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: December 4, 2013
API #: 47-103-02706

Farm name: WV Conservation Commission Operator Well No.: Mills-Wetzel #10H

LOCATION: Elevation: 1,313' Quadrangle: Pine Grove

District: Grant County: Wetzel
Latitude: 7,570 Feet South of 39 Deg. 32 Min. 30 Sec.
Longitude 9,090 Feet West of 80 Deg. 37 Min. 30 Sec.

Company: Stone Energy Corporation

Address: 6000 Hampton Center, Suite B	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Morgantown, WV 26505	20"	48'	48'	GTS
Agent: Tim McGregor	13.375"	1,300'	1,300'	1,202 - CTS
Inspector: Derek Haught	9.625"	2,866'	2,866'	1,190 - CTS
Date Permit Issued: 11/15/2011	5.5"		10,309'	1,227 Lead - 1,171 Tail
Date Well Work Commenced: 5/2/2012	2.375"		7,624'	
Date Well Work Completed: 12/19/2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary ☑ Cable ☐ Rig ☐				
Total Vertical Depth (ft): 7,351				
Total Measured Depth (ft): 12,313				
Fresh Water Depth (ft.): None Reported				
Salt Water Depth (ft.): 1,849				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): 1,080				
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) 7,664' to 10,222'
Gas: Initial open flow 930 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 3,640 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 91 Hours
Static rock Pressure 1,735 psig (surface pressure) after 1 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

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Environmental Protection

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.

Signature

12/4/2013
Date

03/07/2014

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 10 intervals from 10,222' to 7,664'. Performed 10 individual stages of slick water stimulation using 3,502,653 gals fresh water, Sand - 416,580 lbs 100 Mesh and 3,522,870 lbs 40/70. AvBDP = 6,628 psi, AvTP = 7,508 psi, AvMTP = 9,098 psi, AvInjRate = 81.3 bpm, and AvISIP = 4,315 psi.

See Attachment for FracFocus information.

Plug Back Details Including Plug Type and Depth(s):

Formations Encountered: Top Depth / Bottom Depth
Surface:

See attached sheet for formations encountered and their depths.

03/07/2014

MILLS-WETZEL #10H
API 47-103-02706
Stone Energy Corporation

	Top (ft TVD)	Horizontal Top (ft MD)		Bottom (ft TVD)	Bottom (ft MD)	
Sandstone & Shale	Surface		*	1080		FW @ None Reported
Pittsburgh Coal	1080		*	1087		
Sandstone & Shale	1087		*	2300		SW @ 1849'
Little Lime	2300		*	2330		
Big Lime	2330		*	2454		
Big Injun	2454		*	2554		
Sandstone & Shale	2654		*	2916		
Berea Sandstone	2916		*	2956		
Shale	2956		*	3130		
Gordon	3130		*	3194		
Undiff Devonian Shale	3194		*	5418		
Riley	5418		*	5474		
Undiff Devonian Shale	5474		*	5512		
Benson	5512		*	5550		
Undiff Devonian Shale	5550		*	5753		
Pipe Creek	5753		*	5765		
Lower Alexander	5765		*	5812		
Undiff Devonian Shale	5812		*	6671	6714	
Rhinestreet	6671	6714	~	6904	6958	
Cashaqua	6904	6958	~	7078	7161	
Middlesex	7078	7161	~	7092	7180	
West River	7092	7180	~	7167	7285	
Geneseo	7167	7285	~	7204	7350	
Tully Limestone	7204	7350	~	7271	7500	
Hamilton	7271	7500	~	7294	7580	
Marcellus	7294	7580	~	7351	12313	
TD	7351	12313				

* From Pilot Hole Log and Driller's Log
~ From MWD Gamma Log

03/07/2014

Hydraulic Fracturing Fluid Product Component Information Disclosure

Fracture Date:	11/29/2012
State:	West Virginia
County/Parish:	Wetzel County
API Number:	4710302707
Operator Name:	Stone Energy
Well Name and Number:	Mills Wetzel #10H
Longitude:	-80.6571
Latitude:	39.521052
Long/Lat Projection:	NAD27
Production Type:	Gas
True Vertical Depth (TVD):	7,351
Total Water Volume (gal)*:	3,502,653

