

# **Geological Report**

American Warrior, Inc.

**Marlin #1-32**

2290' FNL & 1610' FEL

Sec. 32 T18s R21w

Ness County, Kansas



**American Warrior, Inc.**

## General Data

Well Data: American Warrior, Inc.  
Marlin #1-32  
2290' FNL & 1610' FEL  
Sec. 32 T18s R21w  
Ness County, Kansas  
API # 15-135-25801-0000

Drilling Contractor: Discovery Drilling Co. Inc. Rig #3

Geologist: Jason T Alm

Spud Date: September 8, 2014

Completion Date: September 14, 2014

Elevation: 2151' Ground Level  
2159' Kelly Bushing

Directions: Bazine KS, South 2 mi. to 110 rd. East 1 mi. to EE rd. North 1 1/2 mi. to 125 rd. East 3/4 mi, North into location.

Casing: 221' 8 5/8" surface casing  
4264' 5 1/2" production casing

Samples: 10' wet and dry, 3900' to RTD

Drilling Time: 3500' to RTD

Electric Logs: None

Drillstem Tests: Two, Trilobite Testing, Inc. "Cody Bloedorn"

Problems: Tool was plugged throughout DST #1

Remarks: DST #1 was inconclusive due to tool plugging

## Formation Tops

<b>Formation</b>	<b>American Warrior, Inc. Marlin #1-32 Sec. 32 T18s R21w 2290' FNL &amp; 1610' FEL</b>
Anhydrite	<b>1391', +768</b>
Base	<b>1422', +737</b>
Heebner	<b>3623', -1464</b>
Lansing	<b>3671', -1512</b>
BKc	<b>3993', -1834</b>
Pawnee	<b>4074', -1915</b>
Fort Scott	<b>4149', -1990</b>
Cherokee	<b>4164', -2005</b>
Mississippian	<b>4239', -2080</b>
Osage	<b>4247', -2088</b>
RTD	<b>4265', -2106</b>

## Sample Zone Descriptions

- Fort Scott (4149', -1990): Not Tested**  
 Ls – Fine to sub-crystalline with scattered poor inter-crystalline porosity, light to fair scattered oil stain in porosity, very slight show of free oil, no odor, good yellow fluorescents, 50 units hotwire.
- Mississippian Osage (4247', -2088): Covered in DST #1,2**  
 Dolo – Δ – Fine sucrosic crystalline with fair inter-crystalline and vuggy porosity, very heavy triptolitic chert, weathered with good vuggy porosity, few pieces granular chert with excellent inter-granular and vuggy porosity, light to good oil stain and saturation, good show of free oil, good odor, bright yellow fluorescents, 330 units hotwire.

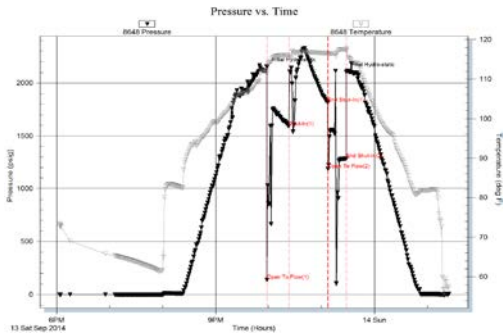
## Drill Stem Tests

Trilobite Testing, Inc.  
"Cody Bloedorn"

### DST #1      Mississippian Osage

Interval (4248' – 4258') Anchor Length 10'

IHP    – 2149 #  
IFP    – 30" – Built to 1 ½ in.      137-1587 #  
ISI    – 30" – Dead                      1814 #  
FFP    – 10" – Dead                      1187-1284 #  
FHP    – 2102 #  
BHT    – 117°F

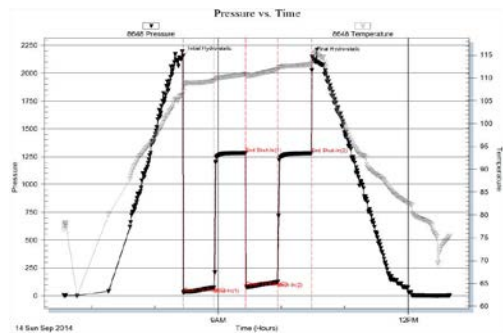


Recovery:      63' Mud  
                    Test Tool was plugged throughout

### DST #2      Mississippian Osage

Interval (4249' – 4260') Anchor Length 11'

IHP    – 2154 #  
IFP    – 30" – B.O.B. 14 min.      28-73 #  
ISI    – 30" – Built to ½ in.      1283 #  
FFP    – 30" – B.O.B. 21 min.      79-123 #  
FSI    – 30" – W.S.B.                      1279 #  
FHP    – 2148 #  
BHT    – 113°F



Recovery:      248' GIP  
                    217' GCO      60% Oil  
                    62' GSOCM    10% Oil, 70% Mud

## Structural Comparison

	American Warrior, Inc. Marlin #1-32 Sec. 32 T18s R21w 2290' FNL & 1610' FEL		DNB Drilling, Inc. Schniepp #2 Sec. 32 T18s R21w C S/2 NE/4		DNB Drilling, Inc. Schniepp B #4 Sec. 32 T18s R21w SE SE NE	
<b>Formation</b>						
Anhydrite	<b>1391', +768</b>		1356', +772	<b>(-4)</b>	1342', +779	<b>(-11)</b>
Base	<b>1422', +737</b>		NA	<b>NA</b>	NA	<b>NA</b>
Heebner	<b>3623', -1464</b>		3596', -1468	<b>(+4)</b>	3580', -1459	<b>(-5)</b>
Lansing	<b>3671', -1512</b>		3644', -1516	<b>(+4)</b>	3626', -1505	<b>(-7)</b>
BKc	<b>3993', -1834</b>		3968', -1840	<b>(+6)</b>	NA	<b>NA</b>
Pawnee	<b>4074', -1915</b>		4046', -1918	<b>(+3)</b>	NA	<b>NA</b>
Fort Scott	<b>4149', -1990</b>		4124', -1996	<b>(+6)</b>	4113', -1992	<b>(+2)</b>
Cherokee	<b>4164', -2005</b>		4140', -2012	<b>(+7)</b>	NA	<b>NA</b>
Mississippian	<b>4239', -2080</b>		4206', -2078	<b>(-2)</b>	4214', -2093	<b>(+13)</b>
Osage	<b>4247', -2088</b>		4222', -2094	<b>(+6)</b>	NA	<b>NA</b>

## Summary

The location for the Marlin #1-32 was found via 3-D seismic survey. The new well ran structurally as expected via the survey. Two Drill Stem Tests were conducted, one of which recovered commercial amounts of oil from the Mississippian Osage Formation. After all gathered data had been examined the decision was made to run 5 ½ inch production casing to further evaluate the Marlin #1-32 well.

## Recommended Perforations

<b>Primary:</b>		
<b>Mississippian Osage</b>	<b>( 4247' – 4257' )</b>	<b>DST #1,2</b>
<b>Before Abandonment:</b>		
<b>Fort Scott</b>	<b>( 4151' – 4156' )</b>	<b>Not Tested</b>

Respectfully Submitted,

Jason T Alm  
Hard Rock Consulting, Inc.