

## **GEOLOGICAL REPORT**

**Beyen #3-2** API#: 15-125-32354-00-00

3390' FSL, 165' FEL Sec. 3 T34S R14E NE SE NE

Montgomery County, Kansas

Date: 1/16/2014

Operator:

Serendipity Production Company, LC, 112 N Broad St., Guthrie, OK 73044

Drilling

Contractor:

Melander Drilling, Chris Melander, driller

Wellsite

Geologist:

Julie Shaffer - On location from 610' to TD

**Dates Drilled:** 

Set surface on 1/3/2014

Drilled 1/8-14/2014

**Total Depth:** 

760'

**Elevation:** 

870' Est.

**Drilling Fluid:** 

Compressed air with injected water

**Surface Casing:** 

21.5' of 85/8" surface casing cemented to surface

Electric Logs Run:

N/A

**Formation Tops:** 

Formation tops were picked from field notes/geolograph

**Rock Color Desc.:** 

GSA rock color chart (dry cuttings)

Status:

**OIL WELL** 

Oil Shows:

Lenapah Limestone

Limestone 626-628'

Trace oil show

Wayside Sandstone

649-654'

Fair oil show

Wayside Sandstone

654-660.25

Fair-Good oil show

Notes:

Well cuttings were examined at the drill rig and discarded. Select samples of zones of interest were saved and examined in the laboratory with a binocular microscope and black-light. Formation tops were taken from field logs. Core was analyzed in the field and discarded.

## FIELD and LABORATORY SAMPLE EXAMINATION

0-623'	Samples not examined
Top of the Lenapah Limestone @ 623' (+247')	
623-627'	Lenapah Limestone, tan, very fine grained, medium-hard, strong oil odor, 50% uniform bright yellowish-brown hydrocarbon fluorescence. Samples exhibited an even, slow, medium-bright milky blue oil cut in black light, no residual show in white light; after crushing and repeating the solvent test there is no change.
627-649'	Samples not examined
Top of the Wayside Sandstone at 649' (+221')	
649-651'	Wayside Sandstone, light gray, pale brown oil staining, very fine grained sandstone, silty, very friable, soft sand, 18+% porosity, strong petroliferous odor, uniform pale green hydrocarbon fluorescence
651-652'	Wayside Sandstone, light gray with minor pale brown oil staining, 16-18% porosity, friable, poorly sorted, 40% of cuttings have pale green hydrocarbon fluorescence
652-654'	Wayside Sandstone, light gray, pale brown oil staining, well saturated, very fine grained sandstone, very friable, soft sand, 18+% porosity, strong petroliferous odor, uniform pale green hydrocarbon fluorescence
Wayside Sandstone Core: 654-671' -Fair oil show while coring.	
654-656.5	Sandstone, light gray, very fine grained, very soft, fair saturated, good live medium-light brown oil bleed in lenses, gassy, strong odor
656.5-657	Sandstone, light gray, shaley/silty, very tight, no oil show
657-658'	Sandstone, medium-light brownish-gray, soft, very fine grained, fully saturated in uniform, light brown live oil bleed, gassy, strong odor
658-660.25	Sandstone, fine grained, medium soft, good live medium brown oil bleed, gassy, minor thin shale lenses
660.25-669'	Sandstone, fine grained, medium-soft to medium-hard, much tighter sand, a heavier black, live oil bleed when broken (low permeability), only few lenses with live oil bleeding on core, poor saturation, little to no oil show
669-671'	Sandstone, very shaley/silty, light gray, no oil show
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671-703'	Samples not examined

Beyen #3-2 1/16/2014 Page 3 of 3

## Top of the Altamont Limestone @ 703' (+167')

703' Altamont Limestone, tan, hard, smooth texture

703-732' Samples not examined

Top of the Weiser Sandstone at 732' (+138')

732-752' Weiser Sandstone, light gray, 16-18% porosity, no petroliferous odor, no oil show, silty

752-760' Shale, medium gray

T.D. = 760

Julie Shaffer Geologist

















