

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow **AST**
 Deliverability

(See Instructions on Reverse Side)

Test Date:
6/7/2013

API No. 15
023-21255-0000

Company Rosewood Resources, Inc.		Lease Zweygardt		Well Number 13-19	
County Cheyenne	Location NWSW	Section 19	TWP 3S	RNG (E/W) 40W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 11/12/10		Plug Back Total Depth 1500'		Packer Set at	
Casing Size 4 1/2"	Weight 10.5#	Internal Diameter 6.366	Set at 1500'	Perforations 1334'	To 1364'
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) 1515'		Pressure Taps Flange		Gas Gravity - G _g .6	
Pressure Buildup: Shut in 6-6 _____ 20 13 at 5:10 _____ (AM) (PM) Taken 6-7 _____ 20 13 at 5:25 _____ (AM) (PM)					
Well on Line: Started 6-7 _____ 20 13 at 5:25 _____ (AM) (PM) Taken 6-8 _____ 20 13 at 5:40 _____ (AM) (PM)					

OBSERVED SURFACE DATA

Duration of Shut-in 24 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						219	233.4				
Flow						66	80.4			24	

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _d) (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
						11		

(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" ----- or ----- 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

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 21 day of November, 20 13.

Witness (if any)

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For Company

For Commission

DEC 26 2013

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 Zweygardt 13-19 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: 11/21/13

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Signature: _____



Title: Production Assistant

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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.

W2731
 Zweygardt 13-19
 St. Francis
 St. Francis
 Flow
 June-13
 FloBoss

DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
6/1/2013	62	75		11	
6/2/2013	66	79		11	
6/3/2013	63	76		11	
6/4/2013	62	75		11	
6/5/2013	67	80		11	
6/6/2013	61	74		11	si for state test - cp 78
6/7/2013	104	117		0	24 reopened - cp 219
6/8/2013	67	80		17	
6/9/2013	71	84		12	
6/10/2013	95	108		12	2
6/11/2013	86	99		12	1
6/12/2013	84	97		12	
6/13/2013	68	81		12	
6/14/2013	69	82		11	
6/15/2013	73	86		11	
6/16/2013	73	86		11	
6/17/2013	70	83		11	
6/18/2013	66	79		11	
6/19/2013	61	74		11	
6/20/2013	66	79		11	
6/21/2013	70	83		11	
6/22/2013	85	98		11	
6/23/2013	89	102		11	
6/24/2013	86	99		11	
6/25/2013	90	103		11	
6/26/2013	88	101		11	
6/27/2013	77	91		11	
6/28/2013	65	78		11	
6/29/2013	65	78		11	
6/30/2013	64	77		11	
7/1/2013					

Total

330

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 WICHITA, KS

W2731
 Zweygardt 13-19
 St. Francis
 St. Francis
 Flow
 July-13
 FloBoss

DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
7/1/2013	66	79		11	
7/2/2013	68	81		11	
7/3/2013	67	80		11	
7/4/2013	69	82		11	
7/5/2013	69	82		11	
7/6/2013	68	81		11	
7/7/2013	78	91		11	
7/8/2013	77	90		10	
7/9/2013	76	89		10	
7/10/2013	72	85		10	
7/11/2013	75	88		10	
7/12/2013	80	93		10	
7/13/2013	84	97		10	2.5
7/14/2013	86	99		10	
7/15/2013	69	82		10	
7/16/2013	66	79		10	
7/17/2013	63	76		11	
7/18/2013	90	103		11	
7/19/2013	81	94		11	
7/20/2013	83	96		11	
7/21/2013	84	97		11	
7/22/2013	80	93		11	
7/23/2013	77	90		11	
7/24/2013	83	96		11	
7/25/2013	87	100		10	
7/26/2013	77	90		10	
7/27/2013	67	80		10	
7/28/2013	69	82		11	
7/29/2013	68	81		10	
7/30/2013	93	106		10	3.5
7/31/2013	117	130		10	5.5

Total

326

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CONSERVATION DIVISION
 WICHITA, KS

W2731
 Zweygardt 13-19
 St. Francis
 St. Francis
 Flow
 August-13
 FloBoss

DATE	Casing PSI	STATIC	MCF	HRS DOWN	REMARKS (Maximum length 110 characters)
8/1/2013	87	100		10	
8/2/2013	86	99		10	
8/3/2013	82	95		10	
8/4/2013	82	95		10	
8/5/2013	76	89		10	
8/6/2013	66	79		10	
8/7/2013	63	76		10	
8/8/2013	66	79		10	
8/9/2013	69	82		10	
8/10/2013	67	80		10	
8/11/2013	65	78		10	
8/12/2013	65	78		10	
8/13/2013	65	78		10	
8/14/2013	66	79		10	
8/15/2013	66	79		10	0.5
8/16/2013	75	88		10	
8/17/2013	75	88		10	
8/18/2013	75	88		10	
8/19/2013	76	89		10	1.5
8/20/2013	97	110		10	1
8/21/2013	94	107		10	
8/22/2013	97	110		10	5
8/23/2013	81	94		10	
8/24/2013	91	104		10	1
8/25/2013	95	108		10	1
8/26/2013	68	81		10	
8/27/2013	64	77		10	
8/28/2013	62	75		10	
8/29/2013	94	107		10	1
8/30/2013	93	106		10	
8/31/2013	94	107		10	

Total

310

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