

**Regulatory Department** 

January 16, 2014

## VIA UPS NEXT DAY AIR

Mr. Gene Smith West Virginia Department of Environmental Protection Office of Oil & Gas 601 57<sup>th</sup> Street Charleston, WV 25304

Re: WR-35 – Chad Glauser OHI 10H (API #69-00167)

Dear Mr. Smith:

Chesapeake Appalachia, L.L.C. submits the *Operator's Interim Report of Well Work* in duplicate for the above captioned well(s) located in Ohio County.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person of persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete.

If you have any questions or require additional information please feel free to contact me at (405)935-4158 or marlene.williams@chk.com.

Sincerely,

Chesapeake Appalachia, L.L.C Parley / villians

Marlene Williams Regulatory Analyst

Enclosure(s) cc: West Virginia Geological and Economic Survey

> Chesapeake Energy Corporation P.O. Box 18496 • Oklahoma City, OK 73154-0496 • 6100 N. Western Avenue • Oklahoma City, OK 73118 405-848-8000 • fax 405-767-4592

Coal depth(s) ft

Is coal being mined in area (Y/N)

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

API <u>47</u> 069	00167 County Ohio		District Triadelphia	
<sub>Quad</sub> Valley Grove	Pad Name Ch	ad Glauser OHI	Field/Pool Name	
Farm name Chad Glaus		,	Well Number833631	
Operator (as registered wi	h the OOG) Chesapeake A	ppalachia, L.L.C.		_
Address P.O. Box 1849	6 City	Oklahoma City	State OK	Zip 73154-0496
	b holeNorthing559131.1CurveNorthing558863.0	H	and deviation survey Basting 1661226.3 Basting 1662990.3 Basting 1666226.5	
Elevation (ft) 1,240	GL Type of We	ell ∎New □Existing	Type of Report In	terim □Final
Permit Type 🛛 Deviat	ed 📕 Horizontal 🗆 Hori	zontal 6A 🛛 D Vertica	al Depth Type 🗆	Deep 📕 Shallow
Type of Operation □ Cor	vert 🗆 Deepen 🛢 Drill	□ Plug Back □ Re	edrilling 🗆 Rework 🗆 S	Stimulate
Well Type 🛛 Brine Dispo	osal □ CBM ■ Gas □ Oil □	Secondary Recovery	□ Solution Mining □ Storage	e □ Other
Type of Completion 🛚 Si	ngle 🗆 Multiple 🛛 Fluids Pr	oduced □Brine ■G	as 🗆 NGL 🗆 Oil 🗆 C	ther
Drilled with	Rotary			
Drilling Media Surface I	ole ∎Air □Mud ∎Fresh	Water Intermedia	ate hole ■Air □Mud ■	Fresh Water □ Brine
Production hole 🛛 🖪 Air	∎ Mud 📕 Fresh Water 🗆 B	srine		
Mud Type(s) and Additiv SOBM	e(s)			
Date permit issued5/ Date completion activities		ommenced7/21/20	013 Date drilling cease activities ceased 10/2	a8/9/2013 4/2013
Verbal plugging (Y/N)				NA
verbai piugging (1/14)				
Please note: Operator is re	equired to submit a plugging ap	plication within 5 days o	of verbal permission to plug	
Freshwater depth(s) ft	562'	Open mine(s) (Y/N	N) depths	Ν
Salt water depth(s) ft	4 4051		ed (Y/N) depths	N
Coal denth(s) ft	678'	_ ()	ered (Y/N) denths	N

Y

Cavern(s) encountered (Y/N) depths \_

Reviewed by:

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API 47-069		1 unin nu	me Chad Gla				ll number		
CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft		Basket Depth(s)		ent circulate (Y/ N) de details below*
Conductor	24"	20"	118'	New		5/94#			Y
Surface	17 1/2"	13 3/8"	757'	New		/54.50#			Y
Coal									
Intermediate 1	12 1/4"	9 5/8"	2,114'	New	J-5	5/40#			Y
Intermediate 2					•				
Intermediate 3									
Production	8 3/4" / 8 1/2"	5 1/2"	13,037'	New	P-1	10/20#			Y
Tubing									
Packer type and c	lepth set			1	<u> </u>				
Comment Details									
CEMENT DATA	Class/Type of Cement	Number of Sacks			Yield ft ³/sks)	Volume (ft <sup>3</sup> )		ement o (MD)	WOC (hrs)
Conductor	A	310	15.6	1	1.20	372		urface	<u>(IIIS)</u> 8
Surface	A	680	15.6		1.20	816		urface	
Coal									-
Intermediate 1	А	716	15.6	5	1.24	887.84	4 Sι	Irface	8
Intermediate 2									
Intermediate 3									<u></u>
Production	A	995 / 153	34 15.0 / 1	5.8 1.3	6/1.16	3132.6	4	324'	8
Fubing	-								
	ation penetrated _ ocedure	Marcellus		Plug back	to (ft)				
	eline logs run	□ neutron	□ resistivity	📕 gamm	a ray		temperature		
Well cored a	Yes 📕 No	Conventio	nal Sidev	wall	W	ere cutting	gs collected	∎ Yes 🗆	I No
Surface / Coal - Run cen	HE CENTRALI trailzers in the mkddle and top centralizer 3' from Shoe, 2	of the first joint, top of the third	l jt and every 4th joint to su	irface.	ASING S	TRING			
WAS WELL	COMPLETED A	S SHOT HOLE	∎Yes □	No D	ETAILS				

