WR-35 Rev. 8/23/13

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State of West Virginia

Department of Environmental Protection - Office of Oil and Gas 1 2014

Well Operator's Report of Well Work

## WV Department of Environmental Protection

	043	03444	County LINCOLI	N Distr	ict DUVAL	
API	47- 040		Pad Name J.A. FO		I/Pool Name GRIFF	THSVILLE
Quad _	MOOLU	DE ANDV I &	_ Pad Name	Wel	Number 209	
Farm n	ame MCCLUF	RE, ANDY J. &	H.C. ENERGY I.C.	WCI		
Operat	or (as registered	d with the OOG)	H.G. ENERGY LLC	VEDERIDG	a WV	7: 26101
Addres	5260 DuPC	ONT ROAD	City PAR	KERSBURG	State	_ Zip
As Dri Elevat Permit Type o Well T	Landing Poin  Landing Poin  Bo  ion (ft) 1,013  t Type   D  of Operation     Type   Brine I	NAD 83/UTM Top hole int of Curve into Mole int	Attach an as-drilled Northing 4,231,363 M Northing Northing Type of Well to prizontal   Horizon   eepen	I plat, profile view, and dev Easting Easting Easting Easting	Type of Report In  Depth Type  Rework Son Mining Storage	nterim Final  Deep Shallow  Stimulate  c Other
Produ	nction hole	Air 🗆 Mud 🛚	□ Mud ■Fresh Wa □ Fresh Water ■ Brind		BAir □ Mud B	Fresh Water   Brine
Date:	nermit issued	6/17/2013	Date drilling com	menced10/2/14	Date drilling ceas	sed 10/29/14
Date	completion acti	vities began	11/5/14	Date completion activiti	es ceased1	1/7/14
	al plugging (Y/		Date permission grante	d	Granted by	
Pleas Fresh Salt v Coal	nwater depth(s) water depth(s) f depth(s) ft	or is required to s	430' 1180'	Open mine(s) (Y/N) dept Void(s) encountered (Y/N) Cavern(s) encountered (N	al permission to plug  hs  N) depths	N N N
15 (0)	ai being mineu	( 2/11)		Received Office of Oil & G	as	Reviewed by:
				000 1 1 2014		04/40/004

Page 2 of 4 WR-35 Rev. 8/23/13 MCCLURE, ANDY J. & REBECCA Well number 209 API 47-043 03444 Farm name Did cement circulate (Y/N) Basket Grade New or Casing **CASING** Hole \* Provide details below\* Depth(s) wt/ft Used Depth Size **STRINGS** Size Sand In LS Used 11 5/8" 30' 12 1/4" Conductor Υ 84' LS New 675' 7" Surface 8 3/4" Coal Intermediate 1 Intermediate 2 Intermediate 3 Υ J-55 New 2660' Production 4 1/2" 6 1/4" Tubing Packer type and depth set Circulated Est. 50 sks to surface on 7" surface cement job. Circulated Est. 35 sks to surface on 4 1/2" cement job. Comment Details WOC Volume Cement Yield Slurry Number Class/Type **CEMENT** Top (MD) (hrs)  $(\Omega^2)$ (ft 3/sks) wt (ppg) of Sacks of Cement DATA Conductor 8 201 Surface 1.18 15.6 170 Surface Reg Neat Coal Intermediate 1 Intermediate 2 Intermediate 3 8 90' 205/159 13.2/14.2 1.64/1.27 Production 125/125 50:50 Pozmix Tubing Loggers TD (ft) 2693 Drillers TD (ft) 2690' Plug back to (ft) N/A Deepest formation penetrated Berea Plug back procedure N/A Kick off depth (ft) ■ deviated/directional ■ induction ■ density acaliper Check all wireline logs run **□sonic ■** temperature 🖪 gamma ray ■ resistivity neutron Were cuttings collected ■ Yes □ No Conventional Sidewall Well cored □ Yes ■ No DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING 6 Centralizers every 84 from bottom on 4 1/2", Centralizer placed mid string on 7"

3

TYPE OF TRACER(S) USED \_\_\_\_\_ Received Office of Oil & Gas

DETAILS

DETAILS

□ Yes ■ No

□ Yes ■ No

WAS WELL COMPLETED AS SHOT HOLE

WAS WELL COMPLETED OPEN HOLE?

