

# KANSAS CORPORATION COMMISSION

## ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

(See Instructions on Reverse Side)

Type Test:

- Open Flow  
 Deliverability

Test Date:  
10/20/2015

API No. 15  
1518930094 - 0001

Company Anadarko E&P Onshore, LLC		Lease James		Well Number A-1	
County Stevens	Location 1250-FSU/1250-FEL	Section 15	TWP 32S	RNG (E/W) 38W	Acres Attributed
Field Panoma	Reservoir PCG / Chase	Gas Gathering Connection APC			
Completion Date 9/15/2015	Plug Back Total Depth 2986'	Packer Set at NA			
Casing Size 5.5	Weight 14.0	Internal Diameter 5.012	Set at 3059'	Perforations 2570'	To 2992'
Tubing Size 2.375	Weight	Internal Diameter	Set at 2924'	Perforations NA	To NA
Type Completion (Describe) Commingled	Type Fluid Production Water	Pump Unit or Traveling Plunger? Yes / No Pump Unit Yes			
Producing Thru (Annulus / Tubing) CSG	% Carbon Dioxide .1918	% Nitrogen 16.8258	Gas Gravity - G <sub>g</sub> .7309		
Vertical Depth(H) 2781'	Pressure Taps Flange	(Meter Run) (Prover) Size 2.067			
Pressure Buildup: Shut in	10/16	20 15	at 9:30 am	(AM) (RM) Taken	10/19 20 15 at 9:30 AM (AM) (PM)
Well on Line: Started	10/19	20 15	at 9:30 AM	(AM) (PM) Taken	10/20 20 15 at 9:30 AM (AM) (PM)

### OBSERVED SURFACE DATA

Duration of Shut-in \_\_\_\_\_ Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter 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>i</sub> ) or (P <sub>c</sub> )		Tubing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>i</sub> ) or (P <sub>c</sub> )		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						.22	14.62	0	0	72	
Flow	1.0	-1.9	5.14	62	62	-1.9	12.5	0	0	24	0

### 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>
5.073	12.5	8.016	1.170	.998	1.000	47	0	0.000

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P<sub>c</sub>)<sup>2</sup> = 0.214 ; (P<sub>w</sub>)<sup>2</sup> = 0.156 ; P<sub>d</sub> = \_\_\_\_\_ % (P<sub>c</sub> - 14.4) + 14.4 = \_\_\_\_\_ ; (P<sub>a</sub>)<sup>2</sup> = 0.207 ; (P<sub>g</sub>)<sup>2</sup> = \_\_\_\_\_

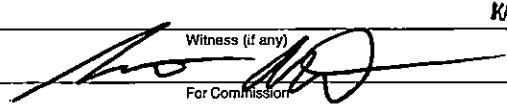
(P <sub>c</sub> ) <sup>2</sup> - (P <sub>a</sub> ) <sup>2</sup> or (P <sub>c</sub> ) <sup>2</sup> - (P <sub>g</sub> ) <sup>2</sup>	(P <sub>c</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup>	Choose formula 1 or 2: 1. P <sub>c</sub> <sup>2</sup> - P <sub>a</sub> <sup>2</sup> 2. P <sub>c</sub> <sup>2</sup> - P <sub>g</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: P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>	Backpressure Curve Slope = "n" ----- or ----- Assigned Standard Slope	n x LOG [ ]	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)
0.007	0.058	.121	-0.917	0.850	-0.779	.166	8

Open Flow 8 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 23 day of October, 20 15.

Received  
KANSAS CORPORATION COMMISSION

Witness (if any) \_\_\_\_\_ For Company \_\_\_\_\_

For Commission:  \_\_\_\_\_  
Checked by \_\_\_\_\_

JAN 19 2016  
CONSERVATION DIVISION  
WICHITA, KS

I declare under penalty of perjury under the laws of the state of Kansas that I am authorized to request exempt status under Rule K.A.R. 82-3-304 on behalf of the operator Anadarko E&P Onshore LLC and that the foregoing pressure information and statements contained on this application form are true and correct to the best of my knowledge and belief based upon available production summaries and lease records of equipment installation and/or upon type of completion or upon use being made of the gas well herein named.

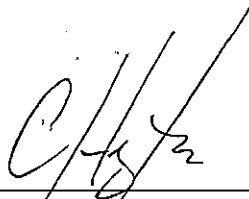
I hereby request a one-year exemption from open flow testing for the James A-1 gas well on the grounds that said well:

(Check one)

- is a coalbed methane producer
- is cycled on plunger lift due to water
- is a source of natural gas for injection into an oil reservoir undergoing ER
- is on vacuum at the present time; KCC approval Docket No. \_\_\_\_\_
- is not capable of producing at a daily rate in excess of 250 mcf/D

I further agree to supply to the best of my ability any and all supporting documents deemed by Commission staff as necessary to corroborate this claim for exemption from testing.

Date: 10/23/2015

Signature: 

Title: Production Engineer

**Instructions:** If a gas well meets one of the eligibility criteria set out in KCC regulation K.A.R. 82-3-304, the operator may complete the statement provided above in order to claim exempt status for the gas well.

At some point during the current calendar year, wellhead shut-in pressure shall have been measured after a minimum of 24 hours shut-in/buildup time and shall be reported on the front side of this form under **OBSERVED SURFACE DATA**. Shut-in pressure shall thereafter be reported yearly in the same manner for so long as the gas well continues to meet the eligibility criterion or until the claim of eligibility for exemption **IS** denied.

The G-2 form conveying the newest shut-in pressure reading shall be filed with the Wichita office no later than December 31 of the year for which it's intended to acquire exempt status for the subject well. The form must be signed and dated on the front side as though it was a verified report of annual test results.