



Project: Heather Prospect (NAD 27)
 Site: Stone
 Well: 5H
 Wellbore: ST02
 Design: As Drilled



WELL DETAILS: 5H

+N/-S 0.00 +E/W 0.00
 Northing 421812.00 Easting 1638974.00
 Ground Level: 1215.00
 Longitude 80° 46' 55.962 W

REFERENCE INFORMATION

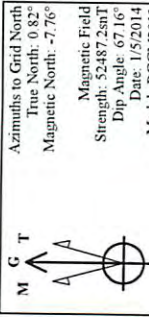
Coordinate (NE) Reference: Well 5H, Grid North
 Vertical (VD) Reference: GL 1215' & KB 18' @ 1233.00ft (Saxon 141)
 Section (VS) Reference: Slot -(0.00N, 0.00E)
 Measured Depth Reference: GL 1215' & KB 18' @ 1233.00ft (Saxon 141)
 Calculation Method: Minimum Curvature

PROJECT DETAILS: Heather Prospect (NAD 27)

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

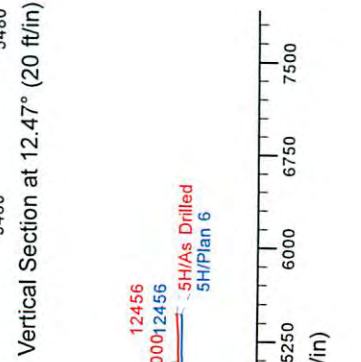
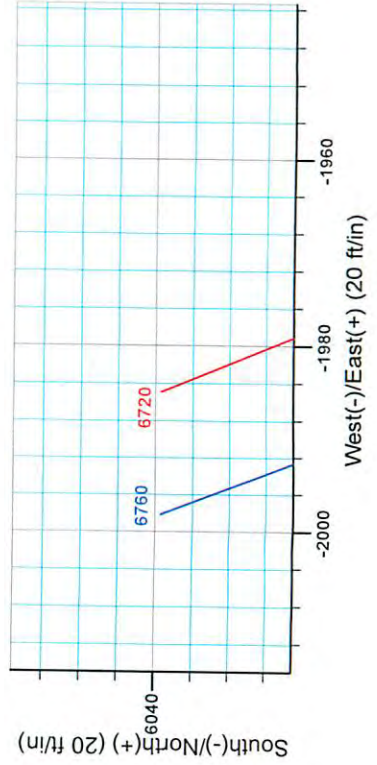
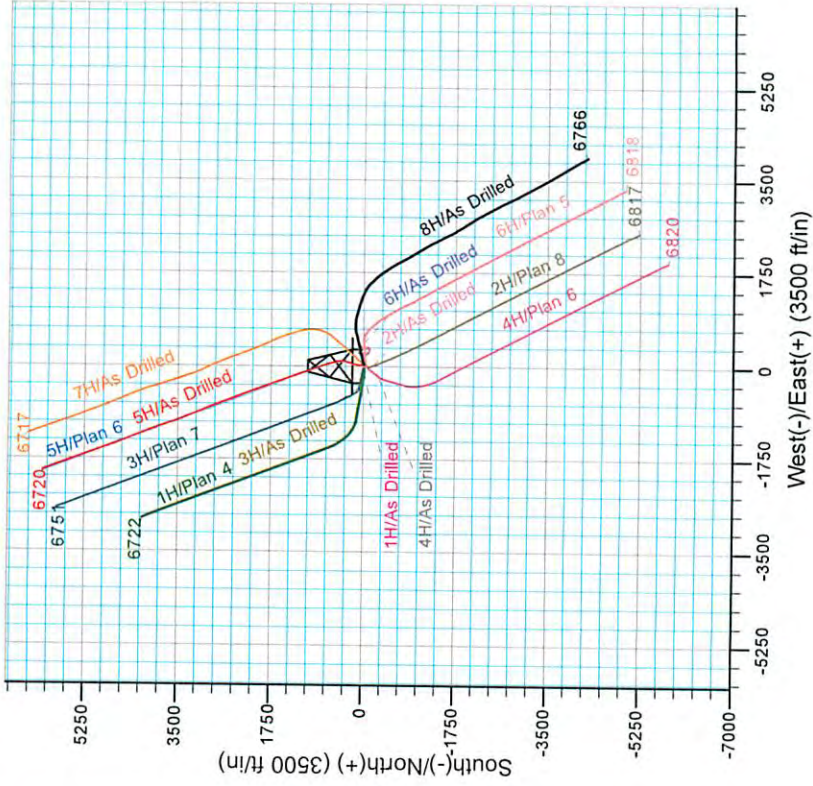
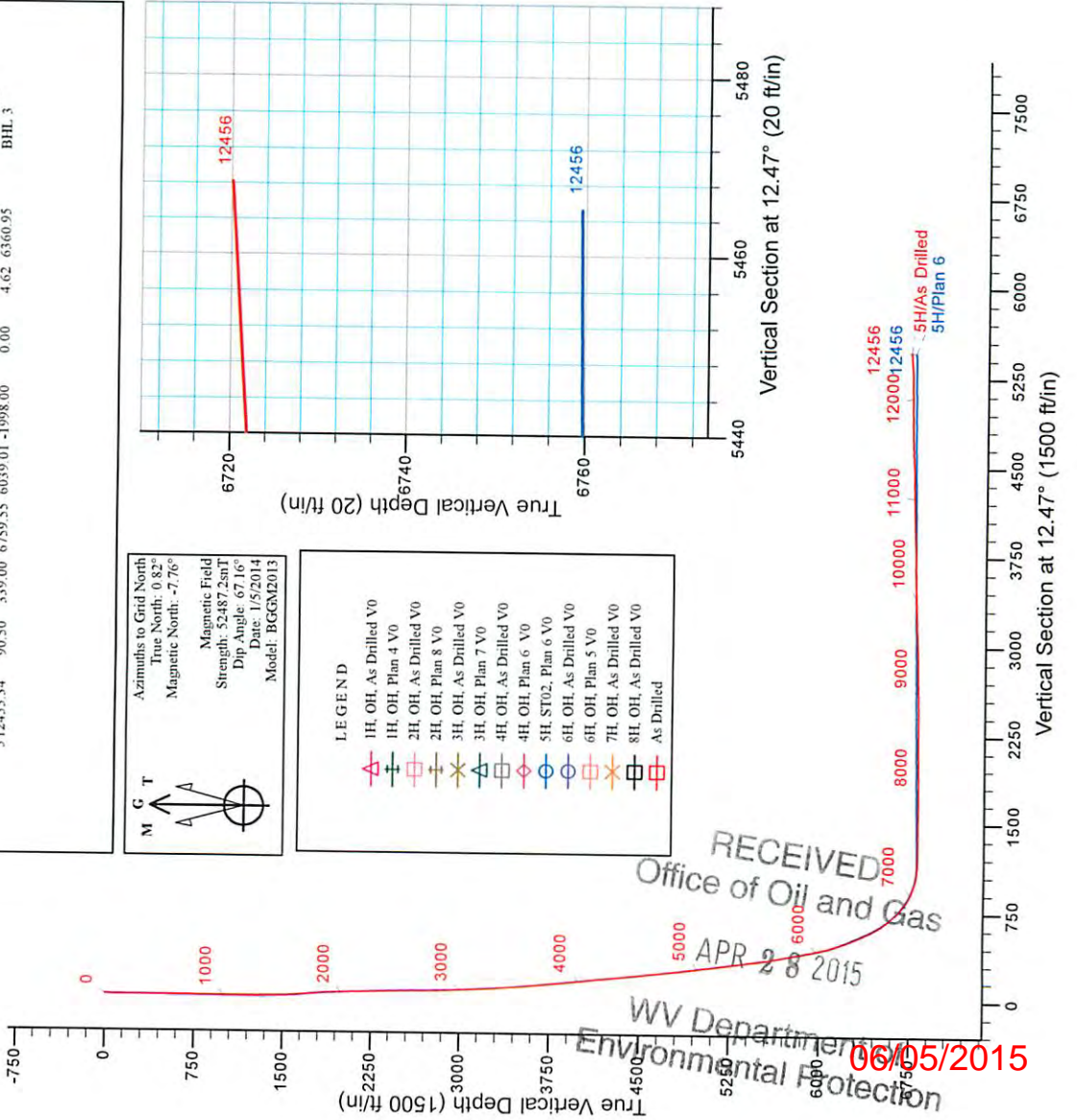
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	-E/W	Dleg	Tface	VSet	Target
1	5999.00	11.51	8.70	5973.47	409.72	90.59	0.00	0.00	360.53	
2	6272.37	26.67	347.80	6231.31	497.26	81.69	6.00	-34.55	446.43	
3	6469.81	26.67	347.80	6407.74	583.89	62.97	0.00	0.00	534.56	LP Plan 3
4	7271.87	90.50	339.00	6805.00	1200.00	-140.50	8.00	-9.79	1183.40	BHL 3
5	12455.34	90.50	339.00	6759.55	6039.01	-1998.00	0.00	4.62	6360.95	