WERE TRACERS USED - Yes No

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API 47- 043 - 03444

Farm name\_MCCLURE, ANDY J. & REBECCA\_Well number\_209

## PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)  Berea
1	11/7/14	2492'	2502'	60	Delea
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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)  12 bbls HCL
· 1	11/7/14	4.3	1175	2245	759		40	12 DDIS FICE
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Please insert additional pages as applicable.

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API 47- 043	_ 03444		Farm	name MO	CCLUI	RE, AND	/ J. 8	k RE	BECC	A <sub>Well</sub>	number_	209		
			-									_		
PRODUCING FORMATION(S)				DEPTH	<u>S</u>									1
Berea			<u>.</u> .	2492'- 2502' TVD MD							ı			
			-											
Please insert ad	ditional page	es as ap <sub>l</sub>	plicable.											
GAS TEST	□ Build up	□ Dra	wdown	□ Open	Flow		OIL	TES	ST 🗆 I	Flow 0	Dump c			
SHUT-IN PRE	SSURE S	urface _		psi	Botto	m Hole			psi	DURA'	TION O	F TES	ST	hrs
OPEN FLOW	Gas		Oil		NGL		Wa	ter		GASI	∕ÆASU	RED I	RV	
OI EN I EO W		ncfpd	<b>O</b>		1102	bpd			bpd		mated			□ Pilot
		•		• —		<b>- •</b>			•					
LITHOLOGY/	TOP	В	оттом	то	P	BOTTO	M							
FORMATION	DEPTH IN I	T DE	PTH IN FT	DEPTH	IN FT	DEPTH IN	FT	DES	CRIBE I	ROCK TY	PE AND	RECOR	D QUA	NTITYAND
	NAME TVI	)	TVD	M	<u>D</u>	MD		TYP	E OF FL	UID (FRE	SHWATI	ER, BRI	NE, OIL	., GAS, H₂S, ETC)
Sand/Shale	0		588	0										
Pittsburgh Coal	588		593											
Sand/Shale	593		1770	-										
Big Lime	1770	_	1978	<del> </del> -			-							
Big Injun	1978		2208	-										
Shale	2208		2468	1									000	wed
Coffee Shale	2468	_	2490				$\rightarrow$						(eca	ived
Berea	2490		2506	-							<del>-</del> 0	ffice	ot (	il & Gas
Shale	2506	-	2690									חר	-C 1	1 2014
TD	2690			<del> </del>	$\longrightarrow$		-+					U	UL	1
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Please insert ad	ditional page	es as app	olicable.	-l										-
Drilling Contra Address 11565	State Poute 67	 6				Vincent				C4-4-	OH	or!	45784	
Address 11303	State Noute of			<del> </del>	City	VIIICOIIL				State		Zıp	45784	
Logging Compa	any Weather	ford Inte	rnational											
Address 777 No	rth River Aveni	16			City	Weston				_ State	WV	Zip	26452	
		I O								_				-
Cementing Con		rsai Serv	/ices			Allow					I/V		44604	
Address 5252 R	1 1420				City	Allen				_ State	<u>KI</u>	_ Zip	41601	<del></del>
Stimulating Con	mpany Pro	ducers S	ervice Co	гр.									İ	
Address 109 South Graham Street City Zanesville State OH Zip 43701														
Please insert ad			olicable.		•							r		
Completed by								Tela	nhono	304-420	-1107			
Signature	Z~ 1	Die	l.	T	itle O	perations Ma			PHOHE		Date 12	2/4/14	:	
Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry														
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Prepared for: HG Energy LLC Dustin Hendershot 304-481-7342		PRODUCERS SERVICE CORP.		
INVOICE #:	17396			
WELL NAME:	Fowler 209			
COUNTY/STATE:	Lincoln WV			
TOWNSHIP/FIELD:	Yawkey			
DATE of SERVICE:	11/7/2014			
CUSTOMER PO#:				
Description		Notes	Amount	Units
ACID PUMP CHARGE 1000	-2000 PSI		1	
MILEAGE CHARGE PER U	NIT ONE WAY		67	
IC ACID 15%			500	
PRO HIB II			0.333	
PRO CLA FIRM LP			0.66	
PRO NE-1			0.66	
PRO PEN DATA VAN			1 1	
ADDITIONAL HRS AFTER	A A CID DIIMD		5	
140				
			\$ 5	v _ 15

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Customer Approval: \_