

# KANSAS CORPORATION COMMISSION

## ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

(See Instructions on Reverse Side)

Type Test:

Open Flow **ASI**  
 Deliverability

Test Date:  
5/9/2011

API No. 15  
023-21266-00-00

Company Rosewood Resources, Inc.		Lease Zweygart		Well Number 41-19	
County Cheyenne	Location NENE	Section 19	TWP 3S	RNG (E/W) 40W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 9/30/2010		Plug Back Total Depth 1466'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 6.366	Set at 1505'	Perforations 1308'	To 1338'
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 type="radio"/> No <input checked="" type="radio"/>	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) 1515'		Pressure Taps Flange		Gas Gravity - G <sub>g</sub> .6 (Meter Run) (Prover) Size 2"	
Pressure Buildup:	Shut in 5-8	20 11 at 6:25	(AM) <input checked="" type="radio"/> (PM)	Taken 5-9	20 11 at 6:45 (AM) <input checked="" type="radio"/> (PM)
Well on Line:	Started 5-9	20 11 at 6:45	(AM) <input checked="" type="radio"/> (PM)	Taken 5-10	20 11 at 6:55 (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 (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						141	155.4				
Flow						103	117.4			24	

### FLOW STREAM ATTRIBUTES

Plate Coefficient (F <sub>s</sub> ) (F <sub>o</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 (Mcf/d)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G <sub>m</sub>
						17		

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P<sub>s</sub>)<sup>2</sup> = 0.207

(P<sub>e</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>d</sub>)<sup>2</sup> = \_\_\_\_\_

(P <sub>e</sub> ) <sup>2</sup> - (P <sub>s</sub> ) <sup>2</sup> or (P <sub>e</sub> ) <sup>2</sup> - (P <sub>d</sub> ) <sup>2</sup>	(P <sub>e</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>s</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" ----- 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 28 day of December 20 11

Witness (if any)

For Commission

*Genall Gelow*  
For Company

Checked by

RECEIVED  
APR 24 2012

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 41-19 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: 12/28/11

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.

RECEIVED  
APR 24 2012  
KCC WICHITA

W2750  
 Zwegardt 41-19  
 St. Francis  
 St. Francis  
 Flow  
 May-11  
 FloBoss

DATE	Tubing Casing		STATIC MCF	SPM	HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
	PSI	PSI					
5/1/2011		114	127	18			
5/2/2011		139	152	18			
5/3/2011		113	126	18			
5/4/2011		111	124	17			
5/5/2011		110	123	18			
5/6/2011		110	123	17			
5/7/2011		109	122	18			
5/8/2011		149	162	18			
5/9/2011		141	154	0	24		Compressor Down
5/10/2011		146	159	15			
5/11/2011		113	126	19			
5/12/2011		108	121	17			
5/13/2011		106	119	17			
5/14/2011		106	119	17			
5/15/2011		105	118	17			
5/16/2011		104	117	17			
5/17/2011		104	117	17			
5/18/2011		103	116	17			
5/19/2011		103	116	16			
5/20/2011		103	116	16			
5/21/2011		103	116	17			
5/22/2011		109	122	17			
5/23/2011		102	115	17			
5/24/2011		102	115	17			
5/25/2011		192	115	17			
5/26/2011		101	114	17			
5/27/2011		102	115	17			
5/28/2011		103	116	17			
5/29/2011		103	116	17			
5/30/2011		103	116	17			
5/31/2011		102	115	17			

Total

514

0

RECEIVED  
 APR 24 2012  
 KCC WICHITA

W2750  
 Zweygardt 41-19  
 St. Francis  
 St. Francis  
 Flow  
 June-11  
 FloBoss

DATE	Tubing Casing		STATIC MCF	SPM	CYCLE DOWN	HRS	Water BLS	REMARKS (Maximum length 110 characters)
	PSI	PSI						
6/1/2011		110	123	17				
6/2/2011		102	115	17				
6/3/2011		101	114	16				
6/4/2011		101	114	16				
6/5/2011		101	114	16				
6/6/2011		101	114	16				
6/7/2011		100	113	16				
6/8/2011		99	112	16				
6/9/2011		101	114	16				
6/10/2011		101	114	16				
6/11/2011		101	114	16				
6/12/2011		101	114	16				
6/13/2011		101	114	16				
6/14/2011		101	114	16				
6/15/2011		100	113	16				
6/16/2011		103	116	16				
6/17/2011		101	114	16				
6/18/2011		101	114	16				
6/19/2011		101	114	16				
6/20/2011		101	114	16				
6/21/2011		102	115	16				
6/22/2011		102	115	16				
6/23/2011		111	124	16		1		
6/24/2011		101	114	16				
6/25/2011		100	113	16				
6/26/2011		99	112	16				
6/27/2011		99	112	16				
6/28/2011		99	112	16				
6/29/2011		99	112	16				
6/30/2011		98	111	15				
7/1/2011								

Total

481

0

RECEIVED  
 APR 24 2012  
 KCC WICHITA

W2750  
 Zweygardt 41-19  
 St. Francis  
 St. Francis  
 Flow  
 July-11  
 FloBoss

DATE	Tubing PSI	Casing PSI	STATIC	MCF	SPM	HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
7/1/2011		98	111	15				
7/2/2011		96	109	15				
7/3/2011		96	109	15				
7/4/2011		96	109	15				
7/5/2011		98	111	15				
7/6/2011		97	110	15				
7/7/2011		97	110	15				
7/8/2011		98	111	15				
7/9/2011		97	110	15				
7/10/2011		97	110	15				
7/11/2011		96	109	15				
7/12/2011		96	109	15				
7/13/2011		88	101	15			1	
7/14/2011		95	108	15				
7/15/2011		94	107	15				
7/16/2011		95	108	15				
7/17/2011		97	110	15				
7/18/2011		106	119	15				
7/19/2011		96	109	15			2	
7/20/2011		95	108	15				
7/21/2011		101	114	15				
7/22/2011		92	105	14				
7/23/2011		93	106	14				
7/24/2011		92	105	15				
7/25/2011		92	105	15				
7/26/2011		92	105	15				
7/27/2011		92	105	15				
7/28/2011		93	106	15				
7/29/2011		107	120	14				
7/30/2011		93	106	15				
7/31/2011		93	106	15				

Total

462

0

RECEIVED  
 APR 24 2012  
 KCC WICHITA