KANSAS CORPORATION COMMISSION
ONE POINT STABLIZED OPEN FLOW OR DELIVERABILITY TEST

FORM G-2
(Rev.8/98)

TYPE TEST:

☒ Open Flow

☒ Deliverability   TEST DATE: 12/13/10   API No.   ~~15-033-21,827~~   15-033-21327-00-00

Company	Lease	Well Number
Thoroughbred Associates	HERD	4

County	Location	Section	TWP	RNG(E/W)	Acres Attributed
COMANCHE	c NW SE	SEC 15-T32S-R19W			160

Field	Reservoir	Gas Gathering Connection
	MISSISSIPI/ALTA	

Completion Date	Plug Back Total Depth	Packer Set at
	5790	

Casing Size	Weight	Internal Diameter	Set at	Perforations	To
5.500	15.500	4.950	5900	4976	5178

Tubing Size	Weight	Internal Diameter	Set at	Perforations	To
2.375	4.700	1.995	4965		

Type Completion (Describe)	Type Fluid Production	Pump Unit or Traveling Plunger?
TUBING		

Producing Thru(Annulus/Tubing)	% Carbon Dioxide	% Nitrogen	Gas Gravity- Gg
TUBING	.121	1.063	.695

Vertical Depth (H)	Pressure Taps	Meter Run Size
4976	FLANGE	3

Pressure Buildup: Shut in	12/10/10	TAKEN	11:15 AM
Well on Line: Started	12/13/10	TAKEN	9:15 AM

OBSERVED SURFACE DATA

Static/ Dynamic Property	Orifice Size in.	Meter Pressure psig	Pressure Diff. In. H_2O	Flowing Temp. t.	WellHead Temp. t.	Casing WellHead Press. $(P_w)(P_t)(P_c)$ psig	psia	Tubing WellHead Press. $(P_w)(P_t)(P_c)$ psig	psia	Duration (Hours)	Liquid Prod. Barrels
Shut-in						315	329			69.0	
Flow	1.000	45.0	5.00	60	60	50	64			24.0	

FLOW STREAM ATTRIBUTES

COEFFICIENT (F_b) 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
4.912	59.4	17.23	1.1995	1.0000	1.0059	102		.695

(OPEN FLOW)(DELIVERABILITY) CALCULATIONS

$(P_c)^2 =$ 108.5 $(P_w)^2 =$ 4.1 $P_d =$ 15.2   % $(P_c - 14.4) + 14.4 =$ $(P_a)^2 =$ 0.207 $(P_d)^2 =$ 2.50

$(P_c)^2 - (P_a)^2$ or $(P_c)^2 - (P_d)^2$	$(P_c)^2 - (P_w)^2$	$\dfrac{(P_c)^2 - (P_a)^2 \text{ or } (P_c)^2 - (P_d)^2}{(P_c)^2 - (P_w)^2}$	LOG [ ]	Backpressure Curve Slope"n" ---- or ---- Assigned Standard Slope	n x LOG [ ]	Antilog	Open Flow Deliverability = R x Antilog Mcfd
108.30	104.36	1.038	.0161	.850	.0137	1.032	105
106.00	104.36	1.016	.0068	.850	.0058	1.013	103

OPEN FLOW   105   Mcfd @ 14.65 psia   DELIVERABILITY   103   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 _____ day of _January_ , 20 11

Witness (if any)

For Commission

RECEIVED

JAN 0 3 2011

KCC WICHITA

For Company

Checked by