

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

API 47 - 103 - 02951 County Wetzel District Proctor
Quad New Martinsville Pad Name Erlewine Field/Pool Name Mary
Farm name Erlewine, Richard Well Number #3H
Operator (as registered with the OOG) Stone Energy Corporation
Address 1300 Fort Pierpont Dr. - Suite 201 City Morgantown State WV Zip 26508

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,392,658 Easting 517,395
Landing Point of Curve Northing 4,392,903 Easting 517,186
Bottom Hole Northing 4,394,114 Easting 516,756

Elevation (ft) 1,212 GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine

Mud Type(s) and Additive(s)
Saturated salt mud which includes Caustic Soda, Barite, Lime, New-Drill, Perma-Lose HT, Xan-Plex D, X-Cide 102, Soda Ash, and Sodium Chloride

Date permit issued 1/8/2014 Date drilling commenced 6/22/2014 Date drilling ceased 1/17/2015
Date completion activities began Not Yet Completed Date completion activities ceased Not Yet Completed
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 120 Open mine(s) (Y/N) depths N
Salt water depth(s) ft None Reported Void(s) encountered (Y/N) depths N
Coal depth(s) ft 295, 493, 557 and 1,004 Cavern(s) encountered (Y/N) depths N

Is coal being mined in area (Y/N) N

APPROVED

NAME: Sen m
DATE: 5-25-17

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Reviewed by: DmH

06/02/2017

API 47- 103 - 02951 Farm name Erlewine, Richard Well number #3H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	24"	20"	86'	New	LS - 94.1 ppf		N - GTS
Surface	17.5"	13.375"	1,217' KB - 1,207' GL	New	J55 - 54.5 ppf	119'	Y - CTS
Coal	17.5"	13.375"	1,217' KB - 1,207' GL	New	J55 - 54.5 ppf	119'	Y - CTS
Intermediate 1	12.25"	9.625"	2,396'	New	J55 - 36 ppf		Y - CTS
Intermediate 2							
Intermediate 3							
Production	8.75"	5.5"	11,208'	New	P110 - 20 ppf		N - TOC @ 400' Calculated
Tubing							
Packer type and depth set		TAM CAP Inflatable Packer on 9.625" Casing @ 1,429'					

Comment Details Circulated 18 bbls cement to surface on 13.375" casing string. Circulated 29 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 @ 400'.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	Type 1	34	15.6	1.18	40	Surface	24.0
Surface	HalCem Class "A"	865	15.6	1.21	1,047	Surface	8.0
Coal	HalCem Class "A"	865	15.6	1.21	1,047	Surface	8.0
Intermediate 1	Lead-HalCem Tail-HalCem	Lead-430 Tail-350	Lead-15.6 Tail 15.6	Lead-1.24 Tail-1.21	Lead-533 Tail-424	Surface	12.0
Intermediate 2							
Intermediate 3							
Production	Lead-TunedSpacer3 Tail-VariCem	Lead-178 Tail-2,275	Lead-14.5 Tail-15.0	Lead- 2.37 Tail-1.20	Lead-422 Tail-2,730	400' Calculated	7.0
Tubing							

Drillers TD (ft) 11,228 MD / 6,495 TVD Loggers TD (ft) N/A
 Deepest formation penetrated Marcellus Shale Plug back to (ft) First KOP @ 1,291'. Second KOP @ 1,100'
 Plug back procedure First KOP - TIH opened ended in 12.25" open hole to TD @ 1,954'. Pumped 569 sacks of HalCem mixed at 15.6 ppg, 1.21 cf/sx. Time drilled from 1,291' until bit dropped into original hole @ 1,850'. TOOH and TIH open ended to 1,845'. Pumped 706 sacks of Class "H" mixed at 17.5 ppg, 0.94 cf/sx. Was able to complete hole section after 2nd plug.
 Kick off depth (ft) 5,798 MD / 5,780 TVD

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING Surface casing had bow spring centralizers placed on joints 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29 and 31. Intermediate casing had bow spring centralizers placed on joints 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52 and 56.
Production casing had rigid spiral centralizers placed on every third joint beginning with joint 1 to joint 127. Ran a total of 43 rigid spiral centralizers. Ran bow spring centralizers from joint 132 to joint 248 on every fourth joint. A total of 30 bow spring centralizers were run.

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WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS MAR 13 2017

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS WV Department of Environmental Protection

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

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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.

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)

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Please insert additional pages as applicable.

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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
	TVD	MD
Not Yet Completed		

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump
 SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs
 OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	0		0		
See Attached Sheet					

Please insert additional pages as applicable.

Drilling Contractor Nomac (top-hole) & Saxon Drilling (horizontal)
 Address 2034 Martins Branch Rd /9303 New Trails Drive City Mount Morris / The Woodlands State PA / TX Zip 25312 / 77381

Logging Company Scientific Drilling and Schlumberger
 Address 124 Vista Drive / 1178 US HWY 33 East City Charleroi / Weston State PA / WV Zip 15022 / 26452

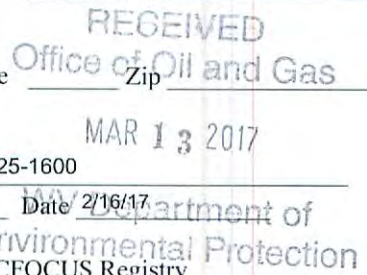
Cementing Company Schlumberger
 Address 1178 US HWY 33 East City Weston State WV Zip 26452

Stimulating Company _____
 Address _____ City _____ State _____ Zip _____

Please insert additional pages as applicable.

Completed by Greg Zofchak Telephone 304-225-1600
 Signature [Signature] Title Drilling Engineer Date 2/16/17

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry



06/02/2017

Erlewine #3H
API 47-103-02951
Stone Energy Corporation

	Horizontal				
	Top (ft TVD)	Top (ft MD)	Bottom (ft TVD)	Bottom (ft MD)	
Sandstone & Shale	Surface		*	295	FW @ 120'
Coal	295		*	300	
Sandstone & Shale	300		*	493	
Coal	493		*	498	
Sandstone & Shale	498		*	557	
Coal	557		*	561	
Sandstone & Shale	561		*	1,004	
Coal	1,004		*	1,009	
Sandstone & Shale	1,009		*	2,014	SW @ None Reported
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		*	5,770	5,788
Rhinestreet	5,770	5,788	~	6,165	6,211
Cashaqua	6,165	6,211	~	6,331	6,438
Middlesex	6,331	6,438	~	6,350	6,460
West River	6,350	6,460	~	6,406	6,565
Geneseo	6,406	6,565	~	6,417	6,586
Tully Limestone	6,417	6,586	~	6,458	6,669
Hamilton Shale	6,458	6,669	~	6,497	6,777
Marcellus	6,497	6,777	~	6,495	11,228
TD				6,495	11,228

* From Pilot Hole Log and Driller's Log

~ From MWD Gamma Log

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