

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: July 9, 2013
API #: 47-103-02571

**REVISED FOR
COMPLETION**

Farm name: Maury, Dorothy M. Operator Well No.: Maury et al Unit 1 #3H

LOCATION: Elevation: 730' Quadrangle: Porters Falls

District: Magnolia County: Wetzel
Latitude: 3,030 Feet South of 39 Deg. 37 Min. 30 Sec.
Longitude 9,310 Feet West of 80 Deg. 45 Min. 00 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"	35'	35'	Sanded In
Agent: Tim McGregor	13.375"	677'	677'	634 - CTS
Inspector: Derek Haught	9.625"	2,140'	2,140	732 - CTS
Date Permit Issued: 9/16/2010 & 10/11/2011	5.5"		11,095'	2,573
Date Well Work Commenced: 10/25/2010	2.375"		7,064'	
Date Well Work Completed: 10/7/2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 6,476				
Total Measured Depth (ft): 11,098				
Fresh Water Depth (ft.): 53				
Salt Water Depth (ft.): 1,881				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): 530				
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) 7,079' - 11,013'
Gas: Initial open flow 210 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 1,650 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 168 Hours
Static rock Pressure 1,499 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.

W. J. ...
Signature

7/9/2013
Date

RECEIVED
Office of Oil and Gas
July 22, 2013
WV Department of
Environmental Protection

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 15 intervals from 11,013' MD to 7,079' MD. Performed 15 individual stages of slick water stimulation using 5,306,125 gals fresh water, 653,520 lbs. 100M sand, and 5,137,450 lbs. 40/70M sand. Average BDP = 6,955 psi, Average TP = 7,304 psi, Average MTP = 9,073 psi, Average ISIP = 4,456 psi, and Average Injection Rate = 79.4 bpm.

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.

103-02571

Maury et al Unit 1 #3H
 API 47-103-02571
 Stone Energy Corporation

	Horizontal			Bottom (ft TVD)	Bottom (ft MD)
	Top (ft TVD)	Top MD)	(ft		
Sandstone & Shale	Surface		*	290	
Red Rock	290		*	312	
Sandstone & Shale	312		*	333	
Red Rock	333		*	338	
Sandstone & Shale	338		*	360	
Red Rock	360		*	367	
Sandstone & Shale	367		*	383	
Red Rock	383		*	394	
Sandstone & Shale	394		*	530	
Pittsburgh Coal	530		*	534	
Sandstone & Shale	534		*	1652	
Little Lime	1652		*	1674	
Big Lime	1674		*	1815	
Big Injun	1815		*	1970	
Sandstone & Shale	1970		*	2330	
Berea sandstone	2330		~	2355	
Shale	2355		~	2533	
Gordon	2533		~	2592	
Sandstone & Shale	2592		~	4661	4668
Riley	4661	4668	~	4686	4693
Sandstone & Shale	4686	4693	~	4851	4859
Benson	4851	4859	~	4913	4921
Undiff Devonian Shale	4913	4921	~	5684	5721
Rhinestreet	5684	5721	~	6060	6203
Cashaqua	6060	6203	~	6191	6416
Middlesex	6191	6416	~	6214	6455
West River	6214	6455	~	6281	6586
Geneseo	6281	6586	~	6303	6636
Tully limestone	6303	6636	~	6359	6790
Hamilton	6359	6790	~	6385	6898
Marcellus	6385	6898	~	6476	11098
TD	6476	11098			

* From Driller's Log
 ~ From MWD Gamma Log

RECEIVED
 Office of Oil and Gas
 OCT 30 2013
 WV Department of
 Environmental Protection
 11/22/2013

Hydraulic Fracturing Fluid Product Component Information Disclosure

103-02571

Fracture Date:	9/14/2012
State:	West Virginia
County/Parish:	Wetzel County
API Number:	4710302571
Operator Name:	Stone Energy
Well Name and Number:	Maury et al Unit 1 #3H
Longitude:	-80.78292
Latitude:	39.6168
Long/Lat Projection:	NAD27
Production Type:	Gas
True Vertical Depth (TVD):	6476
Total Water Volume (gal):	5306125

