

KANSAS CORPORATION COMMISSION

ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow **AST**
 Deliverability

(See Instructions on Reverse Side)

Test Date:
6/22/14

API No. 15
023-21256-0000

Company Rosewood Resources, Inc.		Lease Zweygardt		Well Number 14-19	
County Cheyenne	Location SWSW	Section 19	TWP 3S	RNG (E/W) 40W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 9/16/2010		Plug Back Total Depth 1500'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 6.366	Set at 1539'	Perforations 1314'	To 1344'
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? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide		% Nitrogen	
Vertical Depth(H) 1550'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 6-7		20 14 at 5:40		(AM)(PM) Taken 6-18	
Well on Line: Started 6-22		20 14 at 5:55		(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 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						230	244.4				
Flow						73	87.4			360	

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
						19		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P₀)² = 0.207
(P₁)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: $\frac{P_c^2 - P_a^2}{P_c^2 - P_w^2}$	Backpressure Curve Slope = "n" ----- or ----- Assigned Standard Slope	n x LOG []	Antilog	Open Flow Deliverability Equals R x Antilog (Mcf/d)

Open Flow Mcf/d @ 14.65 psia Deliverability Mcf/d @ 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

Samuel M. Montney
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 Zweygardt 14-19 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

Signature: *Janell Martney*

Title: Production Assistant

FEB 25 2015

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.

W2741
 Zweygardt 14-19
 St. Francis
 St. Francis
 Flow
 June-18⁴
 FloBoss

DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
6/1/2013 ⁴	75	88		20	0
6/2/2013	78	91		14	0
6/3/2013	86	99		20	0
6/4/2013	84	97		19	0
6/5/2013	70	83		19	0
6/6/2013	71	84		19	0
6/7/2013	176	188		13	9
6/8/2013	189	202		0	24
6/9/2013	200	213		0	24
6/10/2013	213	226		0	24
6/11/2013	222	235		0	24
6/12/2013	227	240		0	24
6/13/2013	228	241		0	24
6/14/2013	229	242		0	24
6/15/2013	230	243		0	24
6/16/2013	230	243		0	24
6/17/2013	231	144		0	24
6/18/2013	230	243		0	24
6/19/2013	226	239		0	24
6/20/2013	223	236		0	24
6/21/2013	221	234		0	24
6/22/2013	122	235		0	24
6/23/2013	147	160		23	5
6/24/2013	118	131		35	0
6/25/2013	122	135		28	0
6/26/2013	109	122		25	0
6/27/2013	103	116		24	0
6/28/2013	80	93		24	0
6/29/2013	77	90		22	0
6/30/2013	78	91		22	0
7/1/2013					0

Total

327

Received
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CONSERVATION DIVISION
 WICHITA, KS

W2741
 Zwegardt 14-19
 St. Francis
 St. Francis
 Flow
 July-14
 FloBoss

DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
7/1/2014	78	91		21	0
7/2/2014	76	89		21	0
7/3/2014	76	89		21	0
7/4/2014	76	89		21	0
7/5/2014	77	90		21	0
7/6/2014	77	90		21	0
7/7/2014	85	98		20	0
7/8/2014	77	90		20	0
7/9/2014	78	91		20	0
7/10/2014	79	92		20	0
7/11/2014	81	94		20	0
7/12/2014	79	92		20	0
7/13/2014	79	92		19	0
7/14/2014	92	105		19	0
7/15/2014	73	86		19	0
7/16/2014	73	86		19	0
7/17/2014	74	87		19	0
7/18/2014	76	89		19	0
7/19/2014	72	85		19	0
7/20/2014	72	85		19	0
7/21/2014	145	158		19	0
7/22/2014	151	164		8	22
7/23/2014	96	109		22	7
7/24/2014	82	95		20	3
7/25/2014	72	85		19	4
7/26/2014	71	84		19	0
7/27/2014	70	83		19	0
7/28/2014	71	84		19	0
7/29/2014	72	85		19	0
7/30/2014	72	85		19	0
7/31/2014	72	85		19	0

Total

600

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CONSERVATION DIVISION
 WICHITA, KS

W2741

Zweygardt 14-19

St. Francis

St. Francis

Flow

August-14

FloBoss

DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
8/1/2014	72	85		19	0
8/2/2014	71	84		19	0
8/3/2014	70	83		18	0
8/4/2014	70	83		18	0
8/5/2014	71	84		18	0
8/6/2014	73	86		18	0
8/7/2014	72	85		18	0
8/8/2014	73	86		18	0
8/9/2014	73	86		18	0
8/10/2014	75	88		18	0
8/11/2014	81	94		18	0
8/12/2014	70	83		17	0
8/13/2014	71	84		18	0
8/14/2014	70	83		18	0
8/15/2014	75	88		18	3
8/16/2014	74	87		18	0
8/17/2014	75	88		18	0
8/18/2014	74	87		17	0
8/19/2014	80	93		17	2
8/20/2014	72	85		17	0
8/21/2014	71	84		17	0
8/22/2014	78	91		17	0
8/23/2014	69	82		17	0
8/24/2014	70	83		17	0
8/25/2014	87	100		17	0
8/26/2014	70	83		17	0
8/27/2014	76	89		17	0
8/28/2014	118	131		17	0
8/29/2014	69	82		17	5
8/30/2014	69	82		17	0
8/31/2014	77	90		17	0

Total

545

Received
KANSAS CORPORATION COMMISSION

FEB 25 2015

CONSERVATION DIVISION
WICHITA, KS