

KANSAS CORPORATION COMMISSION

ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow
 Deliverability

(See Instructions on Reverse Side)

Test Date:

API No. 15
00721081-00-01

Company M&M Exploration, Inc.		Lease Z Bar Ranch		Well Number 1-31 OWWO	
County Barber	Location 1475 FSL 1320 FEL	Section 31	TWP 33	RNG (E/W) 14W	Acres Attributed 160
Field Aetna Gas		Reservoir Mississippian		Gas Gathering Connection ONEOK	
Completion Date 5/12/2012		Plug Back Total Depth 4963'		Packer Set at None	
Casing Size 4.5	Weight 10.5	Internal Diameter 4.052	Set at 4894'	Perforations 4862'	To 4922'
Tubing Size 2.375	Weight 4.7	Internal Diameter 1.995	Set at 4934'	Perforations	To
Type Completion (Describe) Single (Gas)		Type Fluid Production Saltwater/Crude		Pump Unit or Traveling Plunger? Yes / No Pump Unit	
Producing Thru (Annulus / Tubing) Annulus		% Carbon Dioxide 0.0834		% Nitrogen 2.4584	
Vertical Depth(H)		Pressure Taps		Gas Gravity - G _g 0.6609	
				(Meter Run) (Prover) Size	
Pressure Buildup: Shut in Sept. 12 20 12 at 12:15 (AM) (PM) Taken Sept. 13 20 12 at 12:15 (AM) (PM)					
Well on Line: Started _____ 20 _____ at _____ (AM) (PM) Taken _____ 20 _____ at _____ (AM) (PM)					

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OBSERVED SURFACE DATA

Duration of Shut-in _____ Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter or Prover Pressure psig (P _m)	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						420	434.4				
Flow											

FLOW STREAM ATTRIBUTES

Plate Coefficient (F _v) (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

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

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

(P _c) ² - (P _a) ² or (P _c) ² - (P _d) ²	(P _c) ² - (P _w) ²	Choose formula 1 or 2: 1. P _c ² - P _a 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: $\frac{P_c^2 - P_w^2}{P_c^2 - P_a^2}$	Backpressure Curve Slope = "n" or Assigned Standard Slope	n x LOG	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)

Open Flow Mcf @ 14.65 psia Deliverability Mcf @ 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 10th day of October, 20 12.

Witness (if any)

For Company

For Commission

Checked by

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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 Z Bar Ranch 1-31 OWWO 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: October 10, 2012

Signature: 

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.

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DATE	TBG	CSG	LP	DIFF	MCF	WKLY GAS	TOTAL GAS MO.	HRS. ON	REMARKS
May-1						0.00			
May-2						0.00			
May-3						0.00			
May-4						0.00			
May-5						0.00			
May-6						0.00			
May-7						0.00			
May-8						0.00	0.00	0.00	
May-9						0.00			
May-10						0.00			
May-11						0.00			
May-12						0.00			
May-13						0.00			
May-14						0.00			
May-15						0.00			
May-16						0.00	0.00	0.00	
May-17						0.00			
May-18						0.00			
May-19						0.00			
May-20						0.00			
May-21						0.00			
May-22						0.00			
May-23						0.00			
May-24						0.00	0.00	0.00	
May-25				14	0	0.00			8
May-26				14	0	0.00			24
May-27				14	0	0.00			24
May-28				14	0	0.00			24
May-29				14	0	0.00			24
May-30				14	0	0.00			24
May-31				14	50	23.81	23.81	23.81	6
TOTAL GAS PRODUCED				23.81		MCF avg	3.40		Fluid goes to the