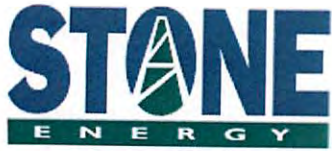


LEGEND

- 1H, OH, As Drilled V0
- 1H, OH, Plan 4 V0
- 2H, OH, As Drilled V0
- 2H, OH, Plan 8 V0
- 3H, OH, As Drilled V0
- 3H, OH, Plan 7 V0
- 4H, OH, As Drilled V0
- 4H, OH, Plan 6 V0
- 5H, ST02, Plan 6 V0
- 6H, OH, As Drilled V0
- 6H, OH, Plan 5 V0
- 7H, OH, As Drilled V0
- 8H, OH, As Drilled V0
- As Drilled



RECEIVED
 Office of Oil and Gas
 APR 28 2015
 WV Department of Environmental Protection
 06/05/2015



Stone Energy

Heather Prospect (NAD 27)

Stone

5H

ST02

Design: As Drilled

Standard Survey Report

13 January, 2014



www.scientificdrilling.com

RECEIVED
Office of Oil and Gas

APR 28 2015

WV Department of
Environmental Protection

06/05/2015



Survey Report



Company:	Stone Energy	Local Co-ordinate Reference:	Well 5H
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:	5H	North Reference:	Grid
Wellbore:	ST02	Survey Calculation Method:	Minimum Curvature
Design:	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
From:	Map	Easting:	1,638,950.00 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "
		Latitude:	39° 39' 3.606 N
		Longitude:	80° 46' 56.267 W
		Grid Convergence:	-0.82 °

Well	5H		
Well Position	+N/-S	0.00 ft	Northing: 421,812.00 usft
	+E/-W	0.00 ft	Easting: 1,638,974.00 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	39° 39' 3.757 N
		Longitude:	80° 46' 55.962 W
		Ground Level:	1,215.00 ft

Wellbore	ST02				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	1/5/2014	-8.58	67.16	52,487

Design	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	12.47	

Survey Program	Date	1/13/2014			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
18.00	2,438.00	Survey 1 - SDI Gyro (ST02)	SDI Standard Keeper 103	SDI Standard Wireline Keeper ver 1.0.3	
2,510.00	5,841.00	Survey 2 - SDI MWD (ST02)	MWD SDI	MWD - Standard ver 1.0.1	
5,931.00	12,456.00	Survey 3 - SDI MWD (ST02)	MWD SDI	MWD - Standard ver 1.0.1	

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
18.00	0.00	360.00	18.00	0.00	0.00	0.00	0.00	0.00	0.00
Ground level									
103.00	1.13	212.42	102.99	-0.71	-0.45	-0.79	1.33	0.36	0.00
First SDI Gyro Survey									
203.00	0.77	220.74	202.98	-2.05	-1.42	-2.31	0.38	0.36	8.32
303.00	0.27	235.00	302.98	-2.69	-2.05	-3.07	0.51	0.50	14.26
403.00	0.21	206.48	402.98	-2.99	-2.32	-3.42	0.43	0.06	-28.52

RECEIVED
Office of Oil and Gas
APR 28 2015
WV Department of Environmental Protection
COMFAS 61011



