining, mottled bright yellowish-brown and white hydrocarbon fluorescence, weak to fair acid reaction (minor calcitic cementation)
- 1014-1018' Samples not examined
- 1018-1020' Sandstone, light gray, very fine grain, sub-rounded to round grains, abundant siltstone, well cemented, shaley, micaceous, no odor, minor mottled pale yellowish-brown and lightly speckled black oil staining, <10% mottled pale yellow hydrocarbon fluorescence
- 1020-1026' Siltstone, light gray, shaley, well cemented, no odor, no oil show, no fluorescence
- 1026-1044' Samples not examined
- 1044-1045' Shale, medium-light gray, minor loose chips of limestone

Top of the Lower Squirrel Sandstone @ 1045' (+9')

- 1045-1047' Sandstone, mottled dark yellowish-brown oil stained cuttings, good saturation, fine grain, sub-angular to sub-rounded grains, moderately sorted, medium sphericity quartz, silty, micaceous, 14-18% porosity, friable, good petroliferous odor, speckled to mottled bright yellowish-brown and yellowish-white hydrocarbon fluorescence, no acid reaction
- 1047-1050' Sandstone, light gray, very fine grain, sub-rounded to round grains, silty, well cemented, shaley, micaceous, minor mottled very pale yellowish-brown and lightly speckled black oil staining, speckled bright yellow hydrocarbon fluorescence
- 1050-1056' Sandstone, medium gray, silty, micaceous, very well cemented, no hydrocarbon odor, no oil show, minor speckled yellowish-green hydrocarbon fluorescence
- 1056-1062' Siltstone, light to medium gray, shaley, minor very fine grain sandstone grains, abundant mica, very well cemented, no hydrocarbon odor, no oil show, minor speckled faint yellow fluorescence
- 1062-1100' Samples not examined

T.D. = 1102'

**Julie Shaffer
Geologist**

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