

# KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow  
 Deliverability

(See Instructions on Reverse Side)

Test Date:  
7/15/2011

API No. 15  
15-093-20586-00-00

Company <b>MERIT ENERGY COMPANY</b>		Lease <b>GARDEN 'A'</b>		Well Number <b>#3</b>	
County <b>KEARNY</b>	Location	Section <b>1</b>	TWP <b>24</b>	RNG (E/W) <b>35W</b>	Acres Attributed <b>640</b>
Field <b>PANOMA</b>		Reservoir <b>COUNCIL GROVE</b>		Gas Gathering Connection <b>REGENCY</b>	
Completion Date <b>2/9/1979</b>		Plug Back Total Depth <b>3082'</b>		Packer Set at <b>N/A</b>	
Casing Size <b>5 1/2"</b>	Weight <b>14#</b>	Internal Diameter	Set at <b>3090'</b>	Perforations <b>2766'</b>	To <b>2858'</b>
Tubing Size <b>2 3/8"</b>	Weight <b>4.7#</b>	Internal Diameter	Set at <b>2894'</b>	Perforations <b>OPEN END</b>	To
Type Completion (Describe) <b>SINGLE GAS</b>		Type Fluid Production <b>SALTWATER</b>		Pump Unit or Traveling Plunger? Yes / No <b>PUMP UNIT</b>	
Producing Thru (Annulus / Tubing) <b>ANNULUS</b>		% Carbon Dioxide <b>UNKNOWN</b>		% Nitrogen <b>UNKNOWN</b>	
Gas Gravity - G <sub>g</sub> <b>.729</b>		Vertical Depth(H) <b>FLANGE</b>		(Meter Run) (Prover) Size <b>METER RUN - 4"</b>	
Pressure Buildup: Shut in <b>7/12</b> 20 <b>11</b> at <b>8:15 AM</b> (AM) (PM) Taken <b>7/14</b> 20 <b>11</b> at <b>8:30 AM</b> (AM) (PM)		Well on Line: Started <b>7/14</b> 20 <b>11</b> at <b>8:40 AM</b> (AM) (PM) Taken <b>7/15</b> 20 <b>11</b> at <b>8:30 AM</b> (AM) (PM)			

### OBSERVED SURFACE DATA

Duration of Shut-in 48 Hours

Static / Dynamic Property	Orifice Size (inches)	Circle one: Meter Prover Pressure psig (Pm)	Pressure Differential In Inches H <sub>2</sub> O	Flowing Temperature t	Well Head Temperature t	Casing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>i</sub> ) or (P <sub>e</sub> )		Tubing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>i</sub> ) or (P <sub>e</sub> )		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In	.750	10	0	60	60	10	23	12		48	4
Flow	.750	2	5	60	60	2	15	12		24	1

### FLOW STREAM ATTRIBUTES

Plate Coefficient (F <sub>p</sub> ) (F <sub>ps</sub> ) Mcfd	Circle one: Meter or Prover Pressure psia	Press Extension $\sqrt{P_m \times h}$	Gravity Factor F <sub>g</sub>	Flowing Temperature Factor F <sub>t</sub>	Deviation Factor F <sub>pv</sub>	Metered Flow R (Mcfd)	GOR (Cubic Feet/ Barrel)	Flowing Fluid Gravity G <sub>m</sub>
2.25	2	3.1	1.000	1.000	1.000	22		

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P<sub>e</sub>)<sup>2</sup> = 0.207

(P<sub>e</sub>)<sup>2</sup> = \_\_\_\_\_ : (P<sub>w</sub>)<sup>2</sup> = \_\_\_\_\_ : P<sub>0</sub> = \_\_\_\_\_ % (P<sub>e</sub> - 14.4) + 14.4 = \_\_\_\_\_ : (P<sub>e</sub>)<sup>2</sup> = \_\_\_\_\_

(P <sub>e</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup> or (P <sub>e</sub> ) <sup>2</sup> - (P <sub>0</sub> ) <sup>2</sup>	(P <sub>w</sub> ) <sup>2</sup> - (P <sub>0</sub> ) <sup>2</sup>	Choose formula 1 or 2: 1. P <sub>0</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> 2. P <sub>e</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> divided by: P <sub>e</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>	LOG of formula 1 or 2 and divide by: $\frac{P_e^2 - P_w^2}{P_e^2 - P_w^2}$	Backpressure Curve Slope = "n" Assigned Slope	n x LOG [ ]	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 15TH day of JULY, 20 11.

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

*M. Chey Patton*  
\_\_\_\_\_  
For Company  
\_\_\_\_\_  
Checked by

**RECEIVED**  
**DEC 16 2011**  
**KCC WICHITA**