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
Slickwater, Sapphire VF, WF115	Schlumberger	Corrosion Inhibitor, Bactericide, Scale Inhibitor, Surfactant , Acid, Breaker, Gelling Agent, Friction Reducer, Iron Control Agent, Clay Control Agent, Rheology Modifier ClearFRAC XT J589, Propping Agent, Fluid Loss Additive	Water (Including Mix Water Supplied by Client)*	-		87.97883%	
			Crystalline silica	14808-60-7	98.57475%	11.84984%	
			Hydrochloric acid	7647-01-0	0.74819%	0.08994%	
			Erucic amidopropyl dimethyl betaine	149879-98-1	0.48827%	0.05870%	
			Propan-2-ol	67-63-0	0.34786%	0.04182%	
			Ammonium sulfate	Proprietary	0.20705%	0.02489%	
			Polyethylene glycol monohexyl ether	31726-34-8	0.05313%	0.00639%	
			Glutaraldehyde	111-30-8	0.04419%	0.00531%	
			Carbohydrate polymer	Proprietary	0.01702%	0.00205%	
			Calcium chloride	10043-52-4	0.01022%	0.00123%	
			Methanol	67-56-1	0.00350%	0.00042%	
			Ethane-1,2-diol	107-21-1	0.00326%	0.00039%	
			Trisodium ortho phosphate	7601-54-9	0.00326%	0.00039%	
			Sodium erythorbate	6381-77-7	0.00270%	0.00032%	
			Aliphatic acids	Proprietary	0.00262%	0.00032%	
			Aliphatic alcohols, ethoxylated #2	Proprietary	0.00262%	0.00032%	
			Diammonium peroxidisulphate	7727-54-0	0.00193%	0.00023%	
			Prop-2-yn-1-ol	107-19-7	0.00087%	0.00011%	

* 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%

Report ID: RPT-9113 (Generated on 12/11/2012 10:50 AM)

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.

03/07/2014

Company:	Stone Energy	**Local Co-ordinate Reference:**	Well Mills Wetzel #10H - Slot MW#10H
Project:	Heather Prospect (NAD 27)	**TVD Reference:**	18' RKB - 1303' GL @ 1321.0usft (Saxon 141)
Site:	Mills Wetzel Pad 2	**MD Reference:**	18' RKB - 1303' GL @ 1321.0usft (Saxon 141)
Well:	Mills Wetzel #10H	**North Reference:**	Grid
Wellbore:	Original Well	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	EDM-Chris Testa

Project	Heather Prospect (NAD 27), Wetzel County, West Virginia		
Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	West Virginia North 4701		

Site	Mills Wetzel Pad 2				
Site Position:		**Northing:**	374,564.00 usft	**Latitude:**	39° 31' 21.507 N
From:	Map	**Easting:**	1,674,001.00 usft	**Longitude:**	80° 39' 20.400 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	-0.74 °

Well	Mills Wetzel #10H - Slot MW#10H				
Well Position	**+N/-S**	0.0 usft	**Northing:**	373,990.51 usft	**Latitude:**	39° 31' 15.787 N
	+E/-W	0.0 usft	**Easting:**	1,673,588.10 usft	**Longitude:**	80° 39' 25.575 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	1,303.0 usft

Wellbore	Original Well			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	08/30/12	-8.54	67.15	52,615

Design	As Drilled				
Audit Notes:					
Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.0

Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**
	0.0	0.0	0.0	160.20

Survey Program **Date** 09/10/12

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
108.0	6,008.0	SDI Keeper Gyro 2 (Original Well)	SDI Standard Keeper 103	SDI Standard Wireline Keeper ver 1.0.3
6,050.0	10,313.0	SDI MWD (Original Well)	MWD SDI	MWD - Standard ver 1.0.1

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
108.0	0.28	106.12	108.0	-0.1	0.3	0.2	0.26	0.26	0.00
208.0	0.40	157.57	208.0	-0.5	0.6	0.6	0.31	0.12	51.45
308.0	0.24	177.27	308.0	-1.0	0.8	1.2	0.19	-0.16	19.70
408.0	0.09	288.50	408.0	-1.2	0.7	1.3	0.29	-0.15	111.23
508.0	0.16	217.60	508.0	-1.3	0.5	1.4	0.16	0.07	-70.90
608.0	0.11	232.92	608.0	-1.4	0.4	1.5	0.06	-0.05	15.32
708.0	0.05	230.30	708.0	-1.5	0.3	1.5	0.06	-0.06	-2.62
808.0	0.14	252.57	808.0	-1.6	0.1	1.5	0.10	0.09	22.27
908.0	0.09	284.31	908.0	-1.6	-0.1	1.5	0.08	-0.05	31.74

