

Geological Report

American Warrior, Inc.
Schniepp #4-31NE
1100' FNL & 1275' FEL
Sec. 31 T18s R21w
Ness County, Kansas



American Warrior, Inc.

General Data

Well Data: American Warrior, Inc.
Schniepp #4-31NE
1100' FNL & 1275' FEL
Sec. 31 T18s R21w
Ness County, Kansas
API # 15-135-25609-0000

Drilling Contractor: Petromark Drilling, LLC. Rig # 1

Geologist: Jason T Alm

Spud Date: August 25, 2013

Completion Date: September 3, 2013

Elevation: 2121' Ground Level
2127' Kelly Bushing

Directions: Bazine KS, ½ mi. East on Hwy 96, South into location.

Casing: 1383' 8 5/8" surface casing
4239' 5 1/2" production casing

Samples: 10' wet and dry, 3500' to RTD

Drilling Time: 3500' to RTD

Electric Logs: Pioneer Energy Services "Y. Ruiz"
CNL/CDL, DIL

Drillstem Tests: One, Trilobite Testing, Inc. "Jeff Brown"

Problems: None

Remarks: None

Formation Tops

	American Warrior, Inc. Schniepp #4-31NE Sec. 31 T18s R21w 1100' FNL & 1275' FEL
Formation	
Anhydrite	1369', +758
Base	1406', +721
Heebner	3598', -1471
Lansing	3643', -1516
BKc	3964', -1837
Pawnee	4042', -1915
Fort Scott	4123', -1996
Cherokee	4140', -2013
Mississippian	4236', -2109
LTD	4240', -2113
RTD	4242', -2115

Sample Zone Descriptions

Cherokee Sand (4196', -2069): **Covered in DST #1**
 Ss – Quartz, clear, fine to very fine grained, sub-angular, well sorted, well cemented with poor to very poor inter-granular porosity, light to fair oil stain, no show of free oil, no odor, dull yellow fluorescents, 50 units hotwire.

Mississippian Osage (4236', -2109): **Covered in DST #1**
 Dolo – Δ – Fine sucrosic crystalline with poor to fair inter-crystalline porosity, heavy slightly triptolic chert, weathered with fair to good vuggy porosity, light to fair spotted oil stain, slight show of free oil, fair odor, few pieces with gilsonite stain, dull yellow fluorescents.

Drill Stem Tests
Trilobite Testing, Inc.
“Jeff Brown”

DST #1

Mississippian Osage / Cherokee Sand

Interval (4177' – 4242') Anchor Length 65'

IHP	– 2043 #	
IFP	– 45” – Built to 3 in.	39-67 #
ISI	– 45” – Dead	1230 #
FFP	– 45” – Built to 1 in.	62-85 #
FSI	– 45” – Dead	1193 #
FHP	– 1926 #	
BHT	– 117°F	

Recovery: 90' MW w/ oil spots

Structural Comparison

	American Warrior, Inc. Schniepp #4-31NE Sec. 31 T18s R21w 1100' FNL & 1275' FEL	American Warrior, Inc. Schniepp #2-31NE Sec. 31 T18s R21w 720' FNL & 760' FEL		American Warrior, Inc. Schniepp #1-31NE Sec. 31 T18s R21w 2150' FNL & 900' FEL	
Formation					
Anhydrite	1369', +758	1369', +756	(+2)	1375', +756	(+2)
Base	1406', +721	1404', +721	FL	1409', +722	(-1)
Heebner	3598', -1471	3596', -1471	FL	3600', -1469	(-2)
Lansing	3643', -1516	3641', -1516	FL	3646', -1515	(-1)
BKc	3964', -1837	3962', -1837	FL	3968', -1837	FL
Pawnee	4042', -1915	4041', -1916	(+1)	4047', -1916	(+1)
Fort Scott	4123', -1996	4124', -1999	(+3)	4129', -1998	(+2)
Cherokee	4140', -2013	4140', -2015	(+2)	4144', -2013	FL
Mississippian	4236', -2109	4205', -2080	(-29)	4220', -2089	(-20)

Summary

The location for the Schniepp #4-31NE was found via 3-D seismic survey. The new well ran structurally as expected via the survey. One drill stem test was conducted which was negative. A tight Cherokee Sand was encountered with significant shows. After all gathered data had been examined the decision was made to run 5 1/2 inch production casing to further evaluate the Schniepp #4-31NE well.

Recommended Perforations

Primary:

Cherokee Sand:	(4196' – 4208')	DST #1
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Before Abandonment:

Mississippian Osage:	(4236' – 4239')	DST #1
Fort Scott:	(4128' – 4132')	Not Tested

Respectfully Submitted,

Jason T Alm
Hard Rock Consulting, Inc.