KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

OBSERVED SURFACE DATA OBSERVED SURFACE DATA Tressure Inferential in the short of	Type Test:				(See Instruc	tions on Re	verse Side	e) ·				
Cosse Coss	Open Flo			Test Da	te:			API NA	s. 15			
Lesser Section TWP RNG (EMV) Acres Attributed 23 215 41W Reservoir Winfield Gas Gathering Connection Oneok Plug Back Total Depth Packer Set at 2877 Internal Diameter Set at 2830 2774 2786 Internal Diameter Set at 2752 Type Fluid Production Pump Unit or Traveling Plunger? Yes / No Pump Unit - Rod % Carbon Dioxide Pump Unit - Rod % Carbon Dioxide Pressure Taps Flange 2" (Meter Run) (Prover) Size Flange 2" (Meter Run) (Prover) Size Flange 2" (O 20/3 at /0.50 (AM) (PM) Taken 20 at (AM) (PM) OBSERVED SURFACE DATA 20 at (AM) (PM) OBSERVED SURFACE	Deliverab	oilty		9-11-	13					00		
Reservoir Winfield Gas Gathering Connection Oneok Plug Back Total Depth 2827 Internal Diameter Set at 2830 2774 2786 Internal Diameter Set at 2830 2774 2786 Internal Diameter Set at 2752 Type Fluid Production Water Pump Unit or Traveling Plunger? Yes / No Pump Unit - Rod % Carbon Dioxide % Nitrogen Gas Gravity - Q Pressure Taps Flange 2" Pressure Taps Flange 2" Antilog Pressure (AM) (PM) Taken 20 at (AM) (PM) Taken 20 at (AM) (PM) Ressure Flowing Florential Temperature (P) or (P	ompany orseshoe Op	perating, Inc.									Well Number	
Winfield Piug Back Total Depth Packer Set at	County Location Iamilton C NE/4									Acres Attributed		
Internal Diameter Set at 2830 2774 2786 Internal Diameter Set at 2830 2774 2786 Internal Diameter Set at 2752 Internal Diameter Set at 2752 Type Fluid Production Pump Unit or Traveling Plunger? Yes / No Pump Unit - Rod % Carbon Dioxide % Nitrogen Gas Gravity - G, **Pressure Taps Flange 2" **Powing Flange 2" **Pressure Taps Flange 2" *	eld radshaw											
Set at Perforations To	Completion Date 2/4/97							Packer Set	at			
Internal Diameter Set at 2752 Type Fluid Production Pump Unit - Rod % Carbon Dioxide % Nitrogen Gas Gravity · G _g Pressure Taps (Meter Run) (Prover) Size Flange 2" (AM) (PM) Taken 20 at (AM) (PM) Taken 20 at (AM) (PM) OBSERVED SURFACE DATA Duration of Shut-in 34 Hours (P ₂) or (P ₁) or (P ₂) or	asing Size	We 10.	ight 5	Internal			and the second s					
Type Fluid Production Water Pump Unit - Rod % Carbon Dioxide % Nitrogen Gas Gravity - G % Carbon Dioxide % Nitrogen Gas Gravity - G % (Meter Run) (Prover) Size 2" Pressure Taps Flange Q 20 13 at 10 50 (AM) (PM) Taken 20 at (AM) (PM) Taken 20 at (AM) (PM) OBSERVED SURFACE DATA Duration of Shut-in Temperature I temperatu	Tubing Size Weight 2.375			Internal	Internal Diameter		Set at					
Pressure Taps Flange 2" (Meter Run) (Prover) Size Flange 2" (AM) (PM) Taken 20 at (AM) (PM) Taken 20 at (AM) (PM) OBSERVED SURFACE DATA Duration of Shut-in Temperature in thes H ₂ 0 Pressure Temperature in thes H ₂ 0 FLOW STREAM ATTRIBUTES Press Gravity Factor Fig. (OPEN FLOW) (DELIVERABILITY) CALCULATIONS (P ₂ > P ₂ P ₃ P ₄ Dog P ₄ P ₅ P ₄ P ₅	pe Completion		Type Fluid Production									
Flange 2" (AM) (PM) Taken	oducing Thru	(Annulus / Tub	ping)			de				Gas Gr	avity - G _g	
Company Comp	nnulus ertical Depth(F	1)	· · · · · · · · · · · · · · · · · · ·				 				Run) (Prover) Size	
OBSERVED SURFACE DATA OBSERVED SURFACE DATA OBSERVED SURFACE DATA Casing Tubing Tubing Tubing Wellhead Pressure (P_v) or (P_v)	essure Buildu	p: Shut in	9-10	20/3at/			Taken		20/		50 AM (PM)	
Casing Flowing Well Head Tubing Well Head Tubing Wellhead Pressure (P_w) or (P_l) or (P_c) Tubing Wellhead Pressure (P_w) or (P_c) or (P_c) Tubing Wellhead Pressure (P_w) or (P_c) or (P_c) or (P_c) Tubing Tubing Wellhead Pressure Wellhead Pressure Wellhead Pressure (P_w) or (P_c) or (P_c) Tubing Tubi	ell on Line:	Started			•			•				
Tessure Ifferential In person of the Barrely of the	¥				OBSERVE	D SURFACI	E DATA			Duration of Shut-	in 24 Hours	
FLOW STREAM ATTRIBUTES Press detension Factor Factor Factor Fit Press remains the field of the Company, states that he is duly authorized to make the above report and that he has knowledge of cort is true and correct. Executed this the	tatic / Orific	e Prover Pres	Differen	tial Flowing Temperature	Temperature	Wellhead	Pressure	Wellhead I	ng Pressure	Duration	Liquid Produced	
