

KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow
 Deliverability

(See Instructions on Reverse Side)

Test Date:
4/26 to 4/27/12

API No. 15
077-21651-00-01

Company M&M Exploration, Inc.		Lease Lyssy		Well Number 1-4	
County Harper	Location SWSWSW	Section 04	TWP 35S	RNG (E/W) 05W	Acres Attributed
Field Cherokee Sand		Reservoir Cherokee Sand		Gas Gathering Connection Atlas	
Completion Date 3/02/12 (re-completion)		Plug Back Total Depth 4950 CIBP		Packer Set at none	
Casing Size 2.875	Weight	Internal Diameter	Set at 4575	Perforations 4551	To 4556
Tubing Size 2.875	Weight	Internal Diameter	Set at 4575	Perforations	To
Type Completion (Describe) single		Type Fluid Production SW		Pump Unit or Traveling Plunger? Yes / No No	
Producing Thru (Annulus / Tubing) tubing		% Carbon Dioxide .1727		% Nitrogen 19.4754	
Vertical Depth(H)		Pressure Taps flange		(Meter Run) (Prover) Size 2"	
Pressure Buildup:	Shut in <u>4/23</u>	20 <u>12</u>	at <u>10:15 am</u>	(AM) (PM) Taken <u>4/26</u>	20 <u>12</u> at <u>10:15 am</u> (AM) (PM)
Well on Line:	Started <u>4/26</u>	20 <u>12</u>	at <u>10:30 am</u>	(AM) (PM) Taken <u>4/27</u>	20 <u>12</u> at <u>10:30 am</u> (AM) (PM)

OBSERVED SURFACE DATA

Duration of Shut-in 72 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						1489	1503.4	1290	1304.4	72	
Flow	.750	68	29.2	71		1364	1378.4	1008	1022.4	24	

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _c) (F _p) Mcfd	Circle one Meter or Prover Pressure psia	Press Extension $\sqrt{P_m \times h}$	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
2.779	82.4	49.05	1.168	.9896	-----	157		.733

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_e)² = 0.207
(P_d)² = _____

(P_e)² = 2260.211 ;

(P_w)² = 1899.986 ;

P_d = _____ %

(P_c - 14.4) + 14.4 = _____ ;

(P _c) ² - (P _e) ² or (P _c) ² - (P _d) ²	(P _c) ² - (P _w) ²	Choose formula 1 or 2: 1. P _c ² - P _e ² 2. P _c ² - P _d ² divided by: P _c ² - P _w ²	LOG of formula 1. or 2. and divide by: $P_c^2 - P_w^2$	Backpressure Curve Slope = "n" ----- or ----- Assigned Standard Slope	n x LOG []	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)
2260.004	360.225	6.274	.7975	.717	.5718	3.73	586

Open Flow **586**

Mcfd @ 14.65 psia X .50 =

Deliverability **293**

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 1st day of May, 20 12.

Witness (if any)

For Commission

[Signature]
COLM, INC.

For Company

Checked by

RECEIVED

MAY 02 2012

KCC WICHITA