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: November 18, 2013
API #: 47-103-02723

Farm name: WV Conservation Commission Operator Well No.: Mills-Wetzel #7H

LOCATION: Elevation: 1,331' Quadrangle: Pine Grove

District: Grant County: Wetzel
Latitude: 5,200 Feet South of 39 Deg. 32 Min. 30 Sec.
Longitude 2,030 Feet West of 80 Deg. 40 Min. 00 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"	1,236'	1,236'	1,195 - CTS
Inspector: Derek Haught	9.625"	2,780'	2,780'	1,175 - CTS
Date Permit Issued: 1/24/2012	5.5"		11,945'	2,667
Date Well Work Commenced: 2/15/2012	2.375"		7,824'	
Date Well Work Completed: 4/16/2013				
Verbal Plugging:				
Date Permission granted on:				
Rotary ☑ Cable ☐ Rig ☐				
Total Vertical Depth (ft): 7,323				
Total Measured Depth (ft): 11,960				
Fresh Water Depth (ft.): 50				
Salt Water Depth (ft.): 1,987				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): 864				
Void(s) encountered (N/Y) Depth(s) N/A				

RECEIVED
Office of Oil & Gas
NOV 21 2013
WV Department of
Environmental Protection

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)
Producing formation Marcellus Pay zone depth (ft) 7,900' to 11,849'
Gas: Initial open flow 300 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 2,790 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 130 Hours
Static rock Pressure 2,100 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

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.

01/10/2014

W. [illegible]
Signature

11/18/2013
Date

103-02723

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 16 intervals from 11,849' to 7,900'. Performed 16 individual stages of slick water stimulation using 5,620,777 gals fresh water, Sand - 659,720 lbs 100 Mesh and 5,493,640 lbs 40/70. AvBDP = 6,616 psi, AvTP = 7,394 psi, AvMTP = 9,021 psi, AvInjRate = 82.0 bpm, and AvISIP = 4,304 psi.

See Attachment for FracFocus information.

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

Formations Encountered: Surface: Top Depth / Bottom Depth

See attached sheet for formations encountered and their depths.

103-02723

MILLS-WETZEL #7H
API 47-103-02723
Stone Energy Corporation

	Top (ft TVD)	Horizontal Top (ft MD)		Bottom (ft TVD)	Bottom (ft MD)	
Sandstone & Shale	Surface		*	864		FW @ 50'
Pittsburgh Coal	864		*	868		
Sandstone & Shale	868		*	2300		SW @ 1987'
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		*	6503		
Rhinestreet	6503		~	6903	6983	
Cashaqua	6903	6983	~	7064	7268	
Middlesex	7064	7268	~	7071	7252	
West River	7071	7252	~	7174	7419	
Geneseo	7174	7419	~	7188	7500	
Tully Limestone	7188	7500	~	7252	7705	
Hamilton	7252	7705	~	7278	8959	
Marcellus	7279	8959	~	7321	11960	
TD	7321	11960				

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

Hydraulic Fracturing Fluid Product Component Information Disclosure

103-02723

Fracture Date:	2/24/2013
State:	West Virginia
County/Parish:	Wetzel County
API Number:	4710302722
Operator Name:	Stone Energy
Well Name and Number:	Mills Wetzel #7H
Longitude:	-80.67384
Latitude:	39.52768
Long/Lat Projection:	NAD27
Production Type:	Gas
True Vertical Depth (TVD):	7300
Total Water Volume (gal)*:	5620777

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, HCl 15%, SAPPHIRE VF	Schlumberger	Corrosion Inhibitor, Bactericide (Myacide GA25), Scale Inhibitor, AntiFoam Agent, Surfactant , Acid, Friction Reducer, Rheology Modifier ClearFRAC XT J589, Gelling Agent, Iron Control Agent, Clay Control Agent, Propping Agent, Fluid Loss Additive	Water (Including Mix Water Supplied by Client)*	-		88.25992%	
			Crystalline silica	14808-60-7	98.55583%	11.57053%	
			Hydrochloric acid	7647-01-0	0.71804%	0.08430%	
			Erucic amidopropyl dimethyl betaine	149879-98-1	0.54230%	0.06367%	
			Propan-2-ol	67-63-0	0.40250%	0.04725%	
			Ammonium sulfate	Proprietary	0.22428%	0.02633%	
			Polyethylene glycol monohexyl ether	31726-34-8	0.05289%	0.00621%	
			Glutaraldehyde	111-30-8	0.04741%	0.00557%	
			Calcium chloride	10043-52-4	0.01131%	0.00133%	
			Ethane-1,2-diol	107-21-1	0.00376%	0.00044%	
			Trisodium ortho phosphate	7601-54-9	0.00376%	0.00044%	
			Methanol	67-56-1	0.00348%	0.00041%	
			Sodium erythorbate	6381-77-7	0.00282%	0.00033%	
			Aliphatic acids	Proprietary	0.00261%	0.00031%	
			Aliphatic alcohols, ethoxylated #2	Proprietary	0.00261%	0.00031%	
			Prop-2-yn-1-ol	107-19-7	0.00087%	0.00010%	
			Polypropylene glycol	25322-69-4	0.00067%	0.00008%	