Survey Report



Company:	Stone Energy	Local Co-ordinate Reference:	Well 5H
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:	5H	North Reference:	Grid
Wellbore:	ST02	Survey Calculation Method:	Minimum Curvature
Design:	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)
503.00	0.28	207.69	502.97	-3.37	-2.52	-3.84	0.07	0.07	1.21
603.00	0.29	203.38	602.97	-3.82	-2.73	-4.32	0.02	0.01	-4.31
703.00	0.29	207.50	702.97	-4.28	-2.95	-4.81	0.02	0.00	4.12
803.00	0.22	228.71	802.97	-4.63	-3.21	-5.21	0.12	-0.07	21.21
903.00	0.20	169.79	902.97	-4.93	-3.32	-5.53	0.21	-0.02	-58.92
1,003.00	0.16	154.72	1,002.97	-5.23	-3.23	-5.80	0.06	-0.04	-15.07
1,103.00	0.08	174.90	1,102.97	-5.42	-3.17	-5.98	0.09	-0.08	20.18
1,203.00	0.12	221.99	1,202.97	-5.57	-3.23	-6.14	0.09	0.04	47.09
1,303.00	0.19	159.21	1,302.97	-5.80	-3.24	-6.37	0.17	0.07	-62.78
1,422.00	1.07	6.38	1,421.96	-4.88	-3.05	-5.43	1.04	0.74	-128.43
1,484.00	2.22	6.65	1,483.94	-3.11	-2.85	-3.66	1.85	1.85	0.44
1,575.00	3.46	8.41	1,574.82	1.35	-2.24	0.84	1.37	1.36	1.93
1,668.00	4.80	13.49	1,667.58	7.91	-0.92	7.53	1.49	1.44	5.46
1,760.00	4.76	17.44	1,759.26	15.30	1.12	15.18	0.36	-0.04	4.29
1,854.00	4.43	26.65	1,852.96	22.26	3.92	22.58	0.86	-0.35	9.80
1,945.00	3.54	48.48	1,943.74	27.27	7.60	28.27	1.92	-0.98	23.99
2,037.00	2.43	65.31	2,035.62	29.97	11.50	31.74	1.52	-1.21	18.29
2,131.00	1.85	45.23	2,129.55	31.87	14.38	34.22	1.00	-0.62	-21.36
2,223.00	2.35	3.76	2,221.50	34.79	15.56	37.33	1.69	0.54	-45.08
2,315.00	2.24	355.50	2,313.42	38.47	15.55	40.92	0.38	-0.12	-8.98
2,438.00	1.66	351.06	2,436.35	42.63	15.08	44.88	0.49	-0.47	-3.61
Last SDI Gyro Survey									
2,510.00	1.76	340.36	2,508.32	44.70	14.55	46.78	0.46	0.14	-14.86
First SDI MWD Survey									
2,602.00	1.73	336.42	2,600.28	47.30	13.52	49.10	0.13	-0.03	-4.28
2,695.00	1.02	333.72	2,693.25	49.33	12.59	50.88	0.77	-0.76	-2.90
2,787.00	1.28	3.72	2,785.23	51.09	12.29	52.54	0.70	0.28	32.61
2,880.00	2.14	5.31	2,878.19	53.85	12.52	55.29	0.93	0.92	1.71
2,972.00	2.72	359.40	2,970.11	57.75	12.66	59.12	0.69	0.63	-6.42
3,062.00	2.90	359.12	3,060.00	62.16	12.60	63.41	0.20	0.20	-0.31
3,154.00	3.10	355.51	3,151.87	66.97	12.37	68.06	0.30	0.22	-3.92
3,246.00	3.83	358.07	3,243.70	72.52	12.07	73.41	0.81	0.79	2.78
3,336.00	4.32	0.59	3,333.48	78.91	12.00	79.64	0.58	0.54	2.80
3,428.00	5.02	6.65	3,425.17	86.37	12.51	87.04	0.93	0.76	6.59
3,520.00	5.85	11.05	3,516.76	94.97	13.87	95.73	1.01	0.90	4.78
3,613.00	6.38	16.07	3,609.23	104.59	16.21	105.62	0.81	0.57	5.40
3,708.00	6.43	15.43	3,703.64	114.79	19.09	116.20	0.09	0.05	-0.67
3,801.00	6.60	13.47	3,796.03	125.01	21.72	126.75	0.30	0.18	-2.11
3,895.00	6.48	13.22	3,889.42	135.42	24.19	137.45	0.13	0.13	-0.27
3,989.00	6.45	9.84	3,982.83	145.79	26.30	148.03	0.41	0.03	-3.60
4,080.00	6.20	13.02	4,073.27	155.61	28.28	158.05	0.47	-0.27	3.99
4,173.00	6.16	13.08	4,165.73	165.37	30.54	168.06	0.04	-0.09	0.06
4,269.00	5.96	11.99	4,261.19	175.26	32.74	178.20	0.24	-0.21	-1.14
4,360.00	6.19	13.70	4,351.68	184.65	34.89	187.82	0.22	0.25	1.88

