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 _ 02999	County Wetzel	Distr	rict Proctor	
Quad New Martinsville	Pad Name Erlewine	Field	d/Pool Name M	lary
Farm name Erlewine, Richard		Wel	1 Number #5H	
Operator (as registered with the OO	G) Stone Energy Corpor	ration		
Address 1300 Fort Pierpont Dr.	- Suite 201 City Morga	ntown	State WV	Zip 26508
As Drilled location NAD 83/UTN Top hole Landing Point of Curve Bottom Hole	Attach an as-drilled p Northing 4.392,663 Northing 4.393,020 Northing 4.394,199	olat, profile view, and dev Easting 5 Easting 5	517,397 517,386	
Elevation (ft) 1,212 GL	Type of Well ■N	lew Existing	Type of Report	Interim Final
Permit Type Deviated	Horizontal Horizontal	6A	Depth Type	□ Deep ■ Shallow
Type of Operation □ Convert □	Deepen ► Drill □ Pl	ug Back 🗆 Redrilling	□ Rework	Stimulate
Well Type □ Brine Disposal □ CF	BM ■ Gas □ Oil □ Second	dary Recovery □ Solutio	on Mining 🗆 St	orage 🗆 Other
Type of Completion ■ Single □ M Drilled with □ Cable ■ Rotary	fultiple Fluids Produced	l □ Brine □Gas □ l	NGL □ Oil	□ Other
Drilling Media Surface hole AP Production hole Air Mud Mud Type(s) and Additive(s)	Air □ Mud ■Fresh Water □ Fresh Water □ Brine	Intermediate hole	■ Air □ Mud	I ■ Fresh Water □ Brine
Saturated salt mud which inclu		, Lime, New-Drill, Per	ma-Lose HT,	Xan-Plex D, X-Cide 102
Soda Ash, and Sodium Chloric	16			
Date permit issued7/9/2014	Date drilling commer	nced8/14/2014	Date drilling	ceased 1/8/2015
Date completion activities began	Not Yet Completed 1	Date completion activities	s ceased Not	Yet Comp <mark>l</mark> eted
Verbal plugging (Y/N) N	Date permission granted _		Granted by	
Please note: Operator is required to	submit a plugging application	on within 5 days of verbal	permission to p	IVEB Ngnd Gas
Freshwater depth(s) ft	100 O	pen mine(s) (Y/N) depths	s MAR 1	3 20N7
Salt water depth(s) ft	1,638 V	oid(s) encountered (Y/N)		N of
Coal depth(s) ft 520, 73		avern(s) encountered (Y/I	The same against the same and t	ral Protection
Is coal being mined in area (Y/N)	PPRC	WED	nvironmen	Reviewed by:
NA DA	ME: Som m / TE: 5-25-17	Par		06/02/20

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API 47- 103	02999		Farm name	e_Er	lewine, Ri	chard		Wel	l nur	nber_#5H		
CASING STRINGS	Hole Size		Casing Size Depth		_	iew or Used	Grade wt/ft			et n(s)		ent circulate (Y/N) de details below*
Conductor	24"		20"	88'		New	LS-9	94.1 ppf				N - GTS
Surface	17.5"	1	3.375" 1,2	22' KB	- 1,212' GL	New	J55 -	54.5 ppf	121	' & 197'		Y - CTS
Coal	17.5"	1	3.375" 1,2	22' KB	- 1,212' GL	New	J55 -	54.5 ppf	121	' & 197'		Y - CTS
Intermediate 1	12.25"	!	9.625"	2,383'		New	J55 -	- 36 ppf				Y-CTS
Intermediate 2				-					-			
Intermediate 3							1				<u> </u>	
Production	8.75*		5.5"	11,	127'	New	P110	- 20 ppf			N - TO	C @ 1,222' Calculated
Tubing					_			,,				
Packer type and d	epth set										·	·
Comment Details sulace on the 5.5" of	Circulated 32 bbls casing string. TOC or				sing string. Circu	ulated 35 b	bis cement to	surface on the	9.625	casing string.	Did not co	irculate any cement to
CEMENT			Number	er Slum			Yield	Volume	e Cei			WOC
DATA Conductor	of Cement		of Sacks	П	wt (ppg)	(ft ³ /sks)			Top (M		(hrs)
Surface	Type 1		34		15.6			40		Surface		24.0
Coal	HalCem Class		1,000		15.6	-	1.18	1,180	\dashv	Surface		8.0
Intermediate 1	HalCem Class		1,000		15.6	-	1.18	1,180		Surface		8.0
Intermediate 2	HalCem Class	- 'A''	790		15.6	ļ	1.21	956		Surface		12.0
Intermediate 3									-			
Production			1 1 470 T-110			0 1 4 6	07 7-114 00	4 - 1 400 T-114	. 500	4 2221 Cal	nulated	7.0
Tubing	Lead-TunedSpacer3 Tail-	VariCem	Lead-1/8 Tail-2,	,085	Lead-14.5 Iai-15.	.2 Lead-2	37 Tail-1.20 Lead-422 Ta		2,502	1,222' Calculated		7.0
•	1) 11,128 MD / 6,532 ation penetrated ocedure		illus Shale				ΓD (ft) <u>N/A</u> : to (ft)					
Kick off depth	1 (ft) 5,806 MD / 5,7	91 TVD										
Check all wire	eline logs run		□ caliper □ neutron			≜ devia ■ gamn	ted/directi a ray		nduc temp	etion erature	□soni	c
Well cored	Yes 🖪 No		Conventiona	al	Sidewall		W	ere cutting	s col	lected	Yes [o No
	HE CENTRAL , 37 and 39. Intermediate co							TRING s	ırlace	casing had bo	w spring ce	entralizers placed on
								gid spiral central	izers.	Ran bow spring	centralizer	s from joint 164 to joint 256
on every fourth joint.	A total of 24 bow sprin	g centra	lizers were run.									
WAS WELL	COMPLETED	AS S	HOT HOLE		Yes 🖪 No	D	ETAILS				•	
WAS WELL	COMPLETED	OPE	N HOLE?	∃ Ye:	s 🖪 No	DET	AILS _					
WERE TRAC	ERS USED	Yes	■ No	TYF	PE OF TRAC	CER(S)	USED _					

