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 15, 2013
API #: 47-103-02722

Farm name: WV Conservation Commission Operator Well No.: Mills-Wetzel #6H

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

District: Grant County: Wetzel
Latitude: 5,231 Feet South of 39 Deg. 32 Min. 30 Sec.
Longitude 2,050 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"	50'	50'	GTS
Agent: Tim McGregor	13.375"	1,226'	1,226'	1,207 - CTS
Inspector: Derek Haught	9.625"	2,793'	2,793'	1,409 - CTS
Date Permit Issued: 1/24/2012	5.5"		11,698'	2,626
Date Well Work Commenced: 2/15/2012	2.375"		7,785'	
Date Well Work Completed: 4/16/2013				
Verbal Plugging:				
Date Permission granted on:				
Rotary ☑ Cable ☐ Rig ☐				
Total Vertical Depth (ft): 7,328				
Total Measured Depth (ft): 11,699				
Fresh Water Depth (ft.): None Reported				
Salt Water Depth (ft.): 1,992				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): 335, and 385				
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) 7,883' to 11,617'
Gas: Initial open flow 350 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 3,170 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 134 Hours
Static rock Pressure 2,200 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

RECEIVED
Office of Oil and Gas
NOV 21 2013
WV Department of
Environmental Protect
01/10/2014

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. [illegible]
Signature

11/15/2013
Date

103-02722

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 11,617' to 7,883'. Performed 14 individual stages of slick water stimulation using 5,563,626 gals fresh water, Sand - 631,280 lbs 100 Mesh and 5,098,080 lbs 40/70. AvBDP = 6,235 psi, AvTP = 7,445 psi, AvMTP = 8,992 psi, AvInjRate = 81.5 bpm, and AvISIP = 4,689 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.

01/10/2014

103-02722

MILLS-WETZEL #6H
API 47-103-02722
Stone Energy Corporation

	Top (ft TVD)	Horizontal Top (ft MD)		Bottom (ft TVD)	Bottom (ft MD)	
Sandstone & Shale	Surface		*	335		
Coal	335			339		
Sandstone & Shale	339			385		
Coal	385			388		
Sandstone & Shale	388			2300		SW @ 1992'
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		*	6627	6665	
Rhinestreet	6627	6665	~	6938	7024	
Cashaqua	6938	7024	~	7058	7214	
Middlesex	7058	7214	~	7069	7231	
West River	7069	7231	~	7163	7406	
Geneseo	7163	7406	~	7181	7447	
Tully Limestone	7181	7447	~	7248	7638	
Hamilton	7248	7638	~	7276	7766	
Marcellus	7276	7766	~	7328	11699	
TD	7328	11699				

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

Hydraulic Fracturing Fluid Product Component Information Disclosure

103-02722

Fracture Date:	2/26/2013
State:	West Virginia
County/Parish:	Wetzel County
API Number:	4710302721
Operator Name:	Stone Energy
Well Name and Number:	Mills Wetzel #6H
Longitude:	-80.67389
Latitude:	39.52765
Long/Lat Projection:	NAD27
Production Type:	Gas
True Vertical Depth (TVD):	7292
Total Water Volume (gal)*:	5563626

