KANSAS CORPORATION COMMISSION ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Form G-2 (Rev. 7/03)

Type Test: Open Flow			75/3											
Deliverabilty			Test Dat	e:					l No. 15 -023-20946 -	0000	13			
Company Noble Energy Inc.				Lease Zweygardt				ardt	Well Number 31-32B					
County Cheyenne			Location NWNE			Section 32			TWP 3S		RNG (E/W) 41W		Acres Attributed	
Field Cherry Creek						Reservoir Niobrara						thering Conn ern Star/Kind		RECEIVED
3/27/200		е		Plug Back Total Depth 1711'			h		Packer Set at			DEC 0 5 2012		
Casing S 7", 4-1/2			Weight 17#, 10.5#			Internal Diameter 9-7/8", 6-1/4"			Set at 298', 1753'		Perforations 1460'		To 1518'	KCC WICHITA
Tubing Size 2-3/8"			Weight 4.7#			Internal Diameter 1.995				Set at Perforations 1535'		orations	То	
Type Completion (Describe) Single (gas)					Type Fluid Produ saltwater			ction	1		Pump Unit or Traveling to yes		Plunger? Yes	/ No
Producing Thru (Annulus / Tubing) tubing					% Carbon Dioxide			de		% Nitrogen		Gas Gra	Gas Gravity - G _o	
Vertical D	epth(F	I)					Р	ress	sure Taps				(Meter R	lun) (Prover) Size
Pressure	Buildu	p:	Shut in9/1	14		12 at 2			(AM) (PM)	Taken		20	at	(AM) (PM)
Well on L	ine:	;	Started 9/1	7	20	12 at 1	:47	_	(AM) (PM)	Taken		20	at	(AM) (PM)
				· · · · · ·			OBSE	RVE	D SURFAC	E DATA			Duration of Shut-i	n_71Hours
Static / Dynamic Property			Circle one: Meter Prover Pressure psig (Pm)		Pressure Differential in nches H ₂ 0	Flowing emperature t	Well Head Temperature t		Casing Wellhead Pressure (P _w) or (P _t) or (P _c) psig psia		Tubing Wellhead Pressure (P _w) or (P ₁) or (P _c) psig psia		Duration (Hours)	Liquid Produced (Barrels)
Shut-In									82	pola	pang	рзів		
Flow														
				Т			FLOW	STR	EAM ATTR	IBUTES		ı		
Plate Coefficcient (F _b) (F _p) Mcfd		Circle one: Meter or Prover Pressure psia		E	Press Extension P _m x h	Gran Fac F	tor	Flowing Temperature Factor F ₁₁		Deviation Factor F _{pv}		Metered Flow R (Mcfd)	w GOR (Cubic Fee Barrel)	Flowing fluid Gravity G _m
						OPEN FL	OW) (DE	. IVI	ERABILITY) CALCUI	ATIONS			
(P _c) ² =		_:	(P _w) ² =	=	······································	P _d =		°) - 14.4) +		<u>.</u> :	(P _a) ² (P _d) ²	= 0.207 =
$(P_c)^2 - (P_a)^2$ or $(P_c)^2 - (P_g)^2$		(P _c) ² - (P _w) ²		1. 2.	formula 1 or 2: $P_{c}^{2} - P_{g}^{2}$ $P_{c}^{2} - P_{d}^{2}$ by: $P_{c}^{2} - P_{w}^{2}$	LOG of formula 1. or 2. and divide by:		2	Backpressure Curve Slope = "n" 		l n x	roe	Antilog	Open Flow Deliverability Equals R x Antilog (Mcfd)
Open Flor	w			М	lcfd @ 14.6] 5 psia			l Deliverat	oility	L		Mcfd @ 14.65 psia	
			authority, o										ort and that he has	
			Witness	(if any)					_			For C	Company	
			For Comr	nission				-	_			Chec	cked by	

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	ler 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 Noble Energy Inc.
and that the fore	going pressure information and statements contained on this application form are true and
	t 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 Zweygardt 31-32B
	rounds that said well:
(Checi	cone)
	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
	ee to supply to the best of my ability any and all supporting documents deemed by Commission ry to corroborate this claim for exemption from testing.
Date: _11/30/201	2
	Signature: Title: Regulatory Analyst
	Title: Negulatury 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.