

Project: Heather Prospect (NAD 27)
 Site: Stone
 Well: 1H
 Wellbore: OH
 Design: 1H As Drilled

WELL DETAILS: 1H

+N-S 0.00 +E-W 0.00 Northing 421797.00 Easting 1638950.00 Ground Level: 1215.00 Longitude 80° 46' 56.267 W Latitude 39° 39' 3.606 N

REFERENCE INFORMATION

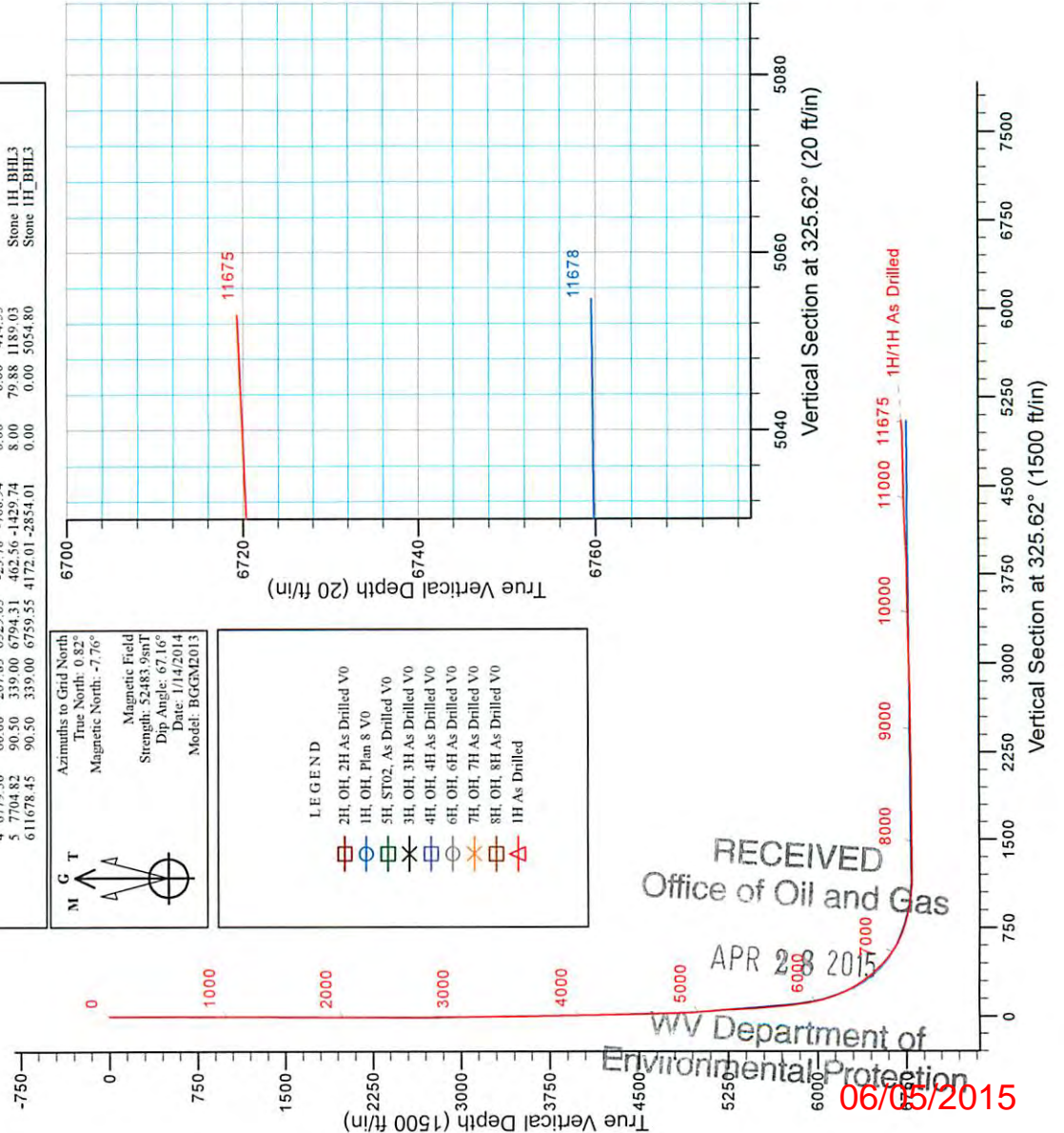
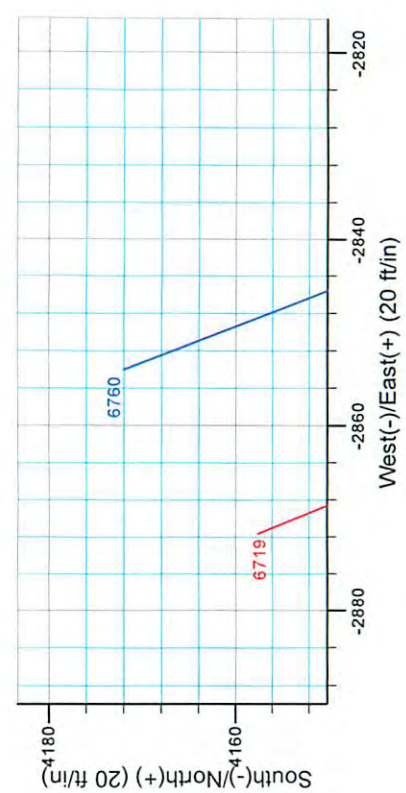
