

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

FORM G-2  
(Rev. 8/98)

TYPE TEST:

- Open Flow  
 Deliverability

TEST DATE: 8/14/11

API No. 15-033-20,981-00-00

Company Thoroughbred Associates		Lease LONG "X" TWIN			Well Number 1	
County COMANCHE	Location	Section SEC 9-T32S-R19W	TWP RNG (E/W)	Acres Attributed 640		
Field	Reservoir MARMATON		Gas Gathering Connection			
Completion Date	Plug Back Total Depth 4980		Packer Set at			
Casing Size 4.500	Weight 10.500	Internal Diameter 3.950	Set at 5050	Perforations 4962	To 4965	
Tubing Size 2.375	Weight 4.700	Internal Diameter 1.950	Set at 4950	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) 4962	Pressure Taps FLANGE		Meter Run Size 3			
Pressure Buildup: Shut in	8/11/11	TAKEN		10:00 AM		
Well on Line: Started	8/14/11	TAKEN		2:00 M		

**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						155	169			76.0	
Flow	.500	45.0	1.00	60	60	50	64			24.0	

**FLOW STREAM ATTRIBUTES**

COEFFICIENT (F <sub>b</sub> ) Mcf/d	(METER) PRESSURE psia	EXTENSION $\sqrt{P_m \times R_w}$	GRAVITY FACTOR F <sub>g</sub>	FLOWING TEMP FACTOR F <sub>t</sub>	DEVIATION FACTOR F <sub>pv</sub>	RATE OF FLOW R Mcf/d	GOR	G <sub>m</sub>
1.214	59.4	7.71	1.2825	1.0000	1.0047	12		.608

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

(P<sub>c</sub>)<sup>2</sup> = 28.7

(P<sub>w</sub>)<sup>2</sup> = 4.1

P<sub>d</sub> = 29.5

$\frac{1}{2} (P_c - 14.4) + 14.4 =$

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

(P<sub>d</sub>)<sup>2</sup> = 2.50

$(P_c)^2 - (P_a)^2$ or $(P_c)^2 - (P_d)^2$	$(P_c)^2 - (P_w)^2$	$\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_w)^2}$ OR $\frac{(P_c)^2 - (P_d)^2}{(P_c)^2 - (P_w)^2}$	LOG	Backpressure Curve Slope "n" ----- or ----- Assigned Standard Slope	n x LOG	Antilog	Open Flow Deliverability = R x Antilog Mcf/d
28.49	24.55	1.160	.0646	.850	.0549	1.135	13
26.20	24.55	1.067	.0282	.850	.0240	1.057	12

OPEN FLOW 13

Mcf/d @ 14.65 psia

DELIVERABILITY

12

Mcf/d @ 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 5th day of April, 2012

Witness (if any)

For Commission

RECEIVED

APR 05 2012

Checked by

KCC WICHITA