STONE ENERGY

Project: Mary Prospect
Site: Howell Pad
Well: Howell 6H
Wellbore: OH
Design: As Drilled

Scientific Drilling

WELL DETAILS: Howell 6H

Ground Level: 1302.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	401704.94	1635255.87	39° 35' 44.518 N	80° 47' 39.791 W

REFERENCE INFORMATION

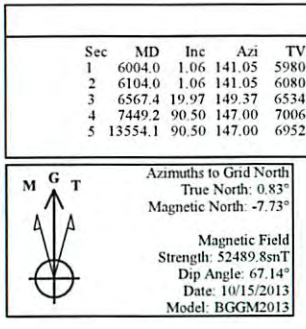
Co-ordinate (N/E) Reference: Well Howell 6H, Grid North
Vertical (TVD) Reference: GL 1302' & KB 18' @ 1320.0usft (Saxon 141)
Section (VS) Reference: Slot - (0.0N, 0.0E)
Measured Depth Reference: GL 1302' & KB 18' @ 1320.0usft (Saxon 141)
Calculation Method: Minimum Curvature

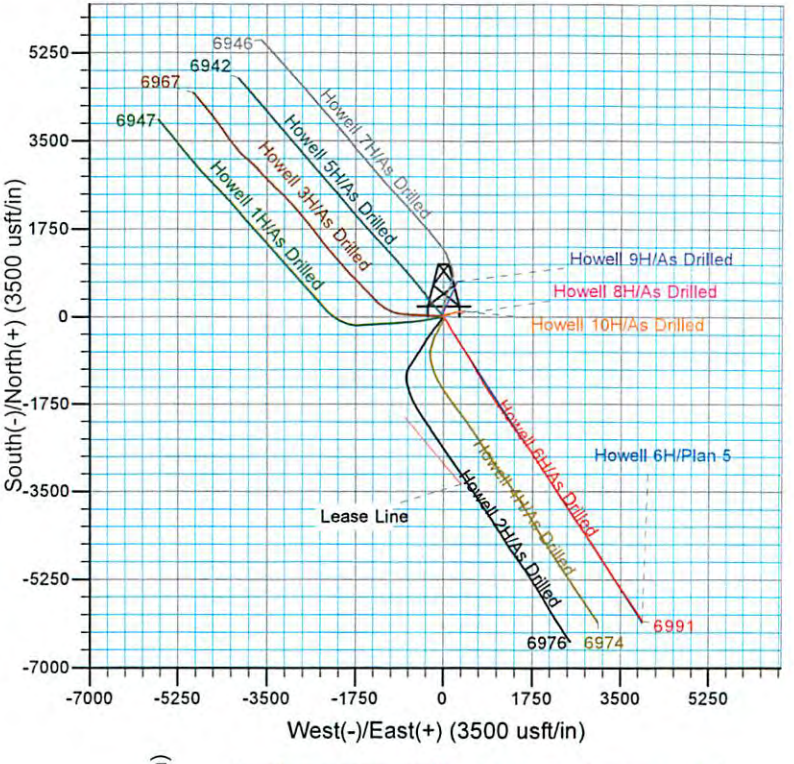
PROJECT DETAILS: Mary Prospect

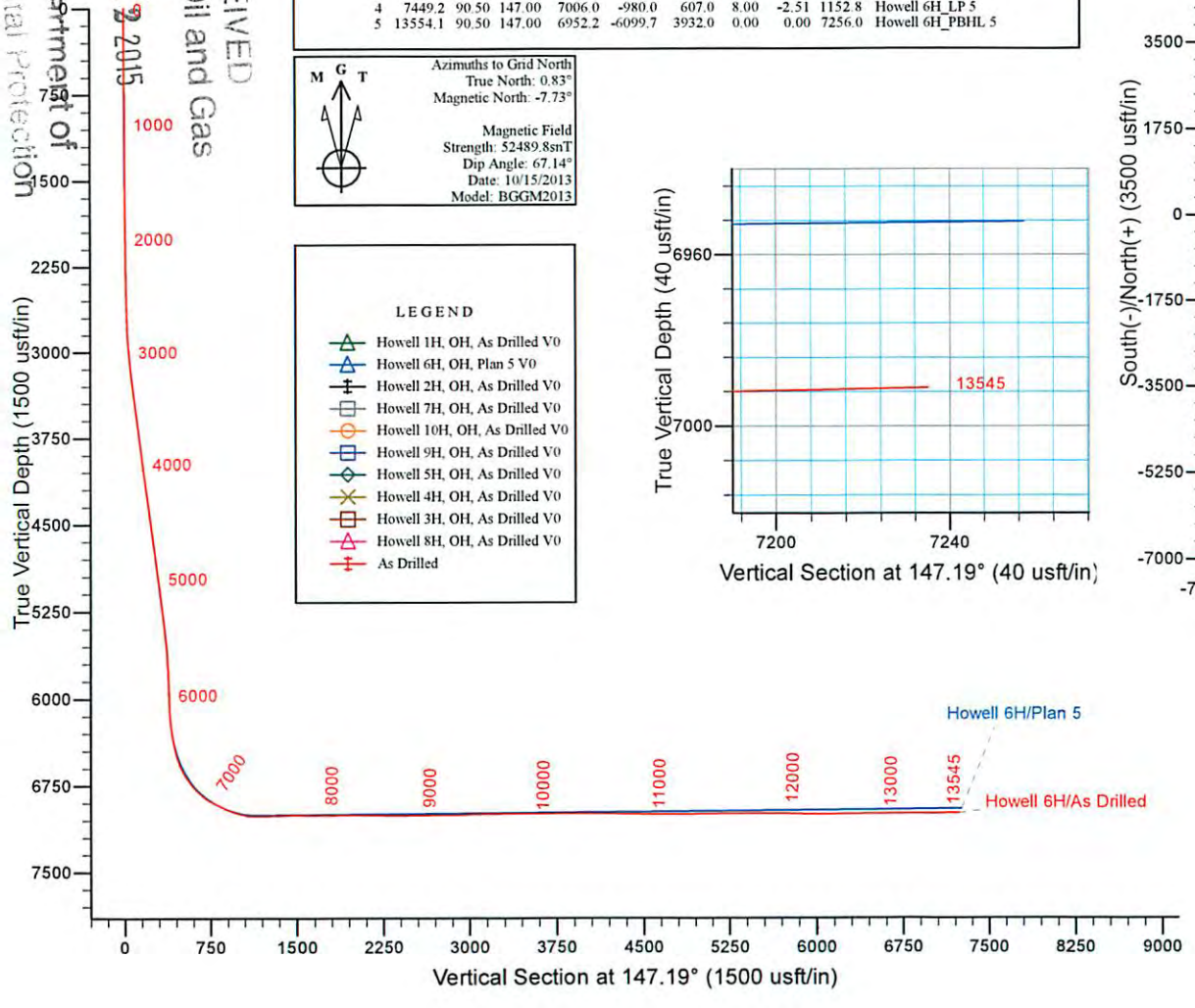
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: West Virginia North 4701
System Datum: Mean Sea Level

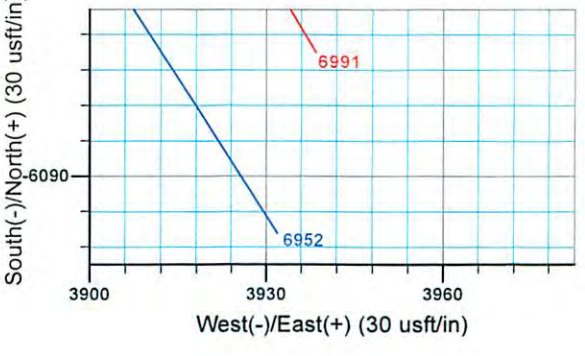
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	6004.0	1.06	141.05	5980.8	-332.7	198.3	0.00	0.00	387.3	
2	6104.0	1.06	141.05	6080.8	-334.2	199.5	0.00	0.00	389.1	
