# **Geological Report**

Brenner Brother #1-30 1090' FNL & 700' FEL Sec. 30 T17s R21w Ness County, Kansas



American Warrior, Inc.

# **General Data**

Well Data:	American Warrior, Inc. Brenner Brothers #1-30 1090' FNL & 700' FEL Sec. 30 T17s R21w Ness County, Kansas API # 15-135-25884-0000
Drilling Contractor:	Discovery Drilling Co. Inc. Rig #3
Geologist:	Jason T Alm
Spud Date:	October 22, 2015
Completion Date:	November 2, 2015
Elevation:	2217' Ground Level 2225' Kelly Bushing
Directions:	Bazine KS, East ½ mi. to EE Rd. North 5 ½ mi. East into location.
Casing:	223' 8 5/8" surface casing 4299' 5 1/2" production casing
Samples:	10' wet and dry, 3900' to RTD
Drilling Time:	3600' to RTD
Electric Logs:	None
Drillstem Tests:	Trilobite Testing, Inc. "Ken Swinney"
Problems:	None

None

Remarks:

## **Formation Tops**

Formation Anhydrite	American Warrior, Inc. Brenner Brothers #1-30 Sec. 30 T17s R21w 1090' FNL & 700' FEL 1521', +704
Base	1554', +671
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Heebner	3685', -1460
Lansing	3732', -1507
BKC	4001', -1776
Pawnee	4104', -1879
Fort Scott	4187', -1962
Cherokee	4206', -1981
Mississippian	4275', -2050
Osage	4284', -2059
RTD	4300', -2075

# **Sample Zone Descriptions**

## Fort Scott (4187', -1962): Not Tested

Ls –Fine to sub-crystalline with pinpoint inter-crystalline porosity, very light spotted oil stain, mostly barren and tite, fair yellow fluorescents, 56 units hotwire.

#### Mississippian Osage (4284', -2059): Covered in DST #1 & 2

Dolo –  $\Delta$  – Fine sucrosic crystalline with poor inter-crystalline porosity, very heavy slightly triptolic chert, partially weathered with good vuggy porosity, light to fair oil stain with light scattered saturation in porosity, fair scattered yellow fluorescents, 55 units hotwire.

#### **Drill Stem Tests**

Trilobite Testing, Inc. "Ken Swinney"

DS1 #1	wiississippian Osage	
Interval (4	291' – 4300') Anchor Lengt	h

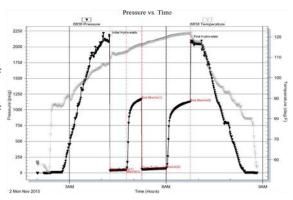
-2158 #IHP

- 30" - Built to 6 in. IFP 33-48 #

- 30" - Dead 1172# ISI

-45" – Built to 9 in. 57-69 # FFP -45" - V.W.S.B. 1130# FSI

FHP - 2097 #  $BHT - 121^{\circ}F$ 



Recovery: 63' GIP

80% Oil, 10% Water 31' MWCO 31' MCWO 40% Oil, 40% Water 63' OCMW 5% Oil, 75% Water

# **Structural Comparison**

Formation	American Warrior, Inc. Brenner Brothers #1-30 Sec. 30 T17s R21w 1090' FNL & 700' FEL	William N Bucklin Brenner #1 Sec. 30 T17s R21w 660' FNL & 560' FEL		William N Bucklin Brenner #6 Sec. 30 T17s R21w 1650' FNL & 600' FEL	
Anhydrite	1521', +704	NA	NA	NA	NA
Base	1554', +671	NA	NA	NA	NA
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Heebner	3685', -1460	3686', -1458	(-2)	3674', -1455	(-5)
Lansing	3732', -1507	NA	NA	NA	NA
BKC	4001', -1776	4006', -1778	(+2)	3992', -1773	(-3)
Pawnee	4104', -1879	4106', -1878	<b>(-1)</b>	4094', -1875	(-4)
Fort Scott	4187', -1962	4187', -1959	(-3)	4180', -1961	<b>(-1</b> )
Cherokee	4206', -1981	4208', -1980	(-2)	4196', -1977	<b>(-4)</b>
Mississippian	4275', -2050	4280', -2052	(+2)	4264', -2045	(-5)
Osage	4284', -2059	NA	NA	NA	NA

#### **Summary**

The location for the Brenner Brothers #1-30 was found via 3-D seismic survey. The new well ran structurally as 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 Brenner Brothers #1-30 well.

#### **Recommended Perforations**

**Primary:** 

Mississippian Osage 4288' – 4298' DST #1

**Before Abandonment:** 

Fort Scott 4194' – 4198' Not Tested

Respectfully Submitted,

Jason T Alm Hard Rock Consulting, Inc.