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%, WF115, SAPPHIRE VF	Schlumberger	Corrosion Inhibitor, Bactericide (Myacide GA25), Scale Inhibitor, AntiFoam Agent, Surfactant , Acid, Breaker, Gelling Agent, Friction Reducer, Rheology Modifier ClearFRAC XT J589, Iron Control Agent, Clay Control Agent, Accelerator, Propping Agent, Fluid Loss Additive	Water (Including Mix Water Supplied by Client)*	-		88.85915%	
			Crystalline silica	14808-60-7	98.39608%	10.96216%	
			Hydrochloric acid	7647-01-0	0.72190%	0.08043%	
			Carbohydrate polymer	Proprietary	0.52130%	0.05808%	
			Ammonium sulfate	Proprietary	0.20923%	0.02331%	
			Polyethylene glycol monohexyl ether	31726-34-8	0.06108%	0.00680%	
			Glutaraldehyde	111-30-8	0.05479%	0.00610%	
			Calcium chloride	10043-52-4	0.04628%	0.00516%	
			Erucic amidopropyl dimethyl betaine	149879-98-1	0.04265%	0.00475%	
			Propan-2-ol	67-63-0	0.03050%	0.00340%	
			Diammonium peroxidisulphate	7727-54-0	0.02494%	0.00278%	
			Trisodium ortho phosphate	7601-54-9	0.00396%	0.00044%	
			Ethane-1,2-diol	107-21-1	0.00396%	0.00044%	
			Methanol	67-56-1	0.00352%	0.00039%	
			Sodium erythorbate	6381-77-7	0.00285%	0.00032%	
			Aliphatic acids	Proprietary	0.00264%	0.00029%	
			Aliphatic alcohols, ethoxylated #2	Proprietary	0.00264%	0.00029%	
			Prop-2-yn-1-ol	107-19-7	0.00088%	0.00010%	
			Polypropylene glycol	25322-69-4	0.00072%	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-11910 (Generated on 3/29/2013 10:07 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: 23D0512099
Company: Stone Energy
Lease/Well: Mills Wetzel 6H
Location: Jacksonburg
Rig Name: Saxon 141
RKB: 18
G.L. or M.S.L.: 1331

State/Country: West Virginia
Declination: -8.52
Grid: -7.77
File name: D:\WINSERVE\STONEJ~1\MW#6H.SVY
Date/Time: 20-May-12 / 22:28
Curve Name: MW#6H As Drilled

103-02722

Scientific Drilling

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 145.35
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	.81	108.85	108.00	-.25	.72	.61	.76	108.85	.75
208.00	.46	109.62	207.99	-.61	1.77	1.51	1.87	109.01	.35
308.00	.11	112.89	307.99	-.78	2.24	1.91	2.37	109.27	.35
408.00	.17	141.62	407.99	-.94	2.42	2.14	2.59	111.16	.09
508.00	.24	163.88	507.99	-1.25	2.57	2.49	2.86	116.02	.10
608.00	.50	57.43	607.99	-1.22	2.99	2.70	3.23	112.17	.61
708.00	.34	11.12	707.98	-.69	3.42	2.51	3.49	101.47	.36
808.00	.23	112.45	807.98	-.48	3.66	2.48	3.69	97.45	.45
908.00	.22	93.47	907.98	-.57	4.04	2.76	4.08	98.00	.07
1008.00	.13	41.02	1007.98	-.49	4.30	2.85	4.33	96.54	.17
1108.00	.18	33.73	1107.98	-.28	4.47	2.77	4.47	93.55	.05
1208.00	.09	323.91	1207.98	-.08	4.51	2.63	4.51	91.05	.17
1308.00	.06	142.30	1307.98	-.06	4.49	2.60	4.49	90.78	.15
1408.00	.17	117.12	1407.98	-.17	4.66	2.79	4.66	92.09	.12
1508.00	.19	143.48	1507.98	-.37	4.89	3.08	4.90	94.34	.08
1608.00	.22	121.81	1607.98	-.61	5.15	3.43	5.18	96.70	.08
1708.00	.07	78.87	1707.98	-.69	5.37	3.63	5.42	97.37	.18
1808.00	.12	302.56	1807.98	-.63	5.34	3.55	5.38	96.69	.18
1908.00	.08	259.01	1907.98	-.58	5.19	3.43	5.22	96.42	.08
2008.00	.16	9.05	2007.98	-.46	5.14	3.30	5.16	95.10	.20
2108.00	.28	61.67	2107.98	-.20	5.38	3.23	5.38	92.18	.22
2208.00	.29	62.10	2207.98	.03	5.82	3.28	5.82	89.71	.01
2308.00	.41	112.49	2307.98	.01	6.37	3.61	6.37	89.90	.32
2408.00	.52	79.58	2407.97	-.04	7.15	4.10	7.15	90.35	.28
2508.00	.54	109.10	2507.97	-.12	8.04	4.67	8.04	90.83	.27
2608.00	.52	107.25	2607.96	-.40	8.92	5.40	8.93	92.60	.03
2708.00	.80	116.83	2707.96	-.85	9.97	6.37	10.01	94.90	.30
2808.00	.89	121.12	2807.95	-1.57	11.26	7.69	11.37	97.94	.11