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
WF115, Slickwater	Schlumberger	Corrosion Inhibitor, Bactericide, Scale Inhibitor, AntiFoam Agent, Surfactant, Acid Breaker, Gelling Agent, Friction Reducer, Iron Control Agent, Clay Control Agent, Buffer, Propping Agent, Fluid	Water (Including Mix Water Supplied by Client)*	-		88.28654%	
			Crystalline silica	14808-60-7	98.55019%	11.54364%	
			Hydrochloric acid	7647-01-0	0.76859%	0.09003%	
			Carbohydrate polymer	Proprietary	0.39447%	0.04621%	
			Ammonium sulfate	Proprietary	0.17479%	0.02047%	
			Polyethylene glycol monohexyl ether	31726-34-8	0.06635%	0.00777%	
			Glutaraldehyde	111-30-8	0.05071%	0.00594%	
			Diammonium peroxodisulphate	7727-54-0	0.02059%	0.00241%	
			Calcium chloride	10043-52-4	0.01156%	0.00135%	
			Ethane-1,2-diol	107-21-1	0.00420%	0.00049%	
			Trisodium ortho phosphate	7601-54-9	0.00420%	0.00049%	
			Methanol	67-56-1	0.00343%	0.00040%	
			Sodium erythorbate	6381-77-7	0.00310%	0.00036%	
			Aliphatic acids	Proprietary	0.00258%	0.00030%	
			Aliphatic alcohols, ethoxylated #2	Proprietary	0.00258%	0.00030%	
			Sodium carbonate	497-19-8	0.00255%	0.00030%	
			Polypropylene glycol	25322-69-4	0.00185%	0.00022%	
			Prop-2-yn-1-ol	107-19-7	0.00086%	0.00010%	

* 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-8822 (Generated on 11/30/2012 9:59 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 1910.2002 and 1910.101. 11/30/2012

103.02571

Job Number: 23D1211254
 Company: Stone Energy
 Lease/Well: Maury et al Unit 1 # 2H
 Location: Maury Pad
 Rig Name: Saxon 141
 RKB: 18
 G.L. or M.S.L.: 734

State/Country: West Virginia
 Declination: -8.43
 Grid: 0.82
 File name: D:\WINSERVE\JOBS\IM1#3H.SVY
 Date/Time: 12-Jan-12 / 06:27
 Curve Name: Maury #3H As Drilled

Scientific Drilling

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 162.64
 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	.27	12.16	108.00	.25	.05	-.22	.25	12.16	.25
208.00	.27	121.97	208.00	.35	.30	-.25	.47	40.55	.44
308.00	.20	98.74	308.00	.20	.68	.01	.71	73.27	.12
408.00	.06	151.95	408.00	.13	.87	.14	.88	81.50	.17
508.00	.11	199.24	508.00	-.01	.87	.26	.87	90.43	.08
608.00	.21	291.47	608.00	-.03	.66	.23	.66	92.59	.24
708.00	.33	332.27	708.00	.29	.36	-.17	.46	50.88	.22
808.00	.30	40.78	807.99	.80	.44	-.63	.91	28.96	.40
908.00	.30	74.79	907.99	1.18	1.13	-.79	1.63	43.82	.32
1008.00	.24	111.28	1007.99	1.23	1.80	-.64	2.18	55.61	.39
1108.00	.24	127.31	1107.99	1.07	2.10	-.40	2.35	62.86	.10
1208.00	.24	60.21	1207.99	1.02	2.25	-.30	2.47	65.55	.14

RECEIVED
 Office of Oil and Gas
 OCT 30 2013
 WV Department of Environmental Protection
 11022013

