

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

FORM G-2  
(Rev.8/98)

TYPE TEST:

- Open Flow  
 Deliverability

TEST DATE: 9/14/12

API No. 15-033-21,209 - 00 - 00

Company Thoroughbred Associates		Lease Weldon			Well Number 1	
County Comanche	Location NE-NW	Section Sec. 22-32S-19W	TWP	RNG(E/W)	Acres Attributed	
Field	Reservoir Altamont	Gas Gathering Connection Thoroughbred & Associates				
Completion Date 4/5/01	Plug Back Total Depth 5200	Packer Set at None				
Casing Size 5.500	Weight 15.500	Internal Diameter 4.900	Set at 5200	Perforations 4952	To 4964	
Tubing Size 2.000	Weight 4.700	Internal Diameter 1.995	Set at 4960	Perforations	To	
Type Completion (Describe) Single (Gas)	Type Fluid Production	Pump Unit or Traveling Plunger? No - Flowing				
Producing Thru (Annulus/Tubing) Tubing	% Carbon Dioxide .061	% Nitrogen 1.096	Gas Gravity- Gg .603			
Vertical Depth (ft) 4952	Pressure Taps Flange	Meter Run Size 3				
Pressure Buildup: Shut in	9/11/12	TAKEN	9:15 AM			
Well on Line: Started	9/14/12	TAKEN	9:30 AM			

**RECEIVED**  
**OCT 31 2012**  
**KCC WICHITA**

**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						150	164			72.0	
Flow	.500	45.0	1.00	60	60	50	64				

**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>
1.214	59.0	7.68	1.2878	1.0000	1.0047	12		.603

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

(P<sub>c</sub>)<sup>2</sup> = 26.9      (P<sub>w</sub>)<sup>2</sup> = 4.1      P<sub>d</sub> = 61.0      %      (P<sub>c</sub> - 14.4) + 14.4 =      (P<sub>a</sub>)<sup>2</sup> = 0.207  
(P<sub>d</sub>)<sup>2</sup> = 10.00

$(P_c)^2 - (P_a)^2$ 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 $\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_w)^2}$	LOG	Backpressure Curve Slope "n" ----- or ----- Assigned Standard Slope	n x LOG	Antilog	Open Flow Deliverability = R x Antilog Mcf/d
26.70	22.80	1.171	.0686	.519	.0356	1.085	13
16.90	22.80	.741		.519		.856	10

OPEN FLOW      13      Mcfd @ 14.65 psia      DELIVERABILITY      10      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 29 day of October, 20 12

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Witness (if any)

\_\_\_\_\_  
For Company

\_\_\_\_\_  
For Commission

\_\_\_\_\_  
Checked by