01/10/2014

103-02722

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
3008.00	4.06	303.83	3007.76	-1.00	4.49	3.38	4.60	102.61	2.94
3108.00	6.90	335.34	3107.31	6.43	-.96	-5.83	6.50	351.50	4.04
3208.00	7.10	357.95	3206.59	18.07	-3.69	-16.96	18.44	348.46	2.74
3308.00	6.69	20.10	3305.88	29.71	-1.91	-25.53	29.78	356.33	2.67
3408.00	8.66	30.40	3404.98	41.68	3.90	-32.07	41.86	5.35	2.40
3508.00	10.18	36.22	3503.64	55.30	12.94	-38.14	56.80	13.17	1.79
3608.00	9.96	34.53	3602.10	69.56	23.06	-44.11	73.28	18.34	.37
3708.00	10.79	33.88	3700.46	84.45	33.18	-50.61	90.74	21.45	.84
3808.00	10.98	40.53	3798.66	99.46	44.59	-56.47	109.00	24.15	1.27
3908.00	10.66	40.57	3896.89	113.73	56.79	-61.27	127.12	26.54	.32
4008.00	11.03	40.30	3995.10	128.05	68.99	-66.11	145.45	28.32	.37
4108.00	10.67	39.67	4093.31	142.47	81.09	-71.10	163.93	29.65	.38
4208.00	10.87	33.71	4191.55	157.44	92.24	-77.08	182.47	30.36	1.13
4308.00	10.40	32.40	4289.84	172.91	102.30	-84.07	200.90	30.61	.53
4408.00	9.39	33.18	4388.35	187.35	111.61	-90.67	218.08	30.78	1.02
4508.00	8.96	32.86	4487.07	200.72	120.30	-96.73	234.01	30.93	.43
4608.00	9.37	32.35	4585.79	214.14	128.88	-102.89	249.93	31.04	.42
4708.00	6.74	32.49	4684.80	225.97	136.39	-108.35	263.94	31.11	2.63
4808.00	5.69	33.38	4784.21	235.06	142.27	-112.48	274.76	31.18	1.05
4908.00	5.21	32.47	4883.75	243.03	147.43	-116.10	284.25	31.24	.49
5008.00	4.04	25.55	4983.43	250.04	151.39	-119.62	292.30	31.19	1.29
5108.00	3.24	8.80	5083.23	256.01	153.34	-123.42	298.42	30.92	1.32
5208.00	.50	35.52	5183.17	259.16	154.03	-125.62	301.47	30.72	2.80
5308.00	.61	151.32	5283.16	259.05	154.53	-125.24	301.64	30.82	.94
5408.00	.41	114.08	5383.16	258.43	155.12	-124.40	301.41	30.97	.38
5508.00	.51	117.38	5483.16	258.08	155.84	-123.71	301.48	31.12	.10
5608.00	.20	116.51	5583.15	257.80	156.39	-123.16	301.53	31.24	.31
5708.00	.42	140.90	5683.15	257.44	156.78	-122.64	301.42	31.34	.25
5808.00	.91	134.49	5783.15	256.60	157.57	-121.50	301.12	31.55	.49
5908.00	1.23	135.31	5883.13	255.28	158.90	-119.66	300.69	31.90	.32
6008.00	1.54	142.62	5983.10	253.45	160.47	-117.26	299.97	32.34	.36
6050.62	1.86	143.11	6025.70	252.44	161.23	-116.00	299.53	32.57	.75
6110.00	1.88	142.03	6085.05	250.90	162.41	-114.06	298.88	32.91	.07
6173.00	1.58	144.36	6148.02	249.38	163.55	-112.16	298.23	33.26	.49
6205.00	1.25	141.10	6180.01	248.75	164.03	-111.37	297.96	33.40	1.06
6237.00	2.37	139.45	6211.99	247.97	164.67	-110.37	297.67	33.59	3.50
6269.00	4.51	137.55	6243.93	246.54	165.95	-108.46	297.19	33.95	6.70
6300.00	6.25	136.86	6274.80	244.41	167.93	-105.58	296.54	34.49	5.62
6331.00	7.67	138.34	6305.57	241.64	170.46	-101.86	295.71	35.20	4.62
6363.00	8.72	139.68	6337.24	238.19	173.45	-97.33	294.65	36.06	3.38
6395.00	9.90	139.88	6368.82	234.24	176.79	-92.18	293.47	37.04	3.69
6427.00	11.39	141.37	6400.27	229.67	180.54	-86.29	292.13	38.17	4.73
Bottom Line CK.									
6459.00	13.10	146.22	6431.54	224.18	184.53	-79.51	290.36	39.46	6.23
6491.00	14.61	148.92	6462.61	217.71	188.63	-71.85	288.06	40.91	5.13
6522.00	16.13	149.03	6492.50	210.67	192.86	-63.65	285.62	42.47	4.90
6554.00	17.52	150.19	6523.13	202.68	197.54	-54.42	283.02	44.26	4.47
6585.00	18.97	152.98	6552.57	194.14	202.15	-44.77	280.28	46.16	5.46
6617.00	19.85	154.58	6582.75	184.60	206.85	-34.25	277.24	48.25	3.21
6649.00	22.13	156.39	6612.62	174.17	211.59	-22.97	274.06	50.54	7.41

