#### JAMES C. MUSGROVE

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

Office (620) 588-4250

Res. Claflin (620) 587-3444

American Warrior Inc. Grubb #1-5 NW-SE-SW-SE (335' FSL & 1652' FEL) Section 5-16s-10w Ellsworth County, Kansas Page 1

## 5 1/2" Production Casing Set

Contractor:

Southwind Drilling Co. (Rig #8)

Commenced:

December 2, 2013

Completed:

December 8, 2013

Elevation:

1828' K.B; 1826' D.F; 1820' G.L.

Casing program: Surface; 8 5/8" @ 367'

Production; 5 1/2" @ 3399'

Sample:

Samples saved and examined 2700' to the Rotary Total Depth.

**Drilling time:** 

One (1) foot drilling time recorded and kept 2700 ft. to the Rotary Total

Depth.

Measurements:

All depths measured from the Kelly Bushing.

**Drill Stem Tests:** 

There was one (1) Drill Stem Test ran by Trilobite Testing Co.

**Electric Log:** 

By Pioneer Energy Services; Dual Induction, Dual Compensated Porosity

Log, Micro and Sonic Logs.

<u>Formation</u>	Log Depth	Sub-Sea Datum
Anhydrite	874	+954
Base Anhydrite	895	+933
Heebner	2855	-1027
Toronto	2875	-1047
Douglas	2884	-1056
Brown Lime	2955	-1127
Lansing	2973	-1145
Base Kansas City	3263	-1435
Arbuckle	3283	-1455
Rotary Total Depth	3400	-1572
Log Total Depth	3402	-1574

(All tops and zones corrected to Electric Log measurements).

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

## **TOPEKA SECTION**

2801-2822'

Limestone: tan, cream, buff, fine and medium crystalline, slightly dolomitic, cherty in part, few fossiliferous, comoldic in part,

scattered intercrystalline and comoldic porosity, dark brown

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stain, no free oil and no odor in fresh samples.

# **TORONTO SECTION**

2875-2885' Limestone; cream, white, finely crystalline, few fossiliferous,

chalky, poor visible porosity, no shows.

## **LANSING SECTION**

2973-2978'	Limestone; cream, white, finely crystalline, oolitic/fossiliferous, few oomoldic porosity, poor fair oomoldic type porosity, no shows.
3000-3010'	Limestone; cream, white, finely crystalline, oolitic, oomoldic, fair oomoldic porosity, trace stain, no free oil and no odor.
3020-3024'	Limestone; cream, tan, finely crystalline, oolitic/fossiliferous, poor scattered porosity, spotty dark brown stain, no show of free oil and no odor.
3027-3034'	Limestone; cream, tan, finely crystalline, oolitic/fossiliferous, chalky, poor scattered porosity, spotty dark brown stain, no show of free oil and no odor.
3050-3059'	Limestone; cream, tan, finely crystalline, oolitic/fossiliferous, sub oomoldic, poorly developed porosity, spotty dark brown stain, no show of free oil and no odor.
3067-3084'	Limestone; white, cream, finely crystalline, oomoldic, oolitic, oomoldic porosity, spotty brown stain, no free oil and no odor.
3185-3205'	Limestone; cream, white, finely crystalline, oolitic, poorly developed intercrystalline porosity, trace brown edge staining, no show of free oil and no odor in fresh samples.
3218-3232'	Limestone; tan, cream, gray, finely crystalline, oolitic, sub oomoldic, poorly developed sub oomoldic porosity, trace spotty brown stain, no show of free oil and no odor.
3244-3256'	Limestone; tan, cream, finely crystalline, oolitic, chalky, dense.

# ARBUCKLE SECTION

3283-3290' Dolomite; tan, cream, fine and medium crystalline, sucrosic in

part, fair to good intercrystalline to vuggy type porosity, golden born stain and saturation, good show of free oil and good odor in

fresh samples.

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**Drill Stem Test #1** 

3236-3290'

Times:

30-45-45-60

Blow:

Strong

Recovery:

2995' clean gassy oil

186' muddy gassy oil

(20% gas, 30% mud, 50% oil)

psi psi

Pressures: ISIP 1031

FSIP 1111

IFP 414-1031 psi FFP 1030-1108 psi HSH 1644-1562 psi

3290-3310'

Dolomite; tan, brown, fine and medium crystalline, sucrosic, fair to good intercrystalline to vuggy type porosity, golden brown stain, good show of free oil and good odor in fresh samples.

3310-3330'

Dolomite; cream, tan, fine to medium crystalline, few with scattered vuggy porosity, brown stain, show of free oil and good

odor, plus white, cream, boney chert.

3330-3350'

Dolomite; tan, cream, few medium crystalline, sucrosic in part,

fair porosity, trace stain, trace of free oil and faint odor.

3350-3370'

Dolomite; tan, cream, fine and medium crystalline, poorly developed porosity, trace stain, no free oil and no odor.

3370-3400'

Dolomite; cream, tan, finely crystalline, slightly cherty, poorly

developed porosity, no shows.

Rotary Total Depth Log Total Depth 3400 3402

Respectfully submitted;

Kurt Talbott and / James C. Musgrove, Petroleum Geologists

CENSE