

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

Type Test:

- Open Flow **BSI**  
 Deliverability

(See Instructions on Reverse Side)

Test Date:  
7/6/2012

API No. 15  
023-20627-0000

Company Rosewood Resources, Inc.		Lease Isernhagen		Well Number 21-26	
County Cheyenne	Location NENW/4	Section 26	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field St. Francis		Reservoir Niobrara	Gas Gathering Connection Branch Systems Inc.		
Completion Date 10/22/2005		Plug Back Total Depth 1513'	Packer Set at		
Casing Size 2 7/8"	Weight 6.5#	Internal Diameter 2.441	Set at 1513'	Perforations 1381'	To 1413'
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? Yes / <input checked="" type="radio"/> No	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide	% Nitrogen	Gas Gravity - G <sub>g</sub> .6	
Vertical Depth(H) 1413'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup:	Shut in 7-5	20 12	at 11:20	(AM) (PM) Taken 7-6	20 12 at 11:30 (AM) (PM)
Well on Line:	Started 7-6	20 12	at 11:30	(AM) (PM) Taken 7-7	20 12 at 1:20 (AM) (PM)

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**OBSERVED SURFACE DATA**

Duration of Shut-in 24 Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter 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>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						186	200.4				
Flow						55	69.4			24	0

**FLOW STREAM ATTRIBUTES**

Plate Coefficient (F <sub>b</sub> ) (F <sub>v</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 (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G <sub>m</sub>
						17		

**(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: $P_c^2 - P_w^2$	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 19 day of December, 20 12.

Witness (if any)

*Samuel Sewer*  
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 Isernhagen 21-26 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 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.

W360  
 Isernhagen 21-26  
 St. Francis  
 St. Francis  
 None  
 July-12

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DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
7/1/2012	62	76		16	
7/2/2012	57	70		16	3
7/3/2012	75	88		15	
7/4/2012	53	66		16	
7/5/2012	52	65		17	cp 159 si for state test
7/6/2012	186	64		0	24 cp 186 opened
7/7/2012	55	68		21	
7/8/2012	61	74		20	
7/9/2012	58	71		18	
7/10/2012	58	71		18	
7/11/2012	55	68		18	
7/12/2012	55	68		18	
7/13/2012	54	67		18	
7/14/2012	54	67		18	
7/15/2012	55	68		18	
7/16/2012	65	78		18	1.5
7/17/2012	54	67		17	
7/18/2012	51	64		18	
7/19/2012	59	72		17	0.5
7/20/2012	59	72		16	
7/21/2012	62	75		16	
7/22/2012	55	68		17	
7/23/2012	54	67		17	0.5
7/24/2012	61	74		16	
7/25/2012	68	81		16	
7/26/2012	54	67		16	
7/27/2012	83	96		15	5
7/28/2012	66	80		15	
7/29/2012	54	67		17	
7/30/2012	52	65		17	
7/31/2012	53	66		18	

Total

513

W360  
 Isernhagen 21-26  
 St. Francis  
 St. Francis  
 None  
 August-12

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DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
8/1/2012	53	66	18		
8/2/2012	56	69	17		
8/3/2012	55	68	17		
8/4/2012	55	68	17		
8/5/2012	56	69	17		
8/6/2012	54	67	17		
8/7/2012	59	72	17		
8/8/2012	58	71	16		
8/9/2012	56	69	16		
8/10/2012	68	81	15		
8/11/2012	55	68	16	1.5	
8/12/2012	53	66	17		
8/13/2012	53	66	17		
8/14/2012	52	65	18		
8/15/2012	66	79	17		
8/16/2012	53	66	17		
8/17/2012	50	63	17		
8/18/2012	60	73	17		
8/19/2012	53	66	17		
8/20/2012	52	65	17		
8/21/2012	52	65	17		
8/22/2012	51	64	17		
8/23/2012	54	67	17		
8/24/2012	59	72	16		
8/25/2012	59	72	16		
8/26/2012	58	71	16		
8/27/2012	58	71	16		
8/28/2012	54	67	17		
8/29/2012	56	69	17		
8/30/2012	55	68	17		
8/31/2012	55	68	17		

Total

520

W360

Isernhagen 21-26

St. Francis

St. Francis

None

September-12

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JAN 03 2013

KCC WICHITA

DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
9/1/2012	56	69		17	
9/2/2012	55	68		17	
9/3/2012	56	69		17	
9/4/2012	54	67		17	1
9/5/2012	72	85		16	
9/6/2012	54	67		16	
9/7/2012	150	163		14	19
9/8/2012	170	183		13	24
9/9/2012	177	190		2	24
9/10/2012	176	189		0	24
9/11/2012	182	195		3	24
9/12/2012	184	197		2	24
9/13/2012	110	123		15	10
9/14/2012	100	113		17	
9/15/2012	94	107		16	
9/16/2012	92	105		15	
9/17/2012	78	91		15	
9/18/2012	58	71		15	
9/19/2012	76	89		15	
9/20/2012	49	62		16	
9/21/2012	51	64		16	
9/22/2012	50	63		17	
9/23/2012	50	63		17	
9/24/2012	55	68		17	
9/25/2012	58	71		15	
9/26/2012	57	70		16	
9/27/2012	67	80		14	
9/28/2012	58	71		15	
9/29/2012	58	71		15	
9/30/2012	58	71		15	
10/1/2012					

Total

415