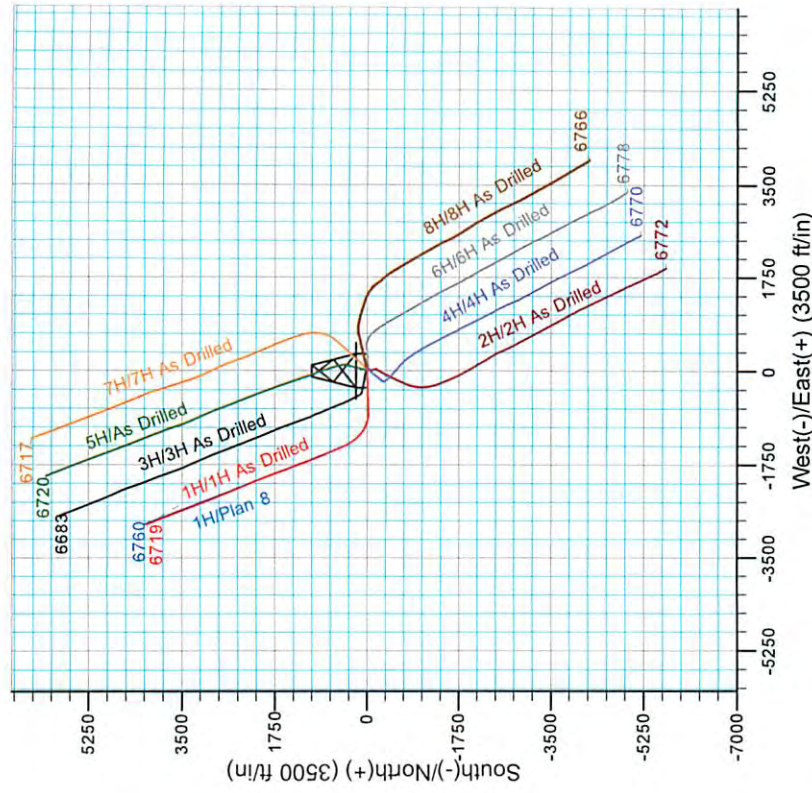
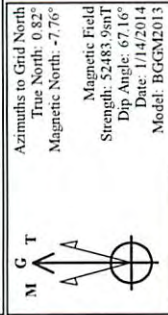
Co-ordinate (N/E) Reference: Well 1H, Grid North
 Vertical (TVD) Reference: GL 1215 & KB 18' @ 1233.00ft (Saxon 141)
 Section (VS) Reference: Slot - (0.00N, 0.00E)
 Measured Depth Reference: GL 1215 & KB 18' @ 1233.00ft (Saxon 141)
 Calculation Method: Minimum Curvature

