

103-02843

Job Number: 23D0313075  
 Company: Stone Energy  
 Lease/Well: Bowyers 7H  
 Location: New Martinsville  
 Rig Name: Saxon 141  
 RKB: 18  
 G.L. or M.S.L.: 1156

State/Country: West Virginia  
 Declination: -8.45  
 Grid: North  
 File name: D:\WINSERVE\STONEJ-11BOW7H.SVY  
 Date/Time: 10-Mar-13 / 01:15  
 Curve Name: Bowyer 7H as drilled

Scientific Drilling

WINSERVE SURVEY CALCULATIONS  
 Minimum Curvature Method  
 Vertical Section Plane 293.45  
 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    Direction Deg		Dogleg Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
108.00	.39	119.92	108.00	-.18	.32	-.37	.37	119.92	.36
208.00	.18	133.01	208.00	-.46	.73	-.85	.86	122.29	.22
308.00	.08	231.30	308.00	-.61	.79	-.97	1.00	127.76	.21
408.00	.06	265.71	408.00	-.66	.68	-.89	.95	134.00	.05
508.00	.03	324.90	508.00	-.64	.61	-.82	.89	136.20	.05
608.00	.04	239.05	608.00	-.64	.57	-.78	.86	138.21	.05
708.00	.08	129.42	708.00	-.70	.59	-.82	.92	139.69	.10
808.00	.03	121.59	808.00	-.76	.67	-.92	1.01	138.52	.05
908.00	.07	129.17	908.00	-.81	.74	-1.00	1.10	137.60	.04
1008.00	.05	13.38	1008.00	-.81	.80	-1.05	1.13	135.33	.10
1108.00	.10	67.33	1108.00	-.73	.89	-1.11	1.15	129.44	.08
1208.00	.44	48.46	1208.00	-.44	1.26	-1.33	1.33	109.39	.35
1308.00	.39	49.51	1307.99	.03	1.80	-1.64	1.80	88.93	.05
1408.00	.37	22.38	1407.99	.55	2.18	-1.78	2.25	75.79	.18
1508.00	.41	19.58	1507.99	1.19	2.43	-1.75	2.70	63.90	.04
1608.00	.47	7.16	1607.99	1.93	2.60	-1.61	3.24	53.35	.11
1708.00	.46	40.64	1707.98	2.64	2.91	-1.62	3.93	47.74	.27
1808.00	.41	45.45	1807.98	3.20	3.43	-1.87	4.69	46.96	.06
1908.00	.39	35.92	1907.98	3.73	3.88	-2.08	5.38	46.16	.07
2008.00	.43	42.85	2007.98	4.28	4.34	-2.28	6.09	45.39	.06
2108.00	.53	57.41	2107.97	4.80	4.98	-2.66	6.92	46.05	.16
2208.00	.64	65.11	2207.97	5.29	5.88	-3.29	7.90	48.03	.13
2308.00	.50	35.33	2307.96	5.88	6.64	-3.75	8.86	48.47	.32
2408.00	.99	149.33	2407.96	5.49	7.33	-4.54	9.16	53.17	1.28
2508.00	1.09	155.09	2507.94	3.88	8.17	-5.95	9.05	64.58	.14
2608.00	1.31	164.92	2607.92	1.92	8.87	-7.37	9.07	77.80	.30
2708.00	1.54	176.70	2707.89	-.53	9.24	-8.69	9.26	93.27	.37
2808.00	1.77	193.94	2807.85	-3.37	8.95	-9.55	9.56	110.63	.55
2908.00	1.77	197.87	2907.80	-6.34	8.10	-9.96	10.29	128.03	.12