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API 4	- <u>069</u> <u>00167</u>	Farm nar	neChad Glause	er OHI 10H	833631 Well number
			PERFORATI	ON RECORD	
Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
	Attached				

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)
	Attached							
					•			
			· · · · · · · · · · · · · · · · · · ·					
						·		

Please insert additional pages as applicable.

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API 47- 069	_ 00167	Farm 1	name Chad Gla	user OHI 10H	1	Well number	833631
PRODUCING	FORMATION(	<u>S)</u>	DEPTHS				
Marcellus Shale	)	I	6,495	TVD	7,300-12,877	MD	
		·					
						<u>.</u>	
	**********		·····	,			
Please insert ad	ditional pages a	s applicable.					
GAS TEST	🗆 Build up 🗆	Drawdown	□ Open Flow	(	DIL TEST	Flow 🗆 Pump	)
SHUT-IN PRE	SSURE Surf	ace	_psi Botto	m Hole	psi	DURATION (	DF TEST hrs
OPEN FLOW	Gas	Oil	NGL		Water	GAS MEASU	IRED BY
	mcf	pd I	bpd	_ bpd	bpd	□ Estimated	□ Orifice □ Pilot
		BOTTOM		BOTTOM			DEGODD OT LYWWWWWWWW
FORMATION	DEPTH IN FT	DEPTH IN FT	DEPTH IN FT				RECORD QUANTITYAND
	NAME TVD	TVD	MD	MD		LUID (FRESHWAT	TER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
LS/SS	0	644	0	644			E + SANDSTONE
COAL	644	654	644	654		•	BURGH COAL
SH/SS	654	1720	654	1720			NOR SANDSTONE
LS	1720	1720	1720	1774			IG LIME
BIG INJUN	1771	1967	1720	1971			N SANDSTONE
SHALE	1967	6290	1971	6754			EY SHALE
GENESEO	6290	6302	6754	6776	,		SEO SHALE
TULLY	6302	6333	6776	6841			LIMESTONE
HAMILTON	6333	6452	6841	7275			TON SHALE
MARCELLUS	6452	TD	7275	TD		· · · · ·	ALE ~3,500 GAS UNITS
W# (TOLLEDO	0402		1210	10			
Please insert ad	ditional pages a	s applicable.			<b>I</b>		a
Drilling Contra	ctor Nomac Dhi	ing		Mt. Morris		State PA	Zip 15349
Address 171 Loc	Sust Ave Extension		City			State	Zıp
Logging Compa	any Nomac Drilli	ng					
Address 171 Loc			City	Mt. Morris		State PA	Zip 15349
			·				
Cementing Con		erger	· · · · · · · · ·				
Address 1325 S.	Dairy Ashford Dr		City	Houston	<u> </u>	State	Zip
Stimulating Cor	mnany Schlum	beraer					
Address 1080 U.			City	Weston		State WV	Zip 26452
Please insert ad		s applicable.	Only		·····		~~r
Completed by	Marlene William	s			Talastas	405-935-4158	
- a Z1	Tanland	William	A Title R	egulatory Anal	i elepnone		-14-2014
Signature <u></u>	pinum	V XLLE UN				Date	
Submittal of Hy	draulic Fracturi	ng Chemical I	Disclosure Infor	mation	Attach copy o	f FRACFOCUS	Registry

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## PERFORATION RECORD ATTACHMENT

## Well Number and Name: 833631 Chad Glauser OHI 10H

		PERFOR	ATION RECORD		
	Perforation	Perforated from	Perforated to	Number of	
Stage No.	Date	MD ft.	MD ft.	Perforations	Formation(s)
1	9/29/2013	12,725	12,877	10	Marcellus Shale
2	9/29/2013	12,523	12,675	10	Marcellus Shale
3	9/29/2013	12,320	12,473	10	Marcellus Shale
4	9/30/2013	12,118	12,270	10	Marcellus Shale
5	9/30/2013	11,916	12,072	10	Marcellus Shale
6	9/30/2013	11,714	11,866	10	Marcellus Shale
7	9/30/2013	11,511	11,664	10	Marcellus Shale
8	9/30/2013	11,309	11,461	10	Marcellus Shale
9	9/30/2013	11,107	11,259	10	Marcellus Shale
10	10/1/2013	10,905	11,053	10	Marcellus Shale
11	10/1/2013	10,708	10,855	10	Marcellus Shale
12	10/1/2013	10,500	10,653	10	Marcellus Shale
13	10/1/2013	10,298	10,450	· 10	Marcellus Shale
14	10/1/2013	10,096	10,248	10	Marcellus Shale
15	10/2/2013	9,894	10,046	10	Marcellus Shale
16	10/2/2013	9,692	9,844	10	Marcellus Shale
17	10/2/2013	9,489	9,645	10	Marcellus Shale
18	10/2/2013	9,284	9,439	10	Marcellus Shale
19	10/2/2013	9,085	9,237	10	Marcellus Shale
20	10/2/2013	8,883	9,035	10	Marcellus Shale
21	10/3/2013	8,680	8,833	10	Marcellus Shale
22	10/3/2013	8,478	8,630	.10	Marcellus Shale
23	10/3/2013	8,273	8,428	10	Marcellus Shale
24	10/3/2013	8,027	8,212	10	Marcellus Shale
25	10/3/2013	7,783	7,969	10	Marcellus Shale
26	10/3/2013	7,540	7,725	10	Marcellus Shale
27	10/3/2013	7,300	7,497	10	Marcellus Shale