3	6567.4	19.97	149.37	6534.3	-406.3	242.9	4.08	8.76	473.3	
4	7449.2	90.50	147.00	7006.0	-980.0	607.0	8.00	-2.51	1152.8	Howell 6H_LP 5
5	13554.1	90.50	147.00	6952.2	-6099.7	3932.0	0.00	0.00	7256.0	Howell 6H_PBHL 5









Stone Energy

Mary Prospect
Howell Pad
Howell 6H

OH

Design: As Drilled

Standard Survey Report

28 October, 2013

Scientific Drilling

www.scientificdrilling.com

Survey Report

Company:	Stone Energy	**Local Co-ordinate Reference:**	Well Howell 6H
Project:	Mary Prospect	**TVD Reference:**	GL 1302' & KB 18' @ 1320.0usft (Saxon 141)
Site:	Howell Pad	**MD Reference:**	GL 1302' & KB 18' @ 1320.0usft (Saxon 141)
Well:	Howell 6H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	Northeast District

Project Mary Prospect, West Virginia

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	West Virginia North 4701		

Site Howell Pad

Site Position:		**Northing:**	401,702.68 usft	**Latitude:**	39° 35' 44.492 N
From:	Map	**Easting:**	1,635,235.83 usft	**Longitude:**	80° 47' 40.046 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	-0.83 °

