

# KANSAS CORPORATION COMMISSION

## ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

(See Instructions on Reverse Side)

- Open Flow  **24 SI**  
 Deliverability

Test Date: **9-9-04**

API No. 15 **-023-20587-0000**

Company <b>Rosewood Resources</b>		Lease <b>Iseenhagen</b>			Well Number <b>2-23</b>	
County <b>Cheyenne</b>	Location <b>SE-SE</b>	Section <b>23</b>	TWP <b>3S</b>	RNG (E/W) <b>41W</b>	Acres Attributed	
Field <b>Cherry Creek</b>		Reservoir <b>Miubra</b>	Gas Gathering Connection <b>B.S.I.</b>			
Completion Date <b>9-2-04</b>		Plug Back Total Depth <b>1508</b>	Packer Set at			
Casing Size <b>4.5"</b>	Weight <b>10.5</b>	Internal Diameter <b>4.052"</b>	Set at <b>1514</b>	Perforations <b>1316</b>	To <b>1352</b>	
Tubing Size <b>None</b>	Weight	Internal Diameter	Set at	Perforations	To	

Type Completion (Describe) <b>SINGLE (Vertical)</b>	Type Fluid Production <b>GAS</b>	Pump Unit or Traveling Plunger? Yes / <input checked="" type="checkbox"/> No
Producing Through (Annulus / Tubing) <b>Casing</b>	% Carbon Dioxide	% Nitrogen <b>flowing</b>
Vertical Depth (ft) <b>1520</b>	Pressure Taps <b>Flange</b>	Gas Gravity - G <sub>g</sub> <b>0.64</b>
		(Meter Run) (Prover) Size <b>2"</b>

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Shut in	<b>9/8</b>	20 <b>04</b> at	<b>7</b>	<input checked="" type="checkbox"/> (AM) (PM)	Taken	<b>9/90</b>	20 <b>04</b> at	<b>7</b>	<input checked="" type="checkbox"/> (AM) (PM)
Well on	<b>9/10</b>	20 <b>04</b> at	<b>7</b>	<input checked="" type="checkbox"/> (AM) (PM)	Taken	<b>9/13</b>	20 <b>04</b> at	<b>7</b>	<input checked="" type="checkbox"/> (AM) (PM)

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**OBSERVED SURFACE DATA**

Duration of Shut-in **48** Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter Prover Pressure psig (Pm)	Pressure Differential in Inches H <sub>2</sub> O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>i</sub> ) or (P <sub>c</sub> )		Tubing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>i</sub> ) or (P <sub>c</sub> )		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						<b>285</b>	<b>269.4</b>				
Flow						<b>249</b>	<b>263.4</b>				

**FLOW STREAM ATTRIBUTES**

Plate Coefficient (F <sub>p</sub> ) (F <sub>v</sub> ) Mcfd	Circle one: Meter or Prover Pressure psia	Press Extension $\sqrt{P_m \times h}$	Gravity Factor F <sub>g</sub>	Flowing Temperature Factor F <sub>t</sub>	Deviation Factor F <sub>pv</sub>	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G <sub>m</sub>
						<b>76</b>		

**(OPEN FLOW) (DELIVERABILITY) CALCULATIONS**

(P<sub>c</sub>)<sup>2</sup> = \_\_\_\_\_ : (P<sub>w</sub>)<sup>2</sup> = \_\_\_\_\_ : P<sub>d</sub> = \_\_\_\_\_ % (P<sub>c</sub> - 14.4) + 14.4 = \_\_\_\_\_ : (P<sub>c</sub>)<sup>2</sup> = 0.207  
(P<sub>c</sub>)<sup>2</sup> = \_\_\_\_\_

(P <sub>c</sub> ) <sup>2</sup> - (P <sub>a</sub> ) <sup>2</sup> or (P <sub>c</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup>	(P <sub>c</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup>	Choose formula 1 or 2: 1. P <sub>c</sub> <sup>2</sup> - P <sub>a</sub> <sup>2</sup> 2. P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> divided by: P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>	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" ----- Assigned Standard Slope	n x LOG	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 14 day of Jan., 20 05.

\_\_\_\_\_  
Witness (if any)

\_\_\_\_\_  
For Company

\_\_\_\_\_  
Checked by

Rosewood Resources

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 Isernhagen 2-23 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.

