

# KANSAS CORPORATION COMMISSION

## ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow **ASI**  
 Deliverability

(See Instructions on Reverse Side)

Test Date:  
6/27/2012

API No. 15  
023-20631-0000

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"/>	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen Gas Gravity - G <sub>g</sub> .6	
Vertical Depth(H) 1453'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 6-26 20 12 at 10:15 (AM) (PM) Taken 6-27 20 12 at 10:30 (AM) (PM)		Well on Line: Started 6-27 20 12 at 10:30 (AM) (PM) Taken 6-28 20 12 at 11:15 (AM) (PM)			

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### OBSERVED SURFACE DATA

Duration of Shut-in 24 Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter or 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>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)
						psig	psia	psig	psia		
Shut-In						137	151.4				
Flow						62	76.4			24	0

### FLOW STREAM ATTRIBUTES

Plate Coefficient (F <sub>p</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>tt</sub>	Deviation Factor F <sub>pv</sub>	Metered Flow R (Mcf/d)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G <sub>m</sub>
						13		

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

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 December, 20 12.

Witness (if any)

*Janall Grew*  
For Company

For Commission

Checked by

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Form G-2  
(Rev. 7/03)

## KCC WICHITA

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: 12/19/12

Signature:   
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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W441

Rudolph 33-9

St. Francis

St. Francis

None

June-12

DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
6/1/2012	37	51		12	
6/2/2012	36	50		12	
6/3/2012	39	53		12	
6/4/2012	39	52		12	
6/5/2012	39	52		12	
6/6/2012	42	55		12	
6/7/2012	45	58		12	
6/8/2012	43	56		12	
6/9/2012	39	52		12	
6/10/2012	40	53		12	
6/11/2012	38	51		12	
6/12/2012	40	53		12	
6/13/2012	38	51		12	
6/14/2012	39	52		12	
6/15/2012	50	63		12	
6/16/2012	40	53		12	
6/17/2012	41	54		12	
6/18/2012	51	64		12	
6/19/2012	49	62		12	
6/20/2012	55	68		12	
6/21/2012	54	67		12	
6/22/2012	63	76		12	
6/23/2012	60	73		12	
6/24/2012	50	63		12	
6/25/2012	62	75		12	
6/26/2012	59	72		12	cp 64 si for state test
6/27/2012	137	67		0	24' cp 137 opened
6/28/2012	62	75		15	
6/29/2012	61	74		13	
6/30/2012	52	65		14	
7/1/2012					

Total

354

W441

Rudolph 33-9

St. Francis

St. Francis

None

July-12

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DATE	Casing		MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
	PSI	STATIC			
7/1/2012	52	65	13		
7/2/2012	46	59	13	3	
7/3/2012	64	77	13		
7/4/2012	36	49	13		
7/5/2012	36	49	14		
7/6/2012	42	55	13	1	
7/7/2012	39	52	13		
7/8/2012	48	61	13		
7/9/2012	49	62	13		
7/10/2012	46	59	13		
7/11/2012	34	58	13		
7/12/2012	34	58	13		
7/13/2012	29	43	13		
7/14/2012	29	43	13		
7/15/2012	29	43	13		
7/16/2012	56	69	13	1.5	
7/17/2012	44	57	13		
7/18/2012	38	51	12		
7/19/2012	41	54	12	0.5	
7/20/2012	50	63	12		
7/21/2012	49	62	12		
7/22/2012	47	60	13		
7/23/2012	43	56	12	0.5	
7/24/2012	52	65	12		
7/25/2012	63	76	12		
7/26/2012	35	48	13		
7/27/2012	72	85	12	5	
7/28/2012	51	65	13		
7/29/2012	41	55	13		
7/30/2012	41	54	12		
7/31/2012	38	51	12		

Total

394

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W441  
 Rudolph 33-9  
 St. Francis  
 St. Francis  
 None  
 August-12

DATE	Casing			HRS DOWN	REMARKS (Maximum length 110 characters)
	PSI	STATIC	MCF		
8/1/2012	38	51	12		
8/2/2012	46	59	12		
8/3/2012	40	53	12		
8/4/2012	40	53	12		
8/5/2012	42	55	13		
8/6/2012	37	50	12		
8/7/2012	48	61	12		
8/8/2012	49	62	12		
8/9/2012	41	54	12		
8/10/2012	54	69	12		
8/11/2012	41	54	12	1.5	
8/12/2012	39	53	12		
8/13/2012	41	54	12		
8/14/2012	35	48	12		
8/15/2012	36	49	12		
8/16/2012	36	49	12		
8/17/2012	35	48	12		
8/18/2012	39	52	12		
8/19/2012	40	53	12		
8/20/2012	41	54	12		
8/21/2012	39	52	12		
8/22/2012	44	57	12		
8/23/2012	36	49	12		
8/24/2012	41	54	12		
8/25/2012	41	54	12		
8/26/2012	39	52	12		
8/27/2012	39	52	12		
8/28/2012	39	52	12		
8/29/2012	40	53	12		
8/30/2012	46	59	12		
8/31/2012	39	52	12		

Total 373