

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

FORM G-2
(Rev. 8/98)

TYPE TEST:

- Open Flow
 Deliverability

TEST DATE: 10-31-16 API No. 15-175-22221-00-00

Company American Warrior		Lease Handy		Well Number 10-29	
County Seward	Location NW SW SE SW	Section 29	TWP 34S	RNG (E/W) 31W	Acres Attributed
Field Morrow	Reservoir Morrow	Gas Gathering Connection DCP Midstream			
Completion Date 8/14/14	Plug Back Total Depth 6464	Packer Set at N/A			
Casing Size 5.500	Weight 15.500	Internal Diameter 4.950	Set at 6494	Perforations 5850	To 5860
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 .165	% Nitrogen 2.920	Gas Gravity- Gg .671		
Vertical Depth (ft) 5855	Pressure Taps Flange	Meter Run Size 2.067			
Pressure Buildup: Shut in	10-28-16 @ 11:00 A	TAKEN	10-31-16 @ 11:00 A		
Well on Line: Started	10-31-16 @ 11:00 A	TAKEN	11-01-16 @ 11:00 A		

OBSERVED SURFACE DATA

Static/ Dynamic Property	Orifice Size in.	Meter Pressure psig	Pressure Diff. In. H ₂ O	Flowing Temp. t.	Wellhead Temp. t.	Casing Wellhead Press. (P _w) (P _t) (P _c)		Tubing Wellhead Press. (P _w) (P _t) (P _c)		Duration (Hours)	Liquid Prod. Barrels
						psig	psia	psig	psia		
Shut-in						478	492	477	491	72.0	
Flow	.750	27.3	11.10	60	60	426	440	425	440	24.0	

FLOW STREAM ATTRIBUTES

COEFFICIENT (F _b) Mcf/d	(METER) PRESSURE psia	EXTENSION $\sqrt{P_m \times H_w}$	GRAVITY FACTOR F _g	FLOWING TEMP FACTOR F _t	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcf/d	GOR	G _m
2.779	41.7	21.51	1.2208	1.0000	1.0039	73		.671

(OPEN FLOW)(DELIVERABILITY) CALCULATIONS

(P_c)² = 242.8 (P_w)² = 194.1 Pd = % (P_c - 14.4) + 14.4 = (P_a)² = 0.207
(P_d)² =

$(P_c)^2 - (P_a)^2$	$(P_c)^2 - (P_w)^2$	$\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_w)^2}$ or $\frac{(P_c)^2 - (P_d)^2}{(P_c)^2 - (P_w)^2}$	LOG	Backpressure Curve Slope "n" ----- or ----- Assigned Standard Slope	n x LOG	Antilog	Open Flow Deliverability = R x Antilog Mcf/d
242.55	48.62	4.988	.6979	1.014	.7077	5.102	373

OPEN FLOW 373 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 15th day of November, 20 16

Witness (if any) _____
For Commission _____
KCC WICHITA American Warrior
NOV 29 2016 For Company
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