103.02843

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth				CLOSURE		Dogleg Severity Deg/100
				N-S FT	E-W FT	Vertical Section FT	Distance FT	Direction Deg	
3008.00	1.66	199.73	3007.75	-9.17	7.14	-10.20	11.62	142.10	.12
3108.00	1.59	195.87	3107.71	-11.87	6.27	-10.48	13.42	152.15	.13
3208.00	1.43	184.15	3207.68	-14.45	5.80	-11.07	15.57	158.12	.35
3308.00	1.47	186.78	3307.65	-16.97	5.56	-11.85	17.85	161.85	.08
3408.00	1.86	185.58	3407.60	-19.85	5.25	-12.72	20.54	165.19	.39
3508.00	1.93	186.71	3507.55	-23.14	4.90	-13.70	23.65	168.05	.08
3608.00	1.65	184.10	3607.50	-26.25	4.60	-14.66	26.65	170.07	.29
3708.00	1.96	180.04	3707.45	-29.40	4.49	-15.82	29.74	171.31	.34
3808.00	2.34	188.98	3807.38	-33.12	4.17	-17.01	33.38	172.82	.51
3908.00	2.99	190.73	3907.27	-37.70	3.37	-18.09	37.85	174.89	.65
4008.00	3.05	190.37	4007.13	-42.88	2.40	-19.27	42.95	176.79	.06
4108.00	3.31	188.79	4106.98	-48.35	1.48	-20.60	48.37	178.24	.27
4208.00	3.98	192.53	4206.78	-54.59	.29	-21.99	54.59	179.70	.71
4308.00	4.51	196.44	4306.50	-61.75	-1.58	-23.13	61.77	181.46	.60
4408.00	4.72	198.22	4406.18	-69.43	-3.98	-23.98	69.54	183.28	.25
4508.00	5.32	194.00	4505.79	-77.84	-6.38	-25.12	78.10	184.69	.70
4608.00	5.51	191.76	4605.35	-87.03	-8.48	-26.85	87.45	185.57	.28
4757.57	5.92	191.35	4754.17	-101.63	-11.46	-29.92	102.27	186.44	.28
4782.00	5.72	187.41	4778.48	-104.07	-11.87	-30.53	104.74	186.51	1.83
4813.00	6.20	185.94	4809.31	-107.27	-12.24	-31.46	107.96	186.51	1.62
4845.00	6.71	184.78	4841.11	-110.85	-12.58	-32.57	111.56	186.47	1.64
4877.00	7.10	184.58	4872.88	-114.68	-12.89	-33.81	115.40	186.41	1.22
4909.00	6.95	185.13	4904.64	-118.58	-13.22	-35.06	119.32	186.36	.51
4940.00	6.76	186.18	4935.41	-122.26	-13.59	-36.19	123.02	186.34	.73
4972.00	6.90	187.01	4967.19	-126.04	-14.02	-37.29	126.82	186.35	.54
5003.00	7.34	187.70	4997.95	-129.85	-14.52	-38.36	130.66	186.38	1.45
5035.00	7.47	186.87	5029.68	-133.95	-15.04	-39.51	134.79	186.41	.53
5066.00	7.29	183.03	5060.42	-137.91	-15.38	-40.77	138.77	186.36	1.69
5098.00	7.25	178.21	5092.17	-141.96	-15.43	-42.34	142.79	186.20	1.91
5130.00	8.11	176.21	5123.88	-146.23	-15.22	-44.23	147.02	185.94	2.81
5162.00	8.92	175.28	5155.53	-150.95	-14.86	-46.44	151.68	185.62	2.57
5194.00	9.14	173.85	5187.13	-155.95	-14.39	-48.86	156.61	185.27	.98
5225.00	9.27	175.94	5217.73	-160.89	-13.94	-51.23	161.49	184.95	1.16
5257.00	9.78	181.33	5249.29	-166.18	-13.83	-53.45	166.75	184.76	3.21
5289.00	9.93	185.79	5280.82	-171.64	-14.17	-55.31	172.22	184.72	2.43
5321.00	9.67	185.75	5312.35	-177.06	-14.71	-56.96	177.67	184.75	.81
5352.00	9.28	187.55	5342.93	-182.13	-15.30	-58.44	182.77	184.80	1.58
5382.00	8.87	186.95	5372.55	-186.82	-15.90	-59.76	187.50	184.87	1.40
5413.00	8.77	185.67	5403.19	-191.55	-16.42	-61.16	192.25	184.90	.71
5445.00	8.68	185.38	5434.82	-196.38	-16.89	-62.65	197.10	184.92	.31
5477.00	8.73	185.78	5466.45	-201.20	-17.36	-64.14	201.94	184.93	.25
5509.00	8.61	184.88	5498.08	-206.00	-17.81	-65.64	206.77	184.94	.57
5540.00	8.66	189.02	5528.73	-210.62	-18.37	-66.96	211.42	184.99	2.01
5572.00	9.70	201.84	5560.32	-215.50	-19.75	-67.63	216.40	185.24	7.15
5604.00	11.05	212.30	5591.80	-220.59	-22.40	-67.24	221.73	185.80	7.23
5636.00	12.10	220.39	5623.15	-225.74	-26.21	-65.79	227.26	186.62	6.03
5668.00	13.21	230.24	5654.38	-230.64	-31.19	-63.16	232.74	187.70	7.57
5699.00	14.42	236.51	5684.48	-235.03	-37.14	-59.46	237.95	188.98	6.20
5731.00	15.74	245.44	5715.39	-239.03	-44.41	-54.38	243.12	190.52	8.34
5763.00	16.03	255.20	5746.17	-241.97	-52.63	-48.01	247.62	192.27	8.39