* 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-11914 (Generated on 3/29/2013 10:09 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.

01/10/2014

Job Number: []
Company: []
Lease/Well: []
Location: []
Rig Name: []
RKB: []
G.L. or M.S.L.: []

State/Country: []
Declination: []
Grid: []
File name: D:\WINSERVE\STONEE~1\MW#7H.SVY
Date/Time: 12-May-12 / 03:04
Curve Name: MW#7H As Drilled

Scientific Drilling

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 136.84
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
108.00	.36	92.03	108.00	-.01	.34	.24	.34	92.03	.33
208.00	.15	115.64	208.00	-.08	.77	.59	.78	95.91	.23
308.00	.19	119.19	308.00	-.22	1.03	.87	1.06	101.87	.04
408.00	.16	351.01	408.00	-.16	1.16	.91	1.17	97.89	.32
508.00	.21	125.88	508.00	-.13	1.28	.97	1.29	95.77	.34
608.00	.10	122.22	608.00	-.28	1.51	1.24	1.53	100.67	.11
708.00	.16	222.36	708.00	-.43	1.49	1.33	1.55	106.26	.20
808.00	.14	200.36	808.00	-.65	1.35	1.40	1.50	115.77	.06
908.00	.02	258.94	908.00	-.77	1.29	1.44	1.50	120.81	.13
1008.00	.05	274.10	1008.00	-.77	1.23	1.40	1.45	122.05	.03
1108.00	.05	184.06	1108.00	-.81	1.18	1.40	1.43	124.41	.07
1208.00	.06	201.56	1208.00	-.90	1.16	1.45	1.47	127.87	.02

RECEIVED
Oklahoma Corporation Commission
NOV 21 2013
Oil & Gas Conservation Division

103-027123

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
1308.00	.24	156.89	1308.00	-1.14	1.22	1.67	1.67	133.08	.20
1408.00	.44	139.35	1407.99	-1.63	1.55	2.25	2.25	136.30	.22
1508.00	.47	141.51	1507.99	-2.24	2.06	3.04	3.04	137.38	.03
1608.00	.48	143.21	1607.99	-2.90	2.57	3.87	3.87	138.45	.02
1708.00	.20	180.52	1707.99	-3.41	2.82	4.41	4.42	140.42	.34
1808.00	.26	230.55	1807.99	-3.72	2.64	4.52	4.56	144.68	.20
1908.00	.34	245.96	1907.98	-3.99	2.19	4.41	4.55	151.21	.11
2008.00	.36	270.92	2007.98	-4.11	1.61	4.09	4.41	158.61	.15
2108.00	.55	8.78	2107.98	-3.63	1.37	3.58	3.88	159.35	.70
2208.00	.68	30.92	2207.97	-2.64	1.75	3.12	3.17	146.56	.27
2308.00	1.06	67.62	2307.96	-1.78	2.91	3.29	3.41	121.52	.66
2408.00	1.35	70.45	2407.94	-1.04	4.87	4.09	4.98	102.00	.30
2508.00	1.68	60.29	2507.91	.09	7.25	4.90	7.25	89.32	.42
2608.00	1.76	56.46	2607.86	1.66	9.81	5.50	9.95	80.39	.14
2708.00	1.86	55.43	2707.81	3.43	12.42	6.00	12.89	74.57	.11
2808.00	1.92	53.61	2807.76	5.34	15.11	6.44	16.03	70.52	.08
2908.00	2.19	54.69	2907.69	7.44	18.02	6.89	19.49	67.55	.27
3008.00	2.90	59.34	3007.59	9.84	21.75	7.70	23.87	65.66	.74
3108.00	3.71	71.59	3107.43	12.15	27.00	9.60	29.60	65.77	1.07
3208.00	2.53	83.84	3207.28	13.41	32.26	12.29	34.94	67.43	1.35
3308.00	.46	157.33	3307.24	13.27	34.61	13.99	37.07	69.02	2.44
3408.00	.31	197.02	3407.24	12.65	34.69	14.50	36.92	69.97	.30
3508.00	.19	76.64	3507.24	12.42	34.77	14.72	36.92	70.34	.44
3608.00	.28	175.76	3607.24	12.22	34.95	14.99	37.02	70.73	.36
3708.00	.71	234.43	3707.24	11.62	34.46	15.10	36.37	71.37	.61
3808.00	.29	256.59	3807.23	11.20	33.71	14.89	35.52	71.63	.45
3908.00	.87	38.18	3907.23	11.73	33.94	14.65	35.91	70.93	1.11
4008.00	.67	46.68	4007.22	12.73	34.83	14.54	37.08	69.92	.23
4108.00	.52	48.86	4107.21	13.43	35.60	14.55	38.05	69.33	.15
4208.00	.41	151.39	4207.21	13.42	36.11	14.91	38.52	69.62	.73
4308.00	.39	220.31	4307.21	12.84	36.06	15.30	38.28	70.40	.45
4408.00	.41	208.48	4407.21	12.27	35.67	15.45	37.72	71.02	.08
4508.00	.69	200.26	4507.20	11.39	35.29	15.83	37.08	72.11	.29
4608.00	.60	198.52	4607.20	10.33	34.92	16.35	36.41	73.52	.09

