

KANSAS CORPORATION COMMISSION

ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

(See Instructions on Reverse Side)

Type Test:

- Open Flow
 Deliverability

Test Date:

API No. 15
07721675-0000

Company M&M Exploration, Inc.		Lease Ferda		Well Number 1-5	
County Harper	Location NENWNWSE	Section 5	TWP 35	RNG (E/W) 5W	Acres Attributed 520
Field Cherokee Sand		Reservoir Cherokee Sand		Gas Gathering Connection Atlas	
Completion Date 5/17/2010		Plug Back Total Depth 5020'		Packer Set at None	
Casing Size 5.5	Weight 17	Internal Diameter 4.892	Set at 5270'	Perforations 4574'	To 4579'
Tubing Size 2.875	Weight 6.5	Internal Diameter 2.441	Set at 4580'	Perforations	To
Type Completion (Describe) Single (Gas)		Type Fluid Production Saltwater		Pump Unit or Traveling Plunger? Yes / No No	
Producing Thru (Annulus / Tubing) Tubing		% Carbon Dioxide .213		% Nitrogen 18.492	
Vertical Depth(H)		Pressure Taps		Gas Gravity - G _g .732	

Pressure Buildup: Shut in March 15 2013 at 10:00 (AM) (PM) Taken March 16 2013 at 10:00 (AM) (PM)
Well on Line: Started _____ 20____ at _____ (AM) (PM) Taken _____ 20____ at _____ (AM) (PM)

OBSERVED SURFACE DATA

Duration of Shut-in _____ 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 ₁) or (P _c)		Tubing Wellhead Pressure (P _w) or (P ₁) or (P _c)		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-in						900	914.14	700	714.14		
Flow											

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _b) (F _p) Mcfd	Circle one: Meter or Prover Pressure psia	Press Extension $\sqrt{P_a \times h}$	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

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

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

(P _c) ² - (P _a) ² or (P _c) ² - (P _q) ²	(P _c) ² - (P _w) ²	Choose formula 1 or 2: 1. P _c ² - P _a ² 2. P _c ² - P _q ² divided by: P _c ² - P _w ²	LOG of formula 1. or 2. and divide by: $\frac{P_c^2 - P_a^2}{P_c^2 - P_w^2}$	Backpressure Curve Slope = "n" or Assigned Standard Slope	n x LOG $\left[\frac{P_c^2 - P_a^2}{P_c^2 - P_w^2} \right]$	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 17th day of April, 2013.

RECEIVED
KANSAS CORPORATION COMMISSION *[Signature]*

Witness (if any) _____ For Company _____

For Commission _____ Checked by _____

APR 22 2013

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 M&M Exploration, 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 Ferda 1-5 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: April 17, 2013

Signature: *Mal N. W.*

Title: President

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.

RECEIVED
KANSAS CORPORATION COMMISSION

APR 22 2013

CONSERVATION DIVISION
WICHITA, KS