

# KANSAS CORPORATION COMMISSION

## ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test:

- Open Flow  
 Deliverability

Test Date:  
4/09 to 4/10/12

API No. 15  
053-21114-00-00

Company <b>Rupe Oil Company</b>		Lease <b>Bettenbrock</b>		Well Number <b>1-28</b>	
County <b>Ellsworth</b>	Location <b>NE SW NE</b>	Section <b>28</b>	TWP <b>16S</b>	RNG (E/W) <b>07W</b>	Acres Attributed
Field <b>Kanak</b>		Reservoir <b>GrandHaven/IndianCave</b>		Gas Gathering Connection <b>Rupe Oil</b>	
Completion Date <b>8/21/03</b>		Plug Back Total Depth <b>2181</b>		Packer Set at	
Casing Size <b>4.5</b>	Weight	Internal Diameter	Set at <b>2220</b>	Perforations <b>1656</b>	To <b>1660</b>
Tubing Size <b>2.375</b>	Weight	Internal Diameter	Set at <b>2039</b>	Perforations	To
Type Completion (Describe) <b>single</b>		Type Fluid Production <b>SW</b>		Pump Unit or Traveling Plunger? Yes / No <b>Yes - pump unit</b>	
Producing Thru (Annulus / Tubing) <b>casing</b>		% Carbon Dioxide <b>.029</b>		% Nitrogen <b>43.589</b>	
Vertical Depth(H)		Pressure Taps <b>flange</b>		(Meter Run) (Prover) Size <b>2"</b>	
Pressure Buildup: Shut in <b>4/06</b> 20 <b>12</b> at <b>11:15 am</b> (AM) (PM) Taken <b>4/09</b> 20 <b>12</b> at <b>11:15 am</b> (AM) (PM)					
Well on Line: Started <b>4/09</b> 20 <b>12</b> at <b>11:15 am</b> (AM) (PM) Taken <b>4/10</b> 20 <b>12</b> at <b>11:15 am</b> (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 <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>c</sub> )		Tubing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>i</sub> ) or (P <sub>c</sub> )		Duration (Hours)	Liquid Produced (Barrels)
						psig	psia	psig	psia		
Shut-In						140.7	155.1			72	
Flow	.625	11	1.0	55		123.4	137.8			24	

### FLOW STREAM ATTRIBUTES

Plate Coefficient (F <sub>b</sub> ) (F <sub>p</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>
1.914	25.4	5.04	1.291	1.005	-----	12		

### (OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P<sub>c</sub>)<sup>2</sup> = **24.056** ; (P<sub>w</sub>)<sup>2</sup> = **18.988** ; P<sub>a</sub> = \_\_\_\_\_ % (P<sub>c</sub> - 14.4) + 14.4 = \_\_\_\_\_ ; (P<sub>a</sub>)<sup>2</sup> = 0.207 ; (P<sub>o</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>o</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>o</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: $\frac{P_c^2 - P_w^2}{P_c^2 - P_a^2}$	Backpressure Curve Slope = "n" ----- Assigned Standard Slope	n x LOG [ ]	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)
23.849	5.068	4.706	.6726	.850	.5717	3.72	45
				assigned			

Open Flow **45** Mcfd @ 14.65 psia X .50 = Deliverability **22.5** 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**, 20 **12**.

**RECEIVED**

**APR 18 2012**

*[Signature]*  
For Company

Witness (if any)

For Commission

Checked by

**KCC WICHITA**