

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

(See Instructions on Reverse Side)

Type Test:

- Open Flow **AST**
 Deliverability

Test Date:
5/10/2013

API No. 15
023-20608-0000

Company Rosewood Resources, Inc.		Lease Isernhagen		Well Number 4-23	
County Cheyenne	Location SWSE/4	Section 23	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field St. Francis		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 5/27/2005		Plug Back Total Depth 1449'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.052	Set at 1449'	Perforations 1250'	To 1282'
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) 1282'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 5-9 20 13 at 8:15 (AM) (PM) Taken 5-10 20 13 at 8:30 (AM) (PM)		Well on Line: Started 5-10 20 13 at 8:30 (AM) (PM) Taken 5-11 20 13 at 9:15 (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 _t) or (P _c)		Tubing Wellhead Pressure (P _w) or (P _t) or (P _c)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						112	126.4				
Flow						57	71.4			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
						22		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = _____ : (P_w)² = _____ : P_d = _____ % (P_c - 14.4) + 14.4 = _____ : (P_a)² = 0.207 (P_d)² = _____

(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 (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 21 day of November, 20 13.

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Januel Martiny
For Company

Witness (if any)

DEC 26 2013

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 Isernhagen 4-23 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: 11/21/13

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Signature: *Arnold Martiney*

DEC 26 2013

Title: Production Assistant

CONSERVATION DIVISION
WICHITA, KS

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.

W355

Isernhagen 04-23

St. Francis

St. Francis

None

May-13

DATE	Casing PSI	STATIC	MCF	SPM	HRS CYCL	Water BLS	REMARKS (Maximum length 110 characters)
5/1/2013	58	71	23	6	9		13
5/2/2013	63	76	24	6	9		12
5/3/2013	54	67	23	6	9		13
5/4/2013	51	64	25	6	9		14
5/5/2013	54	67	25	6	9		13
5/6/2013	51	64	25	6	9		12
5/7/2013	51	64	25	6	9		14
5/8/2013	56	69	25	6	9		12 5.5 min bt
5/9/2013	60	73	23	6	5		6 si for state test - cp 64
5/10/2013	58	71	0	6	5	24	6 reopened - cp 112
5/11/2013	63	76	27	6	9		13
5/12/2013	62	75	25	6	9		12
5/13/2013	62	75	27	6	9		13
5/14/2013	66	79	22	6	9		11
5/15/2013	96	109	21	6	4	2.5	5 pu off high fp
5/16/2013	74	87	18	6	0		0
5/17/2013	57	70	24	6	4		5 restarted pumping unit and treated wel
5/18/2013	57	70	23	6	9		10
5/19/2013	72	85	24	6	9		11
5/20/2013	67	80	24	6	9		12
5/21/2013	50	63	23	6	9		14
5/22/2013	55	68	23	6	5	14	6 pu off high fp
5/23/2013	111	124	10	6	0	10	0
5/24/2013	104	117	5	6	0	4	0
5/25/2013	95	108	17	6	0		0
5/26/2013	89	102	26	6	0		0
5/27/2013	86	99	23	6	0		0
5/28/2013	77	90	26	6	0		0
5/29/2013	66	79	22	6	0		0
5/30/2013	54	67	19	6	5		6 restarted pu
5/31/2013	52	65	20	6	9		13

Total

667

246

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Isernhagen 04-23

St. Francis

St. Francis

None

June-13

DATE	Casing PSI	STATIC	MCF	SPM	HRS CYCLE	DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
6/1/2013	46	59	21	6	9		13	
6/2/2013	52	65	21	6	9		11	
6/3/2013	49	62	22	6	9		12	
6/4/2013	47	60	22	6	9		14	
6/5/2013	61	74	22	6	9		12	5.5 min bt
6/6/2013	67	80	22	6	9		13	
6/7/2013	52	65	23	6	9		14	
6/8/2013	54	67	23	6	9		12	
6/9/2013	53	66	23	6	9		11	
6/10/2013	60	73	24	6	9	2	10	
6/11/2013	75	88	21	6	5	1	6	pu off hfp
6/12/2013	74	87	22	6	0		0	
6/13/2013	55	68	21	6	5		6	restart pu
6/14/2013	58	71	21	6	9		12	
6/15/2013	59	72	22	6	9		13	
6/16/2013	61	74	23	6	9		14	
6/17/2013	56	69	23	6	4		6	pu off
6/18/2013	50	63	20	6	0		0	
6/19/2013	44	57	20	6	4		6	restart pu
6/20/2013	48	61	21	6	9		16	4 min bt greased
6/21/2013	55	68	22	6	9		12	calibrated meter
6/22/2013	74	87	21	6	9		11	
6/23/2013	80	93	18	6	4		6	pu off hfp
6/24/2013	77	90	20	6	0		0	
6/25/2013	79	92	19	6	0		0	
6/26/2013	78	91	19	6	0		0	
6/27/2013	65	78	18	6	9		0	
6/28/2013	51	64	18	6	9		8	restart pu
6/29/2013	53	66	19	6	9		16	
6/30/2013	52	65	18	6	9		15	
7/1/2013								

Total

629

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CONSERVATION DIVISION
WICHITA, KS

W355
 Isernhagen 04-23
 St. Francis
 St. Francis
 None
 July-13

DATE	Casing			HRS	Water	REMARKS (Maximum length 110 characters)
	PSI	STATIC MCF	SPM			
7/1/2013	52	65	21	6	9	16
7/2/2013	54	67	22	6	9	14 4.75 min bt
7/3/2013	55	68	22	6	9	12
7/4/2013	56	69	22	6	9	14
7/5/2013	56	69	22	6	9	15
7/6/2013	56	69	23	6	9	13
7/7/2013	68	81	23	6	9	12
7/8/2013	67	80	22	6	9	11
7/9/2013	66	79	22	6	9	13
7/10/2013	58	71	23	6	9	15
7/11/2013	59	72	23	6	9	13
7/12/2013	65	78	23	6	5	7 shut pumping unit off hfp
7/13/2013	74	87	20	6	0 2.5	0 treated well
7/14/2013	76	89	20	6	0	0
7/15/2013	56	69	20	6	5	8 started pu
7/16/2013	55	68	21	6	9	11 5.75 min bt greased
7/17/2013	55	68	22	6	9	12
7/18/2013	78	91	22	6	5	7 pu off hfp
7/19/2013	70	83	19	6	0	0
7/20/2013	73	86	19	6	0	0
7/21/2013	75	88	18	6	0	0
7/22/2013	72	85	18	6	0	0
7/23/2013	63	76	18	6	5	7 restart pu
7/24/2013	71	84	19	6	9	12
7/25/2013	78	91	19	6	5	7 pu off hfp
7/26/2013	60	73	18	6	5	6 restart pu
7/27/2013	54	67	20	6	9	12
7/28/2013	54	67	20	6	9	11
7/29/2013	55	68	21	6	9	11
7/30/2013	55	68	22	6	5 3.5	6 pu off hfp
7/31/2013	85	98	15	6	0 5.5	0

Total

639

265

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