Well Howell 6H

Well Position	**+N/-S**	0.0 usft	**Northing:**	401,704.94 usft	**Latitude:**	39° 35' 44.518 N
	+E/-W	0.0 usft	**Easting:**	1,635,255.87 usft	**Longitude:**	80° 47' 39.791 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	1,302.0 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/3/2013	-8.49	67.17	52,597
	IGRF2010	7/29/2013	-8.50	67.14	52,558
	BGGM2013	10/4/2013	-8.55	67.15	52,494
	BGGM2013	10/15/2013	-8.55	67.14	52,490

Design As Drilled

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	147.19

Survey Program **Date** 10/28/2013

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
18.0	2,403.0	Survey 1 - Gyro (OH)	SDI Standard Keeper 103	SDI Standard Wireline Keeper ver 1.0.3
2,458.4	13,545.0	Survey 2 - MWD (OH)	MWD SDI	MWD - Standard ver 1.0.1

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
18.0	0.00	360.00	18.0	0.0	0.0	0.0	0.00	0.00	0.00
Ground Level									
103.0	0.50	70.69	103.0	0.1	0.4	0.1	0.59	0.59	0.00
First SDI Gyro Survey									
203.0	0.14	72.15	203.0	0.3	0.9	0.2	0.36	-0.36	1.46
303.0	0.13	99.95	303.0	0.3	1.1	0.3	0.07	-0.01	27.80

Survey Report

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Site:	Howell Pad	**MD Reference:**	GL 1302' & KB 18' @ 1320.0usft (Saxon 141)
Well:	Howell 6H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	Northeast District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
403.0	0.17	97.55	403.0	0.3	1.4	0.5	0.04	0.04	-2.40
503.0	0.06	87.38	503.0	0.3	1.6	0.6	0.11	-0.11	-10.17
603.0	0.17	137.41	603.0	0.2	1.7	0.8	0.14	0.11	50.03
703.0	0.18	101.73	703.0	0.0	2.0	1.1	0.11	0.01	-35.68
803.0	0.10	114.10	803.0	0.0	2.2	1.2	0.09	-0.08	12.37
903.0	0.12	129.64	903.0	-0.2	2.4	1.4	0.04	0.02	15.54
1,003.0	0.10	159.67	1,003.0	-0.3	2.5	1.6	0.06	-0.02	30.03
1,103.0	0.06	98.94	1,103.0	-0.4	2.6	1.7	0.09	-0.04	-60.73
1,203.0	0.09	102.80	1,203.0	-0.4	2.7	1.8	0.03	0.03	3.86
1,303.0	0.11	131.08	1,303.0	-0.5	2.8	2.0	0.05	0.02	28.28
