

KANSAS CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

FORM G-2
(Rev. 8/98)

TYPE TEST:

- Open Flow
 Deliverability

TEST DATE: 12/13/10

API No. 15-033-21127 - 0000

Company Thoroughbred Associates		Lease BUTLER			Well Number 1	
County COMANCHE	Location E/2-SW-SW	Section SEC. 31-T31S-R19W	TWP	RNG(E/W)	Acres Attributed 160	
Field 160	Reservoir MISSISSIPPI	Gas Gathering Connection				
Completion Date 12/18/03	Plug Back Total Depth 5260	Packer Set at NONE				
Casing Size 5.500	Weight 15.500	Internal Diameter 4.950	Set at 5300	Perforations 5230	To 5236	
Tubing Size 2.375	Weight 4.700	Internal Diameter 1.950	Set at 5230	Perforations	To	
Type Completion (Describe) TUBING	Type Fluid Production	Pump Unit or Traveling Plunger?				
Producing Thru (Annulus/Tubing) TUBING	† Carbon Dioxide .015	† Nitrogen 1.706	Gas Gravity- Gg .608			
Vertical Depth (ft) 5230	Pressure Taps FLANGE	Meter Run Size 3				
Pressure Buildup: Shut in Well on Line: Started	12/10/10 12/13/10	TAKEN TAKEN	4:30 PM 2:40 PM			

OBSERVED SURFACE DATA

Static/ Dynamic Property	Orifice Size in.	Meter Pressure psig	Pressure Diff. In. H ₂ O	Flowing Temp. t.	WellHead Temp. t.	Casing WellHead Press. (P _w) (P _c) (P _o)		Tubing WellHead Press. (P _w) (P _c) (P _c)		Duration (Hours)	Liquid Prod. Barrels
						psig	psia	psig	psia		
Shut-in						90	104			70.0	
Flow	.500	45.0	3.20	60	60	50	64				

FLOW STREAM ATTRIBUTES

COEFFICIENT (F _d) Mcfd	(METER) PRESSURE psia	EXTENSION $\sqrt{P_m \times H_w}$	GRAVITY FACTOR Fg	FLOWING TEMP FACTOR Ft	DEVIATION FACTOR Fpv	RATE OF FLOW R Mcfd	GOR	G _m
1.214	59.4	13.79	1.2825	1.0000	1.0047	21		.608

(OPEN FLOW)(DELIVERABILITY) CALCULATIONS

(P_c)² = 10.9 (P_w)² = 4.1 P_d = 47.9 † (P_c - 14.4) + 14.4 = (P_a)² = 0.207
(P_d)² = 2.50

$(P_c)^2 - (P_a)^2$ 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 Mcfd
10.69	6.75	1.584	.1996	.948	.1892	1.546	33
8.40	6.75	1.244	.0948	.948	.0899	1.230	26

OPEN FLOW 33 Mcfd @ 14.65 psia DELIVERABILITY 26 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 31st day of January, 20 11

Witness (if any)

For Commission

RECEIVED

JAN 03 2011

KCC WICHITA

[Signature]
For Company

Checked by