## STIMULATION INFORMATION PER STAGE

#### Well Number and Name: 833631 Chad Glauser OHI 10H

			STIMULATIO	N RECORD			
				Max			
				Breakdown		Amount of	Amount of
	Stimulation	Ave Pump Rate	Ave Treatment	Pressure		Proppant	Water
Stage No.	Date	(BPM)	Pressure (PSI)	(PSI)	ISIP (PSI)	(lbs)	(bbls)
1	9/29/2013	80	7,812	6,662	4,030	294,800	5,645
2	9/29/2013	76	7,999	6,427	3,901	299,720	5,931
3	9/29/2013	75	7,845	5,828	4,041	299,800	5,708
.4	9/30/2013	80	7,294	5,993	4,202	300,640	5,712
5	9/30/2013	79	7,268	5,997	4,122	301,480	5,857
6 .	9/30/2013	79	7,166	6,476	4,216	300,060	6,038
7	9/30/2013	75	7,290	5,871	4,160	299,600	5,777
8	9/30/2013	78	7,303	6,173	4,009	296,140	5,671
9	10/1/2013	79	7,278	6,711	4,041	298,620	5,643
10	10/1/2013	80	7,011	6,429	4,081	301,160	5,812
11	10/1/2013	80	7,145	5,891	4,029	299,960	5,913
12	10/1/2013	78	7,146	6,213	4,017	300,160	6,246
13	10/1/2013	79	7,331	6,367	4,185	290,120	5,607
14	10/1/2013	76	7,372	6,030	4,315	300,880	5,571
15	10/2/2013	80	7,169	6,113	4,267	301,700	5,619
16	10/2/2013	79	7,538	6,272	4,274	300,960	6,257
17	10/2/2013	68	7,465	6,996	4,427	300,200	6,801
18	10/2/2013	74	7,830	6,197	4,452	298,940	5,871
19	10/2/2013	78	6,711	5,980	4,355	297,880	5,572
20	10/2/2013	79	6,891	5,676	4,277	297,180	5,631
21	10/3/2013	79	6,514	5,425	4,566	300,680	5,635
22	10/3/2013	78	6,768	6,102	4,229	298,860	5,578
23	10/3/2013	78	6,848	6,363	4,060	300,240	5,538
24	10/3/2013	76	8,426	6,820	2,551	302,420	6,193
25	10/3/2013	78	6,777	6,073	4,016	298,560	5,624
26	10/3/2013	78	6,375	6,422	4,199	299,160	5,637
27	10/4/2013	57	8,229	6,203	4,107	299,040	8,033

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Inc	S Shipping Form	
		Request ID: 00084204
Carrier Information		
Carrier	UPS	
Destination	Domestic	
_ Addressee		
Company Shipping To	WV DEP	
Attention To	Mr. Gene Smith	
Address:	Office of Oil & Gas 601 57th Street	
City	Charleston	
State	WV	
Country	US	
Postal Code	25304	
	3049260499	
Email	Gene.C.Smith@wv.gov	
Service Type		
Next Day Air		
Delivery typically by 10:30	a.m.	
	guaranteed next-business-day delivery fro e US 50 and Puerto Rico, with some limitat	
Shipment Details		
Package Reference 1	Interim WR-35 Chad Glauser 10	
Signature Required		
Sender Info		
Sender Name	Marlene Williams	
Sender Email	marlene.williams@chk.com	

UP	3 Shipping Form	Request ID: 00084207
Carrier Information —		
Carrier	UPS	
Destination	Domestic	
Addressee		
Company Shipping To	WV Geological Survey	
Attention To	Geological Department	
Address:	1 Mont Chateau Road	
City	Morgantown	
State	WV	
Country	US	
Postal Code	26508	
Phone	3045942331	
Next Day Air		
Delivery typically by 10:30 a	a.m.	
	guaranteed next-business-day delivery f 2 US 50 and Puerto Rico, with some limit:	
Shipment Details		
Package Reference 1	Interim WR-35 Chad Glauser 10	
Signature Required		
Sender Info		
Sender Name	Marlene Williams	