1,403.0	0.29	117.35	1,403.0	-0.7	3.1	2.3	0.18	0.18	-13.73
1,503.0	0.46	118.04	1,503.0	-1.0	3.7	2.8	0.17	0.17	0.69
1,603.0	0.38	130.26	1,603.0	-1.4	4.3	3.5	0.12	-0.08	12.22
1,703.0	0.33	147.18	1,703.0	-1.8	4.7	4.1	0.12	-0.05	16.92
1,803.0	0.37	130.25	1,803.0	-2.3	5.1	4.7	0.11	0.04	-16.93
1,903.0	0.32	135.51	1,903.0	-2.7	5.6	5.3	0.06	-0.05	5.26
2,003.0	0.36	128.69	2,003.0	-3.1	6.0	5.9	0.06	0.04	-6.82
2,103.0	0.40	142.70	2,103.0	-3.6	6.5	6.5	0.10	0.04	14.01
2,203.0	0.44	149.91	2,203.0	-4.2	6.9	7.2	0.07	0.04	7.21
2,303.0	0.45	146.36	2,303.0	-4.8	7.3	8.0	0.03	0.01	-3.55
2,403.0	0.45	142.64	2,403.0	-5.5	7.7	8.8	0.03	0.00	-3.72
Last SDI Gyro Survey									
2,458.4	0.37	130.67	2,458.4	-5.8	8.0	9.2	0.21	-0.14	-21.60
First SDI MWD Survey									
2,516.0	0.42	121.51	2,516.0	-6.0	8.3	9.6	0.14	0.09	-15.91
2,607.0	2.06	155.99	2,606.9	-7.7	9.3	11.5	1.90	1.80	37.89
2,699.0	2.44	149.00	2,698.9	-10.9	11.0	15.1	0.51	0.41	-7.60
2,793.0	2.24	147.33	2,792.8	-14.1	13.0	18.9	0.22	-0.21	-1.78
2,885.0	3.71	146.11	2,884.7	-18.1	15.6	23.7	1.60	1.60	-1.33
2,977.0	5.01	149.84	2,976.4	-24.0	19.3	30.7	1.45	1.41	4.05
3,070.0	5.36	148.26	3,069.0	-31.3	23.6	39.1	0.41	0.38	-1.70
3,163.0	6.04	146.32	3,161.5	-39.0	28.6	48.3	0.76	0.73	-2.09
3,254.0	7.13	146.12	3,251.9	-47.7	34.4	58.7	1.20	1.20	-0.22
3,347.0	7.97	152.97	3,344.1	-58.2	40.6	70.9	1.32	0.90	7.37
3,438.0	8.10	150.84	3,434.2	-69.4	46.6	83.6	0.36	0.14	-2.34
3,533.0	7.90	148.39	3,528.3	-80.8	53.2	96.8	0.42	-0.21	-2.58
3,628.0	7.58	146.32	3,622.5	-91.6	60.1	109.6	0.45	-0.34	-2.18
3,720.0	7.56	151.97	3,713.7	-102.0	66.3	121.7	0.81	-0.02	6.14
3,813.0	7.41	151.54	3,805.9	-112.7	72.1	133.8	0.17	-0.16	-0.46
3,907.0	7.67	150.21	3,899.0	-123.5	78.1	146.1	0.33	0.28	-1.41
4,000.0	7.34	148.62	3,991.3	-133.9	84.3	158.2	0.42	-0.35	-1.71
4,090.0	8.37	150.04	4,080.4	-144.5	90.5	170.5	1.16	1.14	1.58
4,183.0	8.46	149.59	4,172.4	-156.3	97.4	184.1	0.12	0.10	-0.48