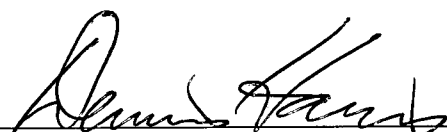
I hereby request a one-year exemption from open flow testing for the Isernhagen 2-23 gas well on the grounds that said well:

(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: 1/14/05

Signature:   
Title: Reservoir Engineer

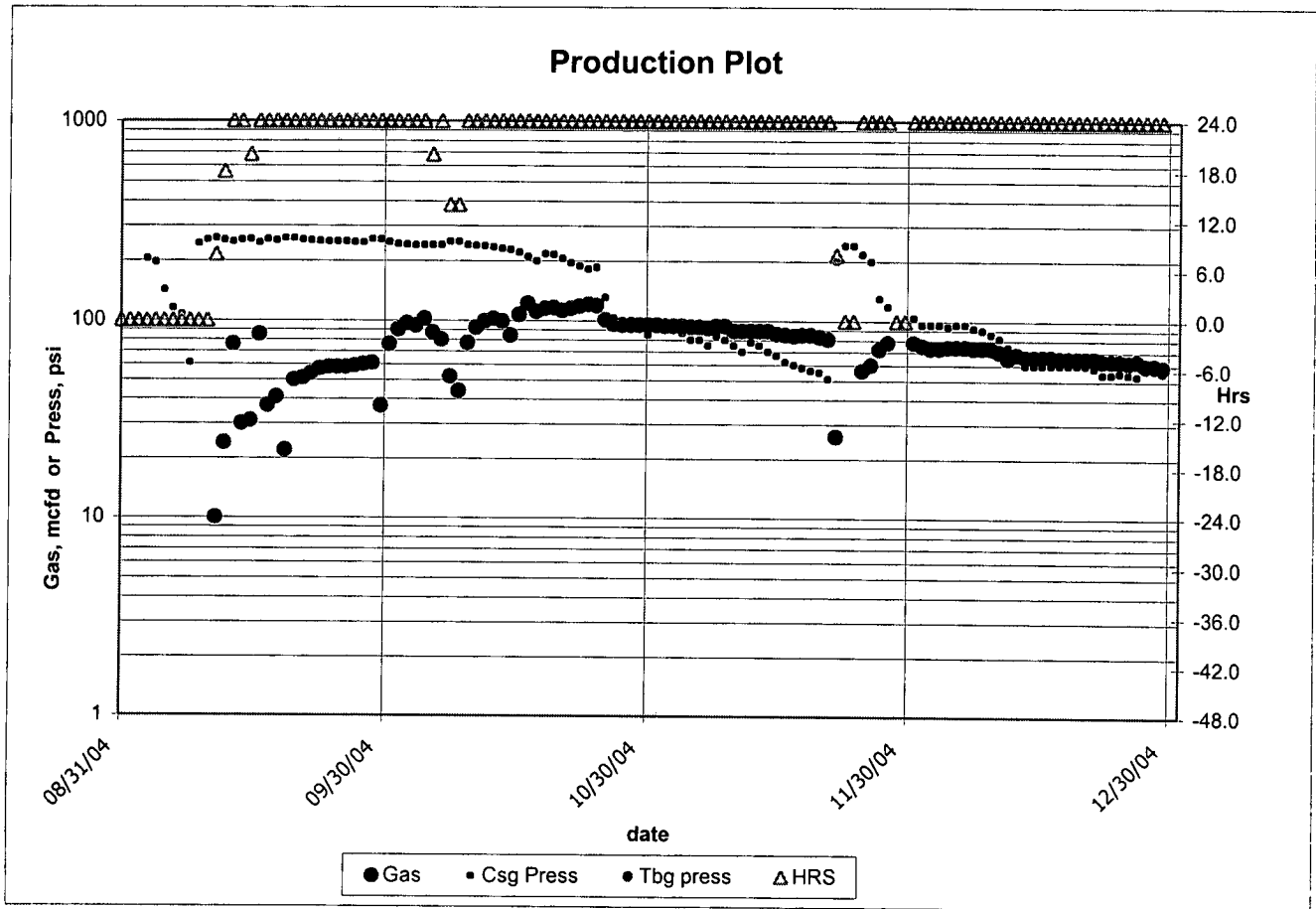
**Instructions:** If a gas well meets one of the eligibility criteria set out in KCC regulation K.A.R. 82-3-304, the operator may complete the statement provided above in order to claim exempt status for the gas well.

