

# KANSAS CORPORATION COMMISSION

## ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow  **SI**  
 Deliverability

(See Instructions on Reverse Side)

Test Date:  
8/3/2009

API No. 15  
023-20436-00-00

Company Rosewood Resources		Lease Bucholtz		Well Number 1-14	
County Cheyenne	Location SWNW	Section 14	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field Cheyenne		Reservoir Niobrara	Gas Gathering Connection Branch Systems Inc.		
Completion Date 12-21-2002		Plug Back Total Depth 1504'	Packer Set at		
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.052	Set at 1508'	Perforations 1352'	To 1390'
Tubing Size none	Weight	Internal Diameter	Set at	Perforations	To
Type Completion (Describe) Single (Conventional)		Type Fluid Production Dry Gas	Pump Unit or Traveling Plunger? <input checked="" type="checkbox"/> Yes / No Pumping Unit		
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide	% Nitrogen	Gas Gravity - G <sub>g</sub> .6	
Vertical Depth(H) 1390'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 8-2 20 09 at 10:50 (AM) (PM)		Taken 8-3 20 09 at 11:00 (AM) (PM)			
Well on Line: Started 8-3 20 09 at 11:00 (AM) (PM)		Taken 8-4 20 09 at 11:50 (AM) (PM)			

### OBSERVED SURFACE DATA

Duration of Shut-in 24 Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter Prover Pressure psig (Pm)	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						40	54.4				
Flow						120	134.4			24	0

### FLOW STREAM ATTRIBUTES

Plate Coefficient (F <sub>0</sub> ) (F <sub>1</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>t</sub>	Deviation Factor F <sub>pv</sub>	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G <sub>m</sub>
						26		

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

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

(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 19 day of November 20 09.

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

*Tom W. [Signature]*  
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For Company

Checked by

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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 Rosewood Resources, Inc.

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.

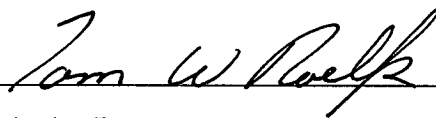
I hereby request a one-year exemption from open flow testing for the Bucholtz 1-14  
gas well on the grounds that said well:

(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: 11/19/09

Signature:   
Title: Production Foreman

**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.

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CONSERVATION DIVISION  
WICHITA, KS

W342  
 Bucholtz 01-14  
 St. Francis  
 St. Francis  
 Pumping Unit  
 August-09  
 FloBoss

DATE	Tubing Casing		STATIC MCF	SPM	CYCLE DOWN	HRS	Water BBLs	REMARKS (Maximum length 110 characters)
	PSI	PSI						
8/1/2009			58	19	6	24	0	34
8/2/2009			58	19	6	24	0	33
8/3/2009		40	40	20	0	24	0	32 shut in for test
8/4/2009		120	58	6	6	24	0	0 open
8/5/2009			58	22	6	24	0	0 started pump
8/6/2009			44	27	6	24	0	34
8/7/2009			46	28	6	24	0	33
8/8/2009			45	27	6	24	0	32
8/9/2009			44	27	6	24	0	33
8/10/2009			44	27	6	24	0	34
8/11/2009			42	26	6	24	0	33
8/12/2009			39	26	6	24	0	32
8/13/2009			40	26	6	24	0	33
8/14/2009			42	26	6	24	0	34
8/15/2009			42	26	6	24	0	33
8/16/2009			58	26	0	0	0	0 pu off
8/17/2009			117	19	0	0	0	0
8/18/2009			118	0	0	0	0	0
8/19/2009			118	0	0	0	0	0
8/20/2009			124	2	0	0	0	0
8/21/2009			80	14	0	0	0	0
8/22/2009			26	23	0	0	0	0
8/23/2009			55	20	0	0	0	0
8/24/2009			62	22	0	0	0	0
8/25/2009			77	20	6	24	4	0 started pump
8/26/2009			43	33	6	24	0	34
8/27/2009			43	23	6	24	0	33
8/28/2009			43	24	6	24	0	34
8/29/2009			43	24	6	24	0	33
8/30/2009			58	24	6	24	3	32
8/31/2009			44	26	6	24	0	33

Total

652

629

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 WICHITA, KS

W342  
 Bucholtz 01-14  
 St. Francis  
 St. Francis  
 Pumping Unit  
 September-09  
 FloBoss

DATE	Tubing PSI	Casing PSI	STATIC	MCF	SPM	CYCLE	HRS DOWN	Water BBLs
9/1/2009			44	26			0	
9/2/2009			46	26			0	
9/3/2009			45	26			0	
9/4/2009			46	24			6	
9/5/2009			45	25			0	
9/6/2009			44	25			0	
9/7/2009			45	25			0	
9/8/2009			44	25			0	
9/9/2009			48	25			0	
9/10/2009			44	25			0	
9/11/2009			41	23			0	
9/12/2009			40	20			0	
9/13/2009			45	19			1.5	
9/14/2009			52	19			0	
9/15/2009			41	18			0	
9/16/2009			39	18			0	
9/17/2009			38	18			0	
9/18/2009			38	17			0	
9/19/2009			38	16			0	
9/20/2009			39	16			0	
9/21/2009			37	16			0	
9/22/2009			37	16			0	
9/23/2009			33	15			0	
9/24/2009			36	15			0	
9/25/2009			52	15			6	
9/26/2009			91	15			0	
9/27/2009			79	15			0	
9/28/2009			70	14			0	
9/29/2009			44	14			0	
9/30/2009			101	13			8	
10/1/2009							0	
Total				584				0

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