Survey Report

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Site:	Howell Pad	**MD Reference:**	GL 1302' & KB 18' @ 1320.0usft (Saxon 141)
Well:	Howell 6H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	Northeast District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,274.0	7.92	146.60	4,262.5	-167.3	104.2	197.1	0.76	-0.59	-3.29
4,366.0	7.74	152.62	4,353.6	-178.1	110.5	209.6	0.91	-0.20	6.54
4,460.0	7.55	153.95	4,446.8	-189.2	116.2	222.0	0.28	-0.20	1.41
4,552.0	7.06	149.76	4,538.0	-199.5	121.7	233.6	0.79	-0.53	-4.55
4,646.0	7.78	153.45	4,631.2	-210.2	127.4	245.7	0.92	0.77	3.93
4,739.0	7.74	151.69	4,723.4	-221.4	133.2	258.2	0.26	-0.04	-1.89
4,832.0	7.12	150.92	4,815.6	-231.9	139.0	270.2	0.68	-0.67	-0.83
4,925.0	7.52	149.32	4,907.9	-242.2	144.9	282.1	0.48	0.43	-1.72
5,018.0	7.28	150.04	5,000.1	-252.5	150.9	294.0	0.28	-0.26	0.77
5,110.0	8.08	149.79	5,091.3	-263.2	157.1	306.3	0.87	0.87	-0.27
5,206.0	8.15	150.60	5,186.3	-274.9	163.8	319.8	0.14	0.07	0.84
5,300.0	7.79	150.96	5,279.4	-286.3	170.2	332.9	0.39	-0.38	0.38
5,390.0	7.68	150.54	5,368.6	-296.9	176.1	344.9	0.14	-0.12	-0.47
5,481.0	6.55	148.50	5,458.9	-306.6	181.8	356.2	1.27	-1.24	-2.24
5,573.0	4.98	150.22	5,550.4	-314.5	186.5	365.4	1.72	-1.71	1.87
5,665.0	3.69	147.45	5,642.1	-320.5	190.1	372.4	1.42	-1.40	-3.01
5,755.0	3.51	143.72	5,732.0	-325.2	193.3	378.0	0.33	-0.20	-4.14
5,849.0	2.37	149.31	5,825.8	-329.1	196.0	382.8	1.25	-1.21	5.95
5,941.0	1.35	147.22	5,917.8	-331.7	197.6	385.8	1.11	-1.11	-2.27
5,988.0	1.09	141.03	5,964.8	-332.5	198.1	386.8	0.62	-0.55	-13.17
6,052.0	0.97	141.13	6,028.8	-333.4	198.9	388.0	0.19	-0.19	0.16
6,116.0	2.23	137.68	6,092.7	-334.7	200.0	389.7	1.97	1.97	-5.39
6,180.0	5.06	143.23	6,156.6	-337.9	202.6	393.8	4.45	4.42	8.67
6,243.0	7.03	137.10	6,219.3	-343.0	206.9	400.4	3.29	3.13	-9.73
6,307.0	8.28	137.00	6,282.7	-349.2	212.7	408.7	1.95	1.95	-0.16
6,370.0	10.09	136.98	6,344.9	-356.6	219.5	418.6	2.87	2.87	-0.03
6,402.0	10.96	138.55	6,376.3	-360.9	223.5	424.4	2.86	2.72	4.91
6,434.0	11.60	140.56	6,407.7	-365.7	227.5	430.6	2.35	2.00	6.28
6,466.0	12.31	141.36	6,439.0	-370.8	231.7	437.2	2.28	2.22	2.50
6,498.0	13.89	145.58	6,470.2	-376.6	236.0	444.4	5.77	4.94	13.19
6,530.0	16.23	149.35	6,501.1	-383.7	240.4	452.7	7.92	7.31	11.78
6,561.0	18.68	151.03	6,530.7	-391.7	245.1	462.0	8.07	7.90	5.42
6,593.0	21.10	152.95	6,560.7	-401.4	250.2	472.9	7.83	7.56	6.00
6,625.0	24.03	153.03	6,590.3	-412.3	255.7	485.1	9.16	9.16	0.25
6,657.0	26.80	153.40	6,619.2	-424.6	261.9	498.7	8.67	8.66	1.16
6,689.0	29.95	152.39	6,647.3	-438.1	268.8	513.9	9.96	9.84	-3.16
6,721.0	32.43	150.78	6,674.7	-452.7	276.7	530.4	8.18	7.75	-5.03
6,752.0	35.60	150.36	6,700.4	-467.8	285.3	547.7	10.25	10.23	-1.35
6,784.0	37.66	149.88	6,726.1	-484.3	294.8	566.8	6.50	6.44	-1.50
6,816.0	40.67	149.16	6,750.9	-501.7	305.0	587.0	9.51	9.41	-2.25
6,846.0	42.58	148.45	6,773.3	-518.8	315.4	606.9	6.56	6.37	-2.37
6,876.0	45.73	147.97	6,794.8	-536.5	326.4	627.8	10.56	10.50	-1.60
6,907.0	47.81	148.64	6,816.1	-555.7	338.2	650.4	6.89	6.71	2.16
6,937.0	50.55	148.39	6,835.7	-575.1	350.1	673.0	9.16	9.13	-0.83

