

# KANSAS CORPORATION COMMISSION

## ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow  
 Deliverability

Test Date:  
2/26/14

API No. 15  
007-22,849-00-00

Company Pollok Energy, LLC			Lease Benson		Well Number 1-33
County Barber	Location CSW	Section 33	TWP 34S	RNG (E/W) 14W	Acres Attributed
Field Aetna Gas Area		Reservoir Miss	Gas Gathering Connection Atlas		
Completion Date 2/28/05		Plug Back Total Depth		Packer Set at none	
Casing Size 4.5	Weight	Internal Diameter	Set at 5015	Perforations	To
Tubing Size 2.375	Weight	Internal Diameter	Set at	Perforations	To
Type Completion (Describe) single		Type Fluid Production SW		Pump Unit or Traveling Plunger? Yes / No Yes - Traveling Plunger	
Producing Thru (Annulus / Tubing) Tubing		% Carbon Dioxide .077		% Nitrogen 1.256	Gas Gravity - G <sub>g</sub> .631
Vertical Depth(H)		Pressure Taps		(Meter Run) (Prover) Size	

Pressure Buildup: Shut in \_\_\_\_\_ 20 \_\_\_\_\_ at \_\_\_\_\_ (AM) (PM) Taken \_\_\_\_\_ 20 \_\_\_\_\_ at \_\_\_\_\_ (AM) (PM)  
Well on Line: Started \_\_\_\_\_ 20 \_\_\_\_\_ at \_\_\_\_\_ (AM) (PM) Taken \_\_\_\_\_ 20 \_\_\_\_\_ at \_\_\_\_\_ (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>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											
Flow											

### FLOW STREAM ATTRIBUTES

Plate Coefficient (F <sub>s</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>

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

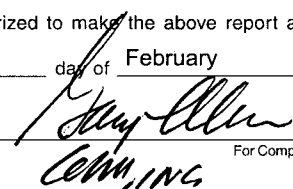
(P<sub>c</sub>)<sup>2</sup> = \_\_\_\_\_ : (P<sub>w</sub>)<sup>2</sup> = \_\_\_\_\_ : P<sub>d</sub> = \_\_\_\_\_ % (P<sub>c</sub> - 14.4) + 14.4 = \_\_\_\_\_ : (P<sub>a</sub>)<sup>2</sup> = 0.207  
(P<sub>d</sub>)<sup>2</sup> = \_\_\_\_\_

(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: $\left[ \frac{P_c^2 - P_w^2}{P_c^2 - P_a^2} \right]$	Backpressure Curve Slope = "n" ----- or ----- Assigned Standard Slope	n x LOG $\left[ \frac{P_c^2 - P_w^2}{P_c^2 - P_a^2} \right]$	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)

Open Flow \_\_\_\_\_ 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 26th day of February, 20 14.

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

  
\_\_\_\_\_  
For Company  
\_\_\_\_\_  
Checked by

**KCC WICHITA**

**MAR 06 2014**

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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 Pollok Energy, 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 Benson 1-33 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: 2/26/14

*No 2013 SIP'S  
SUBMITTED - WELL  
HAS PLUNGER LIFT.*

Signature: Mary Beth Brock  
Title: MANAGER

When the eligibility criteria set out in KCC regulation K.A.R. 82-3-304, the operator may be eligible for exempt status as described above in order to claim exempt status for the gas well.

For each calendar year, wellhead shut-in pressure shall have been measured after a specified 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.

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# Meter Analysis

Atlas Pipeline Company

January, 2014

**Avard System**

Meter: **95242185**      Name: **Benson 1-33**

	<u>Mol %</u>	<u>Liquid Content</u>		
Carbon Dioxide	0.077	0.0131	Pressure Base	14.730
Nitrogen	1.256	0.1382	Temperature Base	60.00
Methane	90.709	15.3740		
Ethane	4.466	1.1939		
Propane	1.852	0.5101	Relative Density	0.6314
Iso-Butane	0.248	0.0810	Dry Heating Value	1111.16
N-Butane	0.629	0.1983	As Del Heating Value	1108.54
Iso-Pentane	0.161	0.0587	Sat Heating Value	1091.82
N-Pentane	0.224	0.0811		
Hexane	0.379	0.1654		
Heptane			C2+ Liquid Content	2.2886
Octane			C5+ Liquid Content	0.3052
Nonane			C6+ Liquid Content	0.1654
Decane			26# Gasoline	0.4800
Oxygen			H2S ppm	0.0
Hydrogen				
Helium				
Argon				
Water Vapor				
Hydrogen Sulfide				
<b>Total</b>		<b>100.000</b>	<b>17.8138</b>	

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