

KANSAS CORPORATION COMMISSION

ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow **BST**
 Deliverability

(See Instructions on Reverse Side)

Test Date:
6/22/14

API No. 15
023-20665-0000

Company Rosewood Resources, Inc.		Lease Northrup		Well Number 43-33	
County Cheyenne	Location NESE	Section 33	TWP 2S	RNG (E/W) 42W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 4-1-2006		Plug Back Total Depth 1766'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.052	Set at 1767.06'	Perforations 1616'	To 1642'
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) 1642'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 6-7		20 14 at 11:45		(AM)(PM) Taken 6-18	
Well on Line: Started 6-22		20 14 at 11:55		(AM)(PM) Taken 6-23	
				20 14 at 11:55 (AM)(PM)	
				20 14 at 1:45 (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 ₂ O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P _w) or (P _i) or (P _c)		Tubing Wellhead Pressure (P _w) or (P _i) or (P _c)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						124	138.4				
Flow						45	59.4			360	

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _v) (F _p) Mcfd	Circle one: Meter or Prover Pressure psia	Press Extension $\sqrt{P_m \times h}$	Gravity Factor F _g	Flowing Temperature Factor F _{tl}	Deviation Factor F _{pv}	Metered Flow R (Mcf/d)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _m
						16		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_a)² = 0.207
(P_d)² =

(P_c)² = _____ : (P_w)² = _____ : P_d = _____ % (P_c - 14.4) + 14.4 = _____ :

(P _c) ² - (P _a) ² or (P _c) ² - (P _d) ²	(P _c) ² - (P _w) ²	Choose formula 1 or 2: 1. P _c ² - P _a ² 2. P _c ² - P _d ² divided by: P _c ² - P _w ²	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 10 day of December, 20 14.

Received
KANSAS CORPORATION COMMISSION

Samuel Martiney
For Company

Witness (if any)

FEB 25 2015

For Commission

Checked by

CONSERVATION DIVISION
WICHITA, KS

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 Northrup 43-33 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: 12/10/14

Received
KANSAS CORPORATION COMMISSION

FEB 25 2015

CONSERVATION DIVISION
WICHITA, KS

Signature: *Samuel 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.

W2059
 Northrup 43-33
 West St. Francis
 St. Francis
 None
 June-14

DATE	Casing		MCF	SPM	HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
	PSI	STATIC					
6/1/2014	52	65	1	6	24	0	34
6/2/2014	67	80	1	6	24	0	33
6/3/2014	57	70	1	6	24	0	32
6/4/2014	82	95	1	6	24	0	33
6/5/2014	43	56	0	6	24	0	34
6/6/2014	47	60	1	6	12	0	17
6/7/2014	114	127	0			9	0
6/8/2014	126	139	0			24	0
6/9/2014	129	142	0			24	0
6/10/2014	129	142	0			24	
6/11/2014	130	143	0			24	
6/12/2014	132	145	0			24	
6/13/2014	121	134	0			24	
6/14/2014	122	135	0			24	
6/15/2014	122	135	0			24	
6/16/2014	123	136	0			24	
6/17/2014	123	136	0			24	
6/18/2014	124	137	0			24	
6/19/2014	124	137	0			24	
6/20/2014	124	137	0			24	
6/21/2014	124	137	0			24	
6/22/2014	124	137	0			24	
6/23/2014	115	128	0			5	
6/24/2014	115	128	0			0	
6/25/2014	112	115	0			0	
6/26/2014	98	101	0			0	
6/27/2014	80	93	0			0	
6/28/2014	50	63	0	6	12	0	0 started pumping unit
6/29/2014	49	62	1	6	12	0	16
6/30/2014	48	61	1	6	12	0	17
7/1/2014						0	

Total

7

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FEB 25 2015

CONSERVATION DIVISION
 WICHITA, KS

W2059

Northrup 43-33

West St. Francis

St. Francis

None

July-14

DATE	Casing			HRS		Water BBLs	REMARKS (Maximum length 110 characters)
	PSI	STATIC MCF	SPM	CYCLE	DOWN		
7/1/2014	49	62	1	6	16	0	19
7/2/2014	48	61	1	6	16	0	20
7/3/2014	48	61	1	6	16	0	21
7/4/2014	48	61	1	6	16	0	20
7/5/2014	52	65	1	6	16	0	19
7/6/2014	52	65	1	6	16	0	20
7/7/2014	65	78	0	6	16	0	21
7/8/2014	53	66	1	6	16	0	20
7/9/2014	53	66	1	6	16	0	19
7/10/2014	54	67	1	6	16	0	20
7/11/2014	55	68	1	6	16	0	21
7/12/2014	56	69	1	6	16	0	20
7/13/2014	58	71	1	6	16	0	19
7/14/2014	67	80	1	6	16	0	20
7/15/2014	48	61	1	6	16	0	21
7/16/2014	48	61	1	6	16	0	20
7/17/2014	47	60	2	6	16	0	19 bucket test 6 min and greased
7/18/2014	47	60	2	6	16	0	19 shut off pu, disposal down
7/19/2014	46	59	1	6	16	0	0
7/20/2014	46	59	1	6	16	0	19 turn on pu
7/21/2014	90	103	1	6	8	0	9 pu off, hfp
7/22/2014	165	178	0	6	0	22	0
7/23/2014	78	91	1	6	0	7	0
7/24/2014	59	72	1	6	0	3	0
7/25/2014	44	57	1	6	8	4	0 started pumping unit
7/26/2014	45	58	0	6	16	0	19
7/27/2014	45	58	1	6	16	0	18
7/28/2014	39	52	1	6	16	0	17
7/29/2014	35	48	1	6	16	0	18
7/30/2014	33	46	1	6	16	0	19
7/31/2014	34	47	2	6	16	0	18

Total

31

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Received
KANSAS CORPORATION COMMISSION

FEB 25 2015

CONSERVATION DIVISION
WICHITA, KS

W2059
 Northrup 43-33
 West St. Francis
 St. Francis
 None
 August-14

DATE	Casing PSI	STATIC MCF	SPM	HRS CYCLE	DOWN	Water BBLs
8/1/2014	33	46	2	6	16	0
8/2/2014	33	46	2	6	16	0
8/3/2014	32	45	2	6	16	0
8/4/2014	48	61	1	6	16	0
8/5/2014	49	62	2	6	16	0
8/6/2014	50	63	2	6	16	0
8/7/2014	50	63	1	6	16	0
8/8/2014	51	64	1	6	16	0
8/9/2014	51	64	1	6	16	0
8/10/2014	53	66	1	6	16	0
8/11/2014	50	63	2	6	16	0
8/12/2014	40	53	2	6	16	0
8/13/2014	33	46	2	6	16	0
8/14/2014	31	44	2	6	16	0
8/15/2014	44	57	1	6	16	3
8/16/2014	30	43	0	6	16	0
8/17/2014	30	43	0	6	16	0
8/18/2014	31	44	1	6	16	0
8/19/2014	45	58	1	6	16	2
8/20/2014	54	67	1	6	8	0
8/21/2014	98	111	1	6	0	0
8/22/2014	60	73	16	6	8	0
8/23/2014	46	59	16	6	16	0
8/24/2014	49	62	16	6	16	0
8/25/2014	65	78	16	6	16	0
8/26/2014	51	64	16	6	16	0
8/27/2014	54	67	16	6	16	0
8/28/2014	47	60	17	6	8	0
8/29/2014	46	59	13	6	8	5
8/30/2014	46	59	13	6	16	0
8/31/2014	60	73	14	6	16	0

Total

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 KANSAS CORPORATION COMMISSION

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 WICHITA, KS