

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

(See Instructions on Reverse Side)

- Open Flow **OSF**
 Deliverability

Test Date:
6/22/14

API No. 15
023-20631-0000

Company Rosewood Resources, Inc.		Lease Rudolph		Well Number 33-09	
County Cheyenne	Location NWSE/4	Section 9	TWP 3S	RNG (E/W) 41W	Acres Attributed 80
Field St. Francis		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 10/21/2005		Plug Back Total Depth 1540'		Packer Set at	
Casing Size 2 7/8"	Weight 6.5#	Internal Diameter 2.441	Set at 1540'	Perforations 1421'	To 1453'
Tubing Size NONE	Weight	Internal Diameter	Set at	Perforations	To
Type Completion (Describe) Single (Conventional)		Type Fluid Production		Pump Unit or Traveling Plunger? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) 1453'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 6-7		20 14 at 10:15		(AM) (PM) Taken 6-10	
Well on Line: Started 6-22		20 14 at 10:30		(AM) (PM) Taken 6-23	
		20 14 at 10:30		(AM) (PM) Taken 6-23	
		20 14 at 11:15		(AM) (PM) Taken 6-23	

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						140	154.4				
Flow						43	57.4			360	0

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _s) (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 (Mcf/d)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _m
						13		

(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" ----- or ----- 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 12 day of December, 20 14.

Received
KANSAS CORPORATION COMMISSION

Small Martiny
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 Rudolph 33-9 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

Received
KANSAS CORPORATION COMMISSION
FEB 25 2015
CONSERVATION DIVISION
WICHITA, KS

Signature: *Journal Mattison*
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.

W441
 Rudolph 33-9
 St. Francis
 St. Francis
 None
 June-18

DATE	Casing		HRS		REMARKS (Maximum length 110 characters)
	PSI	STATIC MCF	DOWN		
6/1/2013	41	54	15	0	
6/2/2013	59	72	14	0	
6/3/2013	63	76	19	0	
6/4/2013	83	96	19	0	
6/5/2013	36	49	17	0	
6/6/2013	37	50	17	0	
6/7/2013	132	145	8	9	
6/8/2013	134	147	8	24	
6/9/2013	137	150	0	24	
6/10/2013	140	153	0	24	
6/11/2013	150	163	0	24	
6/12/2013	145	158	0	24	
6/13/2013	143	156	0	24	
6/14/2013	139	152	0	24	
6/15/2013	139	152	0	24	
6/16/2013	139	152	0	24	
6/17/2013	139	152	0	24	
6/18/2013	140	153	0	24	
6/19/2013	141	154	0	24	
6/20/2013	140	153	0	24	
6/21/2013	140	153	0	24	
6/22/2013	140	153	0	24	
6/23/2013	121	134	18	5	
6/24/2013	111	124	28	0	
6/25/2013	100	113	24	0	
6/26/2013	84	97	21	0	
6/27/2013	74	87	18	0	
6/28/2013	45	58	18	0	
6/29/2013	42	55	17	0	
6/30/2013	39	52	16	0	
7/1/2013				0	

Total

277

Received
 KANSAS CORPORATION COMMISSION

FEB 25 2015

CONSERVATION DIVISION
 WICHITA, KS

W441
 Rudolph 33-9
 St. Francis
 St. Francis
 None
 July-14

DATE	Casing		HRS		REMARKS (Maximum length 110 characters)
	PSI	STATIC MCF	DOWN		
7/1/2014	43	56	14	0	
7/2/2014	43	56	15	0	
7/3/2014	43	56	15	0	
7/4/2014	43	56	15	0	
7/5/2014	44	57	15	0	
7/6/2014	44	57	15	0	
7/7/2014	73	86	15	0	
7/8/2014	47	60	15	0	
7/9/2014	46	59	15	0	
7/10/2014	47	60	14	0	
7/11/2014	49	62	15	0	
7/12/2014	50	63	14	0	
7/13/2014	51	64	14	0	
7/14/2014	63	76	13	0	
7/15/2014	44	57	16	0	
7/16/2014	44	57	16	0	
7/17/2014	38	51	14	0	
7/18/2014	38	51	13	0	
7/19/2014	38	51	13	0	
7/20/2014	38	51	14	0	
7/21/2014	38	51	15	0	
7/22/2014	132	145	1	22	
7/23/2014	72	85	16	7	
7/24/2014	49	62	17	3	
7/25/2014	42	55	14	4	
7/26/2014	36	49	14	0	
7/27/2014	38	51	13	0	
7/28/2014	39	52	13	0	
7/29/2014	62	75	13	0	
7/30/2014	40	53	15	0	
7/31/2014	41	54	12	0	

Total

433

Received
 KANSAS CORPORATION COMMISSION

FEB 25 2015

CONSERVATION DIVISION
 WICHITA, KS

W441
 Rudolph 33-9
 St. Francis
 St. Francis
 None
 August-14

DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
8/1/2014	39	52	15	0	
8/2/2014	38	51	15	0	
8/3/2014	41	54	13	0	
8/4/2014	38	51	13	0	
8/5/2014	42	55	13	0	
8/6/2014	42	55	13	0	
8/7/2014	43	56	13	0	
8/8/2014	43	56	13	0	
8/9/2014	44	57	13	0	
8/10/2014	49	62	13	0	
8/11/2014	48	61	13	0	
8/12/2014	43	56	15	0	
8/13/2014	41	54	13	0	
8/14/2014	39	52	13	0	
8/15/2014	54	67	13	3	
8/16/2014	44	57	13	0	
8/17/2014	44	57	13	0	
8/18/2014	50	63	18	0	
8/19/2014	56	69	14	2	
8/20/2014	86	99	10	0	
8/21/2014	43	56	13	0	
8/22/2014	50	63	13	0	
8/23/2014	38	51	13	0	
8/24/2014	41	54	12	0	
8/25/2014	60	73	10	0	
8/26/2014	43	56	15	0	
8/27/2014	46	59	15	0	
8/28/2014	41	54	14	0	
8/29/2014	41	54	13	5	
8/30/2014	36	49	13	0	
8/31/2014	52	65	11	0	

Total 411

Received
 KANSAS CORPORATION COMMISSION

FEB 25 2015

CONSERVATION DIVISION
 WICHITA, KS