06/02/2017

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

API <u>47</u> 103 <u>0295</u>	3 County Wetz	zel D	istrict Proctor	
Quad New Martinsville	Pad Name Er		ield/Pool Name Ma	ary
Farm name Erlewine, Richard			Vell Number #6H	
Operator (as registered with the		Corporation		
Address 1300 Fort Pierpont	Dr Suite 201 City	Morgantown	State WV	Zip 26508
As Drilled location NAD 83/0 Top hole		rilled plat, profile view, and Eastii	deviation survey ng 517,392	
Landing Point of Curve	Northing 4,392,297	Eastin	g 517,436	
Bottom Hole	Northing 4,390,977	Eastin	g 517,873	
Elevation (ft) 1,212	GL Type of We	ell ≣New □ Existing		Interim Final
Permit Type Deviated	□ Horizontal ■ Hor	izontal 6A Vertical	Depth Type	□ Deep ■ Shallow
Type of Operation □ Convert	□ Deepen 🏚 Drill	□ Plug Back □ Redrill	ng 🗆 Rework	Stimulate
Well Type Brine Disposal	□ CBM ■ Gas □ Oil □	Secondary Recovery	ution Mining Sto	rage Other
Type of Completion ■ Single Drilled with □ Cable ■ Rot	ary		□ NGL □ Oil	
Drilling Media Surface hole			ole Air Niud	■ Fresh Water □ Brine
Production hole Air Mu	ıd □ Fresh Water □ I	Brine		
Mud Type(s) and Additive(s)				
Saturated salt mud which in		Barite, Lime, New-Drill, F		
Soda Ash, and Sodium Ch	loride		REDE	NEW CAS
Date permit issued1/8/20	Date drilling c	ommenced7/16/2014	Date drilling of	eased 1/1/2015
Date completion activities began	n Not Yet Complete	Date completion activ	ties ceased Not	3 47
Verbal plugging (Y/N) N	Date permission gra		MIL.	10 4
Please note: Operator is require	ed to submit a plugging ap	pplication within 5 days of ve	rbal permission to p	sparting Protection
Freshwater depth(s) ft	100	Open mine(s) (Y/N) de	pths	
Salt water depth(s) ft	1,670	Void(s) encountered (Y	/N) depths	N
Coal depth(s) ft192	2, 253 and 958	Cavern(s) encountered	(Y/N) depths	N
Is coal being mined in area (Y/N	APPI	ROVE		Reviewed by: Dm H
	NAME: Sea			06/02/20

API 47- 103	02953	Farm n	_{ame} Erlewine	, Richard		We	ell number <u>#</u> 6	Н		
CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft		Basket Depth(s)		nent circulate (Y/N) de details below*	
Conductor	24"	20"	90'	New	LS-	94.1 ppf			N - GTS	
Surface	17.5"	13.375"	1,221' KB - 1,211' GL	New	J55 -	54.5 ppf	119' & 193'		Y-CTS	
Coal	17.5"	13.375"	1,221' KB - 1,211' GL	New	J55 -	54.5 ppf	119' & 193'		Y - CTS	
Intermediate I	12.25"	9.625"	2,394'	New	J55 ·	- 36 ppf			Y - CTS	
Intermediate 2										
Intermediate 3								+		
Production	8.75"	5.5"	11,884'	New	P110	- 20 ppf		N - TO	C @ 1,361' Calculated	
Tubing		5.0	,	1		v pp.		+	- G .,,,,,,	
Packer type and depth set TAM CAP Inflatable Packer on 9.625" Casing @ 1,115"										
Comment Details Circulated 30 bbls cement to surface on 13.375" casing string. Circulated 22 bbls cement to surface on the 9.625" casing string. Did not circulate any cement to surface on the 5.5" casing string. TOC on 5.5" calculated to be 1,361'.										
CEMENT	Class/Type				rield	Volume			woc	
DATA Conductor	of Cement Type 1	of Sac	ks wt (pr 15.6		l ^{.3} /sks) I .18	(ft. ² .) 40	Top (I		(hrs) 24.0	
Surface	HalCem Class	-		+	1.21	1,047			8.0	
Coal	HalCem Class	- 1			1.21				8.0	
Intermediate 1	HalCem Class	· · · · · · · · · · · · · · · · · · ·	15.6		1.21	1,047 956	Surfa			
Intermediate 2	Traicerri Class	190	15.0	,	1.21	350	Gun	ace	12.0	
Intermediate 3						-				
Production	VariCem	2,219	5 15.2	,	1.2	2,658	1,361' Ca	hotelale	7.0	
Tubing	vancem	2,213	15.2	<u> </u>	1.2	2,056	1,301 08	ilculated	1.0	
Drillers TD (ft) 11.897 MD / 6,686 TVD Loggers TD (ft) N/A Deepest formation penetrated Marcellus Shale Plug back to (ft) Plug back procedure										
Kick off depth (ft) 5.660 MD / 5,659 TVD Check all wireline logs run □ caliper □ density ■ deviated/directional □ induction □ neutron □ resistivity ■ gamma ray □ temperature □ sonic										
Well cored	Yes 🖪 No	Convent	onal Side	wall	W	ere cutting	gs collected 1	■ Yes □	n No	
DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING Surface casing had bow spring centralizers placed on										
WAS WELL	COMPLETED	AS SHOT HOL	E □Yes ■	No DI	ETAILS					
WAS WELL (COMPLETED	OPEN HOLE?	□Yes 🖺 N	lo DET.	AILS _					
WERE TRAC	ERS USED	⊐Yes ■ No	TYPE OF T	RACER(S)	USED _					