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Well:	Mills Wetzel #10H	**North Reference:**	Grid
Wellbore:	Original Well	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	EDM-Chris Testa

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,008.0	0.11	227.14	1,008.0	-1.6	-0.2	1.5	0.10	0.02	-57.17
1,108.0	0.12	270.02	1,108.0	-1.7	-0.4	1.5	0.08	0.01	42.88
1,208.0	0.05	253.52	1,208.0	-1.7	-0.5	1.4	0.07	-0.07	-16.50
1,308.0	0.02	200.58	1,308.0	-1.8	-0.6	1.5	0.04	-0.03	-52.94
1,408.0	0.02	251.42	1,408.0	-1.8	-0.6	1.5	0.02	0.00	50.84
1,508.0	0.18	234.26	1,508.0	-1.9	-0.8	1.5	0.16	0.16	-17.16
1,608.0	0.36	243.04	1,608.0	-2.1	-1.2	1.6	0.18	0.18	8.78
1,708.0	0.37	240.93	1,708.0	-2.4	-1.7	1.7	0.02	0.01	-2.11
1,808.0	0.43	227.96	1,808.0	-2.8	-2.3	1.9	0.11	0.06	-12.97
1,908.0	0.43	228.01	1,908.0	-3.3	-2.8	2.2	0.00	0.00	0.05
2,008.0	0.63	205.60	2,008.0	-4.1	-3.4	2.7	0.28	0.20	-22.41
2,108.0	0.38	190.80	2,108.0	-4.9	-3.7	3.4	0.28	-0.25	-14.80
2,208.0	0.24	192.99	2,208.0	-5.4	-3.8	3.8	0.14	-0.14	2.19
2,308.0	0.23	201.20	2,308.0	-5.8	-3.9	4.1	0.04	-0.01	8.21
2,408.0	0.20	205.93	2,408.0	-6.2	-4.0	4.4	0.03	-0.03	4.73
2,508.0	0.12	179.60	2,508.0	-6.4	-4.1	4.6	0.11	-0.08	-26.33
2,608.0	0.10	191.01	2,608.0	-6.6	-4.1	4.8	0.03	-0.02	11.41
2,708.0	0.06	203.22	2,708.0	-6.7	-4.2	4.9	0.04	-0.04	12.21
2,808.0	0.12	293.78	2,808.0	-6.7	-4.3	4.9	0.13	0.06	90.56
2,908.0	0.24	263.76	2,908.0	-6.7	-4.6	4.8	0.15	0.12	-30.02
3,008.0	0.70	205.04	3,008.0	-7.3	-5.1	5.2	0.61	0.46	-58.72
3,108.0	1.79	177.92	3,107.9	-9.4	-5.3	7.1	1.21	1.09	-27.12
3,208.0	3.76	174.03	3,207.8	-14.2	-4.9	11.7	1.98	1.97	-3.89
3,308.0	5.44	180.28	3,307.5	-22.2	-4.5	19.4	1.75	1.68	6.25
3,408.0	6.27	190.09	3,407.0	-32.4	-5.5	28.6	1.30	0.83	9.81
3,508.0	7.04	199.45	3,506.3	-43.5	-8.5	38.1	1.33	0.77	9.36
3,608.0	7.30	205.50	3,605.5	-55.0	-13.3	47.3	0.80	0.26	6.05
3,708.0	8.15	204.08	3,704.6	-67.2	-18.9	56.8	0.87	0.85	-1.42
3,808.0	8.71	201.87	3,803.5	-80.7	-24.6	67.6	0.65	0.56	-2.21
3,908.0	8.59	202.89	3,902.4	-94.6	-30.4	78.8	0.19	-0.12	1.02
4,008.0	8.78	207.47	4,001.3	-108.3	-36.8	89.4	0.72	0.19	4.58
4,108.0	8.48	209.61	4,100.1	-121.5	-43.9	99.4	0.44	-0.30	2.14
4,208.0	8.44	208.74	4,199.0	-134.3	-51.1	109.1	0.13	-0.04	-0.87
4,308.0	8.96	206.91	4,297.9	-147.7	-58.2	119.3	0.59	0.52	-1.83
4,408.0	9.16	205.83	4,396.6	-161.8	-65.2	130.2	0.26	0.20	-1.08
4,508.0	9.55	204.25	4,495.3	-176.5	-72.0	141.7	0.47	0.39	-1.58
4,608.0	9.90	202.66	4,593.9	-192.0	-78.8	154.0	0.44	0.35	-1.59
4,708.0	9.69	203.94	4,692.4	-207.6	-85.5	166.4	0.30	-0.21	1.28
4,808.0	10.29	203.33	4,790.9	-223.5	-92.4	179.0	0.61	0.60	-0.61
4,908.0	10.10	203.01	4,889.3	-239.8	-99.4	192.0	0.20	-0.19	-0.32
5,008.0	9.81	202.31	4,987.8	-255.8	-106.1	204.7	0.31	-0.29	-0.70
5,108.0	9.39	206.47	5,086.4	-270.9	-112.9	216.7	0.81	-0.42	4.16
5,208.0	9.46	204.32	5,185.1	-285.7	-120.0	228.2	0.36	0.07	-2.15