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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	
5794.00	16.30	266.57	5775.95	-243.32	-61.11	-40.76	250.88	194.10	10.23
5826.00	17.27	274.99	5806.59	-243.18	-70.33	-32.25	253.14	196.13	8.17
5858.00	18.95	277.66	5837.01	-242.07	-80.21	-22.75	255.01	198.33	5.85
5889.00	20.93	280.75	5866.15	-240.37	-90.64	-12.50	256.89	200.66	7.23
5921.00	23.00	284.31	5895.82	-237.76	-102.32	-.75	258.84	203.28	7.69
5952.00	24.97	285.56	5924.15	-234.50	-114.49	11.71	260.96	206.02	6.56
5984.00	26.90	285.49	5952.92	-230.76	-127.97	25.57	263.87	209.01	6.03
6015.00	29.02	284.21	5980.30	-227.04	-142.02	39.94	267.80	212.03	7.11
6047.00	31.37	283.82	6007.96	-223.14	-157.64	55.82	273.21	215.24	7.37
6079.00	34.29	285.03	6034.85	-218.81	-174.43	72.95	279.83	218.56	9.35
6110.00	36.91	286.10	6060.05	-213.97	-191.81	90.82	287.36	221.87	8.69
6142.00	40.31	287.18	6085.05	-208.24	-210.94	110.65	296.41	225.37	10.83
6174.00	42.45	288.56	6109.06	-201.75	-231.07	131.70	306.75	228.88	7.27
6205.00	44.32	289.47	6131.59	-194.81	-251.20	152.93	317.89	232.21	6.36
6237.00	46.17	289.88	6154.12	-187.16	-272.60	175.60	330.66	235.53	5.85
6268.00	48.86	290.66	6175.05	-179.23	-294.04	198.43	344.36	238.64	8.87
6300.00	52.14	290.48	6195.41	-170.56	-317.15	223.08	360.11	241.73	10.26
6332.00	54.64	291.29	6214.49	-161.40	-341.15	248.74	377.40	244.68	8.07
6363.00	56.51	292.69	6232.01	-151.82	-364.86	274.30	395.18	247.41	7.09
6395.00	58.22	293.77	6249.27	-141.19	-389.62	301.25	414.41	250.08	6.05
6427.00	59.67	295.41	6265.78	-129.78	-414.54	328.65	434.38	252.62	6.31
6458.00	61.16	296.13	6281.08	-118.06	-438.82	355.59	454.42	254.94	5.21
6490.00	64.05	297.48	6295.81	-105.25	-464.17	383.95	475.95	257.22	9.78
6522.00	66.15	298.67	6309.28	-91.59	-489.78	412.88	498.27	259.41	7.38
6553.00	69.23	298.59	6321.05	-77.85	-514.95	441.44	520.80	261.40	9.94
6584.00	70.92	299.88	6331.61	-63.61	-540.38	470.43	544.11	263.29	6.71
6616.00	72.70	301.09	6341.60	-48.19	-566.57	500.60	568.62	265.14	6.62
6648.00	74.66	302.21	6350.59	-32.08	-592.71	530.99	593.58	266.90	6.99
6680.00	77.89	303.28	6358.18	-15.26	-618.85	561.67	619.04	268.59	10.60
6712.00	81.67	303.78	6363.86	2.13	-645.10	592.67	645.10	270.19	11.91
6744.00	86.16	303.69	6367.25	19.80	-671.55	623.97	671.85	271.69	14.03
6806.00	90.98	302.01	6368.80	53.41	-723.61	685.10	725.58	274.22	8.23
6870.00	90.67	300.83	6367.88	86.77	-778.22	748.47	783.04	276.36	1.91
6933.00	90.13	299.97	6367.44	118.65	-832.55	811.00	840.96	278.11	1.61
6997.00	90.57	299.52	6367.05	150.40	-888.12	874.62	900.76	279.61	.98
7060.00	90.54	299.82	6366.44	181.58	-942.86	937.24	960.18	280.90	.48
7122.00	91.01	299.01	6365.60	212.03	-996.86	998.90	1019.16	282.01	1.51
7186.00	90.37	299.02	6364.83	243.07	-1052.82	1062.59	1080.52	283.00	1.00
7249.00	90.44	298.40	6364.38	273.33	-1108.07	1125.33	1141.29	283.86	.99
7312.00	91.38	298.49	6363.38	303.34	-1163.46	1188.08	1202.35	284.61	1.50
7376.00	92.12	297.26	6361.43	333.24	-1220.01	1251.86	1264.70	285.28	2.24
7439.00	90.80	297.15	6359.82	362.04	-1276.02	1314.70	1326.38	285.84	2.10
7502.00	90.20	297.91	6359.27	391.15	-1331.88	1377.54	1388.13	286.37	1.54
7565.00	91.21	298.78	6358.50	421.06	-1387.32	1440.30	1449.81	286.88	2.12
7629.00	91.95	298.84	6356.73	451.89	-1443.38	1504.00	1512.47	287.38	1.16
7692.00	90.13	298.21	6355.59	481.97	-1498.72	1566.74	1574.31	287.83	3.06
7754.00	90.67	298.40	6355.15	511.37	-1553.31	1628.51	1635.32	288.22	.92
7818.00	89.53	299.13	6355.04	542.16	-1609.41	1692.24	1698.27	288.62	2.12
7882.00	90.81	299.51	6354.85	573.50	-1665.21	1755.90	1761.20	289.00	2.09
7945.00	91.68	299.04	6353.48	604.30	-1720.15	1818.56	1823.21	289.36	1.57