103-02722

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
6681.00	24.70	157.39	6641.99	162.47	216.58	-10.52	270.75	53.12	8.13
6712.00	27.31	157.87	6669.84	149.90	221.75	2.76	267.66	55.94	8.45
6744.00	27.86	157.51	6698.21	136.19	227.37	17.24	265.04	59.08	1.80
6776.00	28.42	157.58	6726.42	122.25	233.14	31.99	263.25	62.33	1.75
Bottom Line CK.									
6808.00	30.16	158.76	6754.33	107.71	238.96	47.25	262.11	65.74	5.73
6839.00	32.22	159.69	6780.85	92.70	244.65	62.83	261.62	69.25	6.82
6870.00	33.49	160.23	6806.89	76.90	250.41	79.11	261.95	72.93	4.20
6902.00	35.02	161.16	6833.34	59.90	256.36	96.48	263.27	76.85	5.05
6934.00	36.59	161.02	6859.29	42.19	262.43	114.49	265.80	80.87	4.91
6966.00	38.49	160.50	6884.66	23.79	268.85	133.29	269.90	84.94	6.02
6997.00	40.38	159.66	6908.61	5.28	275.56	152.34	275.62	88.90	6.33
7029.00	42.03	159.93	6932.68	-14.51	282.84	172.75	283.22	92.94	5.19
7061.00	43.63	159.08	6956.15	-34.88	290.46	193.84	292.55	96.85	5.32
7093.00	45.64	158.82	6978.92	-55.86	298.54	215.69	303.72	100.60	6.31
7124.00	47.43	157.78	7000.24	-76.77	306.86	237.62	316.32	104.05	6.27
7155.00	49.07	157.15	7020.88	-98.13	315.72	260.23	330.62	107.27	5.50
Bottom Line CK.									
7187.00	50.70	157.03	7041.50	-120.67	325.25	284.19	346.91	110.35	5.10
7219.00	52.28	156.98	7061.43	-143.72	335.03	308.71	364.56	113.22	4.94
7251.00	53.80	156.94	7080.67	-167.25	345.04	333.76	383.44	115.86	4.75
7282.00	55.70	157.06	7098.56	-190.55	354.93	358.55	402.85	118.23	6.14
7314.00	57.60	157.28	7116.15	-215.18	365.30	384.72	423.97	120.50	5.97
7346.00	58.92	157.40	7132.98	-240.30	375.79	411.34	446.05	122.60	4.14
7378.00	60.67	158.09	7149.08	-265.89	386.26	438.34	468.93	124.54	5.78
7410.00	62.67	158.07	7164.27	-292.02	396.77	465.82	492.65	126.35	6.25
7442.00	64.42	157.47	7178.52	-318.54	407.61	493.80	517.31	128.01	5.72
7474.00	64.87	157.57	7192.22	-345.26	418.67	522.06	542.67	129.51	1.43
7505.00	66.36	158.13	7205.02	-371.41	429.31	549.63	567.67	130.86	5.08
7537.00	68.69	157.42	7217.25	-398.78	440.50	578.50	594.19	132.15	7.56
7569.00	71.23	156.62	7228.22	-426.45	452.24	607.94	621.59	133.32	8.28
7601.00	73.08	156.47	7238.03	-454.39	464.36	637.82	649.70	134.38	5.80
7633.00	74.87	156.12	7246.86	-482.56	476.72	668.02	678.33	135.35	5.69
7665.00	76.39	155.18	7254.80	-510.79	489.51	698.51	707.48	136.22	5.54
7697.00	77.16	154.68	7262.12	-539.01	502.70	729.23	737.05	137.00	2.85
Checked Bottom Line									
7729.00	78.71	154.21	7268.81	-567.24	516.20	760.13	766.96	137.70	5.05
7760.00	80.92	154.35	7274.29	-594.73	529.44	790.27	796.25	138.32	7.14
7792.00	81.69	153.09	7279.13	-623.09	543.45	821.56	826.79	138.91	4.58
7824.00	83.24	152.73	7283.32	-651.33	557.90	853.01	857.60	139.42	4.97
7856.00	84.89	152.81	7286.63	-679.63	572.46	884.57	888.60	139.89	5.16
7888.00	86.57	152.52	7289.02	-707.98	587.11	916.22	919.75	140.33	5.33
7920.00	87.55	151.55	7290.66	-736.21	602.10	947.96	951.06	140.72	4.31
7951.00	87.82	151.80	7291.91	-763.47	616.79	978.75	981.49	141.07	1.19
7983.00	88.15	152.35	7293.03	-791.73	631.77	1010.51	1012.90	141.41	2.00
8015.00	88.15	151.52	7294.07	-819.95	646.82	1042.28	1044.36	141.73	2.59
8079.00	88.02	147.62	7296.21	-875.09	679.21	1106.06	1107.75	142.18	6.09
8142.00	87.65	146.94	7298.59	-928.06	713.24	1168.98	1170.47	142.46	1.23
8206.00	87.55	145.88	7301.27	-981.32	748.61	1232.91	1234.27	142.66	1.66
8269.00	87.35	146.54	7304.07	-1033.63	783.62	1295.84	1297.09	142.83	1.09