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Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,308.0	9.47	203.36	5,283.7	-300.8	-126.6	240.1	0.16	0.01	-0.96
5,408.0	8.61	204.05	5,382.5	-315.2	-132.9	251.5	0.87	-0.86	0.69
5,508.0	9.16	205.93	5,481.3	-329.2	-139.4	262.5	0.62	0.55	1.88
5,608.0	8.77	209.45	5,580.0	-343.0	-146.7	273.0	0.67	-0.39	3.52
5,708.0	8.73	208.97	5,678.9	-356.2	-154.1	283.0	0.08	-0.04	-0.48
5,808.0	10.02	205.93	5,777.5	-370.7	-161.6	294.1	1.38	1.29	-3.04
5,908.0	9.05	212.29	5,876.2	-385.2	-169.6	305.0	1.43	-0.97	6.36
6,008.0	8.75	214.62	5,975.0	-398.1	-178.1	314.2	0.47	-0.30	2.33
6,050.0	8.36	203.41	6,016.5	-403.5	-181.1	318.3	4.07	-0.93	-26.69
6,113.0	7.99	201.47	6,078.8	-411.8	-184.6	324.9	0.73	-0.59	-3.08
6,176.0	7.18	204.73	6,141.3	-419.4	-187.8	331.0	1.46	-1.29	5.17
6,240.0	6.98	206.35	6,204.8	-426.6	-191.2	336.6	0.44	-0.31	2.53
6,303.0	7.39	206.51	6,267.3	-433.6	-194.7	342.0	0.65	0.65	0.25
6,367.0	7.89	204.97	6,330.7	-441.3	-198.4	348.0	0.84	0.78	-2.41
6,430.0	9.37	200.92	6,393.0	-450.0	-202.1	354.9	2.54	2.35	-6.43
6,494.0	11.35	200.54	6,456.0	-460.8	-206.1	363.7	3.10	3.09	-0.59
6,558.0	12.44	201.11	6,518.6	-473.1	-210.8	373.7	1.71	1.70	0.89
6,621.0	13.34	201.04	6,580.0	-486.2	-215.9	384.3	1.43	1.43	-0.11
6,685.0	13.57	196.83	6,642.3	-500.3	-220.7	395.9	1.57	0.36	-6.58
6,748.0	13.72	193.37	6,703.5	-514.6	-224.6	408.1	1.32	0.24	-5.49
6,780.0	13.93	191.57	6,734.6	-522.1	-226.2	414.6	1.50	0.66	-5.63
6,812.0	14.21	187.50	6,765.6	-529.8	-227.5	421.4	3.21	0.88	-12.72
6,844.0	16.17	181.64	6,796.5	-538.1	-228.1	429.0	7.77	6.13	-18.31
6,875.0	18.26	177.87	6,826.1	-547.3	-228.1	437.7	7.64	6.74	-12.16
6,907.0	19.41	173.50	6,856.4	-557.6	-227.3	447.6	5.69	3.59	-13.66
6,939.0	21.22	171.65	6,886.4	-568.6	-225.9	458.5	6.00	5.66	-5.78
6,971.0	23.37	169.26	6,916.0	-580.5	-223.8	470.4	7.29	6.72	-7.47
7,002.0	26.27	165.88	6,944.1	-593.2	-221.0	483.3	10.41	9.35	-10.90
7,034.0	29.74	162.22	6,972.4	-607.7	-216.9	498.3	12.10	10.84	-11.44
7,066.0	32.41	160.60	6,999.8	-623.3	-211.6	514.8	8.74	8.34	-5.06
7,098.0	33.71	158.20	7,026.6	-639.7	-205.4	532.3	5.77	4.06	-7.50
7,129.0	35.33	156.65	7,052.1	-655.9	-198.7	549.8	5.94	5.23	-5.00
7,161.0	38.09	155.76	7,077.8	-673.4	-191.0	568.9	8.78	8.63	-2.78
7,193.0	40.88	153.48	7,102.5	-691.8	-182.2	589.1	9.82	8.72	-7.13
7,225.0	43.86	151.92	7,126.1	-710.9	-172.3	610.5	9.87	9.31	-4.88
7,257.0	47.69	151.43	7,148.5	-731.1	-161.5	633.2	12.02	11.97	-1.53
7,289.0	51.63	151.03	7,169.2	-752.5	-149.7	657.3	12.35	12.31	-1.25
7,320.0	55.32	151.62	7,187.6	-774.3	-137.8	681.9	12.00	11.90	1.90
7,352.0	57.59	152.51	7,205.3	-797.9	-125.3	708.3	7.46	7.09	2.78
7,384.0	60.25	152.73	7,221.8	-822.2	-112.7	735.4	8.33	8.31	0.69
7,416.0	62.78	153.27	7,237.1	-847.3	-99.9	763.3	8.04	7.91	1.69
7,448.0	66.21	152.46	7,250.8	-873.0	-86.7	792.0	10.96	10.72	-2.53
7,480.0	68.77	151.83	7,263.1	-899.1	-72.9	821.2	8.20	8.00	-1.97

