

WR-35
Rev (9-11)

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

DATE: February 14, 2014
API #: 47-103-02790

PM R

Farm name: Lemons, Gary & Judy Operator Well No.: Lemons #4H

LOCATION: Elevation: 1,327' Quadrangle: New Martinsville

District: Magnolia County: Wetzel
Latitude: 5,700 Feet South of 39 Deg. 40 Min. 00 Sec.
Longitude: 580 Feet West of 80 Deg. 47 Min. 30 Sec.

Company: Stone Energy Corporation

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
6000 Hampton Center, Suite B Morgantown, WV 26505	20"	42'	42'	GTS
Agent: Tim McGregor	13.375"	1,299'	1,299'	1,191 - CTS
Inspector: Derek Haught	9.625"	2,705'	2,705'	655 Lead - 664 Tail CTS
Date Permit Issued: 6/21/2012	5.5"		12,299'	1,034 Lead - 1,898 Tail
Date Well Work Commenced: 10/18/2012	2.375"		7,245'	
Date Well Work Completed: 8/11/2013				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 6,860				
Total Measured Depth (ft): 12,303				
Fresh Water Depth (ft.): 80				
Salt Water Depth (ft.): 1,449				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): 566				
Void(s) encountered (N/Y) Depth(s) N/A				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 7,368 - 12,147
Gas: Initial open flow 920 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 1,380 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 23 Hours
Static rock Pressure 1,700 psig (surface pressure) after 6 Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

W. J. [Signature]
Signature

2/14/2014
Date

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Were core samples taken? Yes _____ No X

Were cuttings caught during drilling? Yes X No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list MWD Gamma Ray, Mud Log, and CBL

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

Perforated 19 intervals from 12,147' to 7,368'. Performed 19 individual stages of slick water stimulation using 6,667,436 gals fresh water, Sand - 720,874 lbs 100 Mesh and 6,827,650 lbs 40/70. AvBDP = 6,092 psi, AvTP = 7,177 psi, AvMTP = 9,043 psi, AvInjRate = 81.3 bpm, and AvISIP = 4,144 psi.

See Attachment for FracFocus information.

Plug Back Details Including Plug Type and Depth(s): N/A

Formations Encountered:	Top Depth	/	Bottom Depth
Surface:			

See attached sheet for formations encountered and their depths.

LEMONS #4H

API 47-103-02790

Stone Energy Corporation

	Horizontal		Bottom (ft TVD)	Bottom (ft MD)	
	Top (ft TVD)	Top (ft MD)			
Sandstone & Shale	Surface		*	566	FW @ 80'
Coal	566		*	570	
Sandstone & Shale	570		*	2313	SW @ 1449'
Little Lime	2313		*	2343	
Big Lime	2343		*	2443	
Big Injun	2443		*	2543	
Sandstone & Shale	2543		*	2873	
Berea Sandstone	2878		*	2928	
Shale	2928		*	3048	
Gordon	3048		*	3098	
Undiff Devonian Shale	3098		*	6184	6193
Rhinestreet	6184	6193	~	6557	6619
Cashaqua	6557	6619	~	6698	6820
Middlesex	6698	6820	~	6714	6866
West River	6714	6866	~	6781	6966
Geneseo	6781	6966	~	6796	6997
Tully Limestone	6796	6997	~	6835	7085
Hamilton	6835	7085	~	6880	7245
Marcellus	6880	7245	~	6860	12303
TD				6860	12303

* From Pilot Hole Log and Driller's Log

~ From MWD Gamma Log

Hydraulic Fracturing Fluid Product Component Information Disclosure

103-02790

Fracture Date:	6/7/2013
State:	West Virginia
County/Parish:	Wetzel County
API Number:	
Operator Name:	Stone
Well Name and Number:	Lemons 4H
Longitude:	
Latitude:	
Long/Lat Projection:	
Production Type:	
True Vertical Depth (TVD):	0
Total Water Volume (gal):	6567436

