State of West Virginia Department of Environmental Protection - Office of Oil and Gas Well Operator's Report of Well Work

API 47 - 085 - 10129 County Ritchie	District Ellenboro			
Quad Pennsboro Pad Name PEN 20				
Farm name Lawrence & Angela Cokeley	Well Number PEN 20GHS			
Operator (as registered with the OOG) Noble Energy, Inc.				
Address 1000 Noble Energy Drive City Canonsburg	State PA	_ _{Zip} <u>15317</u>		
As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view Top hole Northing as drilled plat to be submitted by CNX Landing Point of Curve Northing Upon completion of the well. Bottom Hole Northing Upon completion of the well.	ew, and deviation survey Easting Easting Easting			
Elevation (ft) 1081 GL Type of Well New Existing	ng Type of Report ■I	nterim □Final		
Permit Type □ Deviated □ Horizontal ■ Horizontal 6A □ Vert	tical Depth Type \Box	Deep Shallow		
Type of Operation □ Convert □ Deepen ■ Drill □ Plug Back □	Redrilling □ Rework □	Stimulate		
Well Type □ Brine Disposal □ CBM ■ Gas □ Oil □ Secondary Recovery	☐ Solution Mining ☐ Storag	e 🗆 Other		
Type of Completion □ Single □ Multiple Fluids Produced □ Brine	□Gas □ NGL □ Oil □ O	Other		
Drilled with □ Cable ■ Rotary				
Drilling Media Surface hole ■ Air □ Mud □ Fresh Water Interme	ediate hole 📕 Air 🗆 Mud 🗆	Fresh Water Brine		
Production hole □ Air ■ Mud □ Fresh Water □ Brine				
Mud Type(s) and Additive(s) Synthetic Oil Based				
Date permit issued 08/05/2014 Date drilling commenced 01/13	3/2015 Date drilling ceas	ed 02/03/2015		
Not completed Builting	on activities ceasedr	ia		
Verbal plugging (Y/N) Date permission granted	Granted by			
Verbal plugging (Y/N) Date permission granted Date completed Date permission granted	ys of verbal permission is plug	ECEIVED		
Freshwater depth(s) ft Open mine(s) (Y/N) depths	N" and G		
Salt water depth(s) ft none noted for offsets Void(s) encount	tered (Y/N) depths	150		
Coal depth(s) ft NA Cavern(s) encounts of the Cavern(s) cool depth(s) ft NA Cavern(s) encounts of the Cavern of the Cave	tered (Y/N) depths beneat	N Protection of Processed by:		
DATE: 1 /20/17				

Farm name Lawrence & Angela Cokeley Well number PEN 20GHS _{API 47-}085 _ 10129 **CASING** Hole Casing New or Grade Basket Did cement circulate (Y/N) **STRINGS** Size Size Depth Used wt/ft Depth(s) * Provide details below* Conductor 26" 20" 40' New **DH-36** Surface 17.5" 13 3/8" 599.31 J-55 New Coal Υ Intermediate 1 12.38" 9 5/8" 5330.5' New **HCK-55** Υ Intermediate 2 Intermediate 3 Production 8-3/4" & 8-1/2" 5 1/2" 11.596.9 New P-110 Υ Tubing Packer type and depth set *approved cement variance of 2% accelerator (S001) 0.2% Antifoam (D046) 0.125 lb/sk Polyester Flake (D130) CEMENT Class/Type Number Slurry Vield Volume Cement WOC DATA of Cement of Sacks (ft 3/sks) (ft^2) Top (MD) (hrs) wt (ppg) Conductor Surface **PJSM Cement** 530 15.6 1.19 630.7 25.8 8 Coal Intermediate 1 25.8 Type 1 / Class A stage (1) 989 stage (2) 317 15.6 Stago (1) 1.61 Stago (2) 1.19 total 2286 8 Intermediate 2 Intermediate 3 Production 25.8 Lead 1.61 tail 1.37 total 2379.29 8 Type 1 / Class A lead 455 tail 1202 14.8 Tubing Drillers TD (ft) 11615' Loggers TD (ft) 11551' Deepest formation penetrated Marcellus Plug back to (ft) Plug back procedure Kick off depth (ft) 5353' Check all wireline logs run □ density □ deviated/directional □ induction □ caliper □ temperature □ neutron □ resistivity □ gamma ray □sonic Conventional Sidewall Were cuttings collected □ Yes □ No Well cored □ Yes □ No DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING No centralizers used on conductor. 6 Centralizers on Surface Casing 65 Centralizers on Intermediate String (Bow string centralizers on first two joints then every third joint to 100' from surface). 166 Centralizers on Production String (rigid bow string every joint to KOP, rigid bow spring every third joint from KOP to top of cement). **RECEIVED** Office of Oil and Gas WAS WELL COMPLETED AS SHOT HOLE □ Yes 🖪 No **DETAILS** JAN 1 7 2017 WAS WELL COMPLETED OPEN HOLE? □ Yes 🖪 No **DETAILS** WV Department of **Environmental Protection**

