Geological Report

American Warrior, Inc.

Congdon #9-28

1616' FSL & 1137' FEL

Sec. 28, T23s, R32w

Finney County, Kansas



American Warrior, Inc.

General Data

Well Data:	American Warrior, Inc. Congdon #9-28 1616' FSL & 1137' FEL Sec. 28, T23s, R32w Finney County, Kansas API # 15-055-22263-00-00			
Drilling Contractor:	Duke Drilling Co. Rig #5			
Geologist:	Kevin Timson			
Spud Date:	January 9, 2014			
Completion Date:	January 20, 2014			
Elevation	2845' G.L. 2856' K.B.			
Directions:	From Garden City, KS, at the intersection of Mary St. and Jennie Barker St. Go North on Jennie Barker 2 miles to Rodkey Rd. Go West ¼ mile on Rodkey and North into location.			
Casing:	1156' 8 5/8" #24 Surface Casing 4874' 5 ½" #15.5 Production Casing			
Samples:	4200' to RTD 10' Wet & Dry			
Drilling Time:	3800' to RTD			
Electric Logs:	Pioneer Energy Services "J. Henrickson" Full Sweep			
Drillstem Tests:	Five-Trilobite Testing "Mike Roberts"			
Problems:	Two tests were invalid, packer failure and bridge.			

Formation Tops

Congdon #9-28 Sec. 28, T23s, R32w 1616' FSL & 1137' FEL

Anhydrite	1877' +979
Base	1973' +883
Heebner	3850' -994
Lansing	3893' -1037
Stark	4244' -1388
Bkc	4399' -1543
Marmaton	4451' -1595
Pawnee	4481' -1625
Fort Scott	4515' -1659
Cherokee	4527' -1671
Morrow	4691' -1835
St. Louis	4696' -1840
RTD	4875' -2019
LTD	4875' -2019

Sample Zone Descriptions

Pawnee (4481', -1625): Covered in DST #1

Ls. Tan. Sub crystalline. Fair to good oomoldic and oolycastic porosity. Fair stain and poor saturation in porosity. Very slight show of free oil when broken. Fair odor.

St. Louis (4696',-1840): Covered in DST #3

Ls. Off-White, Tan. Sub-Med crystalline. Fair oolycastic and oomodlic porosity. Fair stain and fair saturation in porosity. Show of free oil when broken. Fair odor. 50 Unit gas kick.

Drill Stem Tests

Trilobite Testing "Mike Roberts"

DST #1	Pawne	ne.				
DOT III	Interval (4485'- 4504') Anchor Length 19'					
		-2274 #				
		$-30^{\circ} - \frac{3}{4}^{\circ}$ blow	15-37 #			
		- 30" – No return	1129 #			
		- 10" – No blow	40-47 #			
		- Pull Tool	NA			
		- 2253 #				
		- 111° F				
	Recov	ery: 62' OCM (3% Oil)				
DST #2	Cherokee					
	Interva	ıl (4502'- 4549') Anchor Length 47'				
	IHP	-2386 #				
	IFP	- 30" – 1/4" blow died in 20 min	35-38#			
	ISI	- 30" – No return	739 #			
	FFP	- 10" – No blow	40-40 #			
	FSIP	- Pull Tool	NA			
	FHP	- 2489 #				
	BHT	- 115° F				
	Recovery: 3' Thick Mud					
DST #3	<u>uis</u>					
	Interva	ıl (4782' – 4804') Anchor Length 22'				
	IHP	- 2338#				
	IFP	- 30" – BOB in 25 min	19-81 #			
	ISI	- 45" – Built to 1/4"	1526#			
	FFP	- 45" – BOB in 19 min	90-135 #			
	FSIP	- 60" – 4" return blow	1508 #			
	FHP	- 2380 #				
	BHT	- 117° F				
	Recov	ery: 434' GIP				
		5' Free Oil				

248' GCMO (50% Oil)

Structural Comparison

Formation	American Warrior, Inc. Congdon #9-28 Sec. 28, T23s, R32w 1616' FSL & 1137' FEL		American Warrior, Inc. O.G. Congdon #2 Sec. 28, T23s, R32w C NE SW		American Warrior, Inc. Congdon #6-28 Sec 28, T23s, R32w 942' FSL & 1745' FEL	
Heebner	3850' -994	-16	3842' -978	-2	3845' -992	
Lansing	3893' -1037	-15	3886' -1022	-1	3889' -1036	
Stark	4244' -1388	-2	4250' -1386	+11	4252' -1399	
BKC	4399' -1543	NA	4386' -1522	+4	4400' -1547	
Marmaton	4451' -1595	NA	4416' -1552	-21	4427' -1574	
Pawnee	4481' -1625	-2	4487' -1623	+1	4479' -1626	
Fort Scott	4515' -1659	-11	4512' -1648	+1	4513' -1660	
Cherokee	4527' -1671	-7	4528' -1664	+2	4526' -1673	
Morrow	4691' -1835	-5	4694' -1830	+5	4693' -1840	
St. Louis	4696' -1840	+7	4711' -1847	+19	4712' -1859	

Summary

The location for the Congdon #9-28 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 St. Louis Limestone formation. After all the gathered data had been examined, the decision was made to run $5\frac{1}{2}$ " production casing to further evaluate the Congdon #9-28 well.

Perforations

Primary:

Before Abandonment

Respectfully Submitted,

Kevin Timson American Warrior, Inc.