

WR-35 Rev. 8/23/13

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

API 47 - 035 - 02409 County Jac	kson	District Ripley	
	***		oley Storage
Farm name_Adams, Billie & Lockhart K		Well Number 12410	
Operator (as registered with the OOG) Columbia Gas	Transmission, LLC		
Address 1700 MacCorkle Ave SE City	Charleston	State WV	Zip 25325-1273
Top hole Northing Landing Point of Curve Northing Bottom Hole Northing	Ea Ea ell □New • Existing	astingstingsting Type of Report	
Type of Operation Convert Deepen Drill	□ Plug Back □ Red	lrilling 🛎 Rework	□ Stimulate
Well Type □ Brine Disposal □ CBM □ Gas □ Oil □	Secondary Recovery	Solution Mining Stor	age 🗆 Other
Type of Completion Single Multiple Fluids P. Drilled with Cable Rotary Drilling Media Surface hole Air Mud Fresh Production hole Air Mud Fresh Water D Mud Type(s) and Additive(s) N/A - existing well and not deepened	water Intermediat		□ Other
Date permit issued 6/10/13 Date drilling of	commenced	Date drilling ce	eased
Date completion activities began			
Verbal plugging (Y/N) Date permission gr			
Please note: Operator is required to submit a plugging ap	oplication within 5 days of	fverbal permission to plu	ng
Freshwater depth(s) ft	Open mine(s) (Y/N)	depths	
Salt water depth(s) ft			
Coal depth(s) ft		red (Y/N) depths	
Is coal being mined in area (Y/N)		The state of the s	Reviewed by:

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API 47- 035	_ 02409	Farm nar	_{ne_} Adams,	Billie & Lo	ckhart K	We	ell number12	410	
CASING STRINGS Conductor	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft		Basket Depth(s)		ent circulate (Y/N) de details below*
Surface									
Coal								+	
Intermediate 1				ļ					
Intermediate 2				<u> </u>					
Intermediate 3									
Production	6.125	4.5	5589	New	1160	pf / N-80	2020	-	N
Tubing	0.123	4.5	3303	14644	11.0 pj	pi / 14-60	none	-	IN .
Packer type and de	epth set			<u> </u>	L				
CEMENT DATA	No existing casing v Class/Type of Cement	vas altered or pulled. No Number of Sacks	sw string of 4-1/2* cr Sturry wt (pp	y 3	serve as flows /ield · 3/sks)	Volum	e Cem Top (WOC (hrs)
Conductor	of Cement	OI Sacks	wi (pp	(10	(383)	111-7		WID)	(nrs)
Surface									
Coal									
Intermediate 1									
Intermediate 2									· · · · · · · · · · · · · · · · · · ·
Intermediate 3									
Production	Type I	203	15.6	, ,	1.18 23		3400		60
Tubing									
Drillers TD (ft) 5580 (ablained when drilled in 1998) Deepest formation penetrated Helderberg Plug back to (ft) N/A Kick off depth (ft) N/A Check all wireline logs run									
		□ Convention					gs collected		
DESCRIBE T	HE CENTRALI	ZEK PLACEME	NI USED FO	K BACH C	MOING S	LKING _			
centralizers ran on jts	1, 2, 4, 5, 7, 9, 11, and 1	3							
WAS WELL (COMPLETED A	AS SHOT HOLE	□ Yes ■	No Di	ETAILS				
WAS WELL O	COMPLETED (PEN HOLE?	□ Yes 🛢 N	lo DET	AILS _				
WERE TRAC	ERS USED a	Yes No	TYPE OF T	RACER(S)	USED				

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API 47- 035 - 02409	Farm name Adams, Billie & Lockhart K	Well number	

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	11/5/13	5505	5516	66	Oriskany
		l			
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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)
1	12/6/13	12.5	4146	3610	N/A -	23,200	374	156 MCF N2
					screened	12,700		
					out	thru perfs		
		!						

Please insert additional pages as applicable.

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	_ 02409	Farm	name_ Adams, E	Billie & Loc	khart K	(Well numbe	er 12116	
PRODUCING	FORMATION(<u>s)</u>	<u>DEPTHS</u>						
Oriskany (stora			5044 - 5055	m m	550	5 - 5516			
Oliskally (stora)	9 0)		3044 - 3033	_TVD	3300		MD		
		 .							
Please insert ad	lditional pages a	s applicable.							
GAS TEST	□ Build up □	Drawdown	□ Open Flow		OIL	TEST o	Flow 🗆 Pum	p	
SHUT-IN PRE	SSURE Surf	ace	_psi Botto	m Hole_		psi	DURATION	OF TEST _	hrs
OPEN FLOW	Gas mcf	Oil pd	NGL bpd	_ bpd	Wat		GAS MEAS		□ Pilot
i rruoi ocvi	TOP	DOTTOM	TOD	DOTTO	.,				
LITHOLOGY/ FORMATION	TOP DEPTH IN FT	BOTTOM DEPTH IN FT	TOP DEPTH IN FT	BOTTO DEPTH IN		DESCRIBE I	ROCK TYPE ANI	O BECORD OU	ANTITY AND
10141111011	NAME TVD	TVD	MD	MD				-	EL, GAS, H ₂ S, ETC)
	0		0						
N/A - no new	borehole drilled	during rework							
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		<u> </u>	ļ		_ -				
							···		
			 						
									
		<u> </u>							
									
								· -	
									
Please insert ad	ditional pages a	s applicable.							
Drilling Contra	ctor								
Address	_		City				State	Zip	
Logging Comp	anı								
	any		City				State	7in	
								<i></i>	
Cementing Con	npany								
Address			City				State	Zip	
Stimulating Co.	mpany								
					_		State	Zip	
Please insert ad	ditional pages a	s applicable.					<u> </u>		
Completed by		2			_	Telephone	304-483-0073		
Signature	am E	un	Title S	enior Engine	Ber .		Date	12/13/13	
Submittal of Hy	draulic Fractur	ing Chemical 1	Disclosure Info	rmation	Atta	ach copy o	f FRACFOCU	S Registry	