PROJECT DETAILS: Heather Prospect (NAD 27)

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	V'Sect	Target
1	5083.00	9.03	267.83	5080.77	2.49	-75.86	0.00	0.00	44.88	
2	5796.00	9.03	267.83	5784.94	-1.75	-187.68	0.00	0.00	104.52	
3	6645.50	60.00	267.83	6462.05	-19.38	-652.98	6.00	0.00	352.68	
4	6779.50	60.00	267.83	6529.05	-23.78	-768.94	6.00	0.00	414.53	Stone 1H_BHL3
5	7704.82	90.50	339.00	6794.31	462.56	-1429.74	8.00	79.88	1189.03	Stone 1H_BHL3
6	11678.45	90.50	339.00	6759.55	472.01	-2854.01	0.00	0.00	5054.80	



RECEIVED
 Office of Oil and Gas
 APR 23 2015
 WV Department of Environmental Protection
 06/05/2015



Stone Energy

Heather Prospect (NAD 27)

Stone

1H

OH

Design: 1H As Drilled

Standard Survey Report

05 March, 2014



www.scientificdrilling.com

RECEIVED
Office of Oil and Gas

APR 8 2015

WV Department of
Environmental Protection

06/05/2015



Scientific Drilling
Survey Report



Company:	Stone Energy	Local Co-ordinate Reference:	Well 1H
Project:	Heather Prospect (NAD 27)	TVD Reference:	GL 1215' & KB 18' @ 1233.00ft (Saxon 141)
Site:	Stone	MD Reference:	GL 1215' & KB 18' @ 1233.00ft (Saxon 141)
Well:	1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	1H As Drilled	Database:	Northeast District

Project	Heather Prospect (NAD 27), Wetzel County, 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	Stone				
Site Position:		Northing:	421,797.00 usft	Latitude:	39° 39' 3.606 N
From:	Map	Easting:	1,638,950.00 usft	Longitude:	80° 46' 56.267 W
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.82 °

Well	1H					
Well Position	+N/-S	0.00 ft	Northing:	421,797.00 usft	Latitude:	39° 39' 3.606 N
	+E/-W	0.00 ft	Easting:	1,638,950.00 usft	Longitude:	80° 46' 56.267 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	1,215.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/15/2013	-8.51	67.21	52,620
	BGGM2013	11/26/2013	-8.57	67.17	52,501
	BGGM2013	1/14/2014	-8.58	67.16	52,484

Design	1H As Drilled				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00		325.62

Survey Program	Date	3/5/2014			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
15.00	2,500.00	Survey 1 - Gyro (OH)	SDI Standard Keeper 103	SDI Standard Wireline Keeper ver 1.0.3	
2,596.00	5,083.00	Survey 2 - MWD (OH)	MWD SDI	MWD - Standard ver 1.0.1	
5,083.00	11,675.00	Survey 5 - SDI MWD (OH)	MWD SDI	MWD - Standard ver 1.0.1	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15.00	0.00	0.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	
Ground Level										
100.00	0.12	87.14	100.00	0.00	0.09	-0.05				0.00
First SDI Gyro Survey										
200.00	0.15	74.53	200.00	0.04	0.32	-0.14	0.04	0.03		-12.61
300.00	0.22	107.18	300.00	0.02	0.63	-0.34	0.12	0.07		32.65

RECEIVED
Office of Oil and Gas
APR 28 2015



Scientific Drilling
Survey Report



Company:	Stone Energy	Local Co-ordinate Reference:	Well 1H
Project:	Heather Prospect (NAD 27)	TVD Reference:	GL 1215' & KB 18' @ 1233.00ft (Saxon 141)
Site:	Stone	MD Reference:	GL 1215' & KB 18' @ 1233.00ft (Saxon 141)
Well:	1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	1H As Drilled	Database:	Northeast District