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
1308.00	.13	81.58	1307.99	1.06	2.40	-30	2.63	66.13	.08
1408.00	.31	59.99	1407.99	1.22	2.75	-34	3.01	66.15	.20
1508.00	.71	92.57	1507.98	1.32	3.60	-19	3.84	69.84	.48
1608.00	.73	97.56	1607.98	1.21	4.85	.29	5.00	75.99	.07
1708.00	.53	100.42	1707.97	1.04	5.94	.78	6.03	80.03	.20
1808.00	.64	91.40	1807.96	.95	6.95	1.17	7.02	82.25	.14
1908.00	.73	45.41	1907.96	1.38	7.96	1.06	8.08	80.17	.54
2008.00	.78	341.76	2007.95	2.47	8.21	.09	8.57	73.22	.80
2108.00	1.13	321.21	2107.94	3.89	7.37	-1.51	8.34	62.20	.48
2165.31	1.71	319.14	2165.23	4.98	6.46	-2.82	8.16	52.40	1.02
Gyro MWD									
2224.00	.44	37.21	2223.91	5.82	6.02	-3.76	8.37	46.00	2.85
Gyro MWD									
2288.00	1.58	119.12	2287.90	5.58	6.94	-3.26	8.91	51.19	2.47
Gyro MWD									
2352.00	2.73	116.66	2351.85	4.47	9.08	-1.56	10.12	63.78	1.80
Gyro MWD									
2416.00	2.64	113.14	2415.78	3.21	11.79	.46	12.22	74.79	.29
Gyro MWD									
2479.00	3.17	107.43	2478.70	2.12	14.79	2.39	14.94	81.86	.96
Gyro MWD									
2543.00	3.17	110.68	2542.61	.96	18.13	4.49	18.16	86.97	.28
MWD Surveys									
2581.00	2.88	114.96	2580.55	.19	19.98	5.78	19.98	89.46	.97
2644.00	2.48	107.89	2643.48	-.90	22.71	7.64	22.73	92.27	.82
2708.00	2.77	112.50	2707.42	-1.92	25.46	9.43	25.53	94.31	.56
2771.00	3.34	118.26	2770.33	-3.37	28.48	11.71	28.68	96.74	1.03
2834.00	3.97	116.88	2833.20	-5.22	32.05	14.55	32.47	99.26	1.01
2897.00	4.60	114.81	2896.02	-7.27	36.28	17.76	37.01	101.33	1.03
Bottom Line CK.									
2960.00	4.78	114.76	2958.81	-9.43	40.96	21.22	42.03	102.96	.29
3024.00	4.58	121.27	3022.60	-11.87	45.57	24.93	47.09	104.60	.89
3088.00	4.55	126.23	3086.39	-14.70	49.80	28.89	51.92	106.44	.62
3151.00	4.37	121.58	3149.20	-17.43	53.86	32.71	56.61	107.94	.64
3215.00	4.31	118.48	3213.02	-19.86	58.05	36.27	61.35	108.88	.38

