

# KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow  
 Deliverability

**SI**

(See Instructions on Reverse Side)

Test Date:  
8/13/2009

API No. 15  
023-20110 **0000**

Company Rosewood Resources, Inc.		Lease Rueb		Well Number 1-9	
County Cheyenne	Location	Section 9	TWP 3S	RNG (E/W) 42W	Acres Attributed 80
Field St. Francis		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 7-24-1999		Plug Back Total Depth 1673'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.052	Set at 1595'	Perforations 1560'	To 1590'
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	
Vertical Depth(H) 1590'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in <u>8-12</u> 20 <u>09</u> at <u>1:25</u> (AM) <input checked="" type="checkbox"/> (PM) Taken <u>8-13</u> 20 <u>09</u> at <u>1:40</u> (AM) <input checked="" type="checkbox"/> (PM)		Well on Line: Started <u>8-13</u> 20 <u>09</u> at <u>1:40</u> (AM) <input checked="" type="checkbox"/> (PM) Taken <u>8-14</u> 20 <u>09</u> at <u>2:25</u> (AM) <input checked="" type="checkbox"/> (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						50	64.4				
Flow						200	214.4			24	0

### FLOW STREAM ATTRIBUTES

Plate Coefficient (F <sub>b</sub> ) (F <sub>c</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>
						12		

### (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 20 day of November, 20 09.

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

*Tom W. Roelf*  
\_\_\_\_\_  
For Company

\_\_\_\_\_  
Checked by

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NOV 30 2009

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 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.

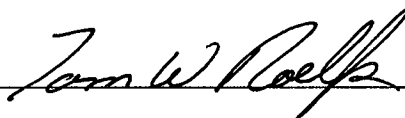
I hereby request a one-year exemption from open flow testing for the Rueb 1-9 gas well on the grounds that said well:

(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: 11/20/09

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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W368  
 Rueb 1-9  
 West St. Francis  
 St. Francis  
 Pumping Unit/Elec  
 August-09

DATE	Casing PSI	STATIC	MCF	SPM	HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
8/1/2009		63	11	0 0		0	0
8/2/2009		63	11	0 0		0	0
8/3/2009		68	12	0 0		0	0
8/4/2009		68	12	0 0		0	0
8/5/2009		73	12	0 0		0	0
8/6/2009		73	12	0 0		0	0
8/7/2009		73	12	0 0		0	0
8/8/2009		68	12	0 0		0	0
8/9/2009		68	12	0 0		0	0
8/10/2009		68	12	0 0		0	0
8/11/2009		68	12	0 0		0	0
8/12/2009		68	12	0 0		0	0
8/13/2009	50	68	12	0 0		0	0 shut in for test
8/14/2009	200	68	3	0 0		0	0 open
8/15/2009		68	12	0 0		0	0
8/16/2009		63	13	0 0		0	0
8/17/2009		63	12	0 0		0	0
8/18/2009		63	12	0 0		0	0
8/19/2009		66	12	0 0		0	0
8/20/2009		68	12	0 0		0	0
8/21/2009		63	12	0 0		0	0
8/22/2009		63	12	0 0		0	0
8/23/2009		63	12	0 0		0	0
8/24/2009		61	12	0 0		0	0
8/25/2009		61	12	0 0		0	0
8/26/2009		61	12	0 0		0	0
8/27/2009		61	12	0 0		0	0
8/28/2009		61	12	0 0		0	0
8/29/2009		58	11	0 0		0	0
8/30/2009		58	11	0 0		0	0
8/31/2009		58	12	0 0		0	0
Total			360			0	

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CONSERVATION DIVISION  
 WICHITA, KS

W368  
 Rueb 1-9  
 West St. Francis  
 St. Francis  
 Pumping Unit/Elec  
 September-09

DATE	Casing PSI	STATIC	MCF	SPM	CYCLE	HRS DOWN	Water BBLs
9/1/2009		58		11			0
9/2/2009		58		11			0
9/3/2009		58		11			0
9/4/2009		58		11			0
9/5/2009		58		12			0
9/6/2009		58		11			0
9/7/2009		58		11			0
9/8/2009		58		12			0
9/9/2009		58		12			0
9/10/2009		58		12			0
9/11/2009		58		12			0
9/12/2009		58		12			0
9/13/2009		58		12			0
9/14/2009		58		12			0
9/15/2009		58		12			0
9/16/2009		58		12			0
9/17/2009		53		12			0
9/18/2009		53		11			0
9/19/2009		53		12			0
9/20/2009		53		12			0
9/21/2009		53		12			0
9/22/2009		53		12			0
9/23/2009		53		12			0
9/24/2009		53		12			0
9/25/2009		55		12			0
9/26/2009		53		12			0
9/27/2009		53		12			0
9/28/2009		53		12			0
9/29/2009		55		12			0
9/30/2009		53		12			0
10/1/2009							0
Total			353				0

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CONSERVATION DIVISION  
 WICHITA, KS

W368  
 Rueb 1-9  
 West St. Francis  
 St. Francis  
 Pumping Unit/Elec  
 October-09  
 Chart Meter

DATE	Casing PSI	STATIC	MCF	SPM	CYCLE	HRS DOWN	Water BBLs
10/1/2009		53		12			0
10/2/2009		128		0			0
10/3/2009		128		0			0
10/4/2009		57		20			0
10/5/2009		57		20			0
10/6/2009		53		12			0
10/7/2009		53		12			0
10/8/2009		53		12			0
10/9/2009		63		12			0
10/10/2009		57		12			0
10/11/2009		57		12			0
10/12/2009		57		12			0
10/13/2009		57		12			0
10/14/2009		53		12			0
10/15/2009		53		12			0
10/16/2009		53		12			0
10/17/2009		50		11			0
10/18/2009		53		12			0
10/19/2009		54		12			0
10/20/2009		53		12			0
10/21/2009		53		12			0
10/22/2009		53		12			0
10/23/2009		53		12			0
10/24/2009		53		12			0
10/25/2009		53		12			0
10/26/2009		53		12			0
10/27/2009		53		12			0
10/28/2009		52		12			0
10/29/2009		53		12			0
10/30/2009		52		12			0
10/31/2009		53		12			0
Total			363				0

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