DATE	TBG	CSG	LP	DIFF	MCF	WKLY GAS	TOTAL GAS MO.	HRS. ON	REMARKS
Jun-1			108	77	0	0.00		24	10/64"
Jun-2			100	77	0	0.00		24	
Jun-3			100	73	0.25	15.38		24	
Jun-4				74	0	0.00		24	running tbg
Jun-5			300	75	35	15.37		2	
Jun-6			100	84	1	22.00		16	
Jun-7			100	84	1	32.99		24	16/64"
Jun-8			100	84	1	32.99	118.74	118.74	24
DATE	TBG	CSG	LP	DIFF	MCF	WKLY GAS	TOTAL GAS MO.	HRS. ON	REMARKS
Jun-9		200	100	84	1	32.99		24	
Jun-10		150	100	84	1	32.99		24	
Jun-11		160	100	75	1	31.18		24	
Jun-12		180	100	80	1	32.20		24	
Jun-13		140	98	79	1	32.00		24	
Jun-14		160	98	80	1	32.20		24	
Jun-15		160	85	79	1	32.00		24	
Jun-16		160	80	75	1	31.18	256.74	375.47	24 18/64"
DATE	TBG	CSG	LP	DIFF	MCF	WKLY GAS	TOTAL GAS MO.	HRS. ON	REMARKS
Jun-17		140	82	75	1	31.18		24	
Jun-18		140	82	76	1	31.38		24	
Jun-19		130	82	76	1	31.38		24	
Jun-20		100	80	77	1	31.59		24	
Jun-21		150	100	78	1	31.79		24	
Jun-22		180	98	78	1	31.79		24	
Jun-23		150	94	77	1	31.59		24	
Jun-24		145	98	76	1	31.38	252.10	627.57	24
DATE	TBG	CSG	LP	DIFF	MCF	WKLY GAS	TOTAL GAS MO.	HRS. ON	REMARKS
Jun-25		160	96	75	1	31.18		24	
Jun-26		130	98	76	1	31.38		24	
Jun-27		100	82	74	1	30.97		24	
Jun-28		140	90	74	1	30.97		24	
Jun-29		160	92	71	1	30.33		24	
Jun-30		180	100	77	1	31.59		24	
						186.42	813.99	24	
TOTAL GAS PRODUCED			813.99	MCF avg		27.13	Fluid goes to the 31-14		

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Z-Bar 1-31									
OWWVO	API # 15007-21081		Sec 31 Twp 33S Rge 14W		100x250x.750				
DATE	TBG	CSG	LP	DIFF	MCF	WKLY GAS	TOTAL GAS MO.	HRS. ON	REMARKS
Jul-1		180	90	74	2	43.80			24 18/64"
Jul-2		180	90	73	2	43.50			24
Jul-3		180	90	70	2	42.60			24 20/64"
Jul-4		160	90	72	2	43.20			24
Jul-5		190	90	73	2	43.50			24
Jul-6		200	90	70	2	42.60			24
Jul-7		162	92	70	2	42.60			24
Jul-8		170	90	65	2	41.05	342.83	342.83	24
DATE	TBG	CSG	LP	DIFF	MCF	WKLY GAS	TOTAL GAS MO.	HRS. ON	REMARKS
Jul-9		180	90	75	2	44.09			24
Jul-10		200	90	73	2	43.50			24
Jul-11		160	90	70	2	42.60			24
Jul-12		180	90	70	2	42.60			24
Jul-13		180	90	70	2	42.60			24
Jul-14		170	90	70	2	42.60			24
Jul-15		200	90	70	2	42.60			24
Jul-16		180	90	68	2	41.98	342.55	685.38	24
DATE	TBG	CSG	LP	DIFF	MCF	WKLY GAS	TOTAL GAS MO.	HRS. ON	REMARKS
Jul-17		190	90	68	2	41.98			24
Jul-18		200	90	65	2	41.05			24
Jul-19		160	90	71	2	42.90			24
Jul-20		150	82	70	2	42.60			24
Jul-21		200	82	70	2	42.60			24
Jul-22		200	82	70	2	42.60			24
Jul-23		160	82	70	2	42.60			24
Jul-24		180	82	70	2	42.60	338.91	1024.29	24
DATE	TBG	CSG	LP	DIFF	MCF	WKLY GAS	TOTAL GAS MO.	HRS. ON	REMARKS
Jul-25		200	82	70	2	42.60			24
Jul-26		210	82	69	2	42.29			24
Jul-27		200	80	69	2	42.29			24
Jul-28		180	80	70	2	42.60			24
Jul-29		200	80	70	2	42.60			24
Jul-30		150	80	70	2	42.60			24
Jul-31		180	80	70	2	42.60	297.56	1321.85	24 20/64"
TOTAL GAS PRODUCED			1321.85	MCF avg		42.64	Fluid goes to the 31-14		