RECEIVED
Office of Oil and Gas

APR 28 2015

WV Department of Environmental Protection
COMPASS 06/05/2015



Survey Report



Company:	Stone Energy	Local Co-ordinate Reference:	Well 5H
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:	5H	North Reference:	Grid
Wellbore:	ST02	Survey Calculation Method:	Minimum Curvature
Design:	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)
4,455.00	6.10	12.77	4,446.14	194.55	37.22	197.99	0.14	-0.09	-0.98
4,549.00	6.47	14.85	4,539.57	204.54	39.68	208.28	0.46	0.39	2.21
4,641.00	6.13	14.50	4,631.02	214.30	42.24	218.37	0.37	-0.37	-0.38
4,734.00	6.42	18.10	4,723.46	224.05	45.10	228.50	0.53	0.31	3.87
4,827.00	7.18	16.52	4,815.81	234.57	48.36	239.48	0.84	0.82	-1.70
4,920.00	7.36	15.02	4,908.06	245.89	51.56	251.22	0.28	0.19	-1.61
5,013.00	7.12	15.48	5,000.32	257.20	54.64	262.93	0.27	-0.26	0.49
5,105.00	7.65	15.93	5,091.55	268.58	57.84	274.74	0.58	0.58	0.49
5,196.00	7.80	15.34	5,181.73	280.36	61.14	286.95	0.19	0.16	-0.65
5,290.00	8.07	14.74	5,274.83	292.89	64.51	299.91	0.30	0.29	-0.64
5,381.00	8.27	14.08	5,364.90	305.42	67.72	312.84	0.24	0.22	-0.73
5,474.00	8.51	14.85	5,456.91	318.56	71.11	326.40	0.28	0.26	0.83
5,567.00	8.68	14.41	5,548.86	332.01	74.62	340.29	0.20	0.18	-0.47
5,659.00	9.87	14.01	5,639.66	346.38	78.26	355.11	1.30	1.29	-0.43
5,749.00	10.82	12.63	5,728.20	362.11	81.98	371.27	1.09	1.06	-1.53
5,841.00	11.32	9.02	5,818.48	379.45	85.28	388.92	0.93	0.54	-3.92
5,931.00	11.14	10.47	5,906.76	396.73	88.24	406.42	0.37	-0.20	1.61
5,963.00	11.11	10.84	5,938.16	402.79	89.39	412.59	0.24	-0.09	1.16
5,993.00	11.39	9.12	5,967.58	408.56	90.40	418.44	1.46	0.93	-5.73
6,022.00	12.60	5.44	5,995.95	414.54	91.15	424.44	4.93	4.17	-12.69
6,053.00	14.26	0.99	6,026.10	421.72	91.54	431.54	6.30	5.35	-14.35
6,083.00	15.36	357.65	6,055.11	429.38	91.44	439.00	4.64	3.67	-11.13
6,114.00	16.19	354.34	6,084.94	437.79	90.85	447.07	3.95	2.68	-10.68
6,144.00	18.10	352.00	6,113.60	446.56	89.78	455.42	6.77	6.37	-7.80
6,175.00	20.54	349.16	6,142.86	456.68	88.09	464.92	8.43	7.87	-9.16
6,205.00	23.37	347.16	6,170.68	467.65	85.78	475.14	9.76	9.43	-6.67
6,235.00	25.06	346.78	6,198.04	479.64	83.00	486.24	5.66	5.63	-1.27
6,265.00	25.09	346.03	6,225.21	491.99	80.01	497.66	1.06	0.10	-2.50
6,296.00	23.82	345.23	6,253.43	504.43	76.83	509.11	4.23	-4.10	-2.58
6,326.00	24.11	344.48	6,280.84	516.19	73.65	519.91	1.40	0.97	-2.50
6,356.00	25.25	345.38	6,308.10	528.28	70.39	531.02	4.00	3.80	3.00
6,386.00	26.60	346.76	6,335.08	541.01	67.24	542.77	4.93	4.50	4.60
6,417.00	27.74	347.73	6,362.66	554.82	64.12	555.57	3.95	3.68	3.13
6,447.00	27.38	347.64	6,389.26	568.38	61.16	568.17	1.21	-1.20	-0.30
6,477.00	27.47	347.46	6,415.89	581.87	58.18	580.70	0.41	0.30	-0.60
6,508.00	28.93	346.01	6,443.21	596.13	54.81	593.90	5.20	4.71	-4.68
6,538.00	31.67	345.07	6,469.11	610.78	51.03	607.39	9.27	9.13	-3.13
6,569.00	35.22	344.91	6,494.97	627.28	46.60	622.54	11.46	11.45	-0.52
6,599.00	38.80	344.64	6,518.92	644.70	41.86	638.53	11.95	11.93	-0.90
6,629.00	41.48	344.09	6,541.85	663.32	36.65	655.58	9.01	8.93	-0.83
6,659.00	43.30	343.45	6,564.01	682.74	30.99	673.32	6.23	6.07	-2.13
6,690.00	44.72	342.62	6,586.30	703.34	24.70	692.07	4.94	4.58	-2.68
6,720.00	46.46	341.40	6,607.30	723.72	18.08	710.54	6.49	5.80	-4.07

