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

Type Test: (See Instructions on Reverse Side)															
Open Flow					Test Date: API No. 15										
Deliverability								15-181-20543-00-00							
Company Noble Energy Inc					Lease Billinger				11-			Well Number			
County Location Sherman SE-SE-NW-NW				Section 1		TWP 6S		RNG (E/W) 40W		,	Acres Attributed				
Field Prairie Star					Reservoir Niobrara			Gas Gathering Connection Kinder Morgan							
Completion Date 10/5/2010				Plug Bac 1555'	Plug Back Total Depth 1555'				Packer S	Set at					
Casing Size Weight 7", 4 1/2" 17#, 10.5#				Internal ( 9 7/8",		Set at 381', 1596'		Perforations 1372		то 1396	то <b>13</b> 96				
Tubing Size Weight 2 3/8 4.7#				Internal I		Set at		Perforations		То					
Type Completion (Describe)					Type Flui	Type Fluid Production Saltwater				Pump Unit or Traveling Plunger? Yes / No yes					
Single (gas) Producing Thru (Annulus / Tubing)					% Carbon Dioxide				•			Gravity - G			
	Tubing Vertical Depth(H)						Pressure Taps				(Meter Run) (Prover) Size				
Pressure	Buildu	D.	Shut in 6/	2	2	0 11 <sub>at</sub> 1	2:45	(AM)	(PM)	Taken		20	) at		(AM) (PM)
Well on L			Started 6/				11 12:45				20				
							OBSER	VED SU	RFACE	DATA			Duration of Shut-	in_24	Hours
Static / Dynamic Property	Dynamic Size		e Prover Pres		Pressure Differential in	- 1	Well Hea	ura We	Casing Wellhead Pressure $(P_{\perp}) \text{ or } (P_1) \text{ or } (P_0)$		Tubing Wellhead Pressure $(P_{\underline{u}}) \text{ or } (P_{\underline{t}}) \text{ or } (P_{\underline{c}})$		Duration (Hours)	Liqui	Liquid Produced (Barrels)
Shut-In	<b>\</b>		psig (Pm	)	Inches H <sub>2</sub> 0	•	<u> </u>	ρs 222	sig 2	psia	psig	psia	psiā		
Flow					-									$\vdash$	<u>-</u>
							FLOW S	TREAM	ATTRI	BUTES	Į.	<u> </u>	1		
Plate Coeffiecient (F <sub>b</sub> ) (F <sub>p</sub> ) Mcfd		Circle one: Meter or Prover Pressure psia			Press Extension P <sub>m</sub> x h	Fac	Gravity Factor Te F <sub>g</sub>		emperature Fac		riation Metered Flow R F (Mcfd)		OW GOR (Cubic Fe Barrel)	et/	Flowing Fluid Gravity G <sub>a</sub>
						(OPEN FL	OW) (DEI	LIVERAE	BILITY)	CALCUL	ATIONS		/0 \	² = 0.2	207
(P <sub>c</sub> ) <sup>2</sup> =		_:	(P <sub>+</sub> )²		<u> </u>	P <sub>d</sub> =		_%	(P	- 14.4) +	14.4 =	:_	(P <sub>d</sub> )		
$(P_c)^2 - (P_a)^2$ or $(P_c)^2 - (P_d)^2$		(P <sub>e</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup>			ose formula 1 or 2: 1. P <sub>o</sub> <sup>2</sup> - P <sub>o</sub> <sup>2</sup> 2. P <sub>o</sub> <sup>2</sup> - P <sub>o</sub> <sup>2</sup> ted by: P <sub>o</sub> <sup>2</sup> - P <sub>o</sub> <sup>2</sup>	LOG of formuta 1, or 2, and divide	formuta 1, or 2, and divide p2, p2		Backpressure Curve Slope = 'n' or Assigned Standard Slope		n x LOG		Antilog	Del Equals	pen Flow liverability s R x Antilog (Mcfd)
													-		
Open Flo	w				Mcfd @ 14.	65 psia		Del	liverabil	lity			Mcfd @ 14.65 psi	<u>a</u>	
		•	,		ehalf of the report is true						_	ne above rep	ort and that he ha		<sub>20</sub> 11
			láfi ma	. 61	w\			-	ک		ry	1/10	Luson		RECEIVED
			Witness For Con					_	_		//	0	Company ecked by	0	)EC 0 2 201
			FGI CON	мьсячы	u.							Cni	ocnor oy	KC	C WICHI