103-02571

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
Bottom Line CK.									
3279.00	5.31	119.33	3276.79	-22.45	62.75	40.15	66.64	109.69	1.57
3342.00	5.14	121.51	3339.53	-25.36	67.69	44.40	72.29	110.54	.41
3406.00	4.20	116.28	3403.32	-27.89	72.24	48.18	77.44	111.11	1.61
3470.00	4.50	114.98	3467.14	-29.99	76.62	51.48	82.28	111.38	.49
3533.00	5.36	115.42	3529.90	-32.30	81.51	55.15	87.68	111.61	1.37
3597.00									
3597.00	5.26	113.92	3593.63	-34.77	86.90	59.11	93.59	111.81	.27
3661.00	5.14	118.71	3657.36	-37.34	92.09	63.11	99.37	112.07	.70
3725.00	4.99	118.66	3721.11	-40.05	97.05	67.18	104.99	112.42	.23
bottom line check									
3788.00	5.15	116.61	3783.87	-42.63	101.98	71.12	110.53	112.69	.38
3852.00	5.06	128.25	3847.62	-45.66	106.77	75.44	116.12	113.16	1.62
3916.00									
3916.00	3.63	152.74	3911.44	-49.21	109.91	79.76	120.42	114.12	3.61
3980.00	3.49	144.50	3975.31	-52.60	111.97	83.61	123.71	115.16	.83
4043.00	4.24	133.80	4038.17	-55.77	114.76	87.47	127.60	115.92	1.65
4107.00	4.17	130.29	4102.00	-58.91	118.25	91.51	132.11	116.48	.42
4171.00	4.30	122.87	4165.82	-61.72	122.04	95.32	136.76	116.83	.88
4234.00									
4234.00	5.29	118.47	4228.60	-64.39	126.57	99.22	142.01	116.96	1.68
4298.00	5.03	115.10	4292.34	-66.98	131.71	103.23	147.76	116.96	.62
4362.00	4.71	111.28	4356.11	-69.13	136.70	106.77	153.18	116.83	.71
Bottom Line CK.									
4426.00	5.30	112.63	4419.87	-71.22	141.87	110.31	158.75	116.66	.94
4490.00	5.58	113.54	4483.58	-73.60	147.45	114.24	164.80	116.53	.46
4553.00									
4553.00	5.05	117.60	4546.31	-76.11	152.72	118.21	170.63	116.49	1.03
4617.00	4.54	122.01	4610.08	-78.75	157.36	122.12	175.97	116.59	.98
4680.00	4.86	119.78	4672.87	-81.40	161.79	125.97	181.12	116.71	.58
4743.00	5.37	122.12	4735.62	-84.29	166.61	130.17	186.72	116.84	.87
4807.00	5.24	122.69	4799.35	-87.47	171.60	134.68	192.61	117.01	.22
4870.00									
4870.00	4.88	122.05	4862.12	-90.34	176.13	138.78	197.95	117.15	1.13
4934.00	4.87	119.99	4925.91	-92.98	180.53	142.61	203.07	117.25	.34
4998.00	6.45	120.79	4988.67	-95.80	185.32	146.73	208.62	117.34	1.24
Bottom Line CK.									
5057.00	5.14	119.23	5052.39	-98.76	190.46	151.09	214.54	117.41	.48
5121.00	5.30	116.43	5098.22	-100.62	193.96	153.91	218.51	117.42	1.13

RECEIVED
 of Oil and Gas
 WV Dept of Environment
 OCT 30 2013
 10/30/2013

103-02571

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
5139.00	5.46	122.47	5130.09	-102.02	196.43	155.98	221.34	117.45	2.85
Bottom Line CK.									
5170.00	6.45	125.77	5160.93	-103.83	199.08	158.50	224.53	117.54	3.38
5202.00	8.20	125.87	5192.66	-106.22	202.39	161.77	228.57	117.69	5.47
5233.00	9.72	128.30	5223.28	-109.14	206.24	165.70	233.33	117.89	5.05
5265.00	10.83	128.65	5254.77	-112.69	210.70	170.43	238.95	118.14	3.47
5296.00	11.20	131.19	5285.20	-116.49	215.24	175.41	244.75	118.42	1.97
5328.00	12.32	136.10	5316.53	-121.00	219.95	181.11	251.04	118.82	4.69
5360.00	13.89	144.41	5347.70	-126.58	224.55	187.82	257.77	119.41	7.65
5391.00	14.99	146.65	5377.72	-132.96	228.92	195.21	264.73	120.15	3.98
5423.00	15.99	147.90	5408.55	-140.15	233.54	203.45	272.37	120.97	3.29
5455.00	17.31	149.38	5439.21	-147.98	238.31	212.34	280.52	121.84	4.33
5485.00	19.33	148.55	5467.69	-156.06	243.17	221.50	288.94	122.69	6.79
5516.00	20.62	148.68	5496.82	-165.10	248.69	231.78	298.50	123.58	4.16
5546.00	21.44	146.96	5524.83	-174.21	254.42	242.18	308.35	124.40	3.42
5577.00	22.00	146.94	5553.63	-183.82	260.68	253.23	318.97	125.19	1.81
Bottom Line CK.									
5608.00	23.03	148.50	5582.26	-193.86	267.02	264.70	329.97	125.98	3.84
5638.00	24.10	149.06	5609.76	-204.12	273.23	276.34	341.06	126.76	3.64
5669.00	25.23	150.37	5637.93	-215.29	279.75	288.95	353.00	127.58	4.05
5700.00	26.77	149.18	5665.79	-227.03	286.60	302.20	365.62	128.38	5.24
5731.00	27.83	146.83	5693.34	-239.08	294.13	315.95	379.04	129.11	4.88
5761.00	28.69	146.35	5719.77	-250.94	301.95	329.60	392.61	129.73	2.97
5792.00	29.61	145.37	5746.84	-263.43	310.43	344.06	407.14	130.32	3.34
5822.00	31.29	146.38	5772.70	-276.02	318.96	358.62	421.81	130.87	5.85
5853.00	32.76	147.71	5798.98	-289.82	327.89	374.45	437.62	131.47	5.26
5884.00	35.11	148.06	5824.70	-304.47	337.09	391.18	454.24	132.09	7.61
5914.00	37.26	148.46	5848.91	-319.54	346.41	408.34	471.28	132.69	7.21
5945.00	38.31	149.74	5873.41	-335.83	356.16	426.80	489.52	133.32	4.23
5976.00	39.07	150.27	5897.61	-352.62	365.85	445.71	508.12	133.95	2.67
6007.00	40.39	149.95	5921.45	-369.80	375.72	465.06	527.18	134.54	4.32
6038.00	42.27	151.17	5944.73	-387.63	385.78	485.08	546.88	135.14	6.59
6068.00	43.51	151.00	5966.70	-405.50	395.65	505.08	566.54	135.70	4.15
6099.00	44.54	151.14	5988.99	-424.35	406.07	526.18	587.34	136.26	3.34

