KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Type rest				ί.	000 111311001	0110 011 110 11	0130 0100	,			
	en Flow liverabilty	/		Test Date) :				No. 15 023-21024-0	0-00	
Company Noble Energy Inc					Lease Keller Farms						Well Number
County Location Cheyenne SW-SW-SW				Section 7			TWP 2S		RNG (E/W) 38W		Acres Attributed
Field Cherry Creek				Reservoir Niobrara			Gas Gathering Conne Southern Star		ection	RECL	
Completion Date 11/19/2008				Plug Bac	k Total Dept	h	Packer Set at			DEC 0	
Casing Size Weight 17#, 9.5#			Internal C	Internal Diameter 9-7/8", 6-1/4"		Set at 169, 1384'		Perforations 1294'		DEC 0	
Tubing Size Weight			Internal C	Internal Diameter		Set at 1231'		Perforations			
Type Completion (Describe)					d Production		Pump Unit or Traveling F		Plunger? Yes / No		
Single (gas) Producing Thru (Annulus / Tubing)					arbon Dioxi	e % Nitr		% Nitrog	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		avity - G _g
ubing ertical D	epth(H)				Pressure Taps				(Meter Run) (Prover) Size		
ressure	Buildup:	Shut in	/13	20_12 at 9	:00	(AM) (PM)	Taken		20	at	(AM) (PM)
ell on L	•				12 at 9:15				20		
					OBSERVE	D SURFACE	DATA			Duration of Shut-	24.25Hours
Static / ynamic roperty	Orifice Size (inches	Prover Pres	Differentia	Temperature	Well Head Temperature t	Casing Wellhead Pressure (P_w) or (P_1) or (P_c)		Tubing Wellhead Pressure (P _w) or (P ₁) or (P _c)		Duration (Hours)	Liquid Produced (Barrels)
Shut-In		psig (Pr	n) Inches H ₂	0		psig 103	psia	psig	psia		
Flow						100			+	<u></u>	
					FLOW STR	EAM ATTRI	BUTES	1			
Plate Coefficeient (F _b) (F _p) Mcfd		Circle one: Meter or Prover Pressure psia	Press Extension ✓ P _m x h	T ac	tor	Flowing Temperature Factor F _{ft}	Fa	iation ictor = pv	Metered Flow R (Mcfd)	GOR (Cubic Fe Barrel)	Gravity
				(OPEN FL	OW) (DELIV	ERABILITY)	CALCUL	ATIONS		(P.)	² = 0.207
) _c) _s =		(P _w)		P _d =		% (P,	14.4) +	14.4 =	<u> </u>	(P _d)	
$(P_c)^2 - (P_a)^2$ or $(P_c)^2 - (P_d)^2$		(P _c) ² - (P _w) ²	Choose formula 1 of $1 \cdot P_c^2 - P_a^2$ $2 \cdot P_c^2 - P_d^2$ divided by: $P_c^2 - P_a^2$	P ² -P ² LOG of formula P ² -P ² 1. or 2. and divide		Backpressure Curve Slope = "n" 		l n x i	og 📗	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)
pen Flo	w		Mcfd @ 1	4.65 psia		Deliverabil	lity			Mcfd @ 14.65 ps	l ia
	_	•				•			•	rt and that he ha	J
facts s	tated the	rein, and that	said report is to	rue and correc	t. Executed	this the 30	·	day of N	ovember		, ₂₀ <u>12</u> .
		Witnes	s (if any)			_			For C	ompany	
		For Co	mmission						Chec	ked by	.

exempt status und and that the foreg correct to the best of equipment insta	er penalty of perjury under the laws of the state of Kansas that I am authorized to request er Rule K.A.R. 82-3-304 on behalf of the operator Noble Energy Inc oing pressure information and statements contained on this application form are true and of my knowledge and belief based upon available production summaries and lease records allation and/or upon type of completion or upon use being made of the gas well herein named. est a one-year exemption from open flow testing for the Keller Farms 14-7 bunds 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 et to supply to the best of my ability any and all supporting documents deemed by Commission of to corroborate this claim for exemption from testing.
Date: 11/30/2012	Signature: Title: Regulatory Analyst

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.