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

**15-075-20449- 001**

**Type Test:**

☐ Open Flow

☒ Deliverability **WHSIP**

Test Date: 11/4/11          API No.          15-075-20449 - 0001

| | | |
|---|---|---|
| Company **LINN OPERATING, INC** | Lease **HCU** | Well Number **2522-B** |

| County **HAMILTON** | Location **C NW** | Section **25** | TWP **22S** | RNG (E/W) **42W** | Acres Attributed |
|---|---|---|---|---|---|

| Field **BRADSHAW** | Reservoir **WINFIELD** | Gas Gathering Connection **ONEOK FIELD SERVICES** |
|---|---|---|

| Completion Date **6/9/90** | Plug Back Total Depth **2658'** | Packer Set at |
|---|---|---|

| Casing Size **4-1/2"** | Weight **9.50** | Internal Diameter **4.090"** | Set at **2699'** | Perforations **2550'** | To **2564'** |
|---|---|---|---|---|---|

| Tubing Size **2-3/8"** | Weight **4.7** | Internal Diameter **1.995** | Set at **2547'** | 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. **0.805** |
|---|---|---|---|

| Vertical Depth (H) **2557'** | Pressure Taps **Flange** | (Meter Run)(Prover) Size **2.067"** |
|---|---|---|

**Pressure Buildup:** Shut In _11/3_ 20 _11_ at _12:30_ (AM)(PM)   Taken _11/4_ 20 _11_ at _12:30_ (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$0 | Flowing Temperature t | Well Head Temperature t | Casing Wellhead Pressure (P$_W$) or (P$_1$) or (P$_c$) psig | psia | Tubing Wellhead Pressure (P$_W$) or (P$_1$) or (P$_c$) psig | psia | Duration (Hours) | Liquid Produced (Barrels) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Shut-In | | | | | | 39.0 | 53.4 | Pump | | 24.00 | |
| Flow | | | | | | | | | | | |

## FLOW STREAM ATTRIBUTES

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

## (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

$(P_a)^2$ = 0.207

$(P_c)^2$= _____   $(P_w)^2$ = _____ :   $P_d$= _____ %   $(P_c - 14.4) + 14.4 =$ _____ :   $(P_d)^2$ = _____

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

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 _7th_ day of _November_, _2011_

_____          _____
Witness (if any)                 For Company

_____          _____
For Commission                   Checked by

**RECEIVED**

**DEC 05 2011**

**KCC WICHITA**

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.
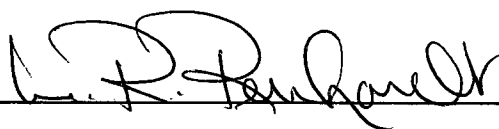
I hereby request a one-year exemption from open flow testing for the ___HCU 2522-B___ gas well on the grounds that said well:

(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: 11/7/2011

Signature: _____

Title: Regulatory Specialist

**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 measued 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.