# **Geological Report**

American Warrior, Inc. LN #1-18 350' FNL & 720' FWL Sec. 18 T19s R21w Ness County, Kansas



American Warrior, Inc.

# **General Data**

Well Data:	American Warrior, Inc. LN #1-18 350' FNL & 720' FWL Sec. 18 T19s R21w Ness County, Kansas API # 15-135-25802-0000
Drilling Contractor:	Petromark Drilling, LLC. Rig #1
Geologist:	Jason T Alm
Spud Date:	August 18, 2014
Completion Date:	August 26, 2014
Elevation:	2244' Ground Level 2250' Kelly Bushing
Directions:	Bazine KS, Intersection of Austin St. and Hwy 96 South 3 mi. to 100 Rd. East 7/8 mi. South into location.
Casing:	220' 8 5/8" surface casing 4369' 5 1/2" production casing
Samples:	10' wet and dry, 4000' to RTD
Drilling Time:	3700' to RTD
Electric Logs:	Pioneer Energy Services "Jared Long" CNL/CDL, DIL
Drillstem Tests:	One, Trilobite Testing, Inc. "Bob Hamel"
Problems:	None
Remarks:	None

### **Formation Tops**

Formation Anhydrite Base	American Warrior, Inc.  LN #1-18  Sec. 18 T19s R21w  350' FNL & 720' FWL  1476', +774  1513', +737
Heebner Lansing BKc Pawnee Fort Scott	3720', -1470 3766', -1516 4088', -1838 4172', -1922 4250', -2000
Cherokee Mississippian LTD RTD	4268', -2018 4356', -2106 4371', -2121 4370', -2120

#### **Sample Zone Descriptions**

Cherokee Sand (4273', -2023): Not Tested

Ss – Few DNS dirty clusters, Barren, no measurable gas kick

Mississippian Osage (4356', -2106): Covered in DST #1

Dolo –  $\Delta$  – Fine Sucrosic crystalline with fair inter-crystalline and vuggy porosity, very heavy triptolic chert, weathered with good scattered vuggy porosity, light to fair spotted oil stain in porosity, slight show of free oil, light to fair odor, scattered light yellow fluorescents, 12 units hotwire.

#### **Drill Stem Tests**

Trilobite Testing, Inc. "Bob Hamel"

DST #1 Mississippian Osa	ge
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Interval (4359' – 4367') Anchor Length 8'

**IHP** - 2237 #

-45" - B.O.B. 32 min. 26-101 # IFP

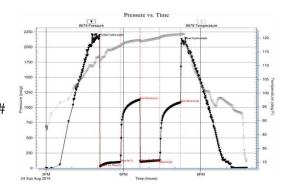
- 45" - Dead ISI

1127 # -45" - Built to 6 in. FFP 106-129 # 1082 #

FSI - 45" - Dead

**FHP** - 2081 #

BHT  $-121^{\circ}F$ 



Recovery: 35' Clean Oil

30' HOCMW 20% Oil, 60% Water 5% Oil, 75% Water 189' SOCMW

## **Structural Comparison**

Formation	American Warrior, Inc. LN #1-18 Sec. 18 T19s R21w 350' FNL & 720' FWL	American Warrior, Inc. Thornburg #2-7 Sec. 7 T19s R21w 800' FSL & 335' FEL		Lehner R V Estate Foos #1 Sec. 18 T19s R21w C NW NE	
Anhydrite	1476', +774	1475', +768	(+6)	NA	NA
Base	1513', +737	1509', +739	(+3)	NA	NA
Heebner Lansing	3720', -1470 3766', -1516	3714', -1471 3760', -1517	(+1) (+1)	3718', -1465 3764', -1511	(-5) (-5)
BKc	4088', -1838	NA	NA NA	NA	NA NA
Pawnee	4172', -1922	4176', -1933	(+11)	NA	NA
Fort Scott	4250', -2000	4247', -2004	(+4)	4252', -1999	(-1)
Cherokee	4268', -2018	4266', -2021	(+3)	4274', -2021	(+3)
Mississippian	4356', -2106	4348', -2105	<b>(-1)</b>	4342', -2089	<b>(-17)</b>

#### **Summary**

The location for the LN #1-18 was found via 3-D seismic survey. The new well ran structurally slightly lower than expected via the survey. One Drill Stem Test was conducted 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 LN #1-18 well.

#### **Recommended Perforations**

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Mississippian Osage	(4356' – 4364')	DST #1

Before Abandonment:

Cherokee "A" Sand	(4273' – 4275')	Not Tested
Fort Scott	(4254' – 4258')	Not Tested

Respectfully Submitted,

Jason T Alm Hard Rock Consulting, Inc.