Survey Report

Company:	Stone Energy	**Local Co-ordinate Reference:**	Well Howell 6H
Project:	Mary Prospect	**TVD Reference:**	GL 1302' & KB 18' @ 1320.0usft (Saxon 141)
Site:	Howell Pad	**MD Reference:**	GL 1302' & KB 18' @ 1320.0usft (Saxon 141)
Well:	Howell 6H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	Northeast District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,966.0	52.81	148.65	6,853.7	-594.5	362.0	695.8	7.82	7.79	0.90
6,997.0	55.96	148.19	6,871.7	-616.0	375.2	721.0	10.23	10.16	-1.48
7,027.0	59.10	148.02	6,887.8	-637.5	388.5	746.3	10.48	10.47	-0.57
7,058.0	60.69	147.74	6,903.4	-660.2	402.8	773.1	5.19	5.13	-0.90
7,088.0	62.63	147.07	6,917.6	-682.4	417.0	799.5	6.76	6.47	-2.23
7,118.0	63.70	146.66	6,931.1	-704.8	431.6	826.3	3.77	3.57	-1.37
7,149.0	65.41	146.68	6,944.5	-728.2	447.0	854.3	5.52	5.52	0.06
7,179.0	66.82	146.95	6,956.6	-751.2	462.0	881.7	4.77	4.70	0.90
7,209.0	69.43	147.79	6,967.8	-774.6	477.1	909.5	9.08	8.70	2.80
7,240.0	71.69	148.61	6,978.1	-799.5	492.5	938.8	7.71	7.29	2.65
7,270.0	73.48	150.26	6,987.1	-824.1	507.0	967.4	7.95	5.97	5.50
7,300.0	74.42	150.46	6,995.4	-849.2	521.3	996.1	3.20	3.13	0.67
7,330.0	77.05	151.33	7,002.8	-874.6	535.4	1,025.2	9.21	8.77	2.90
7,361.0	80.26	151.71	7,008.9	-901.3	549.9	1,055.5	10.42	10.35	1.23
7,391.0	84.22	152.05	7,012.9	-927.5	563.9	1,085.1	13.25	13.20	1.13
7,421.0	88.46	152.30	7,014.8	-954.0	577.9	1,114.9	14.16	14.13	0.83
7,482.0	92.11	152.35	7,014.5	-1,008.0	606.2	1,175.6	5.98	5.98	0.08
7,543.0	92.04	151.67	7,012.3	-1,061.8	634.8	1,236.4	1.12	-0.11	-1.11
7,603.0	91.14	151.53	7,010.7	-1,114.6	663.3	1,296.2	1.52	-1.50	-0.23
7,664.0	91.07	151.58	7,009.5	-1,168.2	692.4	1,357.0	0.14	-0.11	0.08
7,728.0	90.54	151.29	7,008.6	-1,224.4	723.0	1,420.8	0.94	-0.83	-0.45
7,791.0	90.84	150.35	7,007.8	-1,279.4	753.7	1,483.7	1.57	0.48	-1.49
7,855.0	90.54	149.42	7,007.1	-1,334.7	785.8	1,547.6	1.53	-0.47	-1.45
7,918.0	90.13	148.43	7,006.7	-1,388.7	818.3	1,610.6	1.70	-0.65	-1.57
7,982.0	89.53	147.68	7,006.9	-1,443.0	852.2	1,674.6	1.50	-0.94	-1.17
8,045.0	89.16	147.38	7,007.6	-1,496.2	886.0	1,737.6	0.76	-0.59	-0.48
8,109.0	89.70	146.69	7,008.2	-1,549.8	920.8	1,801.6	1.37	0.84	-1.08
8,172.0	90.37	146.35	7,008.2	-1,602.4	955.6	1,864.6	1.19	1.06	-0.54
8,236.0	90.40	145.93	7,007.8	-1,655.5	991.2	1,928.5	0.66	0.05	-0.66
8,299.0	90.37	145.90	7,007.3	-1,707.7	1,026.5	1,991.5	0.07	-0.05	-0.05
8,363.0	90.27	145.78	7,007.0	-1,760.7	1,062.5	2,055.5	0.24	-0.16	-0.19
8,427.0	88.52	145.08	7,007.7	-1,813.4	1,098.8	2,119.5	2.94	-2.73	-1.09
8,490.0	88.09	145.01	7,009.5	-1,865.0	1,134.9	2,182.4	0.69	-0.68	-0.11
8,554.0	88.86	145.29	7,011.2	-1,917.5	1,171.4	2,246.3	1.28	1.20	0.44
8,618.0	89.16	144.70	7,012.3	-1,969.9	1,208.1	2,310.3	1.03	0.47	-0.92
8,681.0	92.01	147.88	7,011.7	-2,022.3	1,243.1	2,373.2	6.78	4.52	5.05
8,745.0	91.78	147.51	7,009.6	-2,076.3	1,277.3	2,437.2	0.68	-0.36	-0.58
8,808.0	90.57	145.74	7,008.3	-2,128.9	1,311.9	2,500.2	3.40	-1.92	-2.81
8,872.0	90.70	144.39	7,007.6	-2,181.4	1,348.6	2,564.1	2.12	0.20	-2.11
8,936.0	90.47	143.80	7,006.9	-2,233.2	1,386.1	2,628.0	0.99	-0.36	-0.92
8,999.0	91.14	144.29	7,006.0	-2,284.2	1,423.1	2,690.9	1.32	1.06	0.78
9,062.0	91.24	143.81	7,004.7	-2,335.2	1,460.2	2,753.8	1.09	0.16	-1.08
9,126.0	91.04	143.37	7,003.4	-2,386.6	1,498.2	2,817.7	0.49	-0.31	-0.38