01/10/2014

103-02722-

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
8333.00	88.73	146.00	7306.26	-1086.82	819.13	1359.79	1360.94	142.99	2.32
8397.00	89.40	146.15	7307.30	-1139.92	854.85	1423.78	1424.84	143.13	1.07
8460.00	90.13	145.74	7307.56	-1192.12	890.13	1486.77	1487.77	143.25	1.33
8524.00	90.37	146.54	7307.28	-1245.26	925.78	1550.77	1551.69	143.37	1.31
8588.00	89.50	145.39	7307.36	-1298.30	961.60	1614.76	1615.63	143.47	2.25
Bottom Line CK.									
8651.00	88.99	145.69	7308.19	-1350.24	997.25	1677.75	1678.58	143.55	.94
8715.00	88.62	146.43	7309.52	-1403.32	1032.97	1741.74	1742.51	143.64	1.29
8779.00	89.00	146.37	7310.85	-1456.61	1068.38	1805.71	1806.42	143.74	.60
8842.00	89.60	145.94	7311.62	-1508.93	1103.47	1868.70	1869.36	143.82	1.17
8906.00	87.75	145.76	7313.10	-1561.88	1139.38	1932.68	1933.31	143.89	2.90
8969.00	88.45	146.08	7315.19	-1614.03	1174.66	1995.64	1996.23	143.95	1.22
9032.00	89.46	147.94	7316.34	-1666.86	1208.96	2058.60	2059.13	144.05	3.36
9095.00	90.10	149.70	7316.58	-1720.76	1241.57	2121.48	2121.92	144.19	2.97
9159.00	90.13	148.71	7316.45	-1775.74	1274.34	2185.33	2185.68	144.34	1.55
9223.00	90.97	147.56	7315.84	-1830.09	1308.12	2249.25	2249.54	144.44	2.23
9286.00	91.24	148.47	7314.62	-1883.51	1341.49	2312.17	2312.40	144.54	1.51
9350.00	90.70	148.69	7313.54	-1938.12	1374.85	2376.06	2376.24	144.65	.91
9414.00	90.47	148.61	7312.88	-1992.77	1408.14	2439.95	2440.08	144.75	.38
9477.00	88.59	148.04	7313.40	-2046.38	1441.22	2502.86	2502.96	144.84	3.12
9540.00	87.95	147.43	7315.30	-2099.63	1474.84	2565.78	2565.85	144.91	1.40
9604.00	88.49	147.48	7317.29	-2153.56	1509.25	2629.70	2629.76	144.98	.85
9667.00	89.09	146.72	7318.62	-2206.44	1543.46	2692.66	2692.70	145.03	1.54
9731.00	89.97	146.41	7319.15	-2259.85	1578.72	2756.64	2756.68	145.06	1.46
9795.00	90.20	146.21	7319.05	-2313.10	1614.22	2820.63	2820.66	145.09	.48
9858.00	89.70	145.38	7319.11	-2365.20	1649.64	2883.63	2883.66	145.11	1.54
9922.00	90.27	145.32	7319.12	-2417.85	1686.03	2947.63	2947.66	145.11	.90
9986.00	90.13	145.20	7318.90	-2470.44	1722.50	3011.63	3011.66	145.11	.29
