

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

(See Instructions on Reverse Side)

Type Test:

- Open Flow **RSI**  
 Deliverability

Test Date:  
9/28/2011

API No. 15  
023-20631-00 - 00

Company Rosewood Resources, Inc.		Lease Rudolph		Well Number 33-09	
County Cheyenne	Location NWSE/4	Section 9	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field St. Francis		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 10/21/2005		Plug Back Total Depth 1540'		Packer Set at	
Casing Size 2 7/8"	Weight 6.5#	Internal Diameter 2.441	Set at 1540'	Perforations 1421'	To 1453'
Tubing Size NONE	Weight	Internal Diameter	Set at	Perforations	To
Type Completion (Describe) Single (Conventional)		Type Fluid Production		Pump Unit or Traveling Plunger? Yes <input checked="" type="checkbox"/> (No) <input type="checkbox"/> flowing	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) 1453'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut In 9-27 20 11 at 10:15 (AM) (PM) Taken 9-28 20 11 at 10:30 (AM) (PM)		Well on Line: Started 9-28 20 11 at 10:30 (AM) (PM) Taken 9-29 20 11 at 11:15 (AM) (PM)			

### OBSERVED SURFACE DATA

Duration of Shut-in 24 Hours

Static / Dynamic Property	Orifice Size (Inches)	Circle one: Meter Prover Pressure pslg (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>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)
						pslg	psia	pslg	psia		
Shut-In						138	152.4				
Flow						44	58.4			24	0

### 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>t</sub>	Deviation Factor F <sub>pv</sub>	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G <sub>w</sub>
						59		

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P<sub>o</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>o</sub>)<sup>2</sup> = 0.207  
(P<sub>d</sub>)<sup>2</sup> = \_\_\_\_\_

(P <sub>o</sub> ) <sup>2</sup> - (P <sub>s</sub> ) <sup>2</sup> or (P <sub>o</sub> ) <sup>2</sup> - (P <sub>d</sub> ) <sup>2</sup>	(P <sub>o</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>s</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: $\frac{P_c^2 - P_w^2}{P_c^2 - P_s^2}$	Backpressure Curve Slope = "n" ----- or ----- Assigned Standard Slope	n x LOG [ ]	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 28 day of December, 20 11.

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

Samuel Gelow  
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 Rudolph 33-9 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: 12/28/11

Signature: *Donnell Grewer*  
Title: Production Assistant

**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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Rudolph 33-9

St. Francis

St. Francis

None

September-11

DATE	Casing		MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
	PSI	STATIC			
9/1/2011	44	59	11	0	
9/2/2011	42	59	11	0	
9/3/2011	43	59	11	0	
9/4/2011	44	59	11	0	
9/5/2011	44	59	11	0	
9/6/2011	42	59	11	0	
9/7/2011	42	58	11	0	
9/8/2011	46	60	11	0	
9/9/2011	46	59	11	0	
9/10/2011	44	59	11	0	
9/11/2011	44	59	11	0	
9/12/2011	46	59	11	0	
9/13/2011	46	59	11	0	
9/14/2011	44	58	11	0	
9/15/2011	44	58	11	0	
9/16/2011	42	58	11	0	
9/17/2011	49	58	11	0	
9/18/2011	49	58	11	0	
9/19/2011	42	58	11	0	
9/20/2011	49	59	11	0	
9/21/2011	41	57	11	0	
9/22/2011	41	58	11	0	
9/23/2011	38	58	11	0	
9/24/2011	38	58	11	0	
9/25/2011	37	59	11	0	
9/26/2011	44	58	11	0	
9/27/2011	46	58	11	0	
9/28/2011	138	59	0	24	si for state test
9/29/2011	42	68	16	0	
9/30/2011	46	58	12	0	
10/1/2011	0	0	0	0	

Total

325

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 Rudolph.33-9  
 St. Francis  
 St. Francis  
 None  
 October-11

DATE	Casing		MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
	PSI	STATIC			
10/1/2011	42	59		12	0
10/2/2011	44	60		12	0
10/3/2011	44	60		11	0
10/4/2011	48	59		11	0
10/5/2011	43	59		11	0
10/6/2011	48	58		11	0
10/7/2011	46	60		11	0
10/8/2011	42	59		11	0
10/9/2011	42	59		11	0
10/10/2011	43	59		11	0
10/11/2011	44	65		11	0
10/12/2011	42	58		11	0
10/13/2011	44	57		11	0
10/14/2011	44	57		11	0
10/15/2011	42	57		11	0
10/16/2011	40	57		11	0
10/17/2011	41	57		11	0
10/18/2011	41	57		11	0
10/19/2011	44	61		11	0
10/20/2011	41	58		11	0
10/21/2011	42	57		11	0
10/22/2011	42	57		11	0
10/23/2011	42	57		11	0
10/24/2011	42	57		11	0
10/25/2011	47	57		11	0
10/26/2011	43	57		11	0
10/27/2011	49	56		11	0
10/28/2011	40	56		11	0
10/29/2011	42	56		11	0
10/30/2011	41	56		11	0
10/31/2011	44	56		11	0

Total 343

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Rudolph 33-9

St. Francis

St. Francis

None

November-11

DATE	Casing			HRS DOWN	REMARKS (Maximum length 110 characters)
	PSI	STATIC	MCF		
11/1/2011	42	56	11	0	
11/2/2011	43	56	11	0	
11/3/2011	39	56	11	0	
11/4/2011	40	56	11	0	
11/5/2011	40	56	11	0	
11/6/2011	39	56	11	0	
11/7/2011	47	56	11	0	
11/8/2011	42	59	11	0	
11/9/2011	45	55	11	0	
11/10/2011	42	56	11	0	
11/11/2011	40	56	11	0	
11/12/2011	45	55	11	0	
11/13/2011	42	55	11	0	
11/14/2011	43	55	11	0	
11/15/2011	38	54	11	0	
11/16/2011	42	54	11	0	
11/17/2011	47	54	11	0	
11/18/2011	38	54	11	0	
11/19/2011	42	55	11	0	
11/20/2011	41	54	11	0	
11/21/2011	46	54	11	0	
11/22/2011	47	54	11	0	
11/23/2011	48	55	11	0	
11/24/2011	48	55	11	0	
11/25/2011	47	55	11	0	
11/26/2011	44	55	11	0	
11/27/2011	44	55	11	0	
11/28/2011	41	55	11	0	
11/29/2011	45	55	11	0	
11/30/2011	48	55	11	0	
12/1/2011	0	0	0	0	

Total

330

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