01/08/2014

103-02723

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
4708.00	.30	202.34	4707.19	9.59	34.65	16.71	35.95	74.53	.30
4808.00	.46	110.16	4807.19	9.21	34.93	17.17	36.12	75.23	.56
4908.00	.92	92.31	4907.19	9.04	36.11	18.11	37.22	75.95	.50
5008.00	.48	93.45	5007.18	8.98	37.33	18.98	38.39	76.47	.44
5108.00	.28	92.64	5107.18	8.94	37.99	19.46	39.03	76.75	.20
5208.00	.12	205.61	5207.17	8.84	38.19	19.68	39.20	76.97	.34
5308.00	.82	269.13	5307.17	8.73	37.43	19.23	38.43	76.87	.77
5408.00	1.63	300.64	5407.15	9.45	35.49	17.38	36.72	75.09	1.02
5508.00	1.65	337.99	5507.11	11.51	33.72	14.68	35.63	71.16	1.05
5608.00	.94	54.29	5607.09	13.32	33.85	13.44	36.38	68.52	1.69
5708.00	.92	77.65	5707.08	13.97	35.30	13.96	37.97	68.41	.38
5808.00	.89	139.02	5807.07	13.56	36.60	15.14	39.03	69.67	.92
5908.00	1.83	163.17	5907.04	11.44	37.57	17.35	39.27	73.06	1.08
5976.73	1.78	189.69	5975.74	9.34	37.70	18.98	38.84	76.09	1.21
6062.00	1.81	186.46	6060.96	6.70	37.33	20.65	37.93	79.83	.12
6124.00	1.49	180.17	6122.94	4.92	37.22	21.87	37.54	82.47	.59
6154.00	1.46	181.84	6152.93	4.14	37.20	22.43	37.43	83.64	.17
6185.00	1.35	184.48	6183.92	3.39	37.16	22.95	37.32	84.79	.41
6216.00	.96	153.90	6214.91	2.79	37.25	23.45	37.35	85.72	2.31
6246.00	2.24	95.40	6244.90	2.51	37.94	24.13	38.03	86.22	6.40
6277.00	4.48	85.79	6275.85	2.54	39.75	25.34	39.84	86.35	7.43
6308.00	6.74	82.60	6306.70	2.86	42.77	27.17	42.86	86.17	7.36
6340.00	8.52	78.90	6338.41	3.56	46.95	29.52	47.09	85.66	5.77
6372.00	10.36	77.25	6369.98	4.65	52.09	32.24	52.30	84.90	5.81
6404.00	12.44	76.81	6401.34	6.07	58.25	35.41	58.57	84.05	6.51
6436.00	14.12	76.45	6432.49	7.77	65.40	39.07	65.86	83.22	5.26
6467.00	15.94	75.93	6462.43	9.70	73.21	43.00	73.85	82.46	5.89
6499.00	17.67	76.48	6493.06	11.90	82.19	47.54	83.05	81.76	5.43
6531.00	19.78	78.04	6523.36	14.16	92.21	52.75	93.29	81.27	6.78
6563.00	21.96	79.23	6553.26	16.40	103.39	58.76	104.68	80.99	6.94
6595.00	23.83	82.24	6582.80	18.37	115.55	65.64	117.00	80.97	5.61
6627.00	24.73	83.67	6612.02	19.97	128.48	73.32	130.02	81.17	4.74
6658.00	26.46	84.57	6639.98	21.33	141.80	81.43	143.39	81.44	5.72
6690.00	28.29	85.82	6668.39	22.56	156.46	90.57	158.08	81.79	5.99

