

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

FORM G-2  
(Rev 8/88)

TYPE TEST:

- Open Flow  
 Deliverability

TEST DATE: 11-9-15 API No. 15-175-22219-00-00

Company American Warrior		Lease Handy		Well Number 8-29	
County Seward	Location SW NW NE SW	Section 29-34S-31W	TWP RNG (E/W)	Acres Attributed	
Field Morrow		Reservoir DCP Midstream			
Completion Date 9/10/14		Plug Back Total Depth 6408		Packer Set at N/A	
Casing Size 5.500	Weight 15.500	Internal Diameter 4.950	Set at 6496	Perforations 5830	To 5834
Tubing Size 2.375	Weight 4.700	Internal Diameter 1.995	Set at	Perforations	To
Type Completion (Describe) Gas		Type Fluid Production		Pump Unit or Traveling Plunger?	
Producing Thru (Annulus/Tubing) Tubing		% Carbon Dioxide .208		% Nitrogen 3.018	
Gas Gravity- Gg .671		Vertical Depth (ft) 5832		Meter Run Size 2.067	
Pressure Buildup: Shut in		11-6-15 @ 9:30 A.M		TAKEN 11-9-15 @ 9:30 A.M	
Well on Line: Started		11-9-15 @ 9:30 A.M		TAKEN 11-10-15 @ 9:30 A.	

**OBSERVED SURFACE DATA**

Static/ Dynamic Property	Orifice Size in.	Meter Pressure psig	Pressure Diff. In. H <sub>2</sub> O	Flowing Temp. t.	WellHead Temp. t.	Casing WellHead Press. (P <sub>w</sub> ) (P <sub>c</sub> ) (P <sub>o</sub> )		Tubing WellHead Press. (P <sub>w</sub> ) (P <sub>c</sub> ) (P <sub>o</sub> )		Duration (Hours)	Liquid Prod. Barrels
						psig	psia	psig	psia		
Shut-in						289	303	289	303	72.0	
Flow	.750	60.7	47.20	60	60	246	260	194	208	24.0	

**FLOW STREAM ATTRIBUTES**

COEFFICIENT (F <sub>D</sub> ) Mcfd	(METER) PRESSURE psia	EXTENSION $\sqrt{P_m \times H_w}$	GRAVITY FACTOR F <sub>g</sub>	FLOWING TEMP FACTOR F <sub>t</sub>	DEVIATION FACTOR F <sub>pv</sub>	RATE OF FLOW R Mcfd	GOR	G <sub>m</sub>
2.740	75.1	59.54	1.2208	1.0000	1.0070	200		.671

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

(P<sub>c</sub>)<sup>2</sup> = 92.1      (P<sub>w</sub>)<sup>2</sup> = 67.9      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>w</sub> ) <sup>2</sup>	(P <sub>c</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup>	$\frac{(P_c)^2 - (P_w)^2}{(P_c)^2 - (P_d)^2}$ or $\frac{(P_c)^2 - (P_w)^2}{(P_c)^2 - (P_d)^2}$	LOG	Backpressure Curve Slope "n" ----- Assigned Standard Slope	n x LOG	Antilog	Open Flow Deliverability = R x Antilog Mcfd
91.84	24.14	3.805	.5803	.578	.3352	2.164	433

OPEN FLOW      433      Mcfd @ 14.65 psia      DELIVERABILITY      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 herein and that said report is true and correct. Executed this the 10<sup>th</sup> day of November, 2015

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Witness (if any)  
\_\_\_\_\_  
For Commission

**KCC WICHITA**  
NOV 16 2015  
RECEIVED

American Warrior  
For Company  
Hosco T+m  
Checked by