

JAMES C. MUSGROVE

Petroleum Geologist, LLC
212 Main Street
P.O. Box 215
Claflin, KS 67525

Office (620) 588-4250

Res. Claflin (620) 587-3444

American Warrior Inc.
Hoelscher Unit #1-11
NW-NW-SW-NW (1441' FNL & 124' FWL)
Section 11-18s-10w
Rice County, Kansas

Page 1

5 1/2" Production Casing Set

Contractor: Duke Drilling Co. (rig #8)
Commenced: October 23, 2014
Completed: October 28, 2014
Elevation: 1780' K.B., 1778' D.F., 1772' G.L.
Casing program: Surface; 8 5/8" @ 430'
Production, 5 1/2" @ 3399'
Sample: Samples saved and examined 2600' to the Rotary Total Depth.
Drilling time: One (1) foot drilling time recorded and kept 2600 ft. to the Rotary Total Depth.
Measurements: All depths measured from the Kelly Bushing.
Drill Stem Tests: There were one (1) Drill Stem Tests ran by Trilobite Testing Co.
Electric Log: By Pioneer; Dual Induction, Dual Compensated Porosity, Micro and Sonic Log.

<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Heebner	2796	-1016
Toronto	2814	-1034
Douglas	2826	-1046
Brown Lime	2914	-1134
Lansing	2932	-1152
Base Kansas City	3204	-1424
Conglomerate	3244	-1464
Arbuckle	3257	-1477
Rotary Total Depth	3400	-1620
Log Total Depth	3395	-1615

(All tops and zones corrected to Electric Log Measurement)

SAMPLE ANALYSIS, SHOWS OF OIL, TESTING DATA, ETC.

TOPEKA/TORONTO SECTIONS

2500-2826' No shows of oil and/or gas was noted in the drilling of the Topeka and Toronto sections (see attached Sample/Geologist report).

LANSING SECTION

2931-2945' Limestone, tan, finely crystalline, oolitic, poor visible, dense, no shows.

2956-2966' Limestone, tan, finely crystalline, fossiliferous, poor scattered porosity, chalky, no shows.

2981-2996' Limestone, cream, white, finely crystalline, poorly developed porosity, chalky, no shows.

3026-3036' Limestone, tan, oomoldic, good vuggy type to oomoldic porosity, chalky in part, trace stain, show of free oil and no odor in fresh samples.

3038-3048' Limestone, as above.

3081-3090' Limestone, tan, cream, fine and medium crystalline, chalky, poor visible porosity, no shows.

3098-3108' Limestone, cream, tan, finely crystalline, few fossiliferous, chalky in part; no shows.

3126-3132' Limestone, tan, buff, finely crystalline, few oolitic, poorly developed porosity, no shows.

3147-3153' Limestone, tan, white, sub-oomoldic, scattered vuggy type porosity, no shows.

3191-3200' Limestone, cream, white, finely crystalline, few cherty, poor porosity, no shows.

ARBUCKLE SECTION

3257-3263' Dolomite, white, tan, finely crystalline, poor porosity, no shows.

3263-3275' Dolomite, tan, white, finely crystalline, few sucrosic, poor to fair porosity, light brown stain, show of free oil and faint odor in fresh samples.

Drill Stem Test #1

3194-3280

Times: 30-30-45-45

Blow: Strong

**Recovery: 600' clean oil
135' muddy gassy oil
(3% gas; 63% oil; 34% mud)
125' muddy oil
(56% oil; 44% mud)
125' very heavily oil and gas cut mud
(3% gas; 37% oil; 60% mud)
125' very heavily oil and gas cut mud
(3% gas; 38% oil; 59% mud)**

**Pressures: ISIP 1002 psi
FSIP 933 psi
IFP 122-302 psi
FFP 277-452 psi
HSH 1615-1562 psi**

- 3275-3290' Dolomite, white, cream, finely crystalline, poor to fair inter-crystalline porosity, light brown stain, show of free oil and faint odor.
- 3290-3310' Dolomite, tan, cream, sucrosic, fine and medium crystalline, poor to fair scattered porosity, no show.
- 3310-3330' Dolomite, tan, brown, sucrosic, fine to medium crystalline, fair inter-crystalline porosity, no shows.
- 3330-3350' Dolomite, brown, sucrosic, finely crystalline, poor visible porosity, no shows.
- 3350-3380' Dolomite, cream, tan, finely crystalline, slightly cherty, no shows.
- 3380-3395' Dolomite, as above, plus chert, shite, cream opaque, no shows.

Rotary Total Depth: 3400
Log Total Depth: 3395

Recommendations:

5 1/2 production casing was set and cemented on the American Warrior Inc., Hoelscher Unit #1-11.

Respectfully Submitted,

Wyatt Urban and James C. Musgrove
Wyatt Urban and James C. Musgrove
Petroleum Geologists