163-02723

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
6722.00	30.40	86.87	6696.29	23.56	172.11	100.55	173.71	82.21	6.79
6753.00	32.32	88.45	6722.76	24.21	188.23	111.10	189.78	82.67	6.74
Bottom Line CK.									
6785.00	34.37	89.05	6749.49	24.59	205.81	122.85	207.28	83.19	6.49
6816.00	35.82	90.18	6774.85	24.71	223.63	134.95	224.99	83.70	5.13
6848.00	37.85	89.33	6800.46	24.79	242.82	148.01	244.08	84.17	6.54
6880.00	39.31	90.19	6825.48	24.87	262.77	161.60	263.94	84.59	4.86
6912.00	40.73	90.32	6849.98	24.78	283.35	175.74	284.43	85.00	4.45
6944.00	42.33	89.59	6873.94	24.80	304.56	190.24	305.57	85.34	5.22
6975.00	43.63	89.28	6896.62	25.01	325.69	204.54	326.65	85.61	4.25
7007.00	44.56	89.04	6919.60	25.34	347.96	219.54	348.88	85.84	2.95
7039.00	45.87	88.54	6942.14	25.82	370.67	234.72	371.56	86.02	4.24
7071.00	48.05	87.82	6963.98	26.56	394.04	250.16	394.93	86.14	7.01
7103.00	50.69	87.47	6984.81	27.56	418.30	266.03	419.21	86.23	8.29
7135.00	52.53	87.73	7004.69	28.61	443.36	282.41	444.28	86.31	5.79
7166.00	53.88	86.69	7023.25	29.82	468.16	298.48	469.10	86.36	5.12
7197.00	55.63	87.56	7041.14	31.09	493.44	314.85	494.42	86.39	6.09
7229.00	56.72	90.16	7058.96	31.61	520.01	332.65	520.97	86.52	7.56
7261.00	57.96	93.20	7076.23	30.82	546.94	351.65	547.81	86.77	8.89
7292.00	59.05	95.82	7092.43	28.74	573.28	371.19	574.00	87.13	8.02
7324.00	60.40	98.91	7108.56	25.19	600.69	392.52	601.21	87.60	9.35
Bottom Line CK.									
7356.00	61.57	100.91	7124.08	20.37	628.25	414.89	628.58	88.14	6.58
7388.00	62.47	103.38	7139.10	14.42	655.87	438.12	656.03	88.74	7.37
7420.00	63.82	105.22	7153.55	7.37	683.53	462.19	683.57	89.38	6.64
7452.00	65.16	106.21	7167.34	-.45	711.33	486.91	711.33	90.04	5.03
7484.00	66.65	107.21	7180.40	-8.85	739.31	512.17	739.36	90.69	5.46
7516.00	68.32	110.12	7192.66	-18.32	767.31	538.23	767.53	91.37	9.89
7547.00	68.79	111.54	7203.99	-28.58	794.28	564.16	794.79	92.06	4.53
7579.00	69.39	113.10	7215.41	-39.93	821.93	591.36	822.90	92.78	4.92
7611.00	70.74	114.91	7226.32	-52.17	849.41	619.08	851.01	93.51	6.79
7643.00	72.14	116.66	7236.51	-65.36	876.72	647.39	879.15	94.26	6.78
7674.00	75.04	118.55	7245.27	-79.14	903.06	675.46	906.53	95.01	11.03
7706.00	77.54	120.27	7252.85	-94.41	930.14	705.12	934.92	95.80	9.40