Company:	Stone Energy	**Local Co-ordinate Reference:**	Well Mills Wetzel #10H - Slot MW#10H
Project:	Heather Prospect (NAD 27)	**TVD Reference:**	18' RKB - 1303' GL @ 1321.0usft (Saxon 141)
Site:	Mills Wetzel Pad 2	**MD Reference:**	18' RKB - 1303' GL @ 1321.0usft (Saxon 141)
Well:	Mills Wetzel #10H	**North Reference:**	Grid
Wellbore:	Original Well	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	EDM-Chris Testa

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,512.0	69.74	151.85	7,274.4	-925.5	-58.8	850.9	3.03	3.03	0.06
7,543.0	71.67	151.39	7,284.7	-951.2	-44.9	879.8	6.38	6.23	-1.48
7,575.0	75.36	151.69	7,293.8	-978.2	-30.3	910.1	11.57	11.53	0.94
7,607.0	78.51	152.33	7,301.0	-1,005.7	-15.7	941.0	10.03	9.84	2.00
7,639.0	80.72	152.54	7,306.8	-1,033.6	-1.1	972.1	6.94	6.91	0.66
7,671.0	81.47	152.81	7,311.7	-1,061.7	13.4	1,003.5	2.49	2.34	0.84
7,702.0	83.57	152.84	7,315.7	-1,089.1	27.5	1,034.0	6.77	6.77	0.10
7,734.0	87.11	153.05	7,318.3	-1,117.4	42.0	1,065.6	11.08	11.06	0.66
7,766.0	88.15	153.09	7,319.7	-1,146.0	56.4	1,097.3	3.25	3.25	0.13
7,829.0	88.82	153.34	7,321.3	-1,202.2	84.8	1,159.8	1.14	1.06	0.40
7,893.0	89.63	153.80	7,322.2	-1,259.5	113.3	1,223.4	1.46	1.27	0.72
7,957.0	90.37	154.04	7,322.2	-1,317.0	141.4	1,287.0	1.22	1.16	0.38
8,020.0	89.46	153.97	7,322.3	-1,373.6	169.1	1,349.6	1.45	-1.44	-0.11
8,084.0	90.03	153.95	7,322.6	-1,431.1	197.1	1,413.3	0.89	0.89	-0.03
8,147.0	90.20	153.91	7,322.4	-1,487.7	224.8	1,475.9	0.28	0.27	-0.06
8,211.0	89.53	153.54	7,322.6	-1,545.1	253.2	1,539.5	1.20	-1.05	-0.58
8,274.0	90.03	152.88	7,322.8	-1,601.3	281.6	1,602.0	1.31	0.79	-1.05
8,338.0	89.43	152.66	7,323.1	-1,658.2	310.8	1,665.5	1.00	-0.94	-0.34
8,401.0	88.19	152.38	7,324.5	-1,714.1	339.9	1,727.9	2.02	-1.97	-0.44
8,465.0	88.55	151.95	7,326.3	-1,770.7	369.8	1,791.2	0.88	0.56	-0.67
8,528.0	89.09	151.09	7,327.6	-1,826.0	399.8	1,853.5	1.61	0.86	-1.37
8,592.0	89.87	150.99	7,328.2	-1,882.0	430.8	1,916.7	1.23	1.22	-0.16
8,655.0	89.40	150.78	7,328.6	-1,937.1	461.5	1,978.9	0.82	-0.75	-0.33
8,719.0	88.49	150.78	7,329.7	-1,992.9	492.7	2,042.0	1.42	-1.42	0.00
8,782.0	88.82	150.59	7,331.2	-2,047.8	523.5	2,104.1	0.60	0.52	-0.30
8,846.0	89.36	150.69	7,332.2	-2,103.6	554.9	2,167.2	0.86	0.84	0.16
