

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

FORM G-2  
(Rev. 8/99)

TYPE TEST:

- Open Flow  
 Deliverability

TEST DATE: 3/28/2017 API No. 15-097-21823-0000

Company Herman L. Loeb LLC		Lease Koger			Well Number 3	
County Kiowa	Location NE SE NW NE	Section 1	TWP 30s	RNG (E/W) 19	Acres Attributed 320	
Field Alford	Reservoir Viola	Gas Gathering Connection Oneok				
Completion Date 6/6/2016	Plug Back Total Depth 5300	Packer Set at none				
Casing Size 5.500	Weight 15.500	Internal Diameter 4.950	Set at 5345	Perforations 5308	To 5312	<b>KCC WICHITA MAR 31 2017 RECEIVED</b>
Tubing Size 2.375	Weight 4.700	Internal Diameter 1.995	Set at 4871	Perforations	To	
Type Completion (Describe) single	Type Fluid Production water	Pump Unit or Traveling Plunger? no				
Producing Thru (Annulus/Tubing) tubing	% Carbon Dioxide 0.189	% Nitrogen 9.690		Gas Gravity- Gg 0.678		
Vertical Depth (H) 5310	Pressure Taps flange	Meter Run Size 2.067				
Pressure Buildup: Shut in	3/24/2017@0900	TAKEN	3/27/2017@0900			
Well on Line: Started	3/27/2017@0900	TAKEN	3/28/2017@1015			

**OBSERVED SURFACE DATA**

Static/ Dynamic Property	Orifice Size in.	Meter Pressure psig	Pressure Diff. In. H <sub>2</sub> O	Flowing Temp. t.	WellHead Temp. t.	Casing WellHead Press. (P <sub>w</sub> ) (P <sub>t</sub> ) (P <sub>c</sub> )		Tubing WellHead Press. (P <sub>w</sub> ) (P <sub>t</sub> ) (P <sub>c</sub> )		Duration (Hours)	Liquid Prod. Barrels
						psig	psia	psig	psia		
Shut-in						961	975	954	968	72.0	
Flow	1.250	37.3	49.90	57		835	849	765	779		0.8

**FLOW STREAM ATTRIBUTES**

COEFFICIENT (F <sub>b</sub> ) Mcf/d	(METER) PRESSURE psia	EXTENSION $\sqrt{P_m \times H_w}$	GRAVITY FACTOR Fg	FLOWING TEMP FACTOR Ft	DEVIATION FACTOR Fpv	RATE OF FLOW R Mcf/d	GOR	G <sub>m</sub>
8.329	51.7	50.79	1.2145	1.0029	1.0045	517		0.678

**(OPEN FLOW)(DELIVERABILITY) CALCULATIONS**

$(P_c)^2 = 951.4$        $(P_w)^2 = 721.5$        $P_d = 5.3$       %       $(P_c - 14.4) + 14.4 =$        $(P_a)^2 = 0.207$   
 $(P_d)^2 = 2.67$

$(P_c)^2 - (P_a)^2$ or $(P_c)^2 - (P_d)^2$	$(P_c)^2 - (P_w)^2$	$\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_d)^2}$ or $\frac{(P_c)^2 - (P_w)^2}{(P_c)^2 - (P_d)^2}$	LOG	Backpressure Curve Slope "n" ---- or ---- Assigned Standard Slope	n x LOG	Antilog	Open Flow Deliverability = R x Antilog Mcf/d
951.20	229.92	4.137	0.6167	0.955	0.5889	3.881	2008
948.73	229.92	4.126	0.6156	0.955	0.5879	3.871	2003

OPEN FLOW      2008      Mcfd @ 14.65 psia      DELIVERABILITY      2003      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 herein and that said report is true and correct. Executed this the 30 day of March, 2017

Witness (if any)

For Commission

For Company

Checked by