

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow
- Deliverability

Test Date:
6/10 to 6/11/14

API No. 15
119-21,258-00-00

Company Oil Producers, Inc of Kansas		Lease Adams		Well Number 1A-5	
County Meade	Location NESWSW	Section 5	TWP 35S	RNG (E/W) 30W	Acres Attributed
Field Chester		Reservoir Chester		Gas Gathering Connection Regency	
Completion Date 7/29/10		Plug Back Total Depth 6173		Packer Set at none	
Casing Size 4.5	Weight	Internal Diameter	Set at 6199	Perforations 5748	To 5773
Tubing Size 2.375	Weight	Internal Diameter	Set at 5716	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 .1877		% Nitrogen 1.7647	
Vertical Depth(H)		Pressure Taps flange		Gas Gravity - G _g .707	
Pressure Buildup: Shut in 6/07		20 14 at 10:30 am (AM) (PM)		Taken 6/10	
Well on Line: Started 6/10		20 14 at 10:30 am (AM) (PM)		Taken 6/11	
20 14 at 10:30 am (AM) (PM)		20 14 at 10:30 am (AM) (PM)		20 14 at 10:30 am (AM) (PM)	

OBSERVED SURFACE DATA

Duration of Shut-in 72 Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter Prover Pressure psig (P _m)	Pressure Differential in Inches H ₂ O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P _w) or (P _i) or (P _e)		Tubing Wellhead Pressure (P _w) or (P _i) or (P _e)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						226	240.4			72	
Flow	.625	78	2.8	83		195	209.4			24	

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _p) (F _p) Mcfd	Circle one: Meter or Prover Pressure psia	Press Extension $\sqrt{P_m \times h}$	Gravity Factor F _g	Flowing Temperature Factor F _t	Deviation Factor F _{pv}	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _m
1.897	92.4	16.08	1.189	.9786	-----	35		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 57.792 ; (P_w)² = 43.848 ; P_d = _____ % (P_c - 14.4) + 14.4 = _____ ; (P_g)² = 0.207 ; (P_d)² = _____

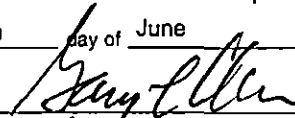
(P _c) ² - (P _d) ² or (P _e) ² - (P _d) ²	(P _e) ² - (P _w) ²	Choose formula 1 or 2: 1. P _c ² - P _d ² 2. P _e ² - P _d ² divided by: P _c ² - P _w ²	LOG of formula 1. or 2. and divide by: $\frac{P_c^2 - P_w^2}{P_c^2 - P_d^2}$	Backpressure Curve Slope = "n" or Assigned Standard Slope	n x LOG	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)
57.585	13.944	4.129	.6158	.850	.5234	3.34	117
				assigned			

Open Flow 117 Mcfd @ 14.65 psia X .50 = Deliverability 58.5 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 11th day of June, 20 14.

Witness (if any)

For Commission



For Company
COLUMBIA INC.

Checked by

KCC WICHITA
JUN 19 2014
RECEIVED