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.

Actual  
ISERNHAGEN 02-23

	<u>Gas</u>	<u>Csg Press</u>	<u>Tbg Press</u>	<u>Line Press</u>	<u>Hrs</u>	<u>Remarks</u>
2004/01	null	null	null	null	null	null
2004/02	null	null	null	null	null	null
2004/03	null	null	null	null	null	null
2004/04	null	null	null	null	null	null
2004/05	null	null	null	null	null	null
2004/06	null	null	null	null	null	null
2004/07	null	null	null	null	null	null
2004/08	null	null	null	null	null	null
2004/09	959	253.4	null	null	22.7	null
2004/10	3008	200.9	null	null	23.2	null
2004/11	2169	103.1	null	null	23.4	null
2004/12	2084	71.0	null	null	24.0	null
<b>TOTAL</b>	<b>8220</b>	<b>157.1</b>			<b>23.3</b>	



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Actual  
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	Gas Csg	Press	Tbg Press	Line Press	Hrs	Remarks
08/19/2004	null	null	null	null	null	SI WOCT
08/20/2004	null	null	null	null	null	SI WOCT
08/21/2004	null	null	null	null	null	SI WOCT
08/22/2004	null	null	null	null	null	SI WOCT
08/23/2004	null	null	null	null	null	SI WOCT
08/24/2004	null	null	null	null	null	SI WOCT
08/25/2004	null	null	null	null	null	SI WOCT
08/26/2004	null	null	null	null	null	SI WOCT
08/27/2004	null	null	null	null	null	SI WOCT
08/28/2004	null	null	null	null	null	SI WOCT
08/29/2004	null	null	null	null	null	PBTD 1508
08/30/2004	null	null	null	null	null	Perf 1316-1352 w/ 2spf
08/31/2004	null	null	null	null	null	SI WOFU
09/01/2004	0	null	null	null	0.0	SI WOFU
09/02/2004	0	330#	null	null	0.0	Frac 100k# & SICP 2 hr
09/03/2004	0	204.0	null	null	0.0	FCP 18/64 chk
09/04/2004	0	196.0	null	null	0.0	FCP 18/64 chk
09/05/2004	0	142.0	null	null	0.0	FCP 24/64 chk
09/06/2004	0	115.0	null	null	0.0	FCP 24/64 chk
09/07/2004	0	107.0	null	null	0.0	FCP 24/64 chk
09/08/2004	0	61.0	null	null	0.0	FCP 24/64 chk & SI
09/09/2004	0	244.0	null	null	0.0	SI
09/10/2004	0	255.0	null	null	0.0	SI G-2 & on line
09/11/2004	10	260.0	null	null	8.0	
09/12/2004	24	254.0	null	null	18.0	
09/13/2004	76	249.0	null	null	24.0	
09/14/2004	30	255.0	null	null	24.0	
09/15/2004	31	257.0	null	null	20.0	
09/16/2004	85	246.0	null	null	24.0	
09/17/2004	37	256.0	null	null	24.0	
09/18/2004	41	253.0	null	null	24.0	
09/19/2004	22	260.0	null	null	24.0	
09/20/2004	50	260.0	null	null	24.0	
09/21/2004	51	255.0	null	null	24.0	
09/22/2004	54	253.0	null	null	24.0	
09/23/2004	57	251.0	null	null	24.0	
09/24/2004	58	250.0	null	null	24.0	
09/25/2004	58	250.0	null	null	24.0	
09/26/2004	58	250.0	null	null	24.0	
09/27/2004	59	248.0	null	null	24.0	
09/28/2004	60	247.0	null	null	24.0	
09/29/2004	61	257.0	null	null	24.0	
09/30/2004	37	256.0	null	null	24.0	
10/01/2004	76	248.0	null	null	24.0	
10/02/2004	90	243.0	null	null	24.0	
10/03/2004	97	241.0	null	null	24.0	
10/04/2004	94	239.0	null	null	24.0	
10/05/2004	102	240.0	null	null	24.0	
10/06/2004	87	240.0	null	null	20.0	
10/07/2004	80	240.0	null	null	24.0	
10/08/2004	52	250.0	null	null	14.0	
10/09/2004	44	250.0	null	null	14.0	
10/10/2004	77	240.0	null	null	24.0	
10/11/2004	92	238.0	null	null	24.0	
10/12/2004	99	237.0	null	null	24.0	
10/13/2004	102	235.0	null	null	24.0	
10/14/2004	99	230.0	null	null	24.0	
10/15/2004	84	228.0	null	null	24.0	
10/16/2004	107	220.0	null	null	24.0	
10/17/2004	122	210.0	null	null	24.0	
10/18/2004	111	200.0	null	null	24.0	
10/19/2004	115	217.0	null	null	24.0	
10/20/2004	116	215.0	null	null	24.0	
10/21/2004	112	205.0	null	null	24.0	
10/22/2004	115	195.0	null	null	24.0	
10/23/2004	118	188.0	null	null	24.0	
10/24/2004	121	182.0	null	null	24.0	
10/25/2004	119	185.0	null	null	24.0	
10/26/2004	101	131.0	null	null	24.0	
10/27/2004	96	103.0	null	null	24.0	
10/28/2004	95	100.0	null	null	24.0	
10/29/2004	95	100.0	null	null	24.0	
10/30/2004	95	92.0	null	null	24.0	
10/31/2004	95	85.0	null	null	24.0	

