

# KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

(See Instructions on Reverse Side) 15-057-20220-00-01

- Open Flow
- Deliverability

Test Date:  
1/29 to 1/30/14

API No. 15  
~~057-20,220-00-01~~

Company American Warrior, Inc			Lease Boger D		Well Number 1
County Ford	Location SESESW	Section 18	TWP 27S	RNG (E/W) 21W	Acres Attributed
Field Konda SE		Reservoir Miss	Gas Gathering Connection Oneok		
Completion Date 2/28/03		Plug Back Total Depth 5035	Packer Set at none		
Casing Size 4.5	Weight	Internal Diameter	Set at 5114	Perforations 4932	To 5022
Tubing Size 2.375	Weight	Internal Diameter	Set at 5032	Perforations	To
Type Completion (Describe) single		Type Fluid Production SW	Pump Unit or Traveling Plunger? Yes / No yes - pump unit		
Producing Thru (Annulus / Tubing) annulus		% Carbon Dioxide .1649	% Nitrogen 14.7793	Gas Gravity - G <sub>g</sub> .682	
Vertical Depth(H)		Pressure Taps flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in		1/26	20 15	at 10:45 am	(AM) (PM) Taken 1/29
Well on Line: Started		1/29	20 15	at 10:45 am	(AM) (PM) Taken 1/30
					20 15 at 10:45 am (AM) (PM)

**OBSERVED SURFACE DATA**

Duration of Shut-in 72 Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter Prover Pressure psig (Pm)	Pressure Differential in Inches H <sub>2</sub> O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>i</sub> ) or (P <sub>o</sub> )		Tubing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>i</sub> ) or (P <sub>o</sub> )		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						26.6	41.0			72	
Flow	.375	40	5	43		24.3	38.7			24	

**FLOW STREAM ATTRIBUTES**

Plate Coefficient (F <sub>b</sub> ) (F <sub>p</sub> ) Mcfd	Circle one: Meter or Prover Pressure psia	Press Extension $\sqrt{P_m \times h}$	Gravity Factor F <sub>g</sub>	Flowing Temperature Factor F <sub>tt</sub>	Deviation Factor F <sub>pv</sub>	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G <sub>m</sub>
.6860	54.4	16.49	1.211	1.017	-----	14		

**(OPEN FLOW) (DELIVERABILITY) CALCULATIONS**

(P<sub>c</sub>)<sup>2</sup> = 1.681 ; (P<sub>w</sub>)<sup>2</sup> = 1.497 ; P<sub>d</sub> = \_\_\_\_\_ % (P<sub>c</sub> - 14.4) + 14.4 = \_\_\_\_\_ ; (P<sub>a</sub>)<sup>2</sup> = 0.207 ; (P<sub>d</sub>)<sup>2</sup> = \_\_\_\_\_

(P <sub>c</sub> ) <sup>2</sup> - (P <sub>a</sub> ) <sup>2</sup> or (P <sub>c</sub> ) <sup>2</sup> - (P <sub>d</sub> ) <sup>2</sup>	(P <sub>c</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup>	Choose formula 1 or 2: 1. P <sub>c</sub> <sup>2</sup> - P <sub>a</sub> <sup>2</sup> 2. P <sub>c</sub> <sup>2</sup> - P <sub>d</sub> <sup>2</sup> divided by: P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>	LOG of formula 1, or 2, and divide by: $\frac{P_c^2 - P_a^2}{P_c^2 - P_w^2}$	Backpressure Curve Slope = "n" ----- or ----- Assigned Standard Slope	n x LOG [ ]	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)
1.474	.184	8.010	.9036	.850	.7680	5.86	82
				Assigned			

Open Flow **82** Mcfd @ 14.65 psia X .50 = Deliverability **41** Mcfd @ 14.65 psia

The undersigned authority, on behalf of the Company, states that he is duly authorized to make the above report and that he has knowledge of the facts stated therein, and that said report is true and correct. Executed this the 2nd day of February, 20 15.

Received  
KANSAS CORPORATION COMMISSION

*[Signature]*  
For Company

Witness (if any)

**FEB 09 2015**

For Commission

CONSERVATION DIVISION  
WICHITA, KS

Checked by