

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow **KST**
 Deliverability

(See Instructions on Reverse Side)

Test Date:
6/22/14

API No. 15
023-20634-0000

Company Rosewood Resources, Inc.		Lease R. Moore		Well Number 13-28	
County Cheyenne	Location NWSW/4	Section 28	TWP 2S	RNG (E/W) 42W	Acres Attributed 80
Field Cherry Creek		Reservoir Niobrara		Gas Gathering Connection Branch Systems Inc.	
Completion Date 10/21/2005		Plug Back Total Depth 1789'		Packer Set at	
Casing Size 2 7/8"	Weight 6.5#	Internal Diameter 2.441	Set at 1789'	Perforations 1668'	To 1700'
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) 1700'		Pressure Taps Flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup: Shut in 6-7 20 14 at 1:50 (AM) (PM) Taken 6-21 20 14 at 2:05 (AM) (PM)		Well on Line: Started 6-22 20 14 at 2:05 (AM) (PM) Taken 6-23 20 14 at 2:50 (AM) (PM)			

OBSERVED SURFACE DATA

Duration of Shut-in 360 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 _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						191	205.4				
Flow						45	59.4			360	0

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _p) (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
						2		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

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

(P _c) ² - (P _a) ² or (P _o) ² - (P _a) ²	(P _o) ² - (P _w) ²	Choose formula 1 or 2: 1. P _c ² - P _a ² 2. P _o ² - P _a 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 (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 10 day of December, 20 14.

Received
KANSAS CORPORATION COMMISSION

Witness (if any) _____ For Company _____
For Commission _____ Checked by _____

FEB 25 2015

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 R. Moore 13-28 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: 12/10/14

Received
KANSAS CORPORATION COMMISSION

FEB 25 2015

CONSERVATION DIVISION
WICHITA, KS

Signature: *Janell Martusey*

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.

W439
 R. Moore 13-28
 West St. Francis
 St. Francis
 None
 June-14

DATE	Casing		HRS		REMARKS (Maximum length 110 characters)
	PSI	STATIC MCF	DOWN		
6/1/2014	54	68	2	0	
6/2/2014	69	82	2	0	
6/3/2014	62	76	2	0	
6/4/2014	82	96	2	0	
6/5/2014	45	59	2	0	
6/6/2014	50	63	2	0	
6/7/2014	178	191	1	9	
6/8/2014	173	186	0	24	
6/9/2014	180	193	0	24	
6/10/2014	180	193	0	24	
6/11/2014	181	194	0	24	
6/12/2014	183	196	0	24	
6/13/2014	185	198	0	24	
6/14/2014	186	200	0	24	
6/15/2014	186	200	0	24	
6/16/2014	188	202	0	24	
6/17/2014	188	202	0	24	
6/18/2014	189	203	0	24	
6/19/2014	190	204	0	24	
6/20/2014	190	203	0	24	
6/21/2014	191	204	0	24	
6/22/2014	191	204	0	24	
6/23/2014	116	129	6	5	
6/24/2014	111	124	6	0	
6/25/2014	99	112	3	0	
6/26/2014	90	103	3	0	
6/27/2014	83	97	2	0	
6/28/2014	51	65	2	0	
6/29/2014	51	65	2	0	
6/30/2014	49	63	2	0	
7/1/2014				0	

Total 39

Received
 KANSAS CORPORATION COMMISSION

FEB 25 2015

CONSERVATION DIVISION
 WICHITA, KS

W439
 R. Moore 13-28
 West St. Francis
 St. Francis
 None
 July-14

DATE	Casing			HRS DOWN	REMARKS (Maximum length 110 characters)
	PSI	STATIC	MCF		
7/1/2014	51	65		2	0
7/2/2014	51	65		2	0
7/3/2014	51	65		2	0
7/4/2014	52	65		2	0
7/5/2014	55	68		2	0
7/6/2014	55	68		2	0
7/7/2014	66	79		2	0
7/8/2014	56	69		2	0
7/9/2014	56	69		2	0
7/10/2014	57	70		2	0
7/11/2014	58	71		2	0
7/12/2014	59	72		2	0
7/13/2014	60	73		2	0
7/14/2014	71	84		2	0
7/15/2014	50	63		2	0
7/16/2014	50	63		2	0
7/17/2014	50	63		2	0
7/18/2014	50	63		2	0
7/19/2014	48	61		2	0
7/20/2014	48	61		2	0
7/21/2014	114	127		2	0
7/22/2014	162	176		0	22
7/23/2014	80	94		3	7
7/24/2014	55	69		2	3
7/25/2014	45	59		2	4
7/26/2014	46	60		2	0
7/27/2014	47	61		2	0
7/28/2014	38	52		2	0
7/29/2014	37	51		2	0
7/30/2014	36	50		2	0
7/31/2014	39	53		2	0

Total 61

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 KANSAS CORPORATION COMMISSION
FEB 25 2015
 CONSERVATION DIVISION
 WICHITA, KS

W439
 R. Moore 13-28
 West St. Francis
 St. Francis
 None
 August-14

DATE	Casing		HRS		REMARKS (Maximum length 110 characters)
	PSI	STATIC MCF	DOWN		
8/1/2014	37	50	2	0	
8/2/2014	37	50	2	0	
8/3/2014	36	49	2	0	
8/4/2014	51	64	2	0	
8/5/2014	51	64	2	0	
8/6/2014	51	64	2	0	
8/7/2014	53	66	2	0	
8/8/2014	54	67	2	0	
8/9/2014	54	67	2	0	
8/10/2014	56	69	1	0	
8/11/2014	51	65	1	0	
8/12/2014	49	63	1	0	
8/13/2014	34	48	2	0	
8/14/2014	34	48	2	0	
8/15/2014	43	56	1	3	
8/16/2014	34	47	2	0	
8/17/2014	34	47	2	0	
8/18/2014	34	47	2	0	
8/19/2014	47	60	1	2	
8/20/2014	42	55	1	0	
8/21/2014	27	51	1	0	
8/22/2014	54	68	1	0	
8/23/2014	47	61	1	0	
8/24/2014	49	63	1	0	
8/25/2014	62	75	1	0	
8/26/2014	52	65	1	0	
8/27/2014	55	68	1	0	
8/28/2014	48	62	2	0	
8/29/2014	48	61	2	5	
8/30/2014	48	61	2	0	
8/31/2014	60	74	1	0	

Total 48

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 WICHITA, KS