

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow
 Deliverability

(See Instructions on Reverse Side)

Test Date:
2/26/14

API No. 15
007-22,816-00-00

Company Pollok Energy, LLC			Lease Benson		Well Number 3-4
County Barber	Location NWSENE	Section 4	TWP 35S	RNG (E/W) 14W	Acres Attributed
Field Aetna Gas Area		Reservoir Miss	Gas Gathering Connection Atlas		
Completion Date 6/15/04		Plug Back Total Depth		Packer Set at none	
Casing Size 4.5	Weight	Internal Diameter	Set at 5009	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 .058	% Nitrogen 2.123	Gas Gravity - G _g .645	
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 _m)	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											
Flow											

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 _t	Deviation Factor F _{pv}	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _m

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_a)² = 0.207

(P_d)² = _____

(P_c)² = _____ : (P_w)² = _____ : P_d = _____ % (P_c - 14.4) + 14.4 = _____

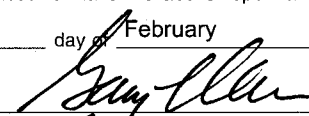
(P _c) ² - (P _a) ² or (P _c) ² - (P _d) ²	(P _c) ² - (P _w) ²	Choose formula 1 or 2: 1. P _c ² - P _a ² 2. P _c ² - P _d ² divided by: P _c ² - P _w ²	LOG of formula 1. or 2. and divide by: $\left[\frac{P_c^2 - P_w^2}{P_c^2 - P_a^2} \right]$	Backpressure Curve Slope = "n" or Assigned Standard Slope	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
COWI, INC.

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 3-4 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

...the eligibility criteria set out in KCC regulation K.A.R. 82-3-304, the operator may ...ed above in order to claim exempt status for the gas well.
...rent calendar year, wellhead shut-in pressure shall have been measured after a ...uildup 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: **95242069** Name: **Benson 3-4**

	<u>Mol %</u>	<u>Liquid Content</u>		
Carbon Dioxide	0.058	0.0098	Pressure Base	14.730
Nitrogen	2.123	0.2335	Temperature Base	60.00
Methane	88.345	14.9733		
Ethane	5.510	1.4733		
Propane	2.268	0.6247	Relative Density	0.6449
Iso-Butane	0.246	0.0806	Dry Heating Value	1118.46
N-Butane	0.678	0.2138	As Del Heating Value	1115.27
Iso-Pentane	0.155	0.0565	Sat Heating Value	1098.99
N-Pentane	0.219	0.0794		
Hexane	0.397	0.1733		
Heptane			C2+ Liquid Content	2.7017
Octane			C5+ Liquid Content	0.3092
Nonane			C6+ Liquid Content	0.1733
Decane			26# Gasoline	0.4886
Oxygen			H2S ppm	0.0
Hydrogen				
Helium				
Argon				
Water Vapor				
Hydrogen Sulfide				

Total	100.000	17.9183
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