

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

Type Test:

(See Instructions on Reverse Side)

- Open Flow **AST**  
 Deliverability

Test Date:  
8/22/2012

API No. 15  
023-21254-0000

Company Rosewood Resources, Inc.		Lease Zweygardt		Well Number 12-19	
County Cheyenne	Location SWNW	Section 19	TWP 3S	RNG (E/W) 40W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara	Gas Gathering Connection Branch Systems Inc.		
Completion Date 9/23/2010		Plug Back Total Depth 1470'	Packer Set at		
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 6.366	Set at 1509'	Perforations 1304'	To 1334'
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 type="checkbox"/> No <input checked="" type="checkbox"/>	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) 1550'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 8-21 20 12 at 5:20 (AM) (PM) Taken 8-22 20 12 at 5:30 (AM) (PM)					
Well on Line: Started 8-22 20 12 at 5:30 (AM) (PM) Taken 8-23 20 12 at 5:45 (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>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						217	231.4				
Flow						86	200.4			24	

### 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>tt</sub>	Deviation Factor F <sub>pv</sub>	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G <sub>m</sub>
						21		

### (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 <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>	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)  
\_\_\_\_\_  
For Commission

*Jannell Gerwe*  
\_\_\_\_\_  
For Company

\_\_\_\_\_  
Checked by

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Form G-2  
(Rev. 7/03)

JAN 03 2013

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 12-19 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.

W2733

Zweygardt 12-19

St. Francis

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Flow

August-12

FloBoss

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DATE	Tubing PSI	Casing PSI	STATIC	MCF	SPM	HRS CYCLEDOWN	Water BBLs	REMARKS (Maximum length 110 characters)
8/1/2012		86	99	21				
8/2/2012		80	93	21				
8/3/2012		81	94	21				
8/4/2012		80	93	21				
8/5/2012		85	98	21				
8/6/2012		80	93	21				
8/7/2012		85	98	21				
8/8/2012		81	94	21				
8/9/2012		81	94	21				
8/10/2012		92	105	21				
8/11/2012		82	95	21		1.5		
8/12/2012		81	94	21				
8/13/2012		78	91	21				
8/14/2012		80	93	21				
8/15/2012		88	101	21				
8/16/2012		77	90	21				
8/17/2012		78	91	21				
8/18/2012		81	94	20				
8/19/2012		81	94	20				
8/20/2012		76	89	20				
8/21/2012		67	80	20				
8/22/2012		217	80	0		24		si for state test cp-77 reopened cp-217
8/23/2012		86	99	33				
8/24/2012		87	100	22				
8/25/2012		85	98	21				
8/26/2012		81	94	21				
8/27/2012		80	93	21				
8/28/2012		78	91	21				
8/29/2012		82	95	21				
8/30/2012		79	92	21				
8/31/2012		78	91	20				

Total

638

0

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Zweygardt 12-19

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Flow

September-12

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DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
9/1/2012	80	93		20	
9/2/2012	84	97		20	
9/3/2012	80	93		20	
9/4/2012	80	93		20	1
9/5/2012	90	103		20	
9/6/2012	90	103		20	
9/7/2012	155	168		9	19
9/8/2012	171	184		0	24
9/9/2012	178	191		0	24
9/10/2012	182	195		0	24
9/11/2012	183	196		0	24
9/12/2012	184	197		0	24
9/13/2012	150	163		20	10
9/14/2012	150	163		38	
9/15/2012	120	133		34	
9/16/2012	111	124		26	
9/17/2012	103	116		24	
9/18/2012	89	102		24	
9/19/2012	136	149		22	
9/20/2012	120	133		38	
9/21/2012	110	123		35	
9/22/2012	105	118		33	
9/23/2012	102	115		31	
9/24/2012	99	112		30	
9/25/2012	101	114		30	
9/26/2012	100	113		28	
9/27/2012	103	116		28	
9/28/2012	97	110		27	
9/29/2012	96	109		27	
9/30/2012	95	108		27	
10/1/2012					

Total

651

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Zweygardt 12-19

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Flow

October-12

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DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
10/1/2012	95	108	26		
10/2/2012	94	107	26		
10/3/2012	94	107	26		
10/4/2012	92	105	26		
10/5/2012	92	105	26		
10/6/2012	92	105	26		
10/7/2012	91	104	25		
10/8/2012	91	104	25		
10/9/2012	91	104	25		
10/10/2012	91	104	25		
10/11/2012	91	104	25		
10/12/2012	91	104	25		
10/13/2012	91	104	25		
10/14/2012	93	106	24		
10/15/2012	90	103	24		
10/16/2012	100	113	24	1	
10/17/2012	91	104	24		
10/18/2012	88	101	24		
10/19/2012	88	101	24		
10/20/2012	90	103	24		
10/21/2012	88	101	23		
10/22/2012	89	102	23		
10/23/2012	87	100	23		
10/24/2012	86	99	23		
10/25/2012	85	98	23		
10/26/2012	87	100	23		
10/27/2012	86	99	23		
10/28/2012	86	99	23		
10/29/2012	103	116	23	2	
10/30/2012	97	110	23		
10/31/2012	86	99	23		

Total

752