

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

Type Test:

- Open Flow  *SS*  
 Deliverability

(See Instructions on Reverse Side)

Test Date:  
7/30/2009

API No. 15  
023-20613-00-00

Company Rosewood Resources, Inc.		Lease Willard		Well Number 1-26	
County Cheyenne	Location NW NE/4	Section 26	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara	Gas Gathering Connection Branch Systems Inc.		
Completion Date 5/27/2005		Plug Back Total Depth 1506'	Packer Set at		
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.052	Set at 1506'	Perforations 1294'	To 1328'
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? <input checked="" type="checkbox"/> Yes / No Pumping Unit		
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide	% Nitrogen	Gas Gravity - G <sub>g</sub> .6	
Vertical Depth(H) 1328'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 7-29 20 09 at 8:20 (AM) (PM)		Taken 7-30 20 09 at 8:35 (AM) (PM)			
Well on Line: Started 7-30 20 09 at 8:35 (AM) (PM)		Taken 7-31 20 09 at 9:20 (AM) (PM)			

### OBSERVED SURFACE DATA

Duration of Shut-in 72 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						65	79.4				
Flow						145	159.4			72	

### FLOW STREAM ATTRIBUTES

Plate Coefficient (F <sub>b</sub> ) (F <sub>c</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 (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G <sub>m</sub>
						40		

### (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 18 day of November 20 09

\_\_\_\_\_  
Witness (if any)  
\_\_\_\_\_  
For Commission

*Tom W. Roelke*  
\_\_\_\_\_  
For Company

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

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**NOV 30 2009**

**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.

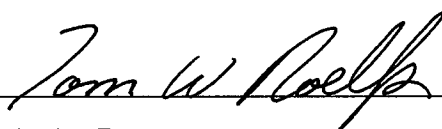
I hereby request a one-year exemption from open flow testing for the Willard 1-26 gas well on the grounds that said well:

(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: 11/18/09

Signature:   
Title: Production Foreman

**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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W378  
 Willard 01-26  
 St. Francis  
 St. Francis  
 None  
 July-09

DATE	Tubing	Casing					HRS	Water	REMARKS (Maximum length 110 characters)
	PSI	PSI	STATIC	MCF	SPM	CYCLE	DOWN	BBLs	
7/1/2009			79	78	6.5	17	0	24	
7/2/2009			70	78	6.5	17	0	23	
7/3/2009			70	77	6.5	17	0	22	
7/4/2009			70	77	6.5	17	0	23	
7/5/2009			70	78	6.5	17	0	22	
7/6/2009			70	78	6.5	17	0	21	
7/7/2009			72	77	0	0	0	22	
7/8/2009			150	50	0	0	6	0	
7/9/2009			93	33	0	0	3	0	
7/10/2009			70	53	0	0	0	0	
7/11/2009			70	77	0	0	0	0	
7/12/2009			63	61	6.5	17	0	12	restart p u
7/13/2009			70	72	6.5	17	0	21	
7/14/2009			71	72	6.5	17	0	24	bucket test 4 min
7/15/2009			78	51	6.5	17	0	23	
7/16/2009			78	51	6.5	17	0	22	
7/17/2009			70	49	6.5	17	0	21	
7/18/2009			64	49	6.5	17	0	22	
7/19/2009			64	50	6.5	17	0	23	
7/20/2009			67	49	6.5	17	7	24	
7/21/2009			67	49	6.5	17	0	23	
7/22/2009			64	46	6.5	17	0	0	pump off restarted
7/23/2009			73	53	6.5	17	0	24	
7/24/2009			67	53	6.5	17	0	23	
7/25/2009			70	64	6.5	17	0	23	
7/26/2009			67	49	6.5	17	0	23	
7/27/2009			67	58	6.5	17	4	24	bucket test 4 min
7/28/2009			68	57	6.5	17	0	23	
7/29/2009			67	57	6.5	17	0	22	
7/30/2009		65	77	51	0	0	0	22	shut in for test
7/31/2009		145	61	4	6.5	17	0	0	open

