

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

Type Test:

(See Instructions on Reverse Side)

- Open Flow
- Deliverability

Test Date:  
9/12 to 9/13/13

API No. 15  
095-22,140-00-00

Company Wildcat Oil & Gas, LLC			Lease Hageman		Well Number 1
County Kingman	Location W/2SWSW	Section 19	TWP 29S	RNG (E/W) 08W	Acres Attributed
Field Willowdale SE		Reservoir Miss	Gas Gathering Connection Lumen-WWGG		
Completion Date 5/13/08		Plug Back Total Depth		Packer Set at none	
Casing Size 4.5	Weight	Internal Diameter	Set at 4331	Perforations 4223	To 4228
Tubing Size 2.375	Weight	Internal Diameter	Set at 4230	Perforations	To
Type Completion (Describe) single		Type Fluid Production Oil/SW	Pump Unit or Traveling Plunger? Yes-pump unit		Yes / No
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide .0749	% Nitrogen 3.4401	Gas Gravity - G <sub>g</sub> .674	
Vertical Depth(H)		Pressure Taps flange			(Meter Run) (Prover) Size 2"
Pressure Buildup: Shut in		9/09	20 13	at 10:15 am	(AM) (PM) Taken 9/12
Well on Line: Started		9/12	20 13	at 10:15 am	(AM) (PM) Taken 9/13

**OBSERVED SURFACE DATA**

Duration of Shut-in 72 Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter or Prover Pressure psig (P <sub>m</sub> )	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>t</sub> ) or (P <sub>c</sub> )		Tubing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>t</sub> ) or (P <sub>c</sub> )		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						173.0	187.4			72	
Flow	.375	64	.8	68		64.6	79.0			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	78.4	7.92	1.218	.9924	-----	6		.674

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

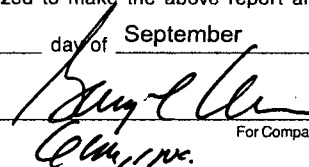
(P<sub>c</sub>)<sup>2</sup> = 35.118 ; (P<sub>w</sub>)<sup>2</sup> = 6.241 ; P<sub>d</sub> = \_\_\_\_\_ % (P<sub>c</sub> - 14.4) + 14.4 = \_\_\_\_\_ ; (P<sub>a</sub>)<sup>2</sup> = 0.207 ; (P<sub>d</sub>)<sup>2</sup> = \_\_\_\_\_

(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" ----- Assigned Standard Slope	n x LOG [ ]	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)
34.911	28.877	1.209	.0824	.850	.0700	1.17	7
				assigned			

Open Flow 7 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 therein, and that said report is true and correct. Executed this the 23rd day of September, 20 13.

Witness (if any)

  
For Company

**KCC WICHITA**

**SEP 25 2013**

**RECEIVED**