

KANSAS CORPORATION COMMISSION

ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow Deliverability

(See Instructions on Reverse Side)

Test Date:
3/7/2013

API No. 15
023-20554-0000

Company Rosewood Resources, Inc.		Lease Northrup		Well Number 2-33	
County Cheyenne	Location SWSE	Section 33	TWP 2S	RNG (E/W) 42W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 7-15-2004		Plug Back Total Depth 1815'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.052	Set at 1820'	Perforations 1600'	To 1634'
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) 1634'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 3-6		20 13 at 11:40		(AM) (PM) Taken 3-7	
Well on Line: Started 3-7		20 13 at 11:50		(AM) (PM) Taken 3-8	
				20 13 at 1:40 (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 ₂ O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P _w) or (P ₁) or (P _c)		Tubing Wellhead Pressure (P _w) or (P ₁) or (P _c)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-in						219	233.4				
Flow						26	40.4			24	0

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _b) (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 _{tt}	Deviation Factor F _{pv}	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _m
						9		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_a)² = 0.207
(P_o)² =

(P _c) ² = _____	(P _w) ² = _____	P _d = _____ %	(P _c - 14.4) + 14.4 = _____	(P _a) ² = 0.207	(P _o) ² = _____		
$(P_c)^2 - (P_a)^2$ or $(P_c)^2 - (P_o)^2$	$(P_c)^2 - (P_w)^2$	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" ----- 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

Jannell Martinez
For Company

KCC WICHITA

Checked by

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 Northrup 2-33 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: *Janell 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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W363
 Northrup 2-33
 West St. Francis
 St. Francis
 Pumping Unit/Elec
 March-13

DATE	Casing			SPM	HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
	PSI	STATIC	MCF				
3/1/2013	35	48	12	4.5	8	5	
3/2/2013	36	49	12	4.5	8	6	
3/3/2013	27	40	11	4.5	8	7	
3/4/2013	26	39	11	4.5	8	6	
3/5/2013	57	60	11	4.5	4	3	
3/6/2013	104	117	4	4.5	0		0 shut well in for state test
3/7/2013	219	121	0	4.5	0	24	0 open well 219 psi
3/8/2013	69	82	16	4.5	0		0
3/9/2013	49	62	11	4.5	4		4
3/10/2013	46	59	12	4.5	8		8
3/11/2013	25	38	11	4.5	8		7
3/12/2013	79	92	11	4.5	4	3	5 shut pumping unit off hfp
3/13/2013	43	56	10	4.5	4		6 started pumping unit
3/14/2013	56	69	10	4.5	4	1	5 shut pumping unit off hfp
3/15/2013	69	82	9	4.5	0		0
3/16/2013	58	71	9	4.5	0		0
3/17/2013	48	61	9	4.5	4		5 restart pu
3/18/2013	54	67	10	4.5	8		11
3/19/2013	35	48	10	4.5	8		8
3/20/2013	35	48	11	4.5	8		9
3/21/2013	25	38	10	4.5	8		10 bucket test 6 min
3/22/2013	26	39	10	4.5	4		9 shut pu off bad weather moving in
3/23/2013	26	39	9	4.5	0		0
3/24/2013	26	39	9	4.5	0		0
3/25/2013	72	85	9	4.5	0		0
3/26/2013	59	72	9	4.5	0		0
3/27/2013	26	39	9	4.5	0		0
3/28/2013	25	38	9	4.5	0		0
3/29/2013	25	38	9	4.5	0		0
3/30/2013	25	38	8	4.5	0		0
3/31/2013	25	38	8	4.5	0		0

Total

299

114

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W363
 Northrup 2-33
 West St. Francis
 St. Francis
 Pumping Unit/Elec
 April-13