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
400.00	0.26	164.95	400.00	-0.25	0.87	-0.70	0.23	0.04	57.77
500.00	0.17	145.96	500.00	-0.60	1.01	-1.06	0.11	-0.09	-18.99
600.00	0.22	99.25	600.00	-0.75	1.29	-1.34	0.16	0.05	-46.71
700.00	0.27	99.99	700.00	-0.82	1.71	-1.64	0.05	0.05	0.74
800.00	0.19	69.72	800.00	-0.80	2.10	-1.85	0.14	-0.08	-30.27
900.00	0.29	120.34	899.99	-0.87	2.47	-2.12	0.22	0.10	50.62
1,000.00	0.25	98.95	999.99	-1.04	2.90	-2.49	0.11	-0.04	-21.39
1,100.00	0.27	56.84	1,099.99	-0.94	3.32	-2.65	0.19	0.02	-42.11
1,200.00	0.37	51.32	1,199.99	-0.61	3.77	-2.63	0.10	0.10	-5.52
1,300.00	0.31	84.84	1,299.99	-0.38	4.29	-2.74	0.20	-0.06	33.52
1,400.00	0.73	115.75	1,399.99	-0.64	5.13	-3.42	0.49	0.42	30.91
1,500.00	0.59	107.15	1,499.98	-1.07	6.20	-4.38	0.17	-0.14	-8.60
1,600.00	0.48	92.80	1,599.97	-1.24	7.11	-5.03	0.17	-0.11	-14.35
1,700.00	0.39	51.65	1,699.97	-1.05	7.79	-5.26	0.32	-0.09	-41.15
1,800.00	0.54	57.62	1,799.97	-0.58	8.46	-5.26	0.16	0.15	5.97
1,900.00	0.49	83.52	1,899.96	-0.28	9.28	-5.47	0.24	-0.05	25.90
2,000.00	0.50	126.11	1,999.96	-0.49	10.06	-6.08	0.36	0.01	42.59
2,100.00	0.32	114.95	2,099.96	-0.87	10.66	-6.74	0.20	-0.18	-11.16
2,200.00	0.20	62.66	2,199.96	-0.90	11.07	-7.00	0.25	-0.12	-52.29
2,300.00	0.12	99.31	2,299.96	-0.84	11.33	-7.09	0.13	-0.08	36.65
2,400.00	0.08	95.97	2,399.96	-0.87	11.50	-7.21	0.04	-0.04	-3.34
2,500.00	0.06	185.94	2,499.96	-0.92	11.57	-7.29	0.10	-0.02	89.97
Last SDI Gyro Survey									
2,596.00	0.24	204.25	2,595.96	-1.16	11.48	-7.44	0.19	0.19	19.07
First SDI MWD Survey									
2,686.00	0.86	258.40	2,685.95	-1.47	10.74	-7.27	0.83	0.69	60.17
2,777.00	1.68	257.60	2,776.93	-1.89	8.77	-6.51	0.90	0.90	-0.88
2,871.00	1.84	261.07	2,870.88	-2.42	5.93	-5.35	0.20	0.17	3.69
2,964.00	1.65	279.35	2,963.84	-2.43	3.13	-3.78	0.63	-0.20	19.66
3,058.00	1.83	282.58	3,057.80	-1.89	0.33	-1.75	0.22	0.19	3.44
3,152.00	1.49	269.13	3,151.76	-1.58	-2.35	0.03	0.55	-0.36	-14.31
3,247.00	1.55	263.93	3,246.73	-1.73	-4.87	1.32	0.16	0.06	-5.47
3,339.00	1.44	263.97	3,338.70	-1.99	-7.25	2.46	0.12	-0.12	0.04
3,430.00	1.30	274.21	3,429.67	-2.03	-9.42	3.64	0.31	-0.15	11.25
3,522.00	1.25	273.58	3,521.65	-1.89	-11.46	4.91	0.06	-0.05	-0.68
3,615.00	1.18	270.64	3,614.63	-1.82	-13.43	6.08	0.10	-0.08	-3.16
3,707.00	1.21	268.59	3,706.61	-1.83	-15.35	7.16	0.06	0.03	-2.23
3,798.00	1.47	271.99	3,797.58	-1.81	-17.48	8.37	0.30	0.29	3.74
3,895.00	2.17	273.04	3,894.53	-1.67	-20.55	10.22	0.72	0.72	1.08
3,988.00	2.25	266.30	3,987.46	-1.70	-24.13	12.23	0.29	0.09	-7.25
4,081.00	2.05	274.10	4,080.40	-1.70	-27.62	14.19	0.38	-0.22	8.39
4,174.00	2.00	273.27	4,173.34	-1.48	-30.89	16.22	0.06	0.05	-0.89
4,265.00	1.93	269.11	4,264.29	-1.42	-34.01	18.03	0.07	-0.08	-4.57

RECEIVED
Office of Oil and Gas
APR 28 2015

WV Department of
Environmental Protection Build 70



Scientific Drilling
Survey Report



Company:	Stone Energy	Local Co-ordinate Reference:	Well 1H
Project:	Heather Prospect (NAD 27)	TVD Reference:	GL 1215' & KB 18' @ 1233.00ft (Saxon 141)
Site:	Stone	MD Reference:	GL 1215' & KB 18' @ 1233.00ft (Saxon 141)
Well:	1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	1H As Drilled	Database:	Northeast District