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Actual

ISERNHAGEN 02-23

	Gas Csg Press	Tbg Press	Line Press	Hrs	Remarks
11/01/2004	95	95.0	null	null	24.0
11/02/2004	94	95.0	null	null	24.0
11/03/2004	94	90.0	null	null	24.0
11/04/2004	94	87.0	null	null	24.0
11/05/2004	93	80.0	null	null	24.0
11/06/2004	93	80.0	null	null	24.0
11/07/2004	92	75.0	null	null	24.0
11/08/2004	94	84.0	null	null	24.0
11/09/2004	94	80.0	null	null	24.0
11/10/2004	89	75.0	null	null	24.0
11/11/2004	89	70.0	null	null	24.0
11/12/2004	89	78.0	null	null	24.0
11/13/2004	89	75.0	null	null	24.0
11/14/2004	89	70.0	null	null	24.0
11/15/2004	86	67.0	null	null	24.0
11/16/2004	85	62.0	null	null	24.0
11/17/2004	84	60.0	null	null	24.0
11/18/2004	85	58.0	null	null	24.0
11/19/2004	85	56.0	null	null	24.0
11/20/2004	83	55.0	null	null	24.0
11/21/2004	81	51.0	null	null	24.0
11/22/2004	26	200.0	null	null	8.0
11/23/2004	0	240.0	null	null	0.0 SI
11/24/2004	0	240.0	null	null	0.0 SI
11/25/2004	56	217.0	null	null	24.0
11/26/2004	60	200.0	null	null	24.0
11/27/2004	72	130.0	null	null	24.0
11/28/2004	78	118.0	null	null	24.0
11/29/2004	null	null	null	null	null SI
11/30/2004	null	null	null	null	null SI
12/01/2004	78	104.0	null	null	24.0
12/02/2004	75	96.0	null	null	24.0
12/03/2004	73	96.0	null	null	24.0
12/04/2004	73	96.0	null	null	24.0
12/05/2004	74	94.0	null	null	24.0
12/06/2004	74	96.0	null	null	24.0
12/07/2004	74	96.0	null	null	24.0
12/08/2004	73	92.0	null	null	24.0
12/09/2004	73	90.0	null	null	24.0
12/10/2004	73	86.0	null	null	24.0
12/11/2004	70	82.0	null	null	24.0
12/12/2004	65	74.0	null	null	24.0
12/13/2004	68	68.0	null	null	24.0
12/14/2004	66	60.0	null	null	24.0
12/15/2004	66	60.0	null	null	24.0
12/16/2004	66	60.0	null	null	24.0
12/17/2004	66	60.0	null	null	24.0
12/18/2004	65	60.0	null	null	24.0
12/19/2004	65	60.0	null	null	24.0
12/20/2004	65	60.0	null	null	24.0
12/21/2004	65	60.0	null	null	24.0
12/22/2004	65	58.0	null	null	24.0
12/23/2004	63	54.0	null	null	24.0
12/24/2004	63	54.0	null	null	24.0
12/25/2004	63	55.0	null	null	24.0
12/26/2004	62	54.0	null	null	24.0
12/27/2004	63	53.0	null	null	24.0
12/28/2004	60	57.0	null	null	24.0
12/29/2004	60	57.0	null	null	24.0
12/30/2004	59	55.0	null	null	24.0
12/31/2004	59	55.0	null	null	24.0