

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow **ST**
 Deliverability

(See Instructions on Reverse Side)

Test Date:
6/22/14

API No. 15
023-20609-0000

Company Rosewood Resources		Lease Zimbelman			Well Number 4-24
County Cheyenne	Location NW NW	Section 24	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 5/18/2005		Plug Back Total Depth 1403'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 4.052	Set at 1403'	Perforations 1202'	To to 1234'
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	Gas Gravity - G _g .6
Vertical Depth(H) 1234'		Pressure Taps Flange			(Meter Run) (Prover) Size 2"
Pressure Buildup: Shut in		6-7	20 14 at 8:30	(AM) (PM) Taken	6-8 20 14 at 8:45 (AM) (PM)
Well on Line: Started		6-22	20 14 at 8:45	(AM) (PM) Taken	6-23 20 14 at 9:30 (AM) (PM)

OBSERVED SURFACE DATA

Duration of Shut-in **360** Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter Prover Pressure psig (P _m)	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						200	214.4				
Flow						50	64.4			360	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 _t	Deviation Factor F _{pv}	Metered Flow R (Mcf/d)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _m
						36		

(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: $\left[\frac{P_c^2 - P_w^2}{P_c^2 - P_a^2} \right]$	Backpressure Curve Slope = "n" ----- Assigned Standard Slope	n x LOG $\left[\frac{P_c^2 - P_w^2}{P_c^2 - P_a^2} \right]$	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 12 day of December, 20 14.

Received
KANSAS CORPORATION COMMISSION

James Martens
For Company

Witness (if any)

FEB 25 2015

For Commission

CONSERVATION DIVISION
WICHITA, KS

Checked by

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 Zimbelman 4-24 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: 12/12/14

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KANSAS CORPORATION COMMISSION

FEB 25 2015

CONSERVATION DIVISION
WICHITA, KS

Signature: *Spencer 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.

W383
 Zimbelman 04-24
 St. Francis
 St. Francis
 None
 June-1~~2~~⁴
 FloBoss

DATE	Casing			HRS		REMARKS (Maximum length 110 characters)
	PSI	STATIC	MCF	DOWN		
6/1/2013 ⁴	50	63		29	0	
6/2/2013	55	68		27	0	
6/3/2013	49	62		27	0	turn on pumping unit
6/4/2013	62	75		29	0	
6/5/2013	46	59		32	0	
6/6/2013	46	59		32	0	turn off pumping unit
6/7/2013	176	189		21	9	
6/8/2013	190	203		0	24	
6/9/2013	202	215		0	24	
6/10/2013	213	226		0	24	
6/11/2013	223	236		0	24	
6/12/2013	223	236		0	24	
6/13/2013	217	230		0	24	
6/14/2013	213	226		0	24	
6/15/2013	203	216		0	24	
6/16/2013	200	213		0	24	
6/17/2013	194	207		0	24	
6/18/2013	186	199		0	24	
6/19/2013	180	193		0	24	
6/20/2013	176	189		0	24	
6/21/2013	170	183		0	24	
6/22/2013	170	183		0	24	
6/23/2013	117	130		17	5	
6/24/2013	107	120		56	0	
6/25/2013	101	114		39	0	
6/26/2013	90	103		35	0	
6/27/2013	82	95		32	0	
6/28/2013	50	63		31	0	
6/29/2013	49	62		29	0	started pumping unit
6/30/2013	51	64		31	0	
7/1/2013					0	

Total

467

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Zimbelman 04-24

St. Francis

St. Francis

None

July-14

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DATE	Casing PSI	STATIC MCF	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
7/1/2014	51	64	32	0	19
7/2/2014	51	64	32	0	18
7/3/2014	51	64	34	0	20
7/4/2014	51	64	34	0	18
7/5/2014	52	65	34	0	19
7/6/2014	52	65	35	0	20
7/7/2014	53	66	35	0	19
7/8/2014	55	68	35	0	18
7/9/2014	56	69	35	0	19
7/10/2014	56	69	35	0	18
7/11/2014	58	71	35	0	19
7/12/2014	58	71	35	0	20
7/13/2014	58	71	36	0	19
7/14/2014	86	99	36	0	18
7/15/2014	48	61	36	0	18
7/16/2014	51	64	36	0	19
7/17/2014	51	64	36	0	20
7/18/2014	51	64	36	0	19 4.5 BT
7/19/2014	49	62	36	0	18
7/20/2014	50	63	35	0	18
7/21/2014	132	145	35	0	18
7/22/2014	129	142	4	22	19
7/23/2014	75	88	31	7	20
7/24/2014	57	70	34	3	8
7/25/2014	49	62	28	4	0 started pumping unit
7/26/2014	48	61	32	0	12
7/27/2014	49	62	34	0	18
7/28/2014	49	62	34	0	20
7/29/2014	49	62	35	0	18
7/30/2014	51	64	35	0	19
7/31/2014	51	64	35	0	18

Total

1035

546

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Zimbelman 04-24

St. Francis

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None

August-14

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DATE	Casing PSI	STATIC	MCF	SPM	CYCLE	HRS DOWN	Water BBLs	REMARKS (Maximum length 110 characters)
8/1/2014	50	63	35	6.5	14	0	23	
8/2/2014	49	62	35	6.5	14	0	23	
8/3/2014	50	63	35	6.5	14	0	23	
8/4/2014	50	63	35	6.5	14	0	23	
8/5/2014	52	65	36	6.5	14	0	23	4.5 min BT
8/6/2014	52	65	36	6.5	14	0	23	
8/7/2014	53	66	36	6.5	14	0	23	
8/8/2014	53	66	36	6.5	14	0	23	
8/9/2014	54	67	37	6.5	14	0	23	
8/10/2014	56	69	36	6.5	14	0	23	
8/11/2014	56	69	36	6.5	14	0	23	
8/12/2014	49	62	36	6.5	14	0	23	
8/13/2014	50	63	36	6.5	14	0	23	
8/14/2014	50	63	36	6.5	14	0	23	
8/15/2014	56	69	34	6.5	14	3	23	
8/16/2014	55	68	36	6.5	14	0	23	
8/17/2014	56	69	36	6.5	14	0	23	
8/18/2014	56	69	36	6.5	14	0	23	
8/19/2014	64	77	36	6.5	14	2	23	
8/20/2014	53	66	36	6.5	14	0	23	
8/21/2014	53	66	36	6.5	14	0	23	
8/22/2014	55	68	36	6.5	14	0	23	
8/23/2014	49	62	36	6.5	14	0	23	
8/24/2014	51	64	37	6.5	14	0	23	
8/25/2014	66	79	37	6.5	14	0	23	
8/26/2014	52	65	37	6.5	14	0	23	
8/27/2014	50	63	37	6.5	14	0	23	
8/28/2014	115	128	37	6.5	14	0	11.5	
8/29/2014	47	60	31	6.5	14	5	11.5	
8/30/2014	48	61	36	6.5	14	0	23	
8/31/2014	63	76	36	6.5	14	0	23	

Total

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690

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