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,358.00	2.19	266.72	4,357.23	-1.54	-37.35	19.81	0.29	0.28	-2.57
4,451.00	2.17	269.30	4,450.16	-1.67	-40.89	21.71	0.11	-0.02	2.77
4,543.00	2.12	281.42	4,542.09	-1.35	-44.30	23.89	0.50	-0.05	13.17
4,636.00	1.78	277.05	4,635.04	-0.83	-47.42	26.08	0.40	-0.37	-4.70
4,727.00	1.77	279.02	4,726.00	-0.44	-50.21	27.98	0.07	-0.01	2.16
4,819.00	2.17	287.89	4,817.94	0.32	-53.27	30.34	0.55	0.43	9.64
4,914.00	3.43	285.55	4,912.83	1.63	-57.72	33.93	1.33	1.33	-2.46
5,083.00	9.03	267.83	5,080.77	2.49	-75.86	44.88	3.46	3.31	-10.49
5,095.00	5.84	273.09	5,092.67	2.48	-77.41	45.75	27.15	-26.58	43.83
5,159.00	5.52	270.76	5,156.36	2.70	-83.74	49.51	0.62	-0.50	-3.64
5,223.00	6.02	270.33	5,220.03	2.76	-90.17	53.19	0.78	0.78	-0.67
5,286.00	6.91	266.25	5,282.63	2.53	-97.26	57.00	1.59	1.41	-6.48
5,350.00	7.13	262.56	5,346.15	1.76	-105.04	60.76	0.78	0.34	-5.77
5,413.00	8.93	262.20	5,408.53	0.59	-113.76	64.72	2.86	2.86	-0.57
5,473.00	9.53	261.61	5,467.76	-0.76	-123.29	68.98	1.01	1.00	-0.98
5,533.00	9.21	262.69	5,526.95	-2.10	-132.96	73.34	0.61	-0.53	1.80
5,594.00	9.42	265.86	5,587.15	-3.08	-142.78	78.08	0.91	0.34	5.20
5,655.00	9.26	265.83	5,647.34	-3.80	-152.66	83.06	0.26	-0.26	-0.05
5,686.00	10.00	266.24	5,677.91	-4.15	-157.83	85.68	2.40	2.39	1.32
5,717.00	9.49	265.39	5,708.46	-4.54	-163.06	88.32	1.71	-1.65	-2.74
5,747.00	9.78	266.71	5,738.03	-4.88	-168.07	90.87	1.22	0.97	4.40
5,778.00	10.57	267.88	5,768.55	-5.14	-173.54	93.74	2.63	2.55	3.77
5,808.00	11.80	268.62	5,797.98	-5.31	-179.36	96.88	4.13	4.10	2.47
5,838.00	13.20	268.55	5,827.26	-5.47	-185.85	100.42	4.67	4.67	-0.23
5,867.00	14.87	267.49	5,855.40	-5.72	-192.88	104.18	5.83	5.76	-3.66
5,897.00	16.19	267.60	5,884.30	-6.06	-200.90	108.43	4.40	4.40	0.37
5,928.00	17.43	267.04	5,913.98	-6.48	-209.86	113.14	4.03	4.00	-1.81
5,958.00	18.66	268.18	5,942.50	-6.87	-219.14	118.06	4.27	4.10	3.80
5,988.00	19.95	268.02	5,970.81	-7.20	-229.05	123.39	4.30	4.30	-0.53
6,018.00	21.80	268.79	5,998.84	-7.49	-239.74	129.18	6.23	6.17	2.57
6,048.00	24.27	268.27	6,026.45	-7.80	-251.47	135.55	8.26	8.23	-1.73
6,079.00	27.28	268.30	6,054.36	-8.20	-264.95	142.82	9.71	9.71	0.10
6,109.00	29.90	268.47	6,080.70	-8.60	-279.29	150.59	8.74	8.73	0.57
6,139.00	32.28	267.06	6,106.39	-9.21	-294.77	158.83	8.30	7.93	-4.70
6,169.00	34.09	267.10	6,131.50	-10.05	-311.17	167.40	6.03	6.03	0.13
6,200.00	36.35	267.32	6,156.82	-10.92	-329.03	176.76	7.30	7.29	0.71
6,230.00	38.21	268.21	6,180.69	-11.63	-347.18	186.43	6.46	6.20	2.97
6,261.00	40.01	269.34	6,204.74	-12.04	-366.73	197.12	6.24	5.81	3.65
6,291.00	40.84	269.23	6,227.58	-12.28	-386.18	207.91	2.78	2.77	-0.37
6,321.00	42.31	269.98	6,250.02	-12.42	-406.09	219.03	4.80	4.80	2.50
6,351.00	43.41	269.68	6,272.01	-12.48	-426.50	230.51	3.73	3.67	0.09
6,381.00	45.33	269.67	6,293.46	-12.60	-447.47	242.25	6.40	6.40	-0.03
6,412.00	47.37	270.18	6,314.85	-12.63	-469.90	254.89	6.69	6.58	1.65
6,442.00	49.66	269.49	6,334.73	-12.69	-492.37	267.52	7.83	7.63	-2.30

RECEIVED
Office of Oil and Gas
APR 28 2015



Scientific Drilling
Survey Report



Company:	Stone Energy	Local Co-ordinate Reference:	Well 1H
Project:	Heather Prospect (NAD 27)	TVD Reference:	GL 1215' & KB 18' @ 1233.00ft (Saxon 141)
Site:	Stone	MD Reference:	GL 1215' & KB 18' @ 1233.00ft (Saxon 141)
Well:	1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	1H As Drilled	Database:	Northeast District