Total

1801

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W378  
 Willard 01-26  
 St. Francis  
 St. Francis  
 None  
 August-09

DATE	Tubing PSI	Casing PSI	STATIC	MCF	SPM	CYCLE	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
8/1/2009			69	64	6.5	17	0	24	
8/2/2009			67	64	6.5	17	0	23	
8/3/2009			80	48	6.5	17	0	22	
8/4/2009			80	48	6.5	17	0	23	
8/5/2009			142	47	6.5	17	0	24	
8/6/2009			65	45	6.5	17	0	23	
8/7/2009			67	64	6.5	17	0	23	
8/8/2009			66	43	6.5	17	0	24	
8/9/2009			65	42	6.5	17	0	22	
8/10/2009			65	42	0	0	0	0	PU OFF
8/11/2009			62	42	0	0	0	0	
8/12/2009			62	42	0	0	0	0	
8/13/2009			60	41	0	0	0	0	
8/14/2009			66	40	0	0	0	0	
8/15/2009			66	40	0	0	0	0	
8/16/2009			66	40	0	0	0	0	
8/17/2009			138	38	0	0	0	0	
8/18/2009			137	41	0	0	0	0	
8/19/2009			137	40	0	0	0	0	
8/20/2009			66	40	0	0	0	0	
8/21/2009			67	42	0	0	0	0	
8/22/2009			66	42	0	0	4	0	
8/23/2009			124	38	0	0	0	0	
8/24/2009			63	38	0	0	0	0	
8/25/2009			95	37	0	0	4	0	
8/26/2009			64	39	6.5	17	0	0	started pump
8/27/2009			64	43	6.5	17	0	24	
8/28/2009			66	45	6.5	17	0	22	
8/29/2009			137	45	6.5	17	0	23	
8/30/2009			66	37	6.5	17	3	24	
8/31/2009			63	45	6.5	17	0	23	

Total

1362

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 KCC WICHITA

W378  
 Willard 01-26  
 St. Francis  
 St. Francis  
 None  
 September-09

DATE	Tubing PSI	Casing PSI	STATIC	MCF	SPM	CYCLE	HRS DOWN	Water BBLs
9/1/2009		0	65	36	6.5	17	0	24
9/2/2009		0	65	36	6.5	17	0	23
9/3/2009		0	69	36	6.5	17	0	22
9/4/2009		0	95	35	6.5	17	6	22
9/5/2009		0	69	36	6.5	17	0	22
9/6/2009		0	67	36	6.5	17	0	21
9/7/2009		0	67	35	6.5	17	0	21
9/8/2009		0	67	35	0	0	0	22
9/9/2009		0	69	35	0	0	0	0
9/10/2009		0	65	35	0	0	0	0
9/11/2009		0	63	35	0	0	0	0
9/12/2009		0	62	35	0	0	0	0
9/13/2009		0	69	35	0	0	0	0
9/14/2009		0	62	34	0	0	0	0
9/15/2009		0	64	34	0	0	0	0
9/16/2009		0	61	34	0	0	0	0
9/17/2009		0	60	34	0	0	0	0
9/18/2009		0	60	34	0	0	0	0
9/19/2009		0	59	34	0	0	0	0
9/20/2009		0	59	34	0	0	0	0
9/21/2009		0	60	34	0	0	0	0
9/22/2009		0	59	34	0	0	0	0
9/23/2009		0	59	34	0	0	0	0
9/24/2009		0	58	34	0	0	0	0
9/25/2009		0	80	27	0	0	6	0
9/26/2009		0	114	39	0	0	0	0
9/27/2009		0	97	34	0	0	0	0
9/28/2009		0	89	33	0	0	0	0
9/29/2009		0	66	33	0	0	0	0
9/30/2009		0	76	24	0	0	8	0
10/1/2009		0	0	0	0	0	0	0

Total

1024

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