

Geological Report

American Warrior, Inc.

EHT #1-17

2560' FNL & 2210' FWL

Sec. 17 T18s R21w

Ness County, Kansas



American Warrior, Inc.

General Data

Well Data: American Warrior, Inc.
EHT #1-17
2560' FNL & 2210' FWL
Sec. 17 T18s R21w
Ness County, Kansas
API # 15-135-25673-0000

Drilling Contractor: Petromark Drilling, LLC. Rig #1

Geologist: Jason T Alm

Spud Date: December 2, 2013

Completion Date: December 10, 2013

Elevation: 2197' Ground Level
2203' Kelly Bushing

Directions: Bazine KS, ½ mi. East on Hwy 96 to EE Rd. 3 mi.
North to 160 Rd. ½ mi. East South into location.

Casing: 223' 8 5/8" surface casing
4310' 5 1/2" production casing

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

Drilling Time: 3600' to RTD

Electric Logs: Pioneer Energy Services "Daylan Kerr"
CNL/CDL, DIL

Drillstem Tests: Two, Trilobite Testing, Inc. "Tate Lang"

Problems: None

Remarks: DST #1 was pulled early due to big blows.

Formation Tops

Formation	American Warrior, Inc. EHT #1-17 Sec. 17 T18s R21w 2560' FNL & 2210' FWL
Anhydrite	1459', +744
Base	1494', +709
Heebner	3666', -1463
Lansing	3710', -1507
BKc	4030', -1827
Pawnee	4108', -1905
Fort Scott	4187', -1984
Cherokee	4206', -2003
Mississippian	4287', -2084
LTD	4311', -2108
RTD	4313', -2110

Sample Zone Descriptions

- Cher. "A" Sand (4208', -2005):** **Covered in DST #1**
 Ss – Quartz, Clear, Fine grained, fairly sorted, well rounded, poor to fair cementation with poor inter-granular porosity, light to fair oil stain and saturation in cluster, slight show of free oil, fair to good yellow fluorescents, no odor, very friable, 22 units hotwire.
- Mississippian Osage (4287', -2084):** **Covered in DST #2**
 Δ – Dolo – White to light gray, mostly fresh, angular, with scattered pinpoint vuggy porosity, scattered dolomite within vug cavities, light to fair oil stain in porosity, no show of free oil, fair odor, good spotted yellow fluorescents.

Drill Stem Tests
Trilobite Testing, Inc.
"Tate Lang"

DST #1

Cherokee "A" Sand

Interval (4207' – 4240') Anchor Length 33'

IHP	– 2110 #	
IFP	– 5" – B.O.B. 1 min.	128-165 #
ISI	– 10" – Built to 7 in.	1186 #
FFP	– 5" – B.O.B. 1 min.	219-254 #
FHP	– 2060 #	
BHT	– 121°F	

Recovery: 670' GIP
10' VGO 50% Oil
496' GCO 75% Oil
62' GOCM 40% Oil
117' GOCM 20% Oil

DST #2

Mississippian Osage

Interval (4294' – 4308') Anchor Length 14'

IHP	– 2123 #	
IFP	– 30" – Built to 2 in.	16-22 #
ISI	– 30" – Dead	877 #
FFP	– 30" – Built to ¼ in.	20-25 #
FSI	– 30" – Dead	789 #
FHP	– 2125 #	
BHT	– 107°F	

Recovery: 5' Oil Spotted Mud

Structural Comparison

	American Warrior, Inc. EHT #1-17 Sec. 17 T18s R21w 2560' FNL & 2210' FWL	Pickrell Drilling Co. Gaede C #1 Sec. 17 T18s R21w C SE SE		American Warrior, Inc. Melvin #1-16 Sec. 16 T18s R21w 1910' FSL & 940' FWL	
Formation					
Anhydrite	1459', +744	1416', +745	(-1)	1432', +749	(-5)
Base	1494', +709	NA	NA	1463', +718	(-9)
Heebner	3666', -1463	3625', -1464	(+1)	3648', -1467	(+4)
Lansing	3710', -1507	3670', -1509	(+2)	3692', -1511	(+4)
BKc	4030', -1827	NA	NA	4017', -1836	(+9)
Pawnee	4108', -1905	NA	NA	4084', -1903	(+2)
Fort Scott	4187', -1984	4150', -1989	(+5)	4162', -1981	(-3)
Cherokee	4206', -2003	4169', -2008	(+5)	4181', -2000	(-3)
Mississippian	4287', -2084	4250', -2089	(+5)	4264', -2083	(-1)

Summary

The location for the EHT #1-17 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 Cherokee "A" Sand. After all gathered data had been examined the decision was made to run 5 ½ inch production casing to further evaluate the EHT #1-17 well.

Recommended Perforations

Primary:

Cherokee "A" Sand **(4208' – 4213')** **DST #1**

Before Abandonment:

Mississippian Osage **(4287' – 4310')** **DST #2**
Fort Scott **(4194' – 4196')** **Not Tested**

Respectfully Submitted,

Jason T Alm
Hard Rock Consulting, Inc.