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,474.00	50.99	268.70	6,355.15	-13.08	-517.00	281.11	4.57	4.16	-2.47
6,506.00	52.01	268.00	6,375.08	-13.81	-542.03	294.64	3.62	3.19	-2.19
6,537.00	53.84	267.68	6,393.76	-14.74	-566.75	307.83	5.96	5.90	-1.03
6,569.00	56.22	267.85	6,412.10	-15.76	-592.95	321.78	7.45	7.44	0.53
6,601.00	57.59	267.61	6,429.58	-16.82	-619.73	336.03	4.33	4.28	-0.75
6,633.00	58.06	267.57	6,446.62	-17.96	-646.80	350.36	1.47	1.47	-0.13
6,664.00	57.68	267.44	6,463.10	-19.10	-673.02	364.23	1.28	-1.23	-0.42
6,695.00	58.01	267.67	6,479.60	-20.22	-699.24	378.11	1.24	1.06	0.74
6,727.00	59.79	267.14	6,496.13	-21.47	-726.62	392.54	5.74	5.56	-1.66
6,758.00	60.59	267.54	6,511.54	-22.71	-753.48	406.68	2.81	2.58	1.29
6,790.00	60.21	269.90	6,527.35	-23.34	-781.30	421.87	6.52	-1.19	7.38
6,822.00	60.29	271.66	6,543.23	-22.96	-809.08	437.87	4.78	0.25	5.50
6,853.00	59.16	274.79	6,558.86	-21.46	-835.80	454.19	9.45	-3.65	10.10
6,885.00	58.95	278.14	6,575.32	-18.37	-863.07	472.14	9.00	-0.66	10.47
6,917.00	59.22	280.85	6,591.76	-13.84	-890.14	491.16	7.31	0.84	8.47
6,949.00	59.65	283.59	6,608.04	-8.01	-917.06	511.18	7.49	1.34	8.56
6,981.00	60.72	285.62	6,623.95	-1.00	-943.93	532.13	6.44	3.34	6.34
7,013.00	61.60	287.57	6,639.38	7.00	-970.79	553.90	6.00	2.75	6.09
7,044.00	62.79	289.84	6,653.84	15.80	-996.76	575.82	7.53	3.84	7.32
7,075.00	64.26	291.54	6,667.67	25.61	-1,022.71	598.57	6.82	4.74	5.48
7,107.00	66.10	293.97	6,681.10	36.84	-1,049.49	622.96	8.98	5.75	7.59
7,139.00	67.26	296.79	6,693.77	49.44	-1,076.04	648.35	8.87	3.63	8.81
7,171.00	68.67	300.61	6,705.78	63.68	-1,102.05	674.79	11.91	4.41	11.94
7,203.00	69.53	303.55	6,717.20	79.56	-1,127.37	702.19	8.99	2.69	9.19
7,235.00	71.25	306.93	6,727.94	96.95	-1,151.98	730.45	11.31	5.38	10.56
7,266.00	73.11	309.59	6,737.43	115.23	-1,175.15	758.61	10.14	6.00	8.58
7,298.00	75.23	311.99	6,746.16	135.34	-1,198.45	788.37	9.80	6.63	7.50
7,330.00	76.93	314.18	6,753.85	156.56	-1,221.13	818.68	8.51	5.31	6.84
7,361.00	78.04	315.87	6,760.57	177.97	-1,242.52	848.43	6.41	3.58	5.45
7,393.00	79.15	317.83	6,766.90	200.85	-1,263.97	879.43	6.93	3.47	6.13
7,425.00	79.51	319.65	6,772.83	224.49	-1,284.71	910.65	5.70	1.13	5.69
7,457.00	80.23	321.56	6,778.45	248.83	-1,304.70	942.03	6.29	2.25	5.97
7,489.00	80.96	323.87	6,783.68	273.95	-1,323.82	973.55	7.48	2.28	7.22
7,521.00	82.66	326.21	6,788.24	299.90	-1,341.97	1,005.22	8.98	5.31	7.31
7,552.00	84.14	327.64	6,791.81	325.71	-1,358.77	1,036.01	6.62	4.77	4.61
7,584.00	85.16	329.38	6,794.79	352.87	-1,375.42	1,067.82	6.28	3.19	5.44
7,616.00	86.54	331.68	6,797.11	380.66	-1,391.12	1,099.62	8.37	4.31	7.19
7,647.00	87.88	334.08	6,798.62	408.21	-1,405.23	1,130.33	8.86	4.32	7.74
7,711.00	88.99	336.95	6,800.36	466.43	-1,431.74	1,193.35	4.81	1.87	4.48
7,774.00	90.17	337.12	6,800.83	524.43	-1,456.32	1,255.10	0.99	0.89	0.27
7,838.00	90.74	336.89	6,800.32	583.35	-1,481.32	1,317.84	0.96	0.89	-0.36
7,902.00	89.30	337.45	6,800.29	642.33	-1,506.15	1,380.54	2.41	2.25	0.88
7,966.00	90.77	337.23	6,800.26	701.39	-1,530.81	1,443.21	2.32	2.30	-0.34