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API 47- 103 - 02999 Farm name_Litewine, Nichard Well number_World	API 47- 103 - 02	2999 Farm name	Erlewine, Richard	Well number_#5H
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PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
	_				

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Date	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)
				-			
			**				
			-				
.,							

Please insert additional pages as applicable.

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API 47- 103	_ 02999	Farm	_{name} Erlewin	e, Richai	rd	_Well	number <u>#</u>	эн		
PRODUCING	FORMATION(S)	DEPTHS							
Not Yet Comple				TVD		MD				
	***			_ 1 V D		_ IVID				
					-					
		_			-	_				
Please insert ad	ditional pages a	s applicable.			-					
GAS TEST	□ Build up □	Drawdown	□ Open Flow		OIL TEST 🗆 FI	ow I	2 Pump			
SHUT-IN PRE	SSURE Surf	ace	_psi Botto	om Hole_	psi I	DURA'	TION OF	TES	Th	ırs
OPEN FLOW	Gas mcf	Oil pd	NGL bpd	_ bpd			MEASUR nated [
LITHOLOGY	TOD	DOTTOM	TOB	ротто	M4					
LITHOLOGY/ FORMATION	TOP DEPTH IN FT	BOTTOM DEPTH IN FT	TOP DEPTH IN FT	BOTTC DEPTH II		OCK TY	PE AND RE	COR	D QUANTITYAN	1D
	NAME TVD	TVD	MD	MD					NE, OIL, GAS, H	
	0		0							
See Attached Sheet										
			-							
Please insert ad	ditional pages a	s applicable								
			Drilling (hosizor	atol)						
Drilling Contra Address 2034 M					orris / The Woodlands	State	PA / TX	7in	25312 / 77381	
						State		Zip		
Logging Compa					/10/	200	DA /140/	0.50	45000 / 00450	
Address 124 Vis	ta Drive / 11/8 US	HWY 33 East	City	Charleroi	/ Weston	State	PA/WV	Zip	15022 / 26452	
Cementing Con		erger			_					
Address 1178 U	S HWY 33 East		City	Weston		State	WV	Zip	26452	
Stimulating Cor	mpany									
Address			City			State		Zip		
Please insert ad	ditional pages a	s applicable.								
Completed by	Greg Zofchak				Telephone 3	804-225	-1600			
Signature	Dy Me	d	Title D	rilling Engin			Date 2/16	6/17		
Submitted of II.	draulia Eraat	na Chamias! I	Nicologues Info	rmation	Attach same - Cl	ED A CI	OCUE P	ania.		
Submittal of Hy	diadiic Fracturi	ing Chemical I	disclosure into	rmation	Attach copy of l	KACI	OCUS R	egist	ГУ	

Erlewine #5H API 47-103-02999

Stone Energy Corporation

		Horizontal				
	Top	Top		Bottom (ft	Bottom	
	(ft TVD)	(ft MD)		TVD)	(ft MD)	
Sandstone & Shale	Surface		*	520		FW @ 100'
Coal	520		*	528		
Sandstone & Shale	528		*	721		
Coal	721		*	730		
Sandstone & Shale	730		*	950		
Coal	950		*	959		
Sandstone & Shale	959		*	2,014		SW @ 1,638'
Little Lime	2,014		*	2,044		
Big Lime	2,044		*	2,144		
Big Injun	2,144		*	2,244		
Sandstone & Shale	2,244		*	2,612		
Berea Sandstone	2,612		*	2,642		
Shale	2,642		*	2,857		
Gordon	2,857		*	2,907		
Undiff Devonian Shale	2,907		*	5,794	5,808	
Rhinestreet	5,794	5,808	~	6,193	6,240	
Cashaqua	6,193	6,240	~	6,340	6,435	
Middlesex	6,340	6,435	~	6,360	6,465	
West River	6,360	6,465	~	6,419	6,564	
Geneseo	6,419	6,564	~	6,433	6,589	
Tully Limestone	6,433	6,589	~	6,473	6,681	
Hamilton Shale	6,473	6,681	~	6,513	6,814	
Marcellus	6,513	6,814	~	6,532	11,128	
TD				6,532	11,128	

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

[~] From MWD Gamma Log