

**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. 15-033-20,969-60-03

Company Thoroughbred Associates		Lease RIETZKE			Well Number 1	
County COMANCHE		Location N/2-NE-NW		Section SEC 21-T32S-R19W	Acres Attributed 160	
Field MARMATON		Reservoir MARMATON		Gas Gathering Connection		
Completion Date 9/23/98		Plug Back Total Depth 5200		Packer Set at NONE		
Casing Size 5.500	Weight 15.500	Internal Diameter 4.950	Set at 5403	Perforations 4851	To 4860	
Tubing Size 2.375	Weight 47.000	Internal Diameter 1.995	Set at 5180	Perforations	To	
Type Completion (Describe) CASING		Type Fluid Production		Pump Unit or Traveling Plunger? PUMP		
Producing Thru (Annulus/Tubing) CASING		% Carbon Dioxide		% Nitrogen 4.880	Gas Gravity- Gg .702	
Vertical Depth (ft) 4851		Pressure Taps FLANGE		Meter Run Size 3		
Pressure Buildup: Shut in		8/11/11		TAKEN	9:15 AM	
Well on Line: Started		8/14/11		TAKEN	10:00 am	

**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						240	254			72.8	
Flow	1.500	18.0	1.00	60	60	40	54			24.0	

**FLOW STREAM ATTRIBUTES**

COEFFICIENT (F <sub>b</sub> ) Mcfd	(METER) PRESSURE psia	EXTENSION $\sqrt{P_m \times H_w}$	GRAVITY FACTOR P <sub>g</sub>	FLOWING TEMP FACTOR Ft	DEVIATION FACTOR F <sub>pv</sub>	RATE OF FLOW R Mcfd	GOR	G <sub>m</sub>
11.410	32.4	5.69	1.1935	1.0000	1.0032	77		.702

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

(P<sub>c</sub>)<sup>2</sup> = 64.7      (P<sub>w</sub>)<sup>2</sup> = 3.0      P<sub>d</sub> = 19.7      % (P<sub>c</sub> - 14.4) + 14.4 =      (P<sub>a</sub>)<sup>2</sup> = 0.207  
(P<sub>d</sub>)<sup>2</sup> = 2.50

$(P_o)^2 - (P_a)^2$ or $(P_o)^2 - (P_d)^2$	$(P_o)^2 - (P_w)^2$	$\frac{(P_o)^2 - (P_a)^2}{(P_o)^2 - (P_d)^2}$ or $\frac{(P_o)^2 - (P_a)^2}{(P_o)^2 - (P_w)^2}$	LOG	Backpressure Curve Slope "n" ----- or ----- Assigned Standard Slope	n x LOG	Antilog	Open Flow Deliverability = R x Antilog Mcfd
64.51	61.75	1.045	.0190	.750	.0142	1.033	80
62.22	61.75	1.008	.0033	.750	.0025	1.006	78

OPEN FLOW 80 Mcfd @ 14.65 psia      DELIVERABILITY 78 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 5<sup>th</sup> day of April, 2012

Witness (if any)

For Commission

RECEIVED

APR 05 2012

KCC WICHITA

Checked by