KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type Test	:			(See Instru	ctions on Re	everse Side	a) ·				
= :	en Flow			Test Date) :			APL	No. 15			
√ Del	liverabilty			12/15/2					-20441 - 0 0	00		
Company Quantun		ces Managem	ent, LLC			Lease Adams	Ranch			F-21	Well Number	
County Location Meade 1750' FNL & 2000' FWL			Section 9		TWP 35S			W)	Acres Attributed			
Field Cimmaron Bend			Reservoir Toronto				Gas Gath DCP	nering Conn	ection			
Completion Date 9/24/86			Plug Bac 6503'	k Total De	oth	Packer Set at						
Casing Size Weight 5 1/2" 15.5#			Internal (Diameter		Set at 6076'		Perforations 4298'		то 4308'		
Tubing Size Weight 2 3/8"			Internal I	Diameter		Set at 4200'		Perforations ·				
Type Completion (Describe) Gas Well				Type Fluid Production Gas, Oil, Water			Pump Unit or Traveling Plunge Pumping Unit			/ No		
Producing Thru (Annulus / Tubing) Tubing				Carbon Dio			% Nitrogen		Gas Gr	Gas Gravity - G		
/ertical D	epth(H)				Pre	ssure Taps				(Meter I	Run) (Prover) Size	
	Buildup:	Shut in	5 2	0 13 at 1	0:30	(AM)(PM)	Taken_12	2/16	20	13 _{at} 10:30	(AM)(PM)	
Well on L				0 at					20	at	_	
					OBSERV	ED SURFAC	E DATA			Duration of Shut-	in 24 Hours	
Static / Orifice Dynamic Size Property (inches		Circle one: Meter Prover Pressure	Pressure Differential	Flowing Temperature t	ture Temperatur	Wellhead	Casing Wellhead Pressure (P,) or (P,) or (P,)		ubing ad Pressure (P,) or (P _E)	Duration (Hours)	Liquid Produced (Barrels)	
Shul-In	(mones)	psig (Pm)	Inches H ₂ 0	<u> </u>	t	psig 50	psia	psig 55	psia			
Flow			-		<u> </u>	1 30		33	 			
,'	-	<u>-</u>			FLOW ST	REAM ATTR	RIBUTES					
Plate Coefficci (F _b) (F Mofd	ent Pr	Circle ono: Meter ot Prover Pressure psia Press Extension P _m x h		Gravity Factor F _e		Flowing Temperature Factor F ₁₁	Temperature Factor		Metered Flow R (Mcfd)	W GOR (Cubic Fe Barrel)	et/ Flowing Fluid Gravity G _m	
P _c)² =	:	(P _w) ² =	:	(OPEN FLO	OW) (DELI	VERABILITY _% (1	') CALCUL P _c - 14.4) +		:	(P _a) [;] (P _d)	² = 0.207 ² =	
(P _e) ² - (F or (P _e) ² - (F		P _c) ² - (P _w) ²	1. $P_c^2 - P_a^2$ 2. $P_c^2 - P_d^2$ 2. $P_c^2 - P_d^2$ ided by: $P_c^2 - P_a^4$	LOG of formula 1. or 2. and divide	P _c ² - P _w ²	Backpre Slo	essure Curve pe = "n" - or ssigned fard Slope		og [Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)	
_				-								
Open Flo	N		Mcfd @ 14.	65 neia		Deliveral				Mcfd @ 14.65 psi	<u> </u>	
•		od guthosite a - :	•				·	a				
		ed authority, on ein, and that said						o make the		ort and that he ha	s knowledge of, 20 <u>14</u> .	
			····					ım Resou		gement, LLC		
	Witness (if any)				· · · · · · · · · · · · · · · · · · ·				For Company		KCC WICH	
		ForCommiss	ion			•			Cher	cked by	MAY 2 9 201	
											RECEIVE	

exempt status and that the f	under penalty of perjury under the laws of the state of Kansas that I am authorized to request under Rule K.A.R. 82-3-304 on behalf of the operator Quantum Resources Management, LLC oregoing pressure information and statements contained on this application form are true and best of my knowledge and belief based upon available production summaries and lease records
of equipment	installation and/or upon type of completion or upon use being made of the gas well herein named. equest a one-year exemption from open flow testing for the Adams Ranch F-21
	e grounds that said well:
	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 is not capable of producing at a daily rate in excess of 250 mcf/D
	agree to supply to the best of my ability any and all supporting documents deemed by Commission assary to corroborate this claim for exemption from testing.
Date: <u>5/27/14</u>	<u></u>
	Signature: <u>Jolanda</u> Title: <u>Regulatory Manager</u>

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.

KCC WICHITA MAY 2 9 2014

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