RECEIVED
Office of Oil and Gas
APR 28 2015



Scientific Drilling
Survey Report



Company:	Stone Energy	Local Co-ordinate Reference:	Well 1H
Project:	Heather Prospect (NAD 27)	TVD Reference:	GL 1215' & KB 18' @ 1233.00ft (Saxon 141)
Site:	Stone	MD Reference:	GL 1215' & KB 18' @ 1233.00ft (Saxon 141)
Well:	1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	1H As Drilled	Database:	Northeast District

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,029.00	91.28	337.05	6,799.13	759.43	-1,555.28	1,504.93	0.86	0.81	-0.29
8,092.00	89.80	337.23	6,798.53	817.48	-1,579.75	1,566.66	2.37	-2.35	0.29
8,156.00	89.90	337.08	6,798.70	876.46	-1,604.60	1,629.37	0.28	0.16	-0.23
8,220.00	88.89	338.88	6,799.38	935.78	-1,628.59	1,691.88	3.22	-1.58	2.81
8,283.00	89.76	339.09	6,800.12	994.59	-1,651.18	1,753.17	1.42	1.38	0.33
8,347.00	90.91	339.55	6,799.75	1,054.46	-1,673.78	1,815.35	1.94	1.80	0.72
8,410.00	90.74	339.99	6,798.84	1,113.57	-1,695.56	1,876.43	0.75	-0.27	0.70
8,474.00	90.98	339.78	6,797.88	1,173.66	-1,717.57	1,938.45	0.50	0.38	-0.33
8,538.00	89.66	340.19	6,797.52	1,233.79	-1,739.48	2,000.45	2.16	-2.06	0.64
8,601.00	90.57	340.54	6,797.39	1,293.13	-1,760.65	2,061.37	1.55	1.44	0.56
8,663.00	91.88	340.78	6,796.07	1,351.61	-1,781.17	2,121.24	2.15	2.11	0.39
8,727.00	91.28	340.60	6,794.30	1,411.99	-1,802.33	2,183.01	0.98	-0.94	-0.28
8,791.00	90.47	339.60	6,793.33	1,472.16	-1,824.11	2,244.97	2.01	-1.27	-1.56
8,854.00	91.14	339.16	6,792.44	1,531.12	-1,846.29	2,306.16	1.27	1.06	-0.70
8,916.00	90.71	338.79	6,791.44	1,588.98	-1,868.54	2,366.48	0.91	-0.69	-0.60
8,980.00	91.14	338.62	6,790.41	1,648.61	-1,891.77	2,428.81	0.72	0.67	-0.27
9,044.00	90.24	339.01	6,789.64	1,708.28	-1,914.90	2,491.11	1.53	-1.41	0.61
9,108.00	91.14	339.83	6,788.87	1,768.19	-1,937.40	2,553.26	1.90	1.41	1.28
9,171.00	91.78	339.87	6,787.26	1,827.31	-1,959.09	2,614.31	1.02	1.02	0.06
9,235.00	90.87	339.57	6,785.78	1,887.33	-1,981.27	2,676.36	1.50	-1.42	-0.47
9,298.00	91.51	339.49	6,784.47	1,946.33	-2,003.30	2,737.50	1.02	1.02	-0.13
9,362.00	91.45	338.86	6,782.82	2,006.13	-2,026.04	2,799.70	0.99	-0.09	-0.98
9,425.00	91.91	338.36	6,780.97	2,064.77	-2,049.01	2,861.06	1.08	0.73	-0.79
9,489.00	91.34	337.18	6,779.16	2,123.99	-2,073.21	2,923.61	2.05	-0.89	-1.84
9,552.00	91.65	337.00	6,777.51	2,182.00	-2,097.73	2,985.33	0.57	0.49	-0.29
9,615.00	90.30	337.55	6,776.44	2,240.10	-2,122.06	3,047.02	2.31	-2.14	0.87
9,679.00	90.77	337.23	6,775.84	2,299.17	-2,146.66	3,109.67	0.89	0.73	-0.50
9,743.00	91.41	337.31	6,774.63	2,358.19	-2,171.39	3,172.34	1.01	1.00	0.13
9,806.00	91.11	338.45	6,773.24	2,416.54	-2,195.10	3,233.89	1.87	-0.48	1.81
9,867.00	91.95	338.49	6,771.61	2,473.26	-2,217.48	3,293.34	1.38	1.38	0.07
9,931.00	91.34	338.84	6,769.78	2,532.85	-2,240.76	3,355.67	1.10	-0.95	0.55
9,994.00	91.98	338.43	6,767.95	2,591.50	-2,263.70	3,417.02	1.21	1.02	-0.65
10,058.00	90.60	338.06	6,766.51	2,650.92	-2,287.41	3,479.46	2.23	-2.16	-0.58
10,121.00	91.38	338.47	6,765.42	2,709.44	-2,310.74	3,540.92	1.40	1.24	0.65
10,185.00	90.20	338.53	6,764.54	2,768.98	-2,334.19	3,603.31	1.85	-1.84	0.09
10,249.00	90.67	337.86	6,764.05	2,828.39	-2,357.96	3,665.77	1.28	0.73	-1.05
10,313.00	91.31	337.54	6,762.95	2,887.60	-2,382.25	3,728.34	1.12	1.00	-0.50
10,376.00	92.12	337.66	6,761.06	2,945.82	-2,406.24	3,789.94	1.30	1.29	0.19
10,440.00	91.18	338.49	6,759.22	3,005.16	-2,430.13	3,852.41	1.96	-1.47	1.30
10,504.00	91.88	338.10	6,757.51	3,064.60	-2,453.79	3,914.83	1.25	1.09	-0.61
10,567.00	92.62	337.57	6,755.04	3,122.90	-2,477.54	3,976.36	1.44	1.47	-0.84
10,631.00	92.89	339.03	6,751.96	3,182.30	-2,501.17	4,038.72	2.32	0.42	2.28
10,694.00	92.29	338.64	6,749.11	3,240.99	-2,523.90	4,099.99	1.14	-0.95	-0.62

