

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

Type Test:

Open Flow **ASL**

Deliverability

Test Date:  
5/9/2011

API No. 15  
023-21252-00-00

Company Rosewood Resources, Inc.		Lease Zweygardt		Well Number 44-24	
County Cheyenne	Location SESE	Section 24	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara	Gas Gathering Connection Branch Systems Inc.		
Completion Date 9/20/2010		Plug Back Total Depth 1495'	Packer Set at		
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 6.366	Set at 1535'	Perforations 1320'	To 1350'
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? flowing		Yes <input checked="" type="radio"/> No	
Producing Thru (Annulus / Tubing) Annulus	% Carbon Dioxide	% Nitrogen	Gas Gravity - G <sub>g</sub> .6		
Vertical Depth(H) 1550'	Pressure Taps Flange		(Meter Run) (Prover) Size 2"		
Pressure Buildup: Shut in	5-8	20 11 at 5:35	(AM) <input checked="" type="radio"/> (PM)	Taken 5-9	20 11 at 5:50 (AM) <input checked="" type="radio"/> (PM)
Well on Line: Started	5-9	20 11 at 5:50	(AM) <input checked="" type="radio"/> (PM)	Taken 5-10	20 11 at 6:20 (AM) <input checked="" type="radio"/> (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>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						180	194.4				
Flow						163	177.4			24	

### 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>t</sub>	Deviation Factor F <sub>dv</sub>	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G <sub>m</sub>
						66		

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

(P <sub>c</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup> or (P <sub>c</sub> ) <sup>2</sup> - (P <sub>o</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>o</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 28 day of December, 20 11

Witness (if any)

For Commission

*Samuel G. [Signature]*  
For Company

Checked by

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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 Zweygardt 44-24 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:   
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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W2738  
 Zweygardt 44-24  
 St. Francis  
 St. Francis  
 Flow  
 May-11  
 FloBoss

DATE	Tubing PSI	Casing PSI	STATIC	MCF	SPM	HRS CYCLEDOWN	Water BBLs	REMARKS (Maximum length 110 characters)
5/1/2011		177	121	67				
5/2/2011		178	121	67				
5/3/2011		178	121	67				
5/4/2011		165	121	68				
5/5/2011		166	121	68				
5/6/2011		166	120	68				
5/7/2011		167	120	68				
5/8/2011		185	146	68				
5/9/2011		180	140	0		24		Compressor Down
5/10/2011		166	121	11				
5/11/2011		180	121	53				
5/12/2011		167	121	64				
5/13/2011		180	121	67				
5/14/2011		166	120	67				
5/15/2011		167	121	68				
5/16/2011		166	120	68				
5/17/2011		166	120	68				
5/18/2011		167	121	67				
5/19/2011		166	120	68				
5/20/2011		166	120	68				
5/21/2011		166	120	68				
5/22/2011		165	119	58				
5/23/2011		165	120	64				
5/24/2011		166	119	67				
5/25/2011		167	120	67				
5/26/2011		167	120	68				
5/27/2011		162	120	68				
5/28/2011		163	120	65				
5/29/2011		163	120	66				
5/30/2011		163	120	66				
5/31/2011		163	120	66				

Total

1933

0

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W2738  
 Zweygardt 44-24  
 St. Francis  
 St. Francis  
 Flow  
 June-11  
 FloBoss

DATE	Tubing Casing		STATIC MCF	SPM	HRS CYCLE DOWN	Water BLS	REMARKS (Maximum length 110 characters)
	PSI	PSI					
6/1/2011		163	119	61			
6/2/2011		163	120	60			
6/3/2011		163	120	65			
6/4/2011		162	119	65			
6/5/2011		162	119	65			
6/6/2011		162	119	65			
6/7/2011		162	119	65			
6/8/2011		162	120	65			
6/9/2011		162	120	65			
6/10/2011		162	119	66			
6/11/2011		162	119	66			
6/12/2011		162	119	66			
6/13/2011		162	120	65			
6/14/2011		159	119	65			
6/15/2011		159	119	65			
6/16/2011		159	119	61			
6/17/2011		159	120	63			
6/18/2011		159	119	64			
6/19/2011		159	119	64			
6/20/2011		159	120	63			
6/21/2011		159	120	64			
6/22/2011		159	120	64			
6/23/2011		159	119	42	1		
6/24/2011		158	119	60			
6/25/2011		158	119	63			
6/26/2011		158	119	63			
6/27/2011		158	119	63			
6/28/2011		158	119	63			
6/29/2011		158	119	63			
6/30/2011		158	119	64			
7/1/2011							

Total

1893

0

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W2738  
 Zwegardt 44-24  
 St. Francis  
 St. Francis  
 Flow  
 July-11  
 FloBoss

DATE	Tubing Casing		STATIC	MCF	SPM	HRS CYCLE DOWN	Water BBL	REMARKS (Maximum length 110 characters)
	PSI	PSI						
7/1/2011		158	119	63				
7/2/2011		158	82	63				
7/3/2011		158	82	64				
7/4/2011		158	83	64				
7/5/2011		158	119	64				
7/6/2011		158	119	64				
7/7/2011		158	119	64				
7/8/2011		158	119	64				
7/9/2011		158	119	64				
7/10/2011		158	119	63				
7/11/2011		158	119	63				
7/12/2011		158	119	63				
7/13/2011		158	119	63		1		
7/14/2011		158	118	62				
7/15/2011		158	81	63				
7/16/2011		156	81	63				
7/17/2011		158	86	63				
7/18/2011		156	105	63				
7/19/2011		152	111	57		2		
7/20/2011		153	118	62				
7/21/2011		152	119	55				
7/22/2011		148	118	62				
7/23/2011		148	118	64				
7/24/2011		148	118	64				
7/25/2011		148	118	64				
7/26/2011		148	118	64				
7/27/2011		148	118	64				
7/28/2011		148	118	64				
7/29/2011		106	119	57				
7/30/2011		104	117	61				
7/31/2011		104	117	62				

Total

1940

0

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