

KANSAS CORPORATION COMMISSION

ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

OCT 28 2014

CONSERVATION DIVISION
 WICHITA, KS

Type Test:

- Open Flow
 Deliverability

Test Date:
 10/17 to 10/23/14

API No. 15
 069-20320-00-00

Company Falcon Exploration		Lease Fry		Well Number 1-23	
County Gray	Location NESWENW	Section 23	TWP 28S	RNG (E/W) 30W	Acres Attributed
Field Renegade SE		Reservoir Lansing	Gas Gathering Connection Oneok		
Completion Date 12/10/10		Plug Back Total Depth 4411	Packer Set at none		
Casing Size 5.5	Weight	Internal Diameter	Set at 4425	Perforations 4186	To 4271
Tubing Size 2.375	Weight	Internal Diameter	Set at 4156	Perforations	To
Type Completion (Describe) single		Type Fluid Production SW	Pump Unit or Travelling Plunger? Yes / No NO		
Producing Thru (Annulus / Tubing) tubing		% Carbon Dioxide .0000	% Nitrogen 35.6901	Gas Gravity - G _g .820	
Vertical Depth(H)		Pressure Taps flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in		10/20	20 14	at 10:45 am	(AM) (PM) Taken 10/23
					20 14 at 12:15 pm (AM) (PM)
Well on Line: Started		10/19	20 14	at 10:45 am	(AM) (PM) Taken 10/20
					20 14 at 10:45 am (AM) (PM)

OBSERVED SURFACE DATA

Duration of Shut-in 73.5 Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter Prover Pressure psig (Pm)	Pressure Differential in Inches H ₂ O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P _w) or (P _i) or (P _c)		Tubing Wellhead Pressure (P _w) or (P _i) or (P _c)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-in						793	807.4			73.5	
Flow	1.000	92	22.5	69		599	613.4			24	

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _b) (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 _{tt}	Deviation Factor F _{pv}	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _m
5.073	106.4	48.92	1.104	.9915	-----	271		.820

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 651.894 : (P_w)² = 376.259 : P_d = _____ % (P_c - 14.4) + 14.4 = _____ : (P_a)² = 0.207
 (P_d)² = _____

(P _c) ² - (P _a) ² or (P _c) ² - (P _d) ²	(P _c) ² - (P _w) ²	Choose formula 1 or 2: 1. P _c ² - P _a ² 2. P _c ² - P _d ² divided by: P _c ² - P _w ²	LOG of formula 1, or 2, and divide by: 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)
651.687	275.635	2.364	.3736	.649	.2424	1.75	474

Open Flow 474 Mcfd @ 14.65 psia X .50 = Deliverability 237 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 October, 20 14.

Witness (If any)

For Commission

For Company

Checked by