P	age	3	of	

WR-	35	
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API 47- 103 _ 02953 Farm name Erlewine, Richard Well number #6H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
			- 19 ⁻		
			141		
			11		

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)
110.		Rute (B1 W)	Tressure (1 51)	Tressure (FBI)	1311 (131)	1 10///	Water (bols)	rvirogenzoutet (units)
		<u>-</u>						
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Please insert additional pages as applicable.

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API 47- 103	_ 02953	Farm	_{name} Erlewine	e, Richard		Well number_#6	Н	
PRODUCING T	FORMATION(<u>S)</u>	<u>DEPTHS</u>					
Not Yet Comple	eted			TVD		MD		
						_		
Please insert ad	lditional pages a	s applicable.						
GAS TEST	□ Build up □	Drawdown	□ Open Flow		OIL TEST 🗆 1	Flow Pump		
SHUT-IN PRE	SSURE Surf	ace	_psi Botto	m Hole	psi	DURATION OF	ГЕЅТ	hrs
OPEN FLOW		Oil pd		_ bpd _		GAS MEASURE □ Estimated □		Pilot
LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN I	FT DESCRIBE	ROCK TYPE AND REG UID (FRESHWATER,		
	0		0					
See Attached Sheet								
	_							
Please insert ad	 ditional pages a	s applicable.						
	ctor Nomac (top				:- (The Mary 11)	DA /TV	0E340 (:	77004
	fartins Branch Rd /			WOUTH WOT	is / The Woodiano	ds State PA/TX	Zip <u>2551277</u>	7361
	any Scientific Di sta Drive / 1178 US		City	Charleroi /	Weston	StatePA/WV	Zip 15022 / 2	26452
Cementing Cor Address 1178 U	mpany Schlumb	erger	C'.	Weston		C. WW	Zip 26452	
-			City	Weston		StateWV	Zip <u>20432</u>	
Stimulating Co Address	mpany		City			State	Zip	
	lditional pages a	s applicable.						
Completed by	Greg Zofchak					304-225-1600		
Signature	Dr 7	del	Title D	rilling Engine		Date 2/16/	17	
Submittal of Hy	ydraulic Fractur	ing Chemical I	Disclosure Info	rmation	Attach copy o	f FRACFOCUS Re	gistry	

Erlewine #6H API 47-103-02953

Stone Energy Corporation

	Stolle	Horizontal		1011		
	Тор	Тор		Bottom (ft	Bottom	
	(ft TVD)	(ft MD)		TVD)	(ft MD)	
Sandstone & Shale	Surface		*	192		FW @ 100'
Coal	192		*	196		
Sandstone & Shale	196		*	253		
Coal	253		*	260		
Sandstone & Shale	260		*	958		
Coal	958		*	963		
Sandstone & Shale	963		*	2,022		SW @ 1,670'
Little Lime	2,022		*	2,052		
Big Lime	2,052		*	2,152		
Big Injun	2,152		*	2,252		
Sandstone & Shale	2,252		*	2,620		
Berea Sandstone	2,620		*	2,650		
Shale	2,650		*	2,865		
Gordon	2,865		*	2,915		
Undiff Devonian Shale	2,915		*	5,636		
Rhinestreet	5,636		~	6,181	6,230	
Cashaqua	6,181	6,230	~	6,350	6,440	
Middlesex	6,350	6,440	~	6,370	6,476	
West River	6,370	6,476	~	6,426	6,580	
Geneseo	6,426	6,580	~	6,442	6,610	
Tully Limestone	6,442	6,610	~	6,485	6,718	
Hamilton Shale	6,485	6,718	~	6,530	6,878	
Marcellus	6,530	6,878	~	6,686	11,897	
TD				6,686	11,897	

^{*} From Pilot Hole Log and Driller's Log

[~] From MWD Gamma Log