Survey Report

Company:	Stone Energy	**Local Co-ordinate Reference:**	Well Howell 6H
Project:	Mary Prospect	**TVD Reference:**	GL 1302' & KB 18' @ 1320.0usft (Saxon 141)
Site:	Howell Pad	**MD Reference:**	GL 1302' & KB 18' @ 1320.0usft (Saxon 141)
Well:	Howell 6H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	Northeast District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,190.0	90.84	143.56	7,002.4	-2,438.0	1,536.3	2,881.5	0.43	-0.31	0.30
9,254.0	91.51	144.17	7,001.1	-2,489.7	1,574.0	2,945.4	1.42	1.05	0.95
9,317.0	91.38	144.74	6,999.5	-2,540.9	1,610.7	3,008.3	0.93	-0.21	0.90
9,381.0	91.58	145.38	6,997.8	-2,593.4	1,647.3	3,072.3	1.05	0.31	1.00
9,444.0	91.21	145.58	6,996.3	-2,645.3	1,683.0	3,135.2	0.67	-0.59	0.32
9,508.0	90.34	147.04	6,995.4	-2,698.5	1,718.5	3,199.2	2.66	-1.36	2.28
9,571.0	90.64	147.60	6,994.9	-2,751.5	1,752.5	3,262.2	1.01	0.48	0.89
9,635.0	90.03	147.02	6,994.5	-2,805.4	1,787.1	3,326.2	1.32	-0.95	-0.91
9,698.0	89.36	146.03	6,994.9	-2,857.9	1,821.8	3,389.2	1.90	-1.06	-1.57
9,762.0	89.90	145.66	6,995.3	-2,910.9	1,857.7	3,453.2	1.02	0.84	-0.58
9,824.0	90.44	144.97	6,995.1	-2,961.9	1,893.0	3,515.1	1.41	0.87	-1.11
9,887.0	90.47	146.11	6,994.6	-3,013.8	1,928.7	3,578.1	1.81	0.05	1.81
9,951.0	90.54	146.60	6,994.0	-3,067.1	1,964.1	3,642.1	0.77	0.11	0.77
10,014.0	90.60	146.81	6,993.4	-3,119.8	1,998.7	3,705.1	0.35	0.10	0.33
10,078.0	90.40	146.69	6,992.8	-3,173.3	2,033.8	3,769.1	0.36	-0.31	-0.19
10,142.0	89.83	147.20	6,992.7	-3,226.9	2,068.7	3,833.1	1.20	-0.89	0.80
10,206.0	89.77	148.01	6,992.9	-3,281.0	2,103.0	3,897.1	1.27	-0.09	1.27
10,270.0	90.77	147.55	6,992.6	-3,335.1	2,137.1	3,961.1	1.72	1.56	-0.72
10,333.0	90.27	147.53	6,992.1	-3,388.3	2,170.9	4,024.1	0.79	-0.79	-0.03
10,397.0	88.76	147.37	6,992.6	-3,442.2	2,205.4	4,088.1	2.37	-2.36	-0.25
10,460.0	88.52	147.89	6,994.1	-3,495.4	2,239.1	4,151.0	0.91	-0.38	0.83
10,524.0	89.20	148.23	6,995.4	-3,549.7	2,272.9	4,215.0	1.19	1.06	0.53
10,588.0	88.96	147.67	6,996.4	-3,603.9	2,306.9	4,279.0	0.95	-0.38	-0.88
10,651.0	88.93	147.25	6,997.6	-3,657.0	2,340.8	4,342.0	0.67	-0.05	-0.67
10,714.0	89.10	146.60	6,998.6	-3,709.8	2,375.1	4,405.0	1.07	0.27	-1.03
10,778.0	89.93	146.56	6,999.2	-3,763.2	2,410.4	4,469.0	1.30	1.30	-0.06
10,841.0	89.83	146.72	6,999.3	-3,815.9	2,445.0	4,532.0	0.30	-0.16	0.25
10,905.0	89.83	146.95	6,999.5	-3,869.4	2,480.1	4,596.0	0.36	0.00	0.36
10,969.0	90.67	147.71	6,999.2	-3,923.3	2,514.6	4,660.0	1.77	1.31	1.19
11,032.0	90.60	147.50	6,998.5	-3,976.5	2,548.3	4,723.0	0.35	-0.11	-0.33
11,095.0	90.44	147.72	6,998.0	-4,029.7	2,582.1	4,786.0	0.43	-0.25	0.35
11,159.0	90.07	146.66	6,997.7	-4,083.5	2,616.8	4,850.0	1.75	-0.58	-1.66
11,223.0	89.97	146.17	6,997.7	-4,136.8	2,652.2	4,914.0	0.78	-0.16	-0.77
11,286.0	90.91	146.58	6,997.2	-4,189.2	2,687.1	4,976.9	1.63	1.49	0.65
11,350.0	90.20	145.63	6,996.6	-4,242.4	2,722.7	5,040.9	1.85	-1.11	-1.48
11,413.0	89.63	144.55	6,996.6	-4,294.0	2,758.8	5,103.9	1.94	-0.90	-1.71
11,477.0	90.64	144.14	6,996.5	-4,346.0	2,796.1	5,167.8	1.70	1.58	-0.64
11,540.0	90.70	144.67	6,995.8	-4,397.3	2,832.8	5,230.7	0.85	0.10	0.84
11,604.0	90.74	145.44	6,995.0	-4,449.7	2,869.4	5,294.7	1.20	0.06	1.20
11,668.0	90.84	146.24	6,994.1	-4,502.7	2,905.4	5,358.6	1.26	0.16	1.25
11,731.0	89.90	147.70	6,993.7	-4,555.5	2,939.7	5,421.6	2.76	-1.49	2.32
11,795.0	90.00	148.02	6,993.7	-4,609.7	2,973.7	5,485.6	0.52	0.16	0.50
11,859.0	89.60	147.91	6,993.9	-4,664.0	3,007.6	5,549.6	0.69	-0.63	0.30

