

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

FORM G-2
(Rev.8/98)

TYPE TEST:

- Open Flow
 Deliverability

TEST DATE: 6-25-14 API No. 15-057-20902-00-00

Company Ritchie Exploration		Lease Blew			Well Number #1	
County Ford	Location SW NE SW NW	Section 11-28S-23W	TWP	RNG(E/W)	Acres Attributed	
Field Ford	Reservoir Morrow	Gas Gathering Connection Superior Pipeline				
Completion Date 7/16/13	Plug Back Total Depth 5111	Packer Set at				
Casing Size 5.500	Weight 15.500	Internal Diameter 4.950	Set at 5207	Perforations 5064	To 5071	
Tubing Size 2.875	Weight 6.400	Internal Diameter 2.441	Set at 5072	Perforations	To	
Type Completion (Describe) New Well Gas	Type Fluid Production	Pump Unit or Traveling Plunger?				
Producing Thru(Annulus/Tubing) Tubing	% Carbon Dioxide .135	% Nitrogen 33.177		Gas Gravity- Gg .743		
Vertical Depth (H) 5068	Pressure Taps Flange	Meter Run Size 3.068				
Pressure Buildup: Shut in	6-21-14 @11:00 A.M	TAKEN	6-24-14 @11:00 A.M			
Well on Line: Started	6-24-14 @11:00 A.M	TAKEN	6-25-14 @11:00 A.M			

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 _t) (P _c)		Tubing WellHead Press. (P _w) (P _t) (P _c)		Duration (Hours)	Liquid Prod. Barrels
						psig	psia	psig	psia		
Shut-in						688	703	687	701	72.0	
Flow	2.250	86.0	34.00			588	602	561	575	24.0	

FLOW STREAM ATTRIBUTES

COEFFICIENT (F _b) 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 _m
29.520	100.4	58.43	1.1601	1.0632	1.0100	2148		.743

(OPEN FLOW)(DELIVERABILITY) CALCULATIONS

(P_c)² = 494.5 (P_w)² = 363.4 P_d = (P_c - 14.4) + 14.4 = (P_a)² = 0.207
(P_d)² =

$(P_c)^2 - (P_a)^2$	$(P_c)^2 - (P_w)^2$	$\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_w)^2}$ 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 Mcfd
494.28	131.12	3.770	.5763	.783	.4512	2.826	6073

OPEN FLOW 6073 Mcfd @ 14.65 psia DELIVERABILITY 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 27th day of June, 2014

Witness (if any)

For Commission

KCC WICHITA
JUL 14 2014
RECEIVED

Ritchie Exploration
For Company
Hosco Testing & Measurement
Checked by
