

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

`	t: pen Flow eliverabil				Test Date	(See Instruc	tions on R	everse Side	API	No. 15 1 <b>23-21315-</b> 0	20.00			
Company Noble F		nc			·		Lease Rogers	<del></del>	10-0	123-21313-1			lumber	
Noble Energy Inc  County Location Cheyenne SW-NW-NW-SW				Section TWF			RNG (E/W) 39W			13-32 Acres Attributed				
Field Prairie Star			Reservoi Niobrara					ering Conn	ection		3			
Completion Date 9/12/2011				Plug Back Total Depth				Packer S						
Casing Size Weight 7", 4-1/2" 17#, 10.5#				Internal I 9-7/8",		Set at 379', 1540'		Perforations 1328'		To 1352	 }'	•		
Tubing Size Weight				Internal [		Set		Perforations		То				
Type Completion (Describe) Single (gas)				Type Fluid Production Saltwater			Pump Uni	Plunger? Yes	s / No					
Producing		Annulus / Tut	oing)		% Carbon Dioxide			% Nitroge	Gas G	Gas Gravity - G <sub>g</sub>				
Vertical D		***************************************			·	Pres	sure Taps				(Meter	Run) (f	Prover) Size	
·			0 11 at 9	_	(PM)	(PM) Taken		20			_ (AM) (PM)			
Well on L	ine:	Started 9	/12	20	0 11 at 2	.30	(AM) (PM)	Taken		20	at		(AM) (PM)	
						OBSERVE	D SURFAC	E DATA			Duration of Shu	t-in_34	11 Hours	
Static / Dynamic Property	ic Size Meter Differential		Differential in	Flowing Well Head Temperature t		Casing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>t</sub> ) or (P <sub>c</sub> ) psig psia		Tubing Wellhead Pressure (P <sub>w</sub> ) or (P <sub>t</sub> ) or (P <sub>c</sub> ) psig psia		l '		uid Produced (Barrels)		
Shut-In							210	psia	psig	psia				
Flow														
···						FLOW STR	EAM ATTE	IBUTES					<del></del>	
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			Gravity Factor F <sub>g</sub>		Flowing Femperature Factor F <sub>ff</sub>	erature Factor		Metered Flow R (Mcfd)	GOP (Cubic F Barre	eet/	Flowing Fluid Gravity G <sub>m</sub>	
							<u></u>							
(P <sub>c</sub> ) <sup>2</sup> =	<del></del>	: (P <sub>w</sub> ):	² =	<u>:</u>	OPEN FLO	OW) (DELIV		) CALCUL P <sub>e</sub> - 14.4) +		:		$()^2 = 0.2$ $()^2 =$	207	
$(P_c)^2 - (P_a)^2$ or $(P_c)^2 - (P_d)^2$		(P <sub>c</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup>	Choose formula 1 or 2:  1. P <sub>c</sub> <sup>2</sup> - P <sub>s</sub> <sup>2</sup> 2. P <sub>c</sub> <sup>2</sup> - P <sub>d</sub> <sup>2</sup> divided by: P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>		LOG of formula 1. or 2. and divide by:	P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>	Backpres Slope Assi Standa		n x LOG		Antilog	O De	Open Flow Deliverability Equals R x Antilog (Mcfd)	
·				· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·						<del> </del>		
Open Flow Mcfd @ 14.6			5 psia Deliverability			ility	L L Mcfd @			14.65 psia				
									make the		t and that he h		-	
ne racis si	aleu ine	rein, and that	said rep	pon is true	and correct	. Executed	this the	CL	gay of	1 /	A IN.		20 11 ECEIVED	
		Witness	s (if any)	WW			-	<u> </u>	The	For Co	ompany		C 2 8 20	
		For Cor	nmission			·	-			Chael	rad by		- L O LU	

KCC WICHITA

	lare under penalty of perjury under the laws of the state of Kansas that I am authorized to	o request
	tatus under Rule K.A.R. 82-3-304 on behalf of the operator Noble Energy Inc	
	the foregoing pressure information and statements contained on this application form are	
	the best of my knowledge and belief based upon available production summaries and lease	
	nent installation and/or upon type of completion or upon use being made of the gas well herei	n named.
	eby request a one-year exemption from open flow testing for the Rogers 13-32	<u> </u>
as well	on the grounds that said well:	
	(Check 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	
	is not capable of producing at a daily rate in excess of 250 mcf/D	
l fur	her agree to supply to the best of my ability any and all supporting documents deemed by (	Commissio
	ecessary to corroborate this claim for exemption from testing.	
nate· 1	/27/2011	
,u.c	<del></del>	
	Claud Al	
	Signature: ( ) Lluft / The sen	

## 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 2 8 2011



## **NATURAL GAS ANALYSIS**

PROJECT NO.: 201109152

COMPANY NAME: NOBLE ENERGY ANALYSIS DATE: **OCTOBER 4, 2011** ACCOUNT NO.: YUMA SAMPLE DATE: **SEPTEMBER 21, 2011** 

ANALYSIS NO.:

PRODUCER:

TO: EFFECTIVE DATE: NOVEMBER 1, 2011 LEASE NO.: E1502321315

NAME/DESCRIP.: **ROGERS 13-32** 

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

SAMPLED BY: **JOSHUA WALTERS** CYLINDER NO.: 323

SAMPLE PRES.: 36 AMBIENT TEMP.: SAMPLE TEMP.: 67 **GRAVITY: SPOT SAMPLE TYPE:** VAPOR PRES.:

FIELD COMMENTS: NO PROBE

LAB COMMENTS:

	NORM.	GPM @	GPM @	
COMPONENTS	MOLE%	14.65	14.73	
HELIUM	0.12	-	<b>-</b> *	
HYDROGEN	0.00	-	-	
OXYGEN/ARGON	0.05	-	-	
NITROGEN	4.98	•	•	
CO2	3.46	•	-	
METHANE	89.37	-	-	
ETHANE	1.44	0.383	0	.385
PROPANE	0.40	0.110	0.	.110
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	0.553	0	.555
BTU @ 60 DEG F		14.65	1	4.73
NET DRY REAL =		849.9	8.	54.5
NET WET REAL =		835.0	. 83	39.6
GROSS DRY REAL =	•	943.4	94	48.6
GROSS WET REAL =		926.9	9:	32.1

RELATIVE DENSITY REAL (AIR=1 @ 14.696 PSIA 60F): 0.6225

**COMPRESSIBILITY FACTOR:** 0.99795

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

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