# **Geological Report**

American Warrior, Inc.

**Clark #4-2** 

2046' FSL & 2309' FEL

Sec. 2, T25s, R31w

Finney County, Kansas



American Warrior, Inc.

## **General Data**

Well Data:	American Warrior, Inc. Clark #4-2 2046' FSL & 2309' FEL Sec. 2, T25s, R31w Finney County, Kansas API # 15-055-22295-00-00			
Drilling Contractor:	Duke Drilling Co. Rig #10			
Geologist:	Kevin Timson			
Spud Date:	April 22, 2014			
Completion Date:	May 3, 2014			
Elevation	2839' G.L. 2850' K.B.			
Directions:	From Garden City Airport. Go SE on Hwy 50 1 mile to Aerodrome Rd. Go 1 ½ miles East on Aerodrome and South on lease road and West into.			
Casing:	1688' 8 5/8" #24 Surface Casing 5013' 5 ½" #15.5 Production Casing			
Samples:	4500' to RTD 10' Wet & Dry			
Drilling Time:	3900' to RTD			
Electric Logs:	Pioneer Energy Services "J. Long" Stacked-Micro			
Drillstem Tests:	Two-Trilobite Testing "Brandon Turley & Bradley Walter"			
Problems:	None			

## **Formation Tops**

Clark #4-2 Sec. 2, T25s, R31w 2046' FSL & 2309' FEL

Anhydrite	1887' +963
Base	1965' +885
Heebner	3999' -1149
Lansing	4045' -1195
Stark	4409' -1559
Bkc	4539' -1689
Marmaton	4566' -1716
Pawnee	4636' -1786
Fort Scott	4658' -1808
Cherokee	4675' -1825
Morrow	4835' -1985
Miss	4857' -2007
RTD	5025' -2175
LTD	5023' -2173

# **Sample Zone Descriptions**

Morrow (4820', -1981): Covered in DST #1

Sandstone. Grey/Glauconitic. Fine to medium grain. Well rounded, well sorted. Fair to good stain. Poor to fair saturation. No show of free oil. Poor to fair. 10 units hotwire.

St. Louis (4843', -2004): Covered in DST #2

Ls. Tan. Sub crystalline. Fair oomoldic and oolycastic porosity. Fair stain and fair saturation in porosity. Slight show of free oil when broken. Fair odor. 90 units hotwire.

#### **Drill Stem Tests**

#### **Trilobite Testing**

"Brandon Turley & Bradley Walter"

#### DST #1 Morrow

Interval (4815' – 4863') Anchor 48'

IHP - 2607 #

IFP  $-30" - \frac{1}{4}"$  blow died to WSB 30-33 #

ISI - 30" – No return 78 #

FFP - 30" – ¼" blow built to 2" 29-33 #

FSIP - 30" – No return 54 #

FHP - 2524 # BHT - 114° F

Recovery: 15' Mud with oil spots

#### DST #2 St. Louis

Interval (4869' – 4926') Anchor 57'

IHP - 2510 #

IFP - 30" – BOB in 2.5 min 70-140 #

ISI -45"  $-\frac{1}{4}$ " return died to WSB 1120 #

FFP - 45" – BOB in 1 min GTS in 20 min 171-234 #

FSIP - 60" – BOB died to 5" return 1099 #

FHP - 2487 #

BHT - 122° F

Recovery: 65' GOCM (10% Oil)

260' GMCO (35% Oil)

185' GMCO (50% Oil)

#### **Structural Comparison**

Formation	American Warrior, Inc.  Clark #4-2  Sec. 2, T25s, R31w  2046' FSL & 2309' FEL	American Warrior, Inc.  Clark #1-2  Sec. 2, T25s, R31w  2415' FSL & 1145' FSL			American Warrior, Inc.  Clark #3-2  Sec 2, T25s, R31w  2165' FSL & 1738' FEL	
Heebner	3999' -1149	+9	4002' -1158	-5	3983' -1144	
Lansing	4045' -1195	+9	4048' -1204	-3	4032' -1193	
Stark	4409' -1559	+8	4411' -1567	-1	4397' -1558	
BKC	4539' -1689	+7	4540' -1696	FL	4528' -1689	
Marmaton	4566' -1716	+4	4564' -1720	-3	4552' -1713	
Pawnee	4636' -1786	+5	4635' -1791	FL	4625' -1786	
Fort Scott	4658' -1808	+6	4658' -1814	-1	4646' -1807	
Cherokee	4675' -1825	+5	4674' -1830	-11	4653' -1814	
Morrow	4835' -1985	FL	4829' -1985	-4	4820' -1981	
Miss	4857' -2007	+7	4858' -2014	-3	4843' -2004	

## **Summary**

The location for the Clark #4-2 well was found via 3-D seismic survey. The new well ran structurally as expected. Two drill stem tests were conducted, one of which recovered commercial quantities of oil from the St. Louis Limestone formation. After all the gathered data had been examined, the decision was made to run 5 ½" production casing to further evaluate the Clark #4-2 well.

#### **Perforations**

**Primary:** St. Louis 'B' (4915' – 4919') Covered in DST #2

**Secondary:** St. Louis (4872' – 4875') Covered in DST #2

Before Abd: Fort Scott (4664' – 4670') Not Tested

Respectfully Submitted,

**Kevin Timson** 

American Warrior, Inc.