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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	
8008.00	90.13	298.39	6352.49	634.57	-1775.39	1881.28	1885.39	289.67	2.67
8071.00	90.84	298.07	6351.96	664.37	-1830.89	1944.06	1947.71	289.94	1.24
8135.00	91.38	297.57	6350.72	694.23	-1887.49	2007.86	2011.11	290.19	1.15
8198.00	90.17	297.52	6349.86	723.36	-1943.34	2070.69	2073.60	290.42	1.92
8262.00	89.09	297.92	6350.28	753.13	-1999.99	2134.51	2137.09	290.63	1.80
8326.00	90.10	297.81	6350.73	783.04	-2056.57	2198.32	2200.60	290.84	1.59
8389.00	91.21	298.40	6350.01	812.72	-2112.14	2261.11	2263.10	291.05	2.00
8452.00	91.95	297.88	6348.27	842.42	-2167.67	2323.87	2325.61	291.24	1.44
8516.00	89.80	296.77	6347.30	871.79	-2224.51	2387.71	2389.24	291.40	3.78
8579.00	90.71	297.37	6347.01	900.46	-2280.61	2450.59	2451.94	291.55	1.73
8642.00	91.34	296.14	6345.89	928.81	-2336.86	2513.47	2514.68	291.68	2.19
8706.00	89.60	296.62	6345.36	957.25	-2394.19	2577.38	2578.46	291.79	2.82
8770.00	90.37	297.06	6345.38	986.14	-2451.29	2641.27	2642.22	291.91	1.39
8833.00	91.31	296.50	6344.46	1014.53	-2507.53	2704.16	2704.99	292.03	1.74
8897.00	91.98	296.33	6342.62	1042.99	-2564.82	2768.04	2768.78	292.13	1.08
8960.00	90.44	296.92	6341.29	1071.21	-2621.13	2830.93	2831.57	292.23	2.62
9024.00	89.87	297.65	6341.12	1100.55	-2678.01	2894.79	2895.33	292.34	1.45
9088.00	90.57	297.09	6340.87	1129.97	-2734.84	2958.64	2959.09	292.45	1.40
9151.00	90.67	295.90	6340.19	1158.08	-2791.22	3021.54	3021.93	292.53	1.90
9215.00	89.87	296.97	6339.89	1186.57	-2848.53	3085.45	3085.78	292.61	2.09
9278.00	91.28	297.13	6339.25	1215.22	-2904.63	3148.32	3148.59	292.70	2.25
9342.00	91.82	296.59	6337.52	1244.12	-2961.70	3212.19	3212.40	292.79	1.19
9406.00	90.57	297.01	6336.19	1272.97	-3018.82	3276.06	3276.23	292.86	2.06
9469.00	91.04	296.48	6335.30	1301.32	-3075.07	3338.95	3339.08	292.94	1.12
9533.00	89.93	296.99	6334.76	1330.11	-3132.22	3402.84	3402.94	293.01	1.91
9596.00	90.70	296.65	6334.41	1358.53	-3188.45	3465.73	3465.80	293.08	1.34
9659.00	91.14	296.14	6333.40	1386.54	-3244.87	3528.64	3528.69	293.14	1.07
9720.00	90.20	296.04	6332.69	1413.36	-3299.65	3589.57	3589.61	293.19	1.55
Proj. To Bit									
9788.00	90.20	296.04	6332.45	1443.21	-3360.75	3657.50	3657.52	293.24	.00