

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

Type Test:

- Open Flow **OSI**  
 Deliverability

(See Instructions on Reverse Side)

Test Date:  
3/7/2013

API No. 15  
023-20664-0000

Company Rosewood Resources, Inc.		Lease Hilt		Well Number 13-33	
County Cheyenne	Location NWSW	Section 33	TWP 2S	RNG (E/W) 42W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 3/30/2006		Plug Back Total Depth 1777'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.052	Set at 1777.49'	Perforations 1618'	To 1646'
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="radio"/> Yes / No Pumping Unit	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) 1646'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 3-6		20 13 at 1:35		(AM) (PM) Taken 3-7	
Well on Line: Started 3-7		20 13 at 1:50		(AM) (PM) Taken 3-8	
		20 13 at 1:50		(AM) (PM) Taken 3-8	

### 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 †	Well Head Temperature †	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						121	135.4				
Flow						28	42.4			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>
						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>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: $\frac{P_c^2 - P_w^2}{P_c^2 - P_a^2}$	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 the 10 day of December, 20 13.

Witness (if any)

For Commission

*Arnold Martiney*  
For Company

Checked by

**KCC WICHITA**

**DEC 26 2013**

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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 Hilt 13-33 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: 12/10/13

Signature: *Jarrell Martiney*  
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.

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W437  
 Hilt 13-33  
 West St. Francis  
 St. Francis  
 None  
 March-13

DATE	Casing		SPM	CYCLE	HRS	Water	REMARKS (Maximum length 110 characters)
	PSI	STATIC MCF					
3/1/2013	37	50	13	7	12	15	
3/2/2013	37	50	12	7	12	16	
3/3/2013	30	43	13	7	12	17	
3/4/2013	28	41	13	7	12	16	
3/5/2013	58	71	14	7	6		9 shut pumping unit off hfp
3/6/2013	118	105	5	7	0		0 shut well in for state test psi 118
3/7/2013	121	124	0	7	0	24	0 open well psi 121
3/8/2013	70	83	16	7	0		0
3/9/2013	50	63	12	7	6		8
3/10/2013	47	60	12	7	12		16
3/11/2013	27	40	12	7	12		17
3/12/2013	81	94	13	7	6	3	8 shut pumping unit off hfp
3/13/2013	43	56	11	7	6		7
3/14/2013	57	70	12	7	6	1	8 shut pumping unit off hfp
3/15/2013	70	83	11	7	0		0
3/16/2013	59	72	10	7	0		0
3/17/2013	50	63	10	7	6		7 restart pu
3/18/2013	54	67	11	7	12		18
3/19/2013	36	49	12	7	12		17
3/20/2013	36	49	12	7	12		16
3/21/2013	28	41	13	7	12		17 bucket test 5 min
3/22/2013	27	40	13	7	12		16 put on hand bad weather moving in
3/23/2013	28	41	11	7	12		16 belts broke
3/24/2013	28	41	4	7	0		0
3/25/2013	73	86	3	7	0		0
3/26/2013	60	73	4	7	0		0
3/27/2013	28	41	10	7	0		0
3/28/2013	27	40	9	7	0		0
3/29/2013	28	41	9	7	0		0
3/30/2013	27	40	9	7	0		0
3/31/2013	27	40	9	7	0		0

Total

318

244

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W437  
Hilt 13-33  
West St. Francis  
St. Francis  
None  
April-13

DATE	Casing PSI	STATIC MCF	SPM	HRS CYCLIDOWN	Water BBLs	REMARKS (Maximum length 110 characters)
4/1/2013	18	41	8	7	0	0
4/2/2013	27	40	8	7	12	17 restarted pumping unit put one belt on
4/3/2013	29	42	11	7	24	34
4/4/2013	31	44	13	7	12	17 bucket test 5 min and greased
4/5/2013	64	77	13	7	12	16
4/6/2013	49	62	12	7	12	15
4/7/2013	49	62	12	7	12	16 shut pumping unit off
4/8/2013	49	62	11	7	0	0
4/9/2013	43	56	10	7	0	0
4/10/2013	48	61	9	7	0	2 0
4/11/2013	32	45	9	7	0	0
4/12/2013	25	38	9	7	6	8 restarted pu
4/13/2013	76	89	10	7	6	1 8 shut pumping unit off
4/14/2013	50	63	9	7	0	0
4/15/2013	53	66	9	7	6	8 restarted pumping unit
4/16/2013	25	38	10	7	12	17
4/17/2013	38	51	11	7	6	8
4/18/2013	28	41	8	7	0	0 belt burnt off durning strom
4/19/2013	28	41	2	7	6	8 replaced belt and started pumping unit
4/20/2013	48	61	0	7	12	16 treated
4/21/2013	48	61	0	7	12	17
4/22/2013	48	61	0	7	12	16 checked plate- not blocked flowing 10 mcf
4/23/2013	48	61	10	7	12	15
4/24/2013	49	62	13	7	12	17 bucket test 5 min
4/25/2013	50	63	11	7	12	16
4/26/2013	51	64	12	7	12	15
4/27/2013	51	64	12	7	12	16
4/28/2013	63	76	11	7	12	17
4/29/2013	62	75	12	7	12	17
4/30/2013	56	69	13	7	12	16
5/1/2013						

Total

278

350

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