OCT 10/2014

103-02723

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
7737.00	79.22	123.96	7259.10	-110.55	955.85	734.48	962.22	96.60	12.86
7769.00	79.37	126.42	7265.04	-128.67	981.55	765.27	989.94	97.47	7.57
7801.00	79.31	128.55	7270.96	-147.81	1006.50	796.30	1017.29	98.35	6.54
7833.00	79.31	130.26	7276.90	-167.77	1030.80	827.48	1044.36	99.24	5.25
7864.00	79.75	132.86	7282.53	-187.99	1053.60	857.83	1070.24	100.12	8.37
7896.00	81.71	135.86	7287.69	-210.07	1076.18	889.38	1096.49	101.05	11.10
7928.00	82.96	138.37	7291.96	-233.30	1097.76	921.09	1122.27	102.00	8.70
7960.00	84.92	140.71	7295.33	-257.51	1118.40	952.87	1147.67	102.97	9.51
7992.00	86.24	143.13	7297.80	-282.63	1138.08	984.65	1172.65	103.95	8.59
8024.00	87.38	145.14	7299.58	-308.52	1156.80	1016.34	1197.23	104.93	7.21
8087.00	88.29	145.77	7301.96	-360.37	1192.49	1078.58	1245.76	106.81	1.76
8150.00	89.60	146.36	7303.12	-412.63	1227.66	1140.76	1295.15	108.58	2.28
8214.00	90.50	146.45	7303.07	-465.94	1263.07	1203.86	1346.27	110.25	1.41
8278.00	89.33	147.18	7303.16	-519.50	1298.10	1266.90	1398.19	111.81	2.15
8342.00	90.13	146.80	7303.46	-573.17	1332.96	1329.89	1450.97	113.27	1.38
8405.00	90.57	147.56	7303.08	-626.11	1367.11	1391.87	1503.66	114.61	1.39
8469.00	91.41	147.76	7301.97	-680.17	1401.34	1454.72	1557.69	115.89	1.35
8532.00	92.31	147.28	7299.93	-733.29	1435.15	1516.60	1611.64	117.06	1.62
8596.00	93.05	147.56	7296.93	-787.16	1469.58	1579.44	1667.12	118.18	1.24
8660.00	93.49	146.85	7293.28	-840.87	1504.18	1642.29	1723.26	119.21	1.30
8723.00	92.55	146.15	7289.96	-893.33	1538.91	1704.31	1779.40	120.14	1.86
8787.00	92.08	145.67	7287.38	-946.29	1574.75	1767.46	1837.20	121.00	1.05
8850.00	90.74	144.76	7285.83	-998.02	1610.68	1829.77	1894.82	121.78	2.57
8914.00	89.43	146.30	7285.73	-1050.78	1646.90	1893.03	1953.56	122.54	3.16
8977.00	86.61	144.63	7287.91	-1102.64	1682.59	1955.27	2011.69	123.24	5.20
Checked Bottom Line									
9041.00	84.75	145.32	7292.73	-1154.89	1719.21	2018.44	2071.11	123.89	3.10
9105.00	85.53	145.07	7298.15	-1207.26	1755.61	2081.53	2130.64	124.51	1.28
9168.00	87.21	144.36	7302.14	-1258.58	1791.93	2143.81	2189.76	125.08	2.89
9232.00	88.53	144.25	7304.52	-1310.52	1829.25	2207.22	2250.24	125.62	2.07
9295.00	89.77	145.33	7305.46	-1361.98	1865.56	2269.61	2309.83	126.13	2.61
9359.00	90.74	145.45	7305.17	-1414.66	1901.92	2332.90	2370.34	126.64	1.53
9423.00	89.29	146.12	7305.15	-1467.58	1937.90	2396.12	2430.89	127.14	2.50
9486.00	87.65	146.96	7306.84	-1520.12	1972.62	2458.19	2490.38	127.62	2.92