1/28/2013

103-02571

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
6130.00	45.84	151.54	6010.84	-443.65	416.62	547.75	608.60	136.80	4.29
6160.00	47.15	151.57	6031.49	-462.78	426.98	569.10	629.67	137.30	4.37
6191.00	48.22	150.69	6052.36	-482.86	438.05	591.56	651.95	137.79	4.04
6222.00	49.04	151.30	6072.85	-503.20	449.33	614.35	674.62	138.24	3.03
6253.00	49.91	152.02	6092.99	-523.94	460.52	637.48	697.56	138.69	3.32
6284.00	51.00	151.93	6112.73	-545.04	471.75	660.97	720.85	139.12	3.52
6315.00	52.31	152.03	6131.96	-566.51	483.17	684.87	744.57	139.54	4.23
6345.00	53.54	152.16	6150.05	-587.66	494.37	708.40	767.95	139.93	4.11
6376.00	54.34	151.86	6168.30	-609.79	506.13	733.03	792.47	140.31	2.70
Bottom Line CK.									
6407.00	54.57	151.60	6186.32	-632.00	518.08	757.79	817.21	140.66	1.01
6438.00	55.58	152.05	6204.07	-654.41	530.08	782.76	842.16	140.99	3.47
6468.00	56.79	151.96	6220.76	-676.41	541.78	807.26	866.64	141.31	4.04
6499.00	57.43	152.29	6237.59	-699.43	553.95	832.85	892.22	141.62	2.25
6529.00	58.91	152.82	6253.42	-722.05	565.70	857.94	917.26	141.92	5.16
6560.00	61.36	153.44	6268.85	-746.02	577.84	884.46	943.64	142.24	8.09
6592.00	63.24	153.94	6283.73	-771.42	590.40	912.44	971.42	142.57	6.04
6624.00	64.60	154.44	6297.79	-797.30	602.91	940.87	999.59	142.90	4.48
6655.00	66.18	155.36	6310.70	-822.82	614.87	968.80	1027.18	143.23	5.77
6687.00	66.92	156.55	6323.44	-849.63	626.83	997.95	1055.83	143.58	4.12
6719.00	68.35	156.66	6335.61	-876.79	638.58	1027.38	1084.68	143.93	4.48
6751.00	70.24	157.34	6346.93	-904.34	650.27	1057.17	1113.86	144.28	6.23
6782.00	72.63	157.17	6356.80	-931.44	661.63	1086.42	1142.51	144.61	7.73
6814.00	74.55	157.99	6365.84	-959.81	673.34	1117.00	1172.44	144.95	6.48
6846.00	76.60	158.16	6373.81	-988.56	684.91	1147.89	1202.65	145.28	6.43
6878.00	77.76	159.76	6380.91	-1017.68	696.11	1179.03	1232.98	145.63	6.08
6909.00	78.00	161.28	6387.22	-1046.30	706.23	1209.36	1262.34	145.98	5.78
6941.00	78.99	163.56	6393.39	-1076.23	715.71	1240.75	1292.48	146.38	7.03
6973.00	79.40	163.65	6399.39	-1106.38	724.59	1272.18	1322.54	146.78	1.31
7005.00	81.18	164.85	6404.79	-1136.74	733.15	1303.71	1352.65	147.18	6.68
7037.00	83.47	166.30	6409.08	-1167.44	741.04	1335.38	1382.78	147.59	8.29
7069.00	84.92	166.74	6412.41	-1198.39	748.46	1367.13	1412.92	148.01	4.02
7101.00	87.71	167.24	6416.69	-1260.60	762.84	1430.79	1473.44	148.82	4.89
7133.00	89.47	168.10	6417.75	-1322.14	776.28	1493.53	1533.19	149.58	4.44