10049.00	89.93	145.07	7318.87	-2522.13	1758.51	3074.63	3074.66	145.11	.38
10113.00	90.30	144.99	7318.74	-2574.58	1795.19	3138.63	3138.66	145.11	.59
10177.00	90.07	144.33	7318.53	-2626.78	1832.21	3202.62	3202.65	145.10	1.09
10240.00	89.77	146.36	7318.62	-2678.60	1868.03	3265.62	3265.65	145.11	3.26
10304.00	90.50	147.45	7318.47	-2732.22	1902.98	3329.59	3329.62	145.14	2.05
10368.00	90.54	147.38	7317.89	-2786.14	1937.44	3393.55	3393.56	145.19	.13
10431.00	89.77	147.33	7317.72	-2839.19	1971.43	3456.51	3456.52	145.23	1.22
10494.00	90.20	147.69	7317.73	-2892.33	2005.27	3519.47	3519.47	145.27	.89
10558.00	90.03	148.39	7317.61	-2946.63	2039.15	3583.39	3583.40	145.32	1.13
10622.00	90.34	149.28	7317.40	-3001.39	2072.27	3647.28	3647.28	145.38	1.47
Bottom Line CK.									
10686.00	90.00	147.40	7317.21	-3055.86	2105.86	3711.19	3711.19	145.43	2.99
10750.00	89.26	146.96	7317.62	-3109.64	2140.54	3775.15	3775.16	145.46	1.35
10813.00	89.90	147.36	7318.08	-3162.57	2174.71	3838.12	3838.13	145.49	1.20
10877.00	90.54	147.52	7317.84	-3216.51	2209.15	3902.07	3902.09	145.52	1.03
10941.00	89.13	147.64	7318.02	-3270.54	2243.46	3966.02	3966.05	145.55	2.21
11004.00	89.63	147.63	7318.70	-3323.75	2277.18	4028.97	4029.00	145.58	.79
11068.00	89.09	147.37	7319.42	-3377.72	2311.57	4092.92	4092.96	145.61	.94
11132.00	89.83	147.94	7320.02	-3431.79	2345.81	4156.86	4156.92	145.65	1.46
11195.00	89.46	148.20	7320.41	-3485.26	2379.13	4219.79	4219.86	145.68	.72
11259.00	90.23	148.57	7320.59	-3539.76	2412.67	4283.70	4283.79	145.72	1.33
11323.00	89.90	148.58	7320.51	-3594.37	2446.04	4347.60	4347.71	145.76	.52

103.02722

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
11385.00	89.66	147.48	7320.75	-3646.96	2478.87	4409.53	4409.66	145.80	1.82
11449.00	89.87	147.54	7321.01	-3700.95	2513.25	4473.48	4473.64	145.82	.34
11513.00	88.42	148.55	7321.97	-3755.24	2547.11	4537.40	4537.58	145.85	2.76
11576.00	87.82	148.45	7324.04	-3808.93	2580.01	4600.28	4600.48	145.89	.97
Bottom Line									
11640.00	88.22	148.23	7326.25	-3863.37	2613.59	4664.15	4664.38	145.92	.71
Proj. to Bit									
11699.00	88.22	148.23	7328.08	-3913.51	2644.63	4723.05	4723.31	145.95	.00

01/10/2014