Survey Report

Company:	Stone Energy	**Local Co-ordinate Reference:**	Well Howell 6H
Project:	Mary Prospect	**TVD Reference:**	GL 1302' & KB 18' @ 1320.0usft (Saxon 141)
Site:	Howell Pad	**MD Reference:**	GL 1302' & KB 18' @ 1320.0usft (Saxon 141)
Well:	Howell 6H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	Northeast District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,923.0	89.33	148.33	6,994.5	-4,718.4	3,041.2	5,613.6	0.46	-0.42	0.19
11,986.0	89.03	148.07	6,995.4	-4,772.0	3,074.4	5,676.6	0.63	-0.48	-0.41
12,050.0	88.53	147.70	6,996.8	-4,826.2	3,108.4	5,740.6	0.97	-0.78	-0.58
12,114.0	89.30	147.82	6,998.0	-4,880.3	3,142.6	5,804.6	1.22	1.20	0.19
12,177.0	89.56	147.45	6,998.6	-4,933.5	3,176.3	5,867.6	0.72	0.41	-0.59
12,241.0	89.77	146.26	6,999.0	-4,987.1	3,211.3	5,931.6	1.89	0.33	-1.86
12,305.0	90.64	145.73	6,998.8	-5,040.2	3,247.1	5,995.5	1.59	1.36	-0.83
12,368.0	90.81	144.24	6,998.0	-5,091.7	3,283.2	6,058.5	2.38	0.27	-2.37
12,431.0	91.07	144.59	6,997.0	-5,143.0	3,319.9	6,121.4	0.69	0.41	0.56
12,495.0	91.11	145.06	6,995.7	-5,195.3	3,356.7	6,185.3	0.74	0.06	0.73
12,559.0	90.44	145.84	6,994.9	-5,248.0	3,393.0	6,249.3	1.61	-1.05	1.22
12,622.0	90.00	146.25	6,994.6	-5,300.2	3,428.2	6,312.3	0.95	-0.70	0.65
12,685.0	90.47	147.06	6,994.4	-5,352.9	3,462.8	6,375.3	1.49	0.75	1.29
12,749.0	90.44	148.02	6,993.9	-5,406.9	3,497.2	6,439.3	1.50	-0.05	1.50
12,813.0	90.20	147.44	6,993.5	-5,461.0	3,531.3	6,503.3	0.98	-0.38	-0.91
12,876.0	89.70	146.67	6,993.6	-5,513.8	3,565.6	6,566.3	1.46	-0.79	-1.22
12,940.0	90.13	145.60	6,993.7	-5,567.0	3,601.3	6,630.3	1.80	0.67	-1.67
13,004.0	90.00	144.67	6,993.6	-5,619.5	3,637.9	6,694.2	1.47	-0.20	-1.45
13,068.0	89.26	144.50	6,994.0	-5,671.7	3,674.9	6,758.2	1.19	-1.16	-0.27
13,131.0	90.10	144.56	6,994.4	-5,723.0	3,711.5	6,821.1	1.34	1.33	0.10
13,195.0	90.50	145.10	6,994.0	-5,775.3	3,748.4	6,885.0	1.05	0.63	0.84
13,258.0	89.97	145.44	6,993.8	-5,827.1	3,784.3	6,948.0	1.00	-0.84	0.54
13,322.0	90.23	146.05	6,993.6	-5,880.0	3,820.3	7,012.0	1.04	0.41	0.95
13,386.0	90.17	147.42	6,993.4	-5,933.5	3,855.4	7,076.0	2.14	-0.09	2.14
13,450.0	91.04	148.63	6,992.7	-5,987.7	3,889.3	7,140.0	2.33	1.36	1.89
13,482.0	91.07	148.81	6,992.2	-6,015.1	3,905.9	7,172.0	0.57	0.09	0.56
Last SDI MWD Survey									
13,545.0	91.07	148.81	6,991.0	-6,069.0	3,938.5	7,234.9	0.00	0.00	0.00
Projection to Bit									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
18.0	18.0	0.0	0.0	Ground Level
103.0	103.0	0.1	0.4	First SDI Gyro Survey
2,403.0	2,403.0	-5.5	7.7	Last SDI Gyro Survey
2,458.4	2,458.4	-5.8	8.0	First SDI MWD Survey
13,482.0	6,992.2	-6,015.1	3,905.9	Last SDI MWD Survey
13,545.0	6,991.0	-6,069.0	3,938.5	Projection to Bit

Checked By: _____ Approved By: _____ Date: _____