03/10/2014

103.02723

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
9550.00	88.56	146.94	7308.95	-1573.73	2007.51	2521.16	2550.83	128.09	1.42
9614.00	89.56	146.36	7310.00	-1627.18	2042.69	2584.22	2611.57	128.54	1.81
9676.00	87.78	145.06	7311.44	-1678.39	2077.60	2645.46	2670.85	128.93	3.55
9740.00	87.55	145.10	7314.05	-1730.82	2114.21	2708.74	2732.33	129.31	.36
9803.00	88.63	144.92	7316.15	-1782.41	2150.31	2771.07	2793.00	129.66	1.74
9866.00	89.50	144.77	7317.18	-1833.91	2186.58	2833.44	2853.83	129.99	1.40
9930.00	90.40	144.67	7317.23	-1886.15	2223.55	2896.84	2915.77	130.31	1.41
9993.00	89.56	145.45	7317.25	-1937.80	2259.63	2959.19	2976.74	130.62	1.82
10057.00	90.37	145.19	7317.29	-1990.43	2296.04	3022.49	3038.69	130.92	1.33
10121.00	91.31	145.24	7316.36	-2042.98	2332.55	3085.80	3100.74	131.21	1.47
10184.00	92.24	145.41	7314.40	-2094.77	2368.38	3148.08	3161.84	131.49	1.50
10248.00	92.45	146.78	7311.78	-2147.84	2404.05	3211.19	3223.76	131.78	2.16
10311.00	91.88	148.18	7309.40	-2200.92	2437.89	3273.06	3284.41	132.08	2.40
10375.00	90.44	148.65	7308.11	-2255.43	2471.40	3335.75	3345.86	132.38	2.37
10438.00	89.56	148.25	7308.11	-2309.12	2504.37	3397.46	3406.44	132.68	1.53
10502.00	88.08	148.63	7309.43	-2363.64	2537.86	3460.14	3468.07	132.96	2.39
10566.00	86.71	149.00	7312.34	-2418.33	2570.96	3522.68	3529.61	133.25	2.22
10629.00	87.38	148.62	7315.58	-2472.15	2603.54	3584.22	3590.26	133.52	1.22
10693.00	88.46	148.03	7317.91	-2526.58	2637.13	3646.90	3652.13	133.77	1.92
10756.00	89.23	148.70	7319.18	-2580.21	2670.16	3708.62	3713.12	134.02	1.62
10820.00	89.77	147.69	7319.73	-2634.60	2703.89	3771.36	3775.20	134.26	1.79
10884.00	90.64	147.41	7319.51	-2688.60	2738.23	3834.24	3837.51	134.48	1.43
10947.00	91.75	147.67	7318.19	-2741.75	2772.04	3896.13	3898.89	134.69	1.81
11011.00	89.93	146.76	7317.25	-2795.54	2806.68	3959.08	3961.38	134.89	3.18
Checked Bottom Line									
11074.00	90.97	146.60	7316.76	-2848.19	2841.29	4021.15	4023.07	135.07	1.67
11138.00	89.09	146.43	7316.73	-2901.56	2876.60	4084.24	4085.81	135.25	2.95
11202.00	89.53	146.67	7317.50	-2954.96	2911.87	4147.31	4148.59	135.42	.78
11265.00	90.44	146.16	7317.51	-3007.44	2946.72	4209.44	4210.45	135.58	1.66
11329.00	89.06	146.37	7317.79	-3060.66	2982.26	4272.57	4273.35	135.74	2.18
11392.00	87.54	146.36	7319.66	-3113.09	3017.14	4334.67	4335.26	135.90	2.41
11456.00	88.15	146.45	7322.07	-3166.36	3052.53	4397.74	4398.16	136.05	.96
11519.00	89.09	144.63	7323.58	-3218.29	3088.17	4459.99	4460.28	136.18	3.25
11582.00	89.63	143.57	7324.29	-3269.32	3125.10	4522.48	4522.69	136.29	1.89

RECEIVED
Office of Oil & Gas
NOV 21 2013
WV Department of Environmental Protection

103-02723

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
11646.00	90.20	143.69	7324.38	-3320.85	3163.06	4586.03	4586.17	136.39	.91
11710.00	90.97	144.11	7323.73	-3372.56	3200.76	4649.54	4649.63	136.50	1.37
11773.00	91.61	143.39	7322.31	-3423.35	3238.00	4712.07	4712.11	136.59	1.53
11837.00	89.93	142.34	7321.45	-3474.36	3276.64	4775.71	4775.72	136.68	3.10
Bottom Line CK.									
11887.00	89.03	143.67	7321.91	-3514.30	3306.72	4825.41	4825.42	136.74	3.21
Proj. to bit									
11960.00	89.03	143.67	7323.14	-3573.10	3349.96	4897.88	4897.88	136.85	.00

103-02723