Hydraulic Fracturing Fluid Composition

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
15% HCl, Seawater, WF115, SAPPHIRE VF	Schlumberger	Corrosion Inhibitor, Bactericide (Myocide GA25), Scale Inhibitor, AntiFoam Agent, Surfactant, Acid, Gelling Agent, Friction Reducer, Rheology Modifier, ClearFRAC XT J569, Iron Control Agent, Clay Control Agent, Buffer, Fluid Loss Additive, Proppant Agent	Water (Including Max Water Supplied by Client)*	NA		87.68835%	
			Crystalline silica	14808-60-7	98.07404%	12.07355%	
			Hydrogen chloride	7647-01-0	0.80526%	0.09913%	
			Erucic amidopropyl dimethylamine	149379-98-1	0.29662%	0.03652%	
			Propen-2-ol	67-63-0	0.26320%	0.03241%	
			Acrylamide, 2-acrylamido-2-methylpropanesulfonic acid, sodium salt polymer	38193-60-1	0.12250%	0.01508%	
			Ammonium sulfate	7783-20-2	0.11578%	0.01425%	
			Sodium chloride	7647-14-5	0.07658%	0.00943%	
			Sodium sulfate	7757-82-6	0.05004%	0.00616%	
			Glutaraldehyde	111-30-8	0.04984%	0.00614%	
			Polyethylene glycol monobutyl ether	31726-34-8	0.04097%	0.00504%	
			Magnesium chloride	7786-30-3	0.03361%	0.00414%	
			Polymer of 2-acrylamido-2-methylpropanesulfonic acid sodium salt and methyl acrylate	136793-29-8	0.01313%	0.00162%	
			Urea	57-13-6	0.00807%	0.00099%	
			Calcium chloride	10043-52-4	0.00471%	0.00058%	
			Sodium chloroacetate	3626-62-3	0.00384%	0.00047%	
			Trisodium orthophosphate	7801-94-9	0.00321%	0.00040%	
			Methanol	67-56-1	0.00293%	0.00036%	
			Sodium erythorbate	8381-77-7	0.00292%	0.00036%	
			Fatty acids, lauric	61790-12-3	0.00215%	0.00026%	
			Sodium carbonate	497-19-8	0.00192%	0.00024%	
			Guar gum	9000-30-0	0.00180%	0.00022%	
			Dicoco dimethyl quaternary ammonium chloride	61789-77-3	0.00180%	0.00022%	
			Thiourea, polymer with formaldehyde and 1-phenylthiourea	68527-49-1	0.00177%	0.00022%	
			Polyvinyl alcohol, partially hydrolyzed	304443-60-5	0.00148%	0.00018%	
			Polypropylene glycol	25322-69-4	0.00118%	0.00014%	
			Non-crystalline silica	7631-86-9	0.00117%	0.00014%	
			Ethane-1,2-diol	107-21-1	0.00091%	0.00011%	
			Potassium chloride	7447-40-7	0.00090%	0.00011%	
			Alcohols, C14-15, aliphatic (TEC)	68951-67-7	0.00082%	0.00010%	
			Prop-2-yn-1-ol	107-19-7	0.00055%	0.00007%	
			Alkenes, C>10 a-	64743-02-8	0.00037%	0.00005%	
			Tetrasodium ethylenediaminetetraacetate	64-02-8	0.00025%	0.00003%	
			Dimethyl siloxanes and siloxanes	63148-62-0	0.00011%	0.00001%	
			Potassium hydroxide	1310-58-3	0.00008%	0.00001%	
			Siloxanes and Siloxanes, di-Mo, reaction products with silica	67762-90-7	0.00002%	< 0.00001%	
			Octamethylcyclotetrasiloxane	556-67-2	0.00001%	< 0.00001%	
			Sodium hydroxide	1310-73-2	0.00001%	< 0.00001%	
			Decamethyl cyclotetrasiloxane	541-02-6	0.00001%	< 0.00001%	
			Dodecamethylcyclotetrasiloxane	540-67-6	< 0.00001%	< 0.00001%	

† Proprietary Technology

* Total Water Volume sources may include fresh water, produced water, and/or recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

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All component information listed was obtained from the supplier's Material Safety Data Sheets (MSDS). As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of the MSDS should be directed to the supplier who provided it. The Occupational Safety and Health Administration's (OSHA) regulations govern the criteria for the disclosure of this information. Please note that Federal Law protects "proprietary", "trade secret", and "confidential business information" and the criteria for how this information is reported on an MSDS is subject to 29 CFR 1910.1200(i) and Appendix D.