

# KANSAS CORPORATION COMMISSION

## ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow  Deliverability

(See Instructions on Reverse Side)

Test Date:  
6/22/14

API No. 15  
023-20628-0000

Company Rosewood Resources, Inc.		Lease Isernhagen			Well Number 12-25
County Cheyenne	Location SWNW/4	Section 25	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 1451'		Packer Set at	
Casing Size 2 7/8"	Weight 6.5#	Internal Diameter 2.441	Set at 1451'	Perforations 1341'	To 1373'
Tubing Size NONE	Weight	Internal Diameter	Set at	Perforations	To
Type Completion (Describe) Single (Conventional)		Type Fluid Production Dry Gas		Pump Unit or Travelling 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) 1373'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 6-7 20 14 at 9:20 (AM) (PM) Taken 6-13 20 14 at 9:35 (AM) (PM)					
Well on Line: Started 6-22 20 14 at 9:35 (AM) (PM) Taken 6-23 20 14 at 10:20 (AM) (PM)					

### OBSERVED SURFACE DATA

Duration of Shut-in 360 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>1</sub> ) or (P <sub>c</sub> )		Tubing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>1</sub> ) or (P <sub>c</sub> )		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-in						228	242.4				
Flow						91	105.4			360	0

### FLOW STREAM ATTRIBUTES

Plate Coefficient (F <sub>b</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>h</sub>
						42		

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P<sub>1</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>w</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>w</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" ----- Assigned Standard Slope	n x LOG $\left[ \right]$	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 12 day of December, 20 14.

Received  
KANSAS CORPORATION COMMISSION

*[Signature]*  
For Company

Witness (if any)

FEB 25 2015

For Commission

CONSERVATION DIVISION  
WICHITA, KS

Checked by

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 Isermhagen 12-25 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: 12/12/14

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FEB 25 2015

CONSERVATION DIVISION  
WICHITA, KS

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.

W373

Isernhagen 12-25

St. Francis

St. Francis

None

June-184

DATE	Casing		MCF	HRS		REMARKS (Maximum length 110 characters)
	PSI	STATIC		DOWN		
6/1/2013	91	104		43	0	
6/2/2013	90	104		37	0	
6/3/2013	90	104		41	0	
6/4/2013	92	105		30	0	
6/5/2013	91	104		40	0	
6/6/2013	91	104		44	0	
6/7/2013	171	184		18	9	
6/8/2013	188	201		27	24	
6/9/2013	191	204		0	24	
6/10/2013	196	209		0	24	
6/11/2013	197	210		0	24	
6/12/2013	202	215		0	24	
6/13/2013	228	241		0	24	
6/14/2013	229	242		0	24	
6/15/2013	230	243		0	24	
6/16/2013	230	243		0	24	
6/17/2013	230	243		0	24	
6/18/2013	231	244		0	24	
6/19/2013	225	238		0	24	
6/20/2013	225	238		0	24	
6/21/2013	228	241		0	24	
6/22/2013	228	241		0	24	
6/23/2013	119	132		0	5	
6/24/2013	110	123		0	0	
6/25/2013	102	115		0	0	
6/26/2013	95	108		5	0	
6/27/2013	94	107		18	0	
6/28/2013	92	105		35	0	
6/29/2013	90	103		33	0	
6/30/2013	92	105		41	0	
7/1/2013					0	

Total

412

Received  
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WICHITA, KS

W373

Isernhagen 12-25

St. Francis

St. Francis

None

July-14

DATE	Casing		MCF	HRS		REMARKS (Maximum length 110 characters)
	PSI	STATIC		DOWN		
7/1/2014	92	105		43	0	
7/2/2014	92	105		43	0	
7/3/2014	92	105		43	0	
7/4/2014	92	105		43	0	
7/5/2014	92	105		42	0	
7/6/2014	92	105		42	0	
7/7/2014	92	105		39	0	
7/8/2014	93	106		40	0	
7/9/2014	91	104		42	0	
7/10/2014	92	105		42	0	
7/11/2014	92	105		39	0	
7/12/2014	92	105		41	0	
7/13/2014	93	106		40	0	
7/14/2014	92	105		40	0	
7/15/2014	93	106		39	0	
7/16/2014	93	106		39	0	
7/17/2014	92	105		43	0	
7/18/2014	92	105		43	0	
7/19/2014	92	105		43	0	
7/20/2014	92	105		43	0	
7/21/2014	110	123		41	0	
7/22/2014	176	189		4	22	
7/23/2014	94	107		4	7	
7/24/2014	92	105		24	3	
7/25/2014	95	108		26	4	
7/26/2014	92	105		43	0	
7/27/2014	91	104		43	0	
7/28/2014	91	104		43	0	
7/29/2014	92	105		43	0	
7/30/2014	92	105		42	0	
7/31/2014	91	104		43	0	

Total

1185

Received  
KANSAS CORPORATION COMMISSION

FEB 25 2015

CONSERVATION DIVISION  
WICHITA, KS

W373

Isernhagen 12-25

St. Francis

St. Francis

None

August-14

DATE	Casing		MCF	HRS		REMARKS (Maximum length 110 characters)
	PSI	STATIC		DOWN		
8/1/2014	92	105		42	0	
8/2/2014	92	105		42	0	
8/3/2014	91	104		43	0	
8/4/2014	92	105		43	0	
8/5/2014	91	104		43	0	
8/6/2014	91	104		43	0	
8/7/2014	92	105		42	0	
8/8/2014	92	105		42	0	
8/9/2014	91	104		41	0	
8/10/2014	92	105		41	0	
8/11/2014	91	104		41	0	
8/12/2014	91	104		42	0	
8/13/2014	91	104		42	0	
8/14/2014	91	104		42	0	
8/15/2014	91	104		28	3	
8/16/2014	92	105		28	0	
8/17/2014	92	105		28	0	
8/18/2014	91	104		41	0	
8/19/2014	92	105		32	2	
8/20/2014	92	105		32	0	
8/21/2014	92	105		41	0	
8/22/2014	91	104		42	0	
8/23/2014	91	104		42	0	
8/24/2014	91	104		42	0	
8/25/2014	93	106		41	0	
8/26/2014	91	104		40	0	
8/27/2014	92	105		41	0	
8/28/2014	93	106		42	0	
8/29/2014	91	104		23	5	
8/30/2014	91	104		42	0	
8/31/2014	92	105		42	0	

Total

1216

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