

KANSAS CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST
 (See Instructions on Reverse Side)

Form G-2
 (Rev 8/98)

Type Test:

- Open Flow
 Deliverability **WHSIP**

Test Date: 10/27/12

API No. 15-075-20584 - 0000

Company LINN OPERATING, INC.		Lease HCU			Well Number 2821-B	
County HAMILTON	Location SE	Section 28	TWP 22S	RNG (E/W) 41W	Acres Attributed	
Field BRADSHAW		Reservoir CHASE (WINFIELD/TOWANDA)		Gas Gathering Connection Oneok Field Services		
Completion Date 6/20/96		Plug Back Total Depth 2864'		Packer Set at		
Casing Size 4-1/2"	Weight 10.50	Internal Diameter 4.052"	Set at 2905'	Perforations 2615'	To 2692'	
Tubing Size 2-3/8"	Weight 4.7	Internal Diameter 1.995	Set at 2650'	Perforations	To	
Type Completion (Describe) SINGLE GAS		Type Fluid Production GAS - WATER		Pump Unit or Traveling Plunger? PUMP		Yes / No YES
Producing Thru (Annulus/Tubing) ANNULUS		%Carbon Dioxide		% Nitrogen		Gas Gravity - G _n .770
Vertical Depth (H) 2654'		Pressure Taps FLANGE			(Meter Run)(Prover) Size 2.067"	
Pressure Buildup:	Shut In	<u>10/26</u>	20 <u>12</u> at	<u>10:30</u> (AM)(PM)	Taken	<u>10/27</u> 20 <u>12</u> at <u>10:30</u> (AM)(PM)
Well on line:	Started		20 ___ at	(AM)(PM)	Taken	20 ___ at ___ (AM)(PM)

OBSERVED SURFACE DATA

Duration of Shut-In **24.00**

Static/ Dynamic Property	Orifice Size Inches	Circle one: Meter or Prover Pressure psig	Pressure Differential in (h) 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						30.0	44.4	pump		24.00	
Flow											

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _b)(F _p) Mcfd	Meter Pressure psia	Press. Extension $\sqrt{P_m \times H_w}$	Gravity Factor F _g	Flowing Temperature Factor F _t	Deviation Factor F _{pv}	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G _m

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

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

(P _a) ² - (P _w) ²	(P _c) ² - (P _w) ²	$\frac{P_c^2 - P_w^2}{(P_c)^2 - (P_w)^2}$	LOG $\left[\frac{(P_a)^2 - (P_w)^2}{(P_c)^2 - (P_w)^2} \right]$	Backpressure Curve Slope = "n"	n x LOG $\left[\frac{(P_a)^2 - (P_w)^2}{(P_c)^2 - (P_w)^2} \right]$	Open Flow Deliverability Equals R x Antilog

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KCC WICHITA

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 26th day of December, 20 12

Witness (if any)

For Company

For Commission

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 LINN OPERATING, INC. and that the foregoing information and statements contained in 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 HCU 2821B 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 incapable 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: 12/26/2012

Signature: Stacey Lisher

Title: Administrative Assistant II

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 obtain exempt status for the gas well.

At some point during the succeeding 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 from 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. it was a verified report of test results.