8,910.0	89.80	151.70	7,332.7	-2,159.7	585.7	2,230.4	1.72	0.69	1.58
8,973.0	89.09	152.40	7,333.3	-2,215.3	615.3	2,292.8	1.58	-1.13	1.11
9,037.0	90.91	152.67	7,333.3	-2,272.1	644.8	2,356.2	2.87	2.84	0.42
9,100.0	90.40	154.96	7,332.6	-2,328.6	672.6	2,418.8	3.72	-0.81	3.63
9,164.0	88.99	156.63	7,332.9	-2,387.0	698.8	2,482.6	3.41	-2.20	2.61
9,227.0	88.19	156.65	7,334.5	-2,444.8	723.8	2,545.5	1.27	-1.27	0.03
9,291.0	88.25	155.99	7,336.5	-2,503.4	749.5	2,609.3	1.04	0.09	-1.03
9,355.0	88.66	155.51	7,338.2	-2,561.7	775.8	2,673.1	0.99	0.64	-0.75
9,418.0	89.03	155.33	7,339.5	-2,619.0	802.0	2,735.8	0.65	0.59	-0.29
9,482.0	89.90	155.53	7,340.1	-2,677.2	828.6	2,799.6	1.39	1.36	0.31
9,546.0	89.43	155.55	7,340.4	-2,735.5	855.1	2,863.4	0.74	-0.73	0.03
9,609.0	88.46	155.00	7,341.6	-2,792.7	881.4	2,926.1	1.77	-1.54	-0.87
9,672.0	89.06	154.77	7,343.0	-2,849.7	908.1	2,988.9	1.02	0.95	-0.37
9,735.0	89.66	154.89	7,343.7	-2,906.7	934.9	3,051.6	0.97	0.95	0.19
9,799.0	89.09	154.25	7,344.4	-2,964.5	962.4	3,115.3	1.34	-0.89	-1.00
9,862.0	88.32	153.18	7,345.8	-3,021.0	990.3	3,177.8	2.09	-1.22	-1.70
9,926.0	89.13	153.15	7,347.2	-3,078.1	1,019.2	3,241.4	1.27	1.27	-0.05
9,989.0	89.40	153.09	7,348.0	-3,134.3	1,047.7	3,303.9	0.44	0.43	-0.10

03/07/2014

Scientific Drilling

SDI
Survey Report

STONE ENERGY

Company:	Stone Energy	**Local Co-ordinate Reference:**	Well Mills Wetzel #10H - Slot MW#10H
Project:	Heather Prospect (NAD 27)	**TVD Reference:**	18' RKB - 1303' GL @ 1321.0usft (Saxon 141)
Site:	Mills Wetzel Pad 2	**MD Reference:**	18' RKB - 1303' GL @ 1321.0usft (Saxon 141)
Well:	Mills Wetzel #10H	**North Reference:**	Grid
Wellbore:	Original Well	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	EDM-Chris Testa

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,052.0	89.19	151.85	7,348.8	-3,190.1	1,076.8	3,366.3	2.00	-0.33	-1.97
10,116.0	89.83	151.76	7,349.3	-3,246.5	1,107.0	3,429.6	1.01	1.00	-0.14
10,180.0	89.73	151.88	7,349.6	-3,303.0	1,137.3	3,492.9	0.24	-0.16	0.19
10,244.0	89.13	151.18	7,350.2	-3,359.2	1,167.8	3,556.2	1.44	-0.94	-1.09
10,313.0	89.13	151.18	7,351.3	-3,419.7	1,201.0	3,624.3	0.00	0.00	0.00

Checked By: _____ Approved By: _____ Date: _____

03/07/2014