exempt status und and that the foreg correct to the bes of equipment insta	er penalty of perjury under the laws of the state of Kansas that I am authorized to request ler Rule K.A.R. 82-3-304 on behalf of the operator Noble Energy Inc.  going 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 Billinger 11-1
gas well on the gr	ounds that said well:
(Check	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
•	e to supply to the best of my ability any and all supporting documents deemed by Commission
statt as necessar	y to corroborate this claim for exemption from testing.
Date: 11/4/2011	
	Signature: Cleyd Johnson  Title: Regulatory Analyst II

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.

DEC 0 2 2011

KCC WICHITA



## **NATURAL GAS ANALYSIS**

PROJECT NO.: 201106109 ANALYSIS NO.: 16

COMPANY NAME: NOBLE ENERGY ANALYSIS DATE: JUNE 26, 2011 ACCOUNT NO.: YUMA SAMPLE DATE: JUNE 16, 2011

PRODUCER: TO:

LEASE NO.: E1518120543 EFFECTIVE DATE: JULY 1, 2011

NAME/DESCRIP.: BILLINGER 11-1

\*\*\*FIELD DATA\*\*\*

SAMPLED BY: S. KENNEDY CYLINDER NO.: 896

SAMPLE PRES.: 46 AMBIENT TEMP.: SAMPLE TEMP.: 80 GRAVITY:

SAMPLE TYPE: SPOT VAPOR PRES. : FIELD COMMENTS: NO PROBE

LAB COMMENTS:

	NORM.	GPM @	GРМ @		
COMPONENTS	MOLE%	14.65	14.73		
HELIUM	0.14	-	-		
HYDROGEN	0.00	•	-		
OXYGEN/ARGON	0.05	-	•		
NITROGEN	5.41	-	-		
CO2	0.87	-	•		
METHANE	91.33	-	•		
ETHANE	1.58	0.420	0.423		
PROPANE	0.44	0.121	0.121		
ISOBUTANE	0.07	0.023	0.023		
N-BUTANE	0.07	0.022	0.022		
ISOPENTANE	0.02	0.007	0.007		
N-PENTANE	0.01	0.004	0.004		
HEXANES+	0.01	0.004	0.004		
TOTAL	100.00	0.601	0.604		
BTU @ 60 DEG F		14.65	14.73		
NET DRY REAL =		870.8	875.6		
NET WET REAL =		855.6	860.4		
GROSS DRY REAL =		966.6	971.9		
GROSS WET REAL =		949.7	955.0		

NOTE: REFERENCE GPA 2261(ASTM D1945), 2145, & 2172 CURRENT PUBLICATIONS

RELATIVE DENSITY REAL (AIR=1 @ 14.696 PSIA 60F):

THIS DATA HAS BEEN ACQUIRED THROUGH APPLICATION OF CURRENT STATE-OF-THE-ART ANALYTICAL TECHNIQUES. THE USE OF THIS INFORMATION IS THE RESPONSIBLITY OF THE USER. EMPACT ANALYTICAL SYSTEMS, ASSUMES NO RESPONSIBLITY FOR ACCURACY OF THE REPORTED INFORMATION NOR ANY CONSEQUENCES OF IT'S APPLICATION.

EMPACT Analytical Systems, Inc. 365 S. Main St. Brighton, CO 80601 303-637-0150

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