TYPE OF TRACER(S) USED

WERE TRACERS USED □ Yes ■ No

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Farm name_Lawrence & Angela Cokeley Well number_PEN 20GHS

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
	well not complete				
			-		
	. =				
	-				

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
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Please insert additional pages as applicable.

WV Department of Environmental Protection

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API 47- 085	_ 10129	Farm	_{name} Lawren	ce & Ange	la Cokeley Well	number	PEN	20GHS
PRODUCING	FORMATION(<u>(S)</u>	<u>DEPTHS</u>	_TVD	MD			
Please insert ad	ditional pages a	as applicable.			-			
GAS TEST	□ Build up □	Drawdown	□ Open Flow	OI	L TEST 🗆 Flow	□ Pump		
SHUT-IN PRE	SSURE Surf	face	_psi Botto	m Hole	psi DURA	TION O	F TES	T hrs
OPEN FLOW	Gas met	Oil fpd	NGL bpd	bpd	ater GAS I bpd □ Esti	MEASU mated	RED E	BY fice □ Pilot
LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD		BOTTOM DEPTH IN FT MD				D QUANTITYAND NE, OIL, GAS, H₂S, ETC)
	0		0					
						-		
Please insert ad	l Iditional pages a	as applicable.						
Drilling Contra	ctor Nomac 7	8 Drilling						
Address 171 Lo	ocust Ave. Ext.		City	Mt. Morris	State	PA	Zip	15349
Logging Compa Address 400 Te	any Baker Hugechnology Drive	ghes	City	Canonsburg	State	PA	Zip	15317
Cementing Cor	mpany Schlum	berger		-		DA	74	45247
Address 4600	J. Barry Ct., Sui	te 200	City	Canonsburg	State	PA		15317
Stimulating Co	mpany		~:·		Critical	O#:	HE	CEIVED
Address Please insert ad	lditional pages a	as applicable.	City		State	OIII	CE40Y	Oil and Gas
Completed by					Telephone 724-83	20-3061	JAN	1 7 2017
Signature	Dee Sun	igu	Title R	egulatory Ana	lyst, III	D	1/09/20	017

Submittal of Hydraulic Fracturing Chemical Disclosure Information

Pen 20 Wells		
Formations	Тор	Base
Shale and Sandstone	0	1222
Sandstone	1222	1346
Shale and Sandstone	1336	1506
Sandstone	1506	1548
Shale and Sandstone	1548	1650
Maxton Sand	1650	1733
Shale and Sandstone	1733	1856
Big Lime	1856	1911
Big Injun	1911	2046
Price	2046	2318
Weir	2318	2357
Shale	2357	2637
Gordon	2637	2654
Shale and Sandstone	2654	2834
5th Sand	2834	2846
Shale	2846	2989
Sandstone	2989	3003
Shale	3003	3411
Warren	3411	3473
Shale	3473	3807
Sandstone	3807	3844
Shale and Sandstone	3844	4838
Benson	4838	4900
Shale	4900	5060
Alexander	5060	5128
Shale	5128	5638
Rheinstreet	5638	5964
Cashaqua	5964	6056
Middlesex	6056	6085
West River	6085	6129
Burkett	6129	6172
Tully Limestone	6172	6173
Hamilton	6173	6174
Marcellus	6174	6233
Onondaga	6233	

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