

# **Geological Report**

American Warrior, Inc.

**Ryersee #2-36**

1550' FNL & 455' FWL

Sec. 36 T18s R21w

Ness County, Kansas



**American Warrior, Inc.**

## General Data

Well Data: American Warrior, Inc.  
Rysersee #2-36  
1550' FNL & 455' FWL  
Sec. 36 T18s R21w  
Ness County, Kansas  
API # 15-135-25650-0000

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

Geologist: Jason T Alm

Spud Date: August 17, 2013

Completion Date: August 24, 2013

Elevation: 2136' Ground Level  
2144' Kelly Bushing

Directions: Bazine KS, East on Hwy 96 4 ½ mi. South thru  
cattle guard 1 ¼ mi. East into location.

Casing: 221' 8 5/8" surface casing  
4208' 5 1/2" production casing

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

Drilling Time: 3500' to RTD

Electric Logs: Log-Tech, Inc. "Jarrod Long"  
CNL/CDL, DIL

Drillstem Tests: None

Problems: None

Remarks: None

## Formation Tops

	<b>American Warrior, Inc.</b> Ryersee #2-36 Sec. 36 T18s R21w 1550' FNL & 455' FWL
<b>Formation</b>	
Anhydrite	<b>1349', +795</b>
Base	<b>1381', +763</b>
Heebner	<b>3598', -1454</b>
Lansing	<b>3640', -1496</b>
BKc	<b>3957', -1813</b>
Pawnee	<b>4055', -1911</b>
Fort Scott	<b>4105', -1961</b>
Cherokee	<b>4120', -1976</b>
Mississippian	<b>4197', -2053</b>
RTD	<b>4208', -2064</b>
LTD	<b>4209', -2065</b>

## Sample Zone Descriptions

- Cherokee “A” Sand (4134’, -1990):      Not Tested**  
 SS – Quartz, clear, fine grained, well sorted fair to poorly cemented, sub-rounded with poor to fair inter-granular porosity, light spotted oil stain in cluster, slight show of free oil, no odor, fair cut fluorescents, 10 units hotwire.
- Cherokee “B” Sand (4148’, -2004):      Not Tested**  
 SS – Quartz, clear to slightly frosted, fine to medium grained, poorly sorted, poorly cemented, sub-rounded with fair to good inter-granular porosity, light to fair oil stain and saturation in cluster, fair show of free oil, light odor, fair to good cut fluorescents, very friable, 50 units hotwire.
- Mississippian Osage (4197’, -2053’):      Not Tested**  
 Δ – Dolo – Fine sucrosic crystalline with fair inter-crystalline and vuggy porosity, very heavy triptolic chert, weathered with good vuggy porosity, light to fair oil stain and saturation in porosity, fair show of free oil, good odor, bright yellow fluorescents, 60 units hotwire.

## Structural Comparison

	American Warrior, Inc. Ryersee #2-36 Sec. 36 T18s R21w 1550' FNL & 455' FWL	John Jay Darrah Jr. Ryersee #G Sec. 36 T18s R21w 3960' FSL & 4850' FEL		American Warrior, Inc. Ryersee #1-36 Sec. 36 T18s R21w 2560' FSL & 335' FWL	
<b>Formation</b>					
Anhydrite	<b>1349', +795</b>	1352', +797	<b>(-2)</b>	1368', +782	<b>(+7)</b>
Base	<b>1381', +763</b>	1380', +769	<b>(-6)</b>	1400', +750	<b>(+13)</b>
Heebner	<b>3598', -1454</b>	3602', -1453	<b>(-1)</b>	3610', -1460	<b>(+6)</b>
Lansing	<b>3640', -1496</b>	3644', -1495	<b>(-1)</b>	3654', -1504	<b>(+8)</b>
BKc	<b>3957', -1813</b>	NA	<b>NA</b>	3969', -1819	<b>(+6)</b>
Pawnee	<b>4055', -1911</b>	NA	<b>NA</b>	4066', -1916	<b>(+5)</b>
Fort Scott	<b>4105', -1961</b>	4108', -1959	<b>(-2)</b>	4116', -1966	<b>(+5)</b>
Cherokee	<b>4120', -1976</b>	4122', -1973	<b>(-3)</b>	4131', -1981	<b>(+5)</b>
Mississippian	<b>4197', -2053</b>	4213', -2064	<b>(+11)</b>	4208', -2058	<b>(+5)</b>

## Summary

The location for the Ryersee #2-36 was found via 3-D seismic survey. The new well ran structurally as expected via the survey. No drill stem tests were conducted but commercial oil shows were encountered in the Cherokee Sands and the Mississippian Osage Formations. After all gathered data had been examined the decision was made to run 5½ inch production casing to further evaluate the Ryersee #2-36 well.

## Recommended Perforations

**Primary:**

**Mississippian Osage**                      **(4197' – 4207')**                      **Not Tested**

**Secondary:**

**Cherokee “B” Sand**                      **(4148' – 4157')**                      **Not Tested**

**Before Abandonment:**

**Cherokee “A” Sand**                      **(4134' – 4137')**                      **Not Tested**

Respectfully Submitted,

Jason T Alm  
Hard Rock Consulting, Inc.