# Geological Report 

American Warrior, Inc.
O'Brate-Finney \#1-5
742' FSL \& 2310' FWL
Sec. 5, T23s, R32w
Finney County, Kansas


American Warrior, Inc.

## General Data

| Well Data: | American Warrior, Inc. O'Brate-Finney \#1-5 <br> 742' FSL \& 2310' FWL <br> Sec. 5, T23s, R32w <br> Finney County, Kansas <br> API \# 15-055-22360-00-00 |
| :---: | :---: |
| Drilling Contractor: | Duke Drilling Co. Rig \#10 |
| Geologist: | Kevin Timson |
| Spud Date: | November 28, 2014 |
| Completion Date: | December 9, 2014 |
| Elevation | $\begin{aligned} & 2849 \\ & 2860^{\prime} \text { G. K.B. } \end{aligned}$ |
| Directions: | From Garden City, KS, go North on Hwy 835 miles to Six Mile Rd. Go East a half mile to Third St. Go North one mile and East into. |
| Casing: | 1725' 8 5/8" \#24 Surface Casing <br> 4984' $51 / 2 " \# 15.5$ Production Casing |
| Samples: | 4200' to RTD 10' Wet \& Dry |
| Drilling Time: | 3750' to RTD |
| Electric Logs: | Pioneer Energy Services "D. Kerr" Full Sweep |
| Drillstem Tests: | Three-Trilobite Testing "Mike Roberts" |
| Problems: | Possible problems with test tool on shut-in pressures. |

# Formation Tops 

O'Brate-Finney \#1-5
Sec. 5, T23s, R32w
742' FSL \& 2310' FWL

| Anhydrite | 1881' +979 |
| :---: | :---: |
| Base | 1980' +880 |
| Heebner | 3829' -969 |
| Lansing | 3877' -1017 |
| Stark | 4212' -1352 |
| Bkc | 4350' -1490 |
| Marmaton | 4375' -1515 |
| Pawnee | 4449' -1589 |
| Fort Scott | 4472' -1612 |
| Cherokee | 4491' -1631 |
| Morrow | 4658' -1798 |
| Miss | 4677' -1817 |
| RTD | 5000' -2140 |
| LTD | 4999'-2139 |

## Sample Zone Descriptions

Pawnee (4449', -1589): Covered in DST \#2
Ls. Tan. Sub to medium crystalline. Fair oomoldic and oolycastic porosity. Fair to good stain. Fair to good saturation. Show of free oil when broken. Good odor. 75 Unit hotwire.

St. Louis (4677’, -1817): Covered in DST \#3
Ls. Tan. Sub crystalline. Fair to good oomoldic and oolycastic porosity. Good stain and good saturation in porosity. Show of free oil when broken. Fair odor. 100 Unit kick.

## Drill Stem Tests

Trilobite Testing
"Mike Roberts"

## DST \#1

Marmaton

| Interval (4390'- 4442') Anchor Length 52' |  |
| :--- | :--- |
| IHP $-2203 \#$ |  |
| IFP $-30^{\prime \prime}-$ WSB died in 2 min | $33-34 \#$ |
| ISI $-30^{\prime \prime}-$ No Return | 472 \# |
| FFP $-10^{\prime \prime}-$ No blow | $35 \#$ |
| FSIP - Pull Tool | NA |
| FHP $-2199 \#$ |  |
| BHT - Not recorded |  |

Recovery: 2' Mud

DST \#2 Pawnee to Cherokee
Interval (4432' - 4511') Anchor Length 79'
IHP - 2232 \#
IFP -30" - BOB in 3 min 83-280 \#
ISI -45" - No return 1179 \#
FFP -45" - BOB in 4 min 299-490 \#
FSIP - 60" - No return 749 \#
FHP - 2200\#
BHT $-122^{\circ} \mathrm{F}$

Recovery: 651' OCGM ( $20 \%$ Oil, $30 \%$ Gas)
186' GCOWM ( $10 \%$ Oil, $10 \%$ Gas, $30 \%$ Water)
186' OCGW ( $10 \%$ Oil, $30 \%$ Gas, $60 \%$ Water)
186' MCW

DST \#3

## St. Louis

Interval (4754' - 4776') Anchor Length 22'
IHP - 2406 \#
IFP - 30" - BOB in 1 min 127-276\#
ISI -45" - BOB in 20 min 443 \#
FFP -45" - BOB in 2 min GTS
FSIP -60" - BOB in 9 min
FHP - 2423 \#
BHT $-128^{\circ} \mathrm{F}$

Recovery: 930' Oil Gravity: 31
930' MCO (90\% Oil)

## Structural Comparison



## Summary

The location for the O'Brate-Finney \#1-5 well was found via 3-D seismic survey. The new well ran structurally as expected. Three drill stem tests were conducted which recovered commercial quantities of oil from the Pawnee and St. Louis Limestone. After all the gathered data had been examined, the decision was made to run $51 / 2$ " production casing to further evaluate the O'Brate-Finney \#1-5 well.

## Perforations

## Primary:

St. Louis
$\left(4780^{\prime}-4787^{\prime}\right)$
Not Tested
Secondary:
St. Louis
(4765' - 4671')
DST \#3

Pawnee (4451' $\mathbf{~ 4 4 5 4 ' ) ~ \& ~ ( 4 4 5 6 ' ~} \mathbf{~ - ~ 4 4 5 8 ' ) ~ D S T ~ \# 2 ~}$

## Before Abandonment

Fort Scott
(4477' - 4483')
DST \#2

Respectfully Submitted,
Kevin Timson
American Warrior, Inc.