WV Dept of Environmental Protection
Oil and Gas
OCT 30 2013
11/13/2013

103.02571

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
Bottom Line CK.									
7260.00	91.08	167.79	6416.94	-1384.72	789.65	1557.25	1594.05	150.31	1.21
7323.00	90.64	167.60	6415.99	-1446.26	803.07	1620.00	1654.27	150.96	.76
7386.00	89.43	167.64	6415.96	-1507.80	816.58	1682.76	1714.72	151.56	1.92
7450.00	88.18	166.98	6417.29	-1570.22	830.64	1746.54	1776.39	152.12	2.21
7513.00	87.98	166.83	6419.40	-1631.55	844.90	1809.33	1837.34	152.62	.40
Bottom Line CK.									
7577.00	88.32	167.26	6421.47	-1693.88	859.24	1873.10	1899.35	153.10	.86
7641.00	88.09	167.15	6423.47	-1756.26	873.41	1936.87	1961.46	153.56	.40
7705.00	88.73	167.55	6425.25	-1818.69	887.42	2000.63	2023.64	153.99	1.18
7768.00	88.45	168.64	6426.80	-1880.31	900.41	2063.32	2084.78	154.41	1.79
7832.00	87.11	167.62	6429.28	-1942.89	913.57	2126.98	2146.96	154.82	2.63
Bottom Line CK.									
7895.00	87.28	166.85	6432.36	-2004.26	927.47	2189.70	2208.45	155.17	1.25
7958.00	87.88	165.86	6435.02	-2065.43	942.32	2252.51	2270.23	155.48	1.84
8022.00	88.69	166.33	6436.94	-2127.53	957.69	2316.36	2333.14	155.77	1.46
8085.00	88.22	166.53	6438.63	-2188.74	972.47	2379.20	2395.06	156.04	.81
8149.00	87.88	165.92	6440.81	-2250.87	987.70	2443.04	2458.04	156.31	1.09
Bottom Line CK.									
8213.00	88.69	166.04	6442.73	-2312.93	1003.19	2506.90	2521.12	156.55	1.28
8277.00	89.66	165.41	6443.65	-2374.95	1018.97	2570.80	2584.32	156.78	1.81
8340.00	89.39	165.84	6444.17	-2435.97	1034.61	2633.72	2646.58	156.99	.81
8404.00	89.53	164.93	6444.77	-2497.90	1050.76	2697.64	2709.91	157.19	1.44
8468.00	89.40	165.10	6445.37	-2559.72	1067.31	2761.58	2773.32	157.37	.33
Bottom Line CK.									
8532.00	89.36	167.54	6446.06	-2621.90	1082.44	2825.44	2836.55	157.57	3.81
Bottom Line CK.									
8595.00	89.83	168.18	6446.51	-2683.49	1095.69	2888.18	2898.56	157.79	1.26
8659.00	89.19	166.53	6447.06	-2745.93	1109.70	2951.96	2961.68	158.00	2.77
8723.00	88.39	166.87	6448.41	-2808.20	1124.42	3015.78	3024.95	158.18	1.36
8786.00	88.72	167.68	6450.00	-2869.63	1138.29	3078.55	3087.15	158.36	1.39
Bottom Line CK.									
8850.00	88.56	168.38	6451.52	-2932.22	1151.56	3142.25	3150.24	158.56	1.12
8913.00	88.66	170.13	6453.05	-2994.10	1163.30	3204.81	3212.15	158.77	2.78
8976.00	89.06	169.89	6454.30	-3056.13	1174.23	3267.28	3273.95	158.98	.74
9040.00	89.19	169.49	6455.28	-3119.09	1185.68	3330.79	3336.85	159.19	.66
9104.00	90.17	169.11	6455.63	-3181.97	1197.57	3394.35	3399.87	159.38	1.64
Bottom Line CK.									
9168.00	89.93	168.57	6455.58	-3244.76	1209.95	3457.98	3463.01	159.55	.92
9231.00	90.10	168.04	6455.56	-3306.45	1222.72	3520.67	3525.29	159.71	.88

