

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
007-22,245-00-00

Company Rains & Williamson Oil Co., Inc.			Lease Lies		Well Number A-1
County Barber	Location CSWSE	Section 14	TWP 32S	RNG (E/W) 10W	Acres Attributed
Field McGuire-Goemann		Reservoir Miss. Chert		Gas Gathering Connection Lumen-VVGG	
Completion Date 2/05/88		Plug Back Total Depth 4418		Packer Set at none	
Casing Size 5.5	Weight	Internal Diameter	Set at 4446	Perforations 4370	To 4383
Tubing Size 2.875	Weight	Internal Diameter	Set at 4376	Perforations	To
Type Completion (Describe) single		Type Fluid Production Oil/SW		Pump Unit or Traveling Plunger? Yes / No Yes-pump unit	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide .1822		% Nitrogen .5201	Gas Gravity - G _g .740
Vertical Depth(H)		Pressure Taps flange			(Meter Run) (Prover) Size 3"
Pressure Buildup: Shut in 9/09 20 13 at 12:00 pm (AM) (PM) Taken 9/12 20 13 at 12:00 pm (AM) (PM)					
Well on Line: Started 9/12 20 13 at 12:00 pm (AM) (PM) Taken 9/13 20 13 at 12:00 pm (AM) (PM)					

OBSERVED SURFACE DATA

Duration of Shut-in 72 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 _t) or (P _c)		Tubing Wellhead Pressure (P _w) or (P _t) or (P _c)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						138.6	153.0			72	
Flow	.500	49	1.0	67		52.7	67.1			24	

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _v) (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
1.214	63.4	7.96	1.162	.9933	-----	11		.740

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 23.409 : (P_w)² = 4.502 : P_d = _____ % (P_c - 14.4) + 14.4 = _____ : (P_a)² = 0.207
(P_d)² = _____

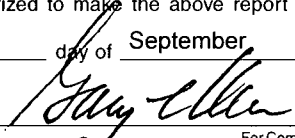
(P _c) ² - (P _a) ² or (P _c) ² - (P _d) ²	(P _c) ² - (P _w) ²	Choose formula 1 or 2: 1. P _c ² - P _a ² 2. P _c ² - P _d ² divided by: P _c ² - P _w ²	LOG of formula 1, or 2, and divide by: $\frac{P_c^2 - P_a^2}{P_c^2 - P_w^2}$	Backpressure Curve Slope = "n" ----- Assigned Standard Slope	n x LOG	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)
23.202	18.907	1.227	.0888	.850	.0755	1.19	13

Open Flow 13 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, 2013

Witness (if any)

For Commission



For Company
Checked by

KCC WICHITA

SEP 25 2013

RECEIVED