Press tension Factor Factor Fit Prowing Temperature Factor Fit Provided Factor	thut-in .63	psig (Pr	n) Inches I	120		psig	psia 52	psig	psia	24		
Press telesion Factor Factor Fit Press (Mcfd) Factor Factor Fit Press (Mcfd) Factor Fa	Flow											
Company Comp					FLOW STR	EAM ATTR	IBUTES					
(OPEN FLOW) (DELIVERABILITY) CALCULATIONS (P _a) ² = 0.207 (P _c - 14.4) + 14.4 =	Plate Coeffiecient (F _b) (F _p) Mcfd	effiecient Meter or F _b) (F _p) Prover Pressure		on Fac	tor	emperature Factor	Fa	Factor R		(Cubic Fee	et/ Fluid Gravity	
(OPEN FLOW) (DELIVERABILITY) CALCULATIONS (P _a) ² = 0.207 (P _c) ² = 0.207 (P _d) ² =												
Backpressure Curve Slope = "n" n x LOG Antilog P2-P2 Assigned Standard Slope Assigned Standard Slope Mcfd 14.65 psia Deliverability Mcfd 14.65 psia Deliverability Mcfd 14.65 psia) ² =	_: (P _w)²	² =						• •	(P _a) ²		
If of the Company, states that he is duly authorized to make the above report and that he has knowledge of our is true and correct. Executed this the	$(P_c)^2 - (P_a)^2$ or $(P_c)^2 - (P_d)^2$	(P _c) ² - (P _w) ²	Choose formula 1. P _c ² - P _c 2. P _c ² - P _c divided by: P _c ²	t or 2: LOG of formula 1. or 2. and divide		Backpres Slop Ass	ssure Curve le = "n" or				Open Flow Deliverability Equals R x Antilog	
If of the Company, states that he is duly authorized to make the above report and that he has knowledge of our is true and correct. Executed this the												
If of the Company, states that he is duly authorized to make the above report and that he has knowledge of our is true and correct. Executed this the			ļ				:					
ont is true and correct. Executed this the	en Flow	<u> </u>	Mcfd @	14.65 psia	· · · · · · · · · · · · · · · · · · ·	Deliverabi	lity		M	cfd @ 14.65 psia	1	
For Compliny	(P _c) ² - (P _a) ² or (P _c) ² - (P _d) ² Open Flow The undersign	(P _c) ² - (P _w) ² gned authority, nerein, and that	Choose formula 1. P _c ² - P 2. P _c ² - P divided by: P _c ² Mcfd @ on behalf of	tor 2: LOG of formula 1, or 2. and divide by: 14.65 psia	P _c ² -P _w ²	Backpres Slop 	ssure Curve e = "n" or signed ard Slope	n x LOG	M	Antilog cfd @ 14.65 psid	Open Deliver Equals R (Mc	
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	der penalty of perjury under the laws of the state of Kansas that I am authorized to request
	der Rule K.A.R. 82-3-304 on behalf of the operator Horseshoe Operating, Inc.
and that the fore	going pressure information and statements contained on this application form are true and
correct to the bes	st of my knowledge and belief based upon available production summaries and lease records
of equipment inst	allation and/or upon type of completion or upon use being made of the gas well herein named.
i hereby requ	est a one-year exemption from open flow testing for the Lesser #1
gas well on the g	rounds that said well:
•	
(Checi	(one)
,	is a coalbed methane producer
	is cycled on plunger lift due to water
	is a source of natural gas for injection into an oil reservoir undergoing ER
	is on vacuum at the present time; KCC approval Docket No
\checkmark	is not capable of producing at a daily rate in excess of 250 mcf/D
I further agre	e to supply to the best of my ability any and all supporting documents deemed by Commission
staff as necessar	y to corroborate this claim for exemption from testing.
Date: _//-/9-	17
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Instructions:

If a gas well meets one of the eligibility criteria set out in KCC regulation K.A.R. 82-3-304, the operator may complete the statement provided above in order to claim exempt status for the gas well.

At some point during the current calendar year, wellhead shut-in pressure shall have been measured after a minimum of 24 hours shut-in/buildup time and shall be reported on the front side of this form under **OBSERVED SURFACE DATA**. Shut-in pressure shall thereafter be reported yearly in the same manner for so long as the gas well continues to meet the eligibility criterion or until the claim of eligibility for exemption **IS** denied.

The G-2 form conveying the newest shut-in pressure reading shall be filed with the Wichita office no later than December 31 of the year for which it's intended to acquire exempt status for the subject well. The form must be signed and dated on the front side as though it was a verified report of annual test results.