DATE	Casing			SPM	HRS CYCLE DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
	PSI	STATIC	MCF				
4/1/2013	26	39	8	4.5	0	0	
4/2/2013	26	39	8	4.5	4	3	started pumping unit
4/3/2013	27	40	9	4.5	8	6	
4/4/2013	28	41	9	4.5	8	10	bucket test 6 min and greased
4/5/2013	63	76	9	4.5	8	9	
4/6/2013	48	61	9	4.5	8	8	
4/7/2013	48	61	9	4.5	8	9	shut pumping unit off
4/8/2013	47	60	9	4.5	0	0	
4/9/2013	45	58	9	4.5	0	0	
4/10/2013	46	59	8	4.5	0	2	0
4/11/2013	28	41	8	4.5	0	0	
4/12/2013	23	36	8	4.5	4	6	restarted pu
4/13/2013	78	91	8	4.5	4	1	6 shut pumping unit off
4/14/2013	49	62	8	4.5	0	0	
4/15/2013	52	65	8	4.5	2	6	started pumping unit
4/16/2013	24	37	9	4.5	4	5	
4/17/2013	36	49	9	4.5	8	11	
4/18/2013	30	43	9	4.5	8	12	
4/19/2013	26	39	9	4.5	8	11	
4/20/2013	47	60	9	4.5	8	13	
4/21/2013	47	60	9	4.5	8	12	
4/22/2013	47	60	9	4.5	8	10	bucket test 6 min
4/23/2013	47	60	9	4.5	8	11	
4/24/2013	48	61	10	4.5	8	12	
4/25/2013	49	62	10	4.5	8	11	treated
4/26/2013	50	63	9	4.5	8	10	
4/27/2013	50	63	9	4.5	8	11	
4/28/2013	62	75	8	4.5	8	12	
4/29/2013	61	74	8	4.5	8	11	
4/30/2013	55	68	9	4.5	8	10	bucket test 6 min
5/1/2013							

Total

262

225

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W363
 Northrup 2-33
 West St. Francis
 St. Francis
 Pumping Unit/Elec
 May-13

DATE	Casing PSI	STATIC MCF	SPM	HRS CYCLE	Water DOWN BLS	REMARKS (Maximum length 110 characters)
5/1/2013	57	70	9	4.5	8	7
5/2/2013	61	74	9	4.5	8	6
5/3/2013	52	65	9	4.5	8	5
5/4/2013	49	62	9	4.5	8	6
5/5/2013	48	61	9	4.5	8	7
5/6/2013	49	62	9	4.5	8	6
5/7/2013	51	64	9	4.5	8	7
5/8/2013	56	69	9	4.5	8	6
5/9/2013	58	71	9	4.5	8	5 shut pu off hfp in afternoon
5/10/2013	41	54	9	4.5	8	6 restarted pumping unit
5/11/2013	35	48	9	4.5	8	7
5/12/2013	29	42	9	4.5	8	5
5/13/2013	30	43	9	4.5	8	5
5/14/2013	30	43	9	4.5	8	8 bucket test 7 min and greased
5/15/2013	97	110	9	4.5	4	3 4 shut pumping unit off hfp
5/16/2013	74	87	8	4.5	0	0
5/17/2013	31	44	8	4.5	4	4 started pumping unit
5/18/2013	28	41	9	4.5	8	8
5/19/2013	28	41	9	4.5	8	7
5/20/2013	30	43	9	4.5	8	6
5/21/2013	41	54	9	4.5	8	7
5/22/2013	57	70	8	4.5	8	14 4 bucket test 7 min pu off hfp
5/23/2013	163	176	7	4.5	0	10 0
5/24/2013	99	112	8	4.5	0	4 0
5/25/2013	95	108	8	4.5	0	0
5/26/2013	88	101	8	4.5	0	0
5/27/2013	85	98	8	4.5	0	0
5/28/2013	74	87	8	4.5	0	0
5/29/2013	82	95	8	4.5	0	0
5/30/2013	53	66	8	4.5	4	4 started pumping unit
5/31/2013	49	62	8	4.5	8	8

Total

266

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