

# KANSAS CORPORATION COMMISSION

## ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

(See Instructions on Reverse Side)

- Open Flow  
 Deliverability

Test Date:

API No. 15-203-20034-00-00

Company <b>Mull Drilling Company, Inc.</b>		Lease <b>Walk</b>		Well Number <b>1</b>	
County <b>Wichita</b>	Location <b>SE SW</b>	Section <b>27</b>	TWP <b>18S</b>	RNG (EW) <b>38W</b>	Acres Attributed <b>80</b>
Field <b>Leoti Gas Area</b>		Reservoir <b>Chase</b>		Gas Gathering Connection <b>Duke Energy</b>	
Completion Date <b>7-29-76</b>		Plug Back Total Depth <b>3130</b>		Packer Set at	
Casing Size <b>4 1/2"</b>	Weight <b>9 1/2#</b>	Internal Diameter <b>4.052</b>	Set at <b>3130</b>	Perforations <b>2802</b>	To <b>2808</b>
Tubing Size <b>2</b>	Weight <b>4.7#</b>	Internal Diameter <b>1.995</b>	Set at <b>2812</b>	Perforations	To
Type Completion (Describe) <b>Single (Gas)</b>		Type Fluid Production <b>Water</b>		Pump Unit or Traveling Plunger? Yes / No <b>Yes</b>	
Producing Thru (Annulus / Tubing) <b>Tubing</b>		% Carbon Dioxide		% Nitrogen	
				Gas Gravity - G <sub>g</sub> <b>.771</b>	
Vertical Depth(H) <b>3130</b>		Pressure Taps		(Meter Run) (Prover) Size	
Pressure Buildup: Shut in <b>Oct 20 2011</b> at <b>4:30</b> (AM) (PM) Taken <b>Oct 20 2011</b> at <b>4:30</b> (AM) (PM)					
Well on Line: Started <b>Oct 22 2011</b> at <b>5:30</b> (AM) (PM) Taken <b>Oct 22 2011</b> at <b>5:30</b> (AM) (PM)					

### OBSERVED SURFACE DATA

Duration of Shut-in \_\_\_\_\_ Hours

Static / Dynamic Property	Orifice Size inches	Circle one: Meter or Prover Pressure psig	Pressure Differential in (h) Inches H <sub>2</sub> O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>t</sub> ) or (P <sub>c</sub> )		Tubing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>t</sub> ) or (P <sub>c</sub> )		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						<b>76</b>				<b>418</b>	<b>0</b>
Flow											

### FLOW STREAM ATTRIBUTES

Plate Coefficient (F <sub>v</sub> ) (F <sub>p</sub> ) Mcfd	Circle one: Meter or Prover Pressure psia	Press Extension $\sqrt{P_m \times H_w}$	Gravity Factor F <sub>g</sub>	Flowing Temperature Factor F <sub>tt</sub>	Deviation Factor F <sub>pv</sub>	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G <sub>m</sub>

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

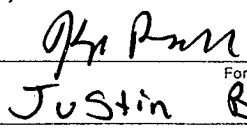
(P<sub>c</sub>)<sup>2</sup> = \_\_\_\_\_ : (P<sub>w</sub>)<sup>2</sup> = \_\_\_\_\_ : P<sub>d</sub> = \_\_\_\_\_ % (P<sub>c</sub> - 14.4) + 14.4 = \_\_\_\_\_ : (P<sub>a</sub>)<sup>2</sup> = 0.207 : (P<sub>d</sub>)<sup>2</sup> = \_\_\_\_\_

(P <sub>c</sub> ) <sup>2</sup> - (P <sub>a</sub> ) <sup>2</sup> or (P <sub>c</sub> ) <sup>2</sup> - (P <sub>d</sub> ) <sup>2</sup>	(P <sub>c</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup>	Choose formula 1 or 2: 1. P <sub>c</sub> <sup>2</sup> - P <sub>a</sub> <sup>2</sup> 2. P <sub>c</sub> <sup>2</sup> - P <sub>d</sub> <sup>2</sup> divided by: P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>	LOG of formula 1. or 2. and divide by: $\left[ \frac{P_c^2 - P_w^2}{P_c^2 - P_a^2} \right]$	Backpressure Curve Slope = "n" Assigned Standard Slope	n x LOG $\left[ \frac{P_c^2 - P_w^2}{P_c^2 - P_a^2} \right]$	Antilog	Open Flow Deliverability Equals R x Antilog Mcfd
				<b>.7000</b>			

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 22 day of October 2011, 19  .

Witness (if any) \_\_\_\_\_  
For Commission \_\_\_\_\_

  
 For Company  
**Justin Biernaky**  
 Checked by  
RECEIVED  
OCT 27 2011  
KCC WICHITA

