

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

Type Test:

- Open Flow **OSI**  
 Deliverability

(See Instructions on Reverse Side)

Test Date:  
6/22/14

API No. 15  
023-20632-0000

Company Rosewood Resources, Inc.			Lease Alvin		Well Number 44-08
County Cheyenne	Location SESE/4	Section 8	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 1537'	Packer Set at		
Casing Size 2 7/8"	Weight 6.5#	Internal Diameter 2.441	Set at 1552'	Perforations 1419'	To 1451'
Tubing Size NONE	Weight	Internal Diameter	Set at	Perforations	To
Type Completion (Describe) Single (Conventional)		Type Fluid Production	Pump Unit or Traveling 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) 1451'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup:	Shut in 6-7	20 14	at 10:20	(AM)(PM) Taken 6-19	20 14 at 10:35 (AM)(PM)
Well on Line:	Started 6-22	20 14	at 10:35	(AM)(PM) Taken 6-23	20 14 at 11:20 (AM)(PM)

### OBSERVED SURFACE DATA

Duration of Shut-in 360 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						232	246.4				
Flow						72	86.4			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 (Mcf/d)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G <sub>m</sub>
						10		

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P<sub>a</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> = \_\_\_\_\_ ; P<sub>c</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>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>a</sub> <sup>2</sup> 2. P <sub>c</sub> <sup>2</sup> - P <sub>o</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" ----- 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 12 day of December, 20 14.

Received  
KANSAS CORPORATION COMMISSION

*Samuel Marturey*  
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 Alvin 44-8 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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KANSAS CORPORATION COMMISSION  
**FEB 25 2015**  
CONSERVATION DIVISION  
WICHITA, KS

Signature: *Jannell Mattingly*  
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.

W2087  
 Alvin 44-8  
 St. Francis  
 St. Francis  
 None  
 June-1~~7~~4

DATE	Casing		MCF	HRS		REMARKS (Maximum length 110 characters)
	PSI	STATIC		DOWN		
6/1/2013	65	78		11	0	
6/2/2013	83	96		10	0	
6/3/2013	73	86		12	0	
6/4/2013	94	107		10	0	
6/5/2013	59	72		12	0	
6/6/2013	60	73		11	0	
6/7/2013	170	183		8	9	
6/8/2013	187	200		8	24	
6/9/2013	190	203		0	24	
6/10/2013	209	222		0	24	
6/11/2013	209	222		0	24	
6/12/2013	214	227		0	24	
6/13/2013	228	241		0	24	
6/14/2013	229	242		0	24	
6/15/2013	229	242		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	232	245		0	24	
6/20/2013	155	168		0	24	
6/21/2013	155	168		0	24	
6/22/2013	155	168		0	24	
6/23/2013	155	168		0	5	
6/24/2013	156	169		0	0	
6/25/2013	149	162		23	0	
6/26/2013	120	133		22	0	
6/27/2013	109	122		18	0	
6/28/2013	90	103		17	0	
6/29/2013	87	100		16	0	
6/30/2013	84	97		14	0	
7/1/2013					0	

Total

192

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**FEB 25 2015**

CONSERVATION DIVISION  
 WICHITA, KS

W2087  
 Alvin 44-8  
 St. Francis  
 St. Francis  
 None  
 July-14

DATE	Casing		MCF	HRS		REMARKS (Maximum length 110 characters)
	PSI	STATIC		DOWN		
7/1/2014	78	91		14	0	
7/2/2014	75	88		13	0	
7/3/2014	73	86		13	0	
7/4/2014	73	86		13	0	
7/5/2014	73	86		12	0	
7/6/2014	73	86		13	0	
7/7/2014	88	101		11	0	
7/8/2014	73	86		12	0	
7/9/2014	71	84		12	0	
7/10/2014	71	84		11	0	
7/11/2014	77	90		11	0	
7/12/2014	74	87		12	0	
7/13/2014	75	88		12	0	
7/14/2014	86	99		11	0	
7/15/2014	65	78		12	0	
7/16/2014	65	78		12	0	
7/17/2014	68	81		11	0	
7/18/2014	68	81		11	0	
7/19/2014	68	81		11	0	
7/20/2014	68	81		11	0	
7/21/2014	71	84		11	0	
7/22/2014	175	188		4	22	
7/23/2014	110	123		13	7	
7/24/2014	90	103		13	3	
7/25/2014	86	99		11	4	
7/26/2014	74	87		11	0	
7/27/2014	74	87		11	0	
7/28/2014	71	84		11	0	
7/29/2014	74	87		10	0	
7/30/2014	67	80		10	0	
7/31/2014	74	87		10	0	

Total

353

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 KANSAS CORPORATION COMMISSION

**FEB 25 2015**

CONSERVATION DIVISION  
 WICHITA, KS

W2087  
 Alvin 44-8  
 St. Francis  
 St. Francis  
 None  
 August-14

DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
8/1/2014	67	80		10	0
8/2/2014	67	80		10	0
8/3/2014	69	82		10	0
8/4/2014	69	82		10	0
8/5/2014	72	85		10	0
8/6/2014	72	85		10	0
8/7/2014	73	86		10	0
8/8/2014	71	84		10	0
8/9/2014	72	85		10	0
8/10/2014	73	86		10	0
8/11/2014	74	87		10	0
8/12/2014	71	84		10	0
8/13/2014	69	82		10	0
8/14/2014	71	84		10	0
8/15/2014	83	96		10	3
8/16/2014	73	86		10	0
8/17/2014	73	86		10	0
8/18/2014	76	89		10	0
8/19/2014	86	99		10	2
8/20/2014	86	99		10	0
8/21/2014	74	87		10	0
8/22/2014	80	93		10	0
8/23/2014	74	87		10	0
8/24/2014	77	90		10	0
8/25/2014	79	92		10	0
8/26/2014	72	85		10	0
8/27/2014	75	88		10	0
8/28/2014	69	82		10	0
8/29/2014	74	87		10	5
8/30/2014	68	81		10	0
8/31/2014	72	85		10	0

Total

310

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**FEB 25 2015**

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 WICHITA, KS