

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

Type Test:

- Open Flow  Deliverability

*ST*

(See Instructions on Reverse Side)

Test Date:  
6/22/2013

API No. 15  
023-21270-0000

Company Rosewood Resources, Inc.		Lease Zweygardt		Well Number 42-24	
County Cheyenne	Location SENE	Section 24	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 10/3/2010		Plug Back Total Depth 1376'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 6.366	Set at 1413'	Perforations 1184'	To 1214'
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="checkbox"/> No <input type="checkbox"/> flowing	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) 1425'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 6-21 20 13 at 5:55 (AM) (PM) Taken 6-22 20 13 at 6:10 (AM) (PM)		Well on Line: Started 6-22 20 13 at 6:10 (AM) (PM) Taken 6-23 20 13 at 6:30 (AM) (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>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						190	204.4				
Flow						64	78.4			24	

### 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>tt</sub>	Deviation Factor F <sub>pv</sub>	Metered Flow R (Mcfd)	GOR (Cubic Feet/Barrel)	Flowing Fluid Gravity G <sub>m</sub>
						11		

### (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>a</sub>)<sup>2</sup> = 0.207  
(P<sub>d</sub>)<sup>2</sup> = \_\_\_\_\_

(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: $\frac{P_c^2 - P_w^2}{P_c^2 - P_a^2}$	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 21 day of November, 20 13.

KANSAS CORPORATION COMMISSION

*Garrett Motney*  
For Company

Witness (if any)

DEC 26 2013

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 Zweygardt 42-24 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: 11/21/13

RECEIVED  
KANSAS CORPORATION COMMISSION

Signature: \_\_\_\_\_

*Ornall Martiney*

DEC 26 2013

Title: Production Assistant

CONSERVATION DIVISION  
WICHITA, KS

**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.

W2745  
 Zweygardt 42-24  
 St. Francis  
 St. Francis  
 Flow  
 June-13  
 FloBoss

DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
6/1/2013	55	68		10	
6/2/2013	60	73		10	
6/3/2013	58	71		10	
6/4/2013	55	68		10	
6/5/2013	60	73		10	
6/6/2013	67	80		10	
6/7/2013	64	77		10	
6/8/2013	59	72		10	
6/9/2013	64	77		10	
6/10/2013	93	106		10	2
6/11/2013	82	95		10	1
6/12/2013	80	93		10	
6/13/2013	63	76		10	
6/14/2013	63	76		11	
6/15/2013	68	81		10	
6/16/2013	68	81		10	
6/17/2013	64	77		10	
6/18/2013	59	72		10	
6/19/2013	56	69		10	
6/20/2013	62	75		10	
6/21/2013	59	72		10	si for state test - cp 66
6/22/2013	160	173		0	24 reopened - cp 190
6/23/2013	89	102		17	
6/24/2013	84	97		12	
6/25/2013	86	99		12	
6/26/2013	85	98		12	
6/27/2013	75	88		12	
6/28/2013	61	74		12	
6/29/2013	61	74		11	
6/30/2013	56	69		11	
7/1/2013					

Total

310

RECEIVED  
 KANSAS CORPORATION COMMISSION

DEC 26 2013

CONSERVATION DIVISION  
 WICHITA, KS

W2745  
 Zweygardt 42-24  
 St. Francis  
 St. Francis  
 Flow  
 July-13  
 FloBoss

DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
7/1/2013	62	75		11	
7/2/2013	62	75		11	
7/3/2013	62	75		11	
7/4/2013	64	77		11	
7/5/2013	64	77		11	
7/6/2013	64	77		11	
7/7/2013	75	88		11	
7/8/2013	72	85		10	
7/9/2013	71	84		10	
7/10/2013	68	81		10	
7/11/2013	71	84		10	
7/12/2013	77	90		10	
7/13/2013	83	96		10	2.5
7/14/2013	82	95		10	
7/15/2013	64	77		10	
7/16/2013	61	74		10	
7/17/2013	58	71		10	
7/18/2013	86	99		10	
7/19/2013	77	90		10	
7/20/2013	79	92		10	
7/21/2013	80	93		10	
7/22/2013	76	89		10	
7/23/2013	73	86		10	
7/24/2013	79	92		10	
7/25/2013	83	96		10	
7/26/2013	72	85		10	
7/27/2013	61	74		10	
7/28/2013	62	75		10	
7/29/2013	60	73		10	
7/30/2013	94	107		10	3.5
7/31/2013	118	131		8	5.5

Total

315

RECEIVED  
 KANSAS CORPORATION COMMISSION

DEC 26 2013

CONSERVATION DIVISION  
 WICHITA KS

W2745

Zweygardt 42-24

St. Francis

St. Francis

Flow

August-13

FloBoss

DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
8/1/2013	82	95		10	
8/2/2013	82	95		10	
8/3/2013	77	90		10	
8/4/2013	78	91		10	
8/5/2013	71	84		10	
8/6/2013	61	74		10	
8/7/2013	57	70		10	
8/8/2013	59	72		10	
8/9/2013	62	75		10	
8/10/2013	60	73		10	
8/11/2013	59	72		10	
8/12/2013	58	71		10	
8/13/2013	58	71		10	
8/14/2013	58	71		10	
8/15/2013	59	72		10	0.5
8/16/2013	68	81		10	
8/17/2013	69	82		10	
8/18/2013	69	82		10	
8/19/2013	71	84		10	1.5
8/20/2013	94	107		10	1
8/21/2013	89	102		10	
8/22/2013	93	106		10	5
8/23/2013	77	90		10	
8/24/2013	87	100		10	1
8/25/2013	91	104		10	1
8/26/2013	63	76		10	
8/27/2013	58	71		10	
8/28/2013	56	69		10	
8/29/2013	98	111		10	
8/30/2013	90	103		10	
8/31/2013	91	104		10	

Total

310

RECEIVED  
KANSAS CORPORATION COMMISSION

DEC 26 2013

CONSERVATION DIVISION  
WICHITA KS