11/27/2013

103-02571

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
9295.00	89.10	168.06	6456.01	-3369.06	1235.98	3584.38	3588.62	159.85	1.56
9358.00	89.70	167.37	6456.67	-3430.62	1249.38	3647.13	3651.04	159.99	1.45
9422.00	88.79	168.59	6457.51	-3493.21	1262.71	3710.85	3714.42	160.13	2.38
9486.00	87.85	168.58	6459.39	-3555.91	1275.37	3774.47	3777.71	160.27	1.47
9550.00	88.56	168.33	6461.39	-3618.59	1288.17	3838.11	3841.04	160.40	1.18
9613.00	88.49	167.90	6463.01	-3680.22	1301.14	3900.81	3903.45	160.53	.69
9677.00	88.29	167.77	6464.81	-3742.75	1314.62	3964.52	3966.92	160.65	.37
9741.00	88.56	166.80	6466.57	-3805.16	1328.70	4028.28	4030.47	160.75	1.57
Bottom Line CK.									
9804.00	89.46	167.01	6467.66	-3866.51	1342.97	4091.10	4093.10	160.85	1.47
9868.00	90.00	167.82	6467.96	-3928.97	1356.92	4154.87	4156.69	160.95	1.52
9931.00	90.44	168.43	6467.72	-3990.62	1369.88	4217.58	4219.20	161.05	1.19
9995.00	90.34	167.58	6467.28	-4053.22	1383.18	4281.30	4282.74	161.16	1.34
10058.00	90.34	166.83	6466.91	-4114.66	1397.13	4344.10	4345.39	161.25	1.19
10122.00	91.08	166.19	6466.12	-4176.89	1412.06	4407.95	4409.12	161.32	1.53
10185.00	90.44	166.75	6465.28	-4238.13	1426.80	4470.80	4471.86	161.39	1.35
10249.00	90.40	166.52	6464.81	-4300.40	1441.59	4534.64	4535.59	161.47	.36
10313.00	89.23	167.43	6465.02	-4362.75	1456.02	4598.46	4599.30	161.54	2.32
10376.00	88.86	166.83	6466.07	-4424.16	1470.05	4661.26	4662.00	161.62	1.12
10440.00	88.39	166.50	6467.60	-4486.41	1484.80	4725.08	4725.73	161.69	.90
10504.00	88.32	165.81	6469.44	-4548.53	1500.11	4788.93	4789.51	161.75	1.08
10567.00	88.25	166.48	6471.33	-4609.67	1515.19	4851.79	4852.30	161.80	1.07
10631.00	89.66	167.50	6472.49	-4672.01	1529.60	4915.59	4916.03	161.87	2.72
10695.00	89.30	169.58	6473.08	-4734.73	1542.31	4979.24	4979.60	161.96	3.30
10758.00	89.30	170.12	6473.84	-4796.74	1553.41	5041.74	5042.00	162.06	.86
10821.00	90.23	169.24	6474.10	-4858.72	1564.70	5104.26	5104.45	162.15	2.03
10884.00	89.46	169.49	6474.28	-4921.62	1576.51	5167.82	5167.95	162.24	1.26
10947.00	89.46	169.49	6476.28	-5131.04	1615.36	5379.29	5379.30	162.52	.00

Office of Oil and Gas
 RECEIVED
 OCT 30 2013
 WV Department of Environmental Protection
 11/22/2013