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Z-Bar 1-31									
OWWVO API # 15007-21081 Sec 31 Twp 33S Rge 14W 100x250x.750									
DATE	TBG	CSG	LP	DIFF	MCF	WKLY GAS	TOTAL GAS MO.	HRS. ON	
Aug-1		180	80	70	2	42.60			24
Aug-2		185	80	68	2	41.98			24
Aug-3		180	80	68	2	41.98			24
Aug-4		180	80	67	2	41.67			24
Aug-5		185	80	63	2	40.41			24
Aug-6		170	80	67	2	41.67			24
Aug-7		140	80	67	2	41.67			24
Aug-8		120	80	67	2	41.67	333.66	333.66	24
DATE	TBG	CSG	LP	DIFF	MCF	WKLY GAS	TOTAL GAS MO.	HRS. ON	
Aug-9		160	80	65	3	50.27			24
Aug-10		160	80	63	3	49.49			24
Aug-11		160	80	65	3	50.27			24
Aug-12		180	80	65	3	50.27			24
Aug-13		150	80	65	3	50.27			24
Aug-14		160	80	65	3	50.27			24
Aug-15		170	80	65	3	50.27			24
Aug-16		180	80	65	3	50.27	401.39	735.05	24
DATE	TBG	CSG	LP	DIFF	MCF	WKLY GAS	TOTAL GAS MO.	HRS. ON	
Aug-17		180	80	64	3	49.88			24
Aug-18		160	80	63	2.5	45.18			24
Aug-19		170	80	62	3	49.10			24
Aug-20		160	80	61	3	48.70			24
Aug-21		160	80	61	3	48.70			24
Aug-22		160	80	63	2.5	45.18			24
Aug-23		160	80	62	2	40.09			24
Aug-24		140	170	60	3	48.30	375.13	1110.18	24
DATE	TBG	CSG	LP	DIFF	MCF	WKLY GAS	TOTAL GAS MO.	HRS. ON	
Aug-25		140	90	60	2	39.44			24
Aug-26		160	160	60	2.5	44.09			24
Aug-27		170	160	60	3	48.30			24
Aug-28		140	160	60	3	48.30			24
Aug-29		150	220	60	3	48.30			24 7/64"
Aug-30		180	215	60	3	48.30			24
Aug-31		160	210	60	3	48.30	325.02	1435.20	24
TOTAL GAS PRODUCED		1435.20		MCF avg		46.30		Fluid goes to the 31-14	

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Z-Bar 1-31									
OWWVO API # 15007-21081 Sec 31 Twp 33S Rge 14W 100x250x.750									
DATE	TBG	CSG	LP	DIFF	MCF	WKLY GAS	TOTAL GAS MO.	HRS. ON	REMARKS
Sep-1	180	210	60	2.5	44.09			24	7/64"
Sep-2	180	210	63	2.5	45.18			24	
Sep-3	140	210	63	2.5	45.18			24	
Sep-4	140	210	56	3	46.66			24	
Sep-5	140	210	57	3	47.08			24	
Sep-6	160	210	57	3	47.08			24	
Sep-7	160	210	55	3	46.24			24	
Sep-8	140	210	52	3	44.96	366.47	366.47	24	
DATE	TBG	CSG	LP	DIFF	MCF	WKLY GAS	TOTAL GAS MO.	HRS. ON	REMARKS
Sep-9	160	210	51	3	44.53			24	6.5/64"
Sep-10	160	210	51	2.5	40.65			24	6/64"
Sep-11	160	360	50	3	44.09			24	
Sep-12	170	360	52	3	22.48			12	
Sep-13	50	420	54	1	13.23			12	
Sep-14	50	340	54	1.75	35.00			24	not pumping
Sep-15	180	80	55	2	37.76			24	
Sep-16	170	80	55	2	37.76	275.49	641.96	24	threw off drive belts
DATE	TBG	CSG	LP	DIFF	MCF	WKLY GAS	TOTAL GAS MO.	HRS. ON	REMARKS
Sep-17	150	80	54	2	37.41			24	
Sep-18	150	85	54	1	26.45			24	SD needs SB bolts
Sep-19	140	80	60	1	27.89			24	
Sep-20	200	90	65	1	29.02			24	
Sep-21	70	82	57	0.25	13.59			24	threw belts off
Sep-22		82	53	0.25	13.10			24	
Sep-23		82	52	0	0.00			24	
Sep-24	210	80	50	1	12.73	160.20	802.16	12	
DATE	TBG	CSG	LP	DIFF	MCF	WKLY GAS	TOTAL GAS MO.	HRS. ON	REMARKS
Sep-25	160	80	52	1.75	34.34			24	
Sep-26	150	82	50	2	36.00			24	
Sep-27	160	80	51	2	36.36			24	
Sep-28	150	80	51	2	36.36			24	
Sep-29	160	80	50	2	36.00			24	
Sep-30	160	80	49	2	35.64			24	
					0.00	214.70	1016.85		
TOTAL GAS PRODUCED		1016.85		MCF avg		32.80		Fluid goes to the 31-14	

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