

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		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.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

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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	
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

01/15/24

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	
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
6659.00	26.48	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

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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	
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

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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		
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	
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	

Checked Bottom Line

0/10

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	
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	88.05	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

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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	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

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