

# **Geological Report**

American Warrior, Inc.

## **Whipple C-#5**

335' FNL & 1707' FEL

Sec 8, T18s, R26w

Ness County, Kansas



**American Warrior, Inc.**

## General Data

Well Data: American Warrior, Inc.  
Whipple C-#5  
335' FNL & 1707' FEL  
Sec. 8, T18s, R26w  
Ness County, Kansas  
API # 15-135-25822-00-00

Drilling Contractor: Duke Drilling Co. Rig #5

Geologist: Luke Thompson

Spud Date: October, 14 2014

Completion Date: October 23, 2014

Elevation 2500' G.L.  
2511' K.B.

Directions: From Ness City, KS go west on Highway 96 15 miles to Beeler, KS. West side of Beeler, turn North on Road C. Go 3.2 miles to gate with white panels and cattle guard. Follow Lease road in approx. 1.5 miles.

Casing: 210' #28 Surface Casing  
4619' 5 1/2" #15.5 Production Casing

Samples: 3800' to RTD 10' Wet & Dry

Drilling Time: 3750' to RTD

Electric Logs: Pioneer Energy Services "D. Fischer"  
Stacked Micro

Drillstem Tests: Three-Trilobite Testing "Chuck Smith"

Problems: Lost circulation at 147' mud came up in yard.  
Loggers pulled tight @ 4440' TIH to recondition

## Formation Tops

Whipple C-#5

Sec. 8, T18s, R26w

335' FNL & 1707' FEL

|            |             |
|------------|-------------|
| Anhydrite  | 1879' +633  |
| Base       | 1913' +598  |
| Heebner    | 3803' -1292 |
| Lansing    | 3840' -1329 |
| Stark      | 4095' -1584 |
| Bkc        | 4169' -1658 |
| Marmaton   | 4179' -1668 |
| Pawnee     | 4298' -1787 |
| Fort Scott | 4355' -1844 |
| Cherokee   | 4379' -1868 |
| Morrow     | N/A         |
| Miss       | 4452' -1941 |
| RTD        | 4650' -2139 |
| LTD        | 4652' -2141 |

### Sample Zone Descriptions

**Marmaton** (4260', -1749): Covered in DST #1

Limestone, cream, fine crystalline, few cuttings vuggy with crystalline dolomite, poor/ fair porosity, very slight odor, slight show of free oil, poor/fair saturation, Gas Kick of 51.

**Mississippian** (4456', -1945): Covered in DST #2

Dolomite, brown, fine crystalline, sucrosic, fair/poor inter-crystalline porosity, good odor, fair stain, fair/good saturation, good show free oil, Gas Kick 100 units.

**Mississippian** (4466', -1955): Covered in DST #3

Dolomite, brown, fine crystalline, sucrosic, fair inter-crystalline porosity, strong odor, poor saturation, poor show of free oil, Gas Kick 123 units.

**Drill Stem Tests**

Trilobite Testing

“Chuck Smith”

**DST #1**

**Marmaton**

Interval (4243’-4274’) Anchor Length 31’

IHP - 2068 #

IFP - 30” – BOB in 7 min 27-73 #

ISI - 45” – No Return 1153 #

FFP - 45” – BOB in 4.5 min 95-112 #

FSIP - 60” – 5” return 1040 #

FHP - 2066 #

BHT - 123° F

Recovery: 120’ GMCO (30% Oil) Gravity: 40

60’ GO (70% Oil)

90’ GMCO (65% Oil)

1858’ GIP

**DST #2**

**Mississippian**

Interval (4400’-4462’) Anchor Length 62’

IHP - 2199 #

IFP - 30” – 1/2” blow died @ 27 min 25-30 #

ISI - 30” – No return 564 #

FFP - 10” – No blow, flushed tool, surge died 36-40 #

FSIP - Pull Tool NA

FHP - 2195 #

BHT - 120° F

Recovery: 5’ OCM (2% Oil)

**DST #3**

**Mississippian**

Interval (4461’-4482’) Anchor Length 21’

IHP - 2248 #

IFP - 45” – BOB in 27 min 37-160 #

ISI - 45” – No Return 670 #

FFP - 45” – 8” blow 165-209 #

FSIP - 45” – No Return 613#

FHP - 2200#

BHT - 129° F

Recovery: 417’ OSMW

## Structural Comparison

|                  | American Warrior, Inc.<br>Whipple C-#5<br>Sec. 8, T18s, R26w<br>335' FNL & 1707' FEL | American Warrior, Inc.<br>Whipple C- #4<br>Sec. 8, T18s, R26w<br>1454' FNL & 1417' FEL | Donald C. Slawson<br>Whipple C- #1<br>Sec. 8, T18s, R26w<br>3630' FSL & 1650' FEL |
|------------------|--|--|---|
| <b>Formation</b> |  |  |   |
| Heebner          | 3803' -1292  | -10      3803' -1282   | -11      3805' -1281  |
| Lansing          | 3840' -1329  | -11      3839' -1318   | -13      3840' -1316  |
| Stark            | 4095' -1584  | -9      4096' -1575  | -12      4096' -1572  |
| BKC              | 4169' -1658  | -12      4167' - 1646  | -13      4169' -1645  |
| Marmaton         | 4179' -1668  | -14      4175' -1654   | -14      4178' -1654  |
| Pawnee           | 4298' -1787  | -7      4301' -1780  | -11      4302' -1778  |
| Fort Scott       | 4355' -1844  | -8      4357' -1836  | -11      4357' -1833  |
| Cherokee         | 4379' -1868  | -9      4380' -1859  | -10      4382' -1858  |
| Miss             | 4452' -1941  | +2      4464' -1943  | -2      4463' -1939   |

### Summary

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

### Perforations

|                   |                      |                        |
|-------------------|----------------------|------------------------|
| <b>Primary:</b>   | <b>Mississippian</b> | <b>(4455' – 4459')</b> |
| <b>Secondary:</b> | <b>Marmaton</b>      | <b>(4257' - 4262')</b> |

Respectfully Submitted,

Luke Thompson  
American Warrior, Inc.

