KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

| = : | t: en Flo tiverab | | • | | Test Date | 9 : | ructions on R | everse Sidi | • | l No. 15 - 07 | 15-10,005- | 0600 | | |
|--|-----------------------------------|-----|---|---|--|-------------------------------|---|--|----------------------|---|---|---|--|--|
| Company M M Ene | , | | | · | 11-22-2 | U12 | Lease Katteri | nho. | | | #1 | Well Number | | |
| County Hamilton | | | Location C SW N | Section 3 | | TWP 21S | TWP R | | RNG (E/W) | | Acres Attributed | | | |
| Field Bradshaw | | | | Reservoir Winfield | | 2.0 | · · · · · · · · · · · · · · · · · · · | | - | nnection | | | | |
| Completion Date 12/1962 | | | | Plug Back Total Depth 2790 | | epth | n Packer Set at none | | Set at | | RECEIVED | | | |
| Casing Size 4.4 | | | Weight 9.5 | Internal Diameter 4.09 | | | • | | Perforations 2765 | | DEC 1 2 201 KGC WICHIT | | | |
| Tubing Size 1.25 | | | Weight | Internal (| Diameter | Set | Set at Perforations | | orations | То | -NGC WICHIT | | | |
| Type Completion (Describe) single | | | | Type Fluid Production saltwater | | | Pump Unit or Traveling Plunger? pu | | | Plunger? Yes | / No | | | |
| Producing | Producing Thru (Annulus / Tubing) | | | | % (| % Carbon Dioxide | | | % Nitrogen | | | Gas Gravity - G | | |
| Vertical D | | 1) | | | | Pı | ressure Taps | | | | (Meter | Run) (Prover) Size | | |
| Pressure Well on L | | | Shut in | 7 2 | | | | | | | 12 _{at} 12:30 12 _{at} 1:15 p | | | |
| | | | | | | OBSER | VED SURFAC | E DATA | | | Duration of Shut- | -in Hours | | |
| Static / Dynamic Property | Orifice Size (inches) | | Circle one: Meter Prover Pressur psig (Pm) | Pressure Differential in Inches H ₂ 0 | Flowing Temperature t | Well Head Temperature t | ure Wellhead | Casing Wellhead Pressure (P _x) or (P _t) or (P _c) psig psia | | Tubing sad Pressure or (P _t) or (P _c) | Duration (Hours) | Liquid Produced (Barrels) | | |
| Shut-In | | | | - | | | pasy | Paid | psig | 51 | | | | |
| Flow | | | <u>-</u> | | | İ | | <u> </u> | <u> </u> | 30 | | | | |
| State | ſ | | Circle one: | | 1 | FLOW S | TREAM ATTI | RIBUTES | | | | | | |
| Plate Coefficcient (F _b) (F _p) Mcfd | | Pro | Meter or over Pressure psia | Press Extension Pmxh | Gravity Factor F _g | | Flowing Temperature Factor F ₁₁ | Temperature Factor | | Metered Flor R (Mcfd) | w GOR (Cubic Fe Barrel) | Gravity | | |
| | | | | | (OPEN FL | OW) (DEI | IVERABILIT | O CAL CUI | ATIONS | | | | | |
| (P _e) ² = | | _: | (P _w) ² =_ | : | P _d = | • • | | P _c - 14.4) + | | : | | ² = 0.207 ² = | | |
| $(P_c)^2 - (P_a)^2$ or $(P_c)^2 - (P_a)^2$ | | (F |)²- (P_)² | incose formula 1 or 2: 1. $P_c^2 - P_a^2$ 2. $P_c^2 - P_a^2$ wided by: $P_c^2 - P_a^2$ | p2-p2 LOG of tormuta p2-p2 1. or 2. and divide | | Sk | Backpressure Curve Slope = "n" | | roce | Antilog | Open Flow Deliverability Equals R x Antilog (Mctd) | | |
| | | | | | | | | | | | | | | |
| Open Flor | Open Flow Mcfd © 14.65 psia | | | | | | Delivera | Deliverability | | | Mcfd ② 14.65 psia | | | |
| | | - | - | behalf of the | | | · · | | | ne above repo | ort and that he ha | as knowledge of | | |
| | | | Wimess (il | anvi | | | - | _0 | dru | M | why | | | |
| | | | For Commit | · · · · · · · · · · · · · · · · · · · | | | - | | | Che | cked by | | | |

DEC 1 2 2012

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 M M Energy Inc |
| and that the foregoi | ng pressure information and statements contained on this application form are true and |
| correct to the best o | my knowledge and belief based upon available production summaries and lease records |
| of equipment installa | ation and/or upon type of completion or upon use being made of the gas well herein named. |
| I hereby reques | a one-year exemption from open flow testing for the Katterjohn #1 |
| gas well on the grou | nds that said well: |
| (Check of | ne) |
| is | s a coalbed methane producer |
| is | s cycled on plunger lift due to water |
| is | s a source of natural gas for injection into an oil reservoir undergoing ER |
| is | s on vacuum at the present time; KCC approval Docket No. |
| √ is | s not capable of producing at a daily rate in excess of 250 mcf/D |
| - | o supply to the best of my ability any and all supporting documents deemed by Commission corroborate this claim for exemption from testing. |
| Date: <u>12-7-2012</u> | |
| | |
| | Signature: Dedra Schuly Title: Corporate Sec/Treas. |
| | TING |
| | |
| | |

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.

STATE TEST 2012

OPERATOR: M M ENERGY

WELL: KATTERJOHN #1

LOCATION: 3-21-41

COUNTY: HAMILTON

RECEIVED

DEC 1 2 2012

SHUT IN TIME: 11/17/12 **SHUT IN TAKEN:** 11/20/12

TIME: 12:15 P.M. **TIME:** 12:30 P.M. PRESSURE: 51#

KCC WICHITA

ON FLOW: 11/21/12 **FLOW TAKEN**: 11/22/12

TIME: 1:10 P.M. **TIME:** 1:15 P.M.

DIFF: 12"

WORKING PRESSURE: 30# METER PRESSURE: 25#