RECEIVED
Office of Oil and Gas
APR 28 2015



Scientific Drilling
Survey Report



Company:	Stone Energy	Local Co-ordinate Reference:	Well 1H
Project:	Heather Prospect (NAD 27)	TVD Reference:	GL 1215' & KB 18' @ 1233.00ft (Saxon 141)
Site:	Stone	MD Reference:	GL 1215' & KB 18' @ 1233.00ft (Saxon 141)
Well:	1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	1H As Drilled	Database:	Northeast District

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,757.00	92.86	338.58	6,746.28	3,299.59	-2,546.85	4,161.32	0.91	0.90	-0.10
10,821.00	91.78	339.43	6,743.69	3,359.29	-2,569.76	4,223.53	2.15	-1.69	1.33
10,884.00	91.58	341.12	6,741.85	3,418.56	-2,591.02	4,284.45	2.70	-0.32	2.68
10,948.00	90.94	341.33	6,740.44	3,479.14	-2,611.61	4,346.08	1.05	-1.00	0.33
11,011.00	91.24	340.62	6,739.24	3,538.69	-2,632.14	4,406.82	1.22	0.48	-1.13
11,075.00	91.18	339.98	6,737.89	3,598.93	-2,653.71	4,468.72	1.00	-0.09	-1.00
11,139.00	91.78	338.69	6,736.24	3,658.79	-2,676.29	4,530.87	2.22	0.94	-2.02
11,203.00	92.25	338.57	6,733.99	3,718.36	-2,699.60	4,593.19	0.76	0.73	-0.19
11,266.00	91.41	339.31	6,731.97	3,777.12	-2,722.22	4,654.47	1.78	-1.33	1.17
11,330.00	90.70	339.82	6,730.79	3,837.08	-2,744.56	4,716.57	1.37	-1.11	0.80
11,391.00	91.21	338.87	6,729.78	3,894.15	-2,766.08	4,775.82	1.77	0.84	-1.56
11,454.00	91.78	338.34	6,728.13	3,952.79	-2,789.05	4,837.19	1.24	0.90	-0.84
11,518.00	92.45	338.14	6,725.77	4,012.19	-2,812.76	4,899.60	1.09	1.05	-0.31
11,582.00	92.05	337.99	6,723.26	4,071.51	-2,836.65	4,962.05	0.67	-0.63	-0.23
11,608.00	92.49	337.79	6,722.23	4,095.58	-2,846.43	4,987.44	1.86	1.69	-0.77
Last SDI MWD Survey									
11,675.00	92.49	337.79	6,719.32	4,157.55	-2,871.73	5,052.87	0.00	0.00	0.00
Projection to Bit									

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
15.00	15.00	0.00	0.00	Ground Level
100.00	100.00	0.00	0.09	First SDI Gyro Survey
2,500.00	2,499.96	-0.92	11.57	Last SDI Gyro Survey
2,596.00	2,595.96	-1.16	11.48	First SDI MWD Survey
11,608.00	6,722.23	4,095.58	-2,846.43	Last SDI MWD Survey
11,675.00	6,719.32	4,157.55	-2,871.73	Projection to Bit

Checked By: _____ Approved By: _____ Date: _____

RECEIVED
Office of Oil and Gas
APR 28 2015

WV Department of Environmental Protection
06/05/2015