RECEIVED
Office of Oil and Gas
APR 28 2015

WV Department of Environmental Protection
COMPASS 06/05/2015



Survey Report



Company:	Stone Energy	Local Co-ordinate Reference:	Well 5H
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:	5H	North Reference:	Grid
Wellbore:	ST02	Survey Calculation Method:	Minimum Curvature
Design:	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)
6,750.00	48.88	340.53	6,627.50	744.68	10.85	729.45	8.35	8.07	-2.90
6,781.00	51.16	340.11	6,647.42	767.05	2.85	749.56	7.43	7.35	-1.35
6,811.00	52.98	339.86	6,665.86	789.28	-5.25	769.51	6.10	6.07	-0.83
6,841.00	55.61	339.60	6,683.36	812.13	-13.69	790.00	8.79	8.77	-0.87
6,872.00	58.59	340.21	6,700.20	836.57	-22.63	811.94	9.75	9.61	1.97
6,902.00	60.31	340.32	6,715.45	860.89	-31.35	833.79	5.74	5.73	0.37
6,932.00	63.14	340.37	6,729.66	885.77	-40.24	856.17	9.43	9.43	0.17
6,962.00	66.47	340.82	6,742.43	911.37	-49.26	879.22	11.18	11.10	1.50
6,993.00	69.13	341.11	6,754.14	938.50	-58.62	903.68	8.62	8.58	0.94
7,024.00	71.20	341.15	6,764.66	966.09	-68.05	928.59	6.68	6.68	0.13
7,056.00	73.64	341.32	6,774.32	994.97	-77.86	954.67	7.64	7.63	0.53
7,088.00	75.61	341.26	6,782.80	1,024.20	-87.76	981.06	6.16	6.16	-0.19
7,120.00	76.47	341.40	6,790.52	1,053.62	-97.70	1,007.64	2.72	2.69	0.44
7,152.00	78.16	341.84	6,797.55	1,083.24	-107.54	1,034.44	5.45	5.28	1.38
7,183.00	81.54	341.42	6,803.01	1,112.20	-117.16	1,060.64	10.98	10.90	-1.35
7,214.00	83.21	341.72	6,807.13	1,141.35	-126.87	1,087.00	5.47	5.39	0.97
7,246.00	85.06	341.60	6,810.40	1,171.56	-136.89	1,114.34	5.79	5.78	-0.38
7,278.00	87.72	341.20	6,812.41	1,201.83	-147.07	1,141.69	8.41	8.31	-1.25
7,310.00	89.83	341.29	6,813.10	1,232.12	-157.36	1,169.04	6.60	6.59	0.28
7,374.00	90.20	341.01	6,813.08	1,292.69	-178.04	1,223.71	0.73	0.58	-0.44
7,437.00	89.77	340.32	6,813.09	1,352.13	-198.89	1,277.25	1.29	-0.68	-1.10
7,501.00	89.46	339.64	6,813.52	1,412.26	-220.80	1,331.23	1.17	-0.48	-1.06
7,564.00	88.52	339.57	6,814.64	1,471.30	-242.75	1,384.14	1.50	-1.49	-0.11
7,629.00	88.86	339.81	6,816.12	1,532.25	-265.31	1,438.77	0.64	0.52	0.37
7,693.00	90.20	340.35	6,816.65	1,592.41	-287.11	1,492.81	2.26	2.09	0.84
7,757.00	90.40	340.82	6,816.31	1,652.77	-308.39	1,547.14	0.80	0.31	0.73
7,820.00	89.56	340.98	6,816.33	1,712.31	-329.00	1,600.82	1.36	-1.33	0.25
7,883.00	89.46	341.09	6,816.87	1,771.88	-349.48	1,654.57	0.24	-0.16	0.17
7,946.00	89.13	339.88	6,817.65	1,831.26	-370.52	1,708.00	1.99	-0.52	-1.92
8,010.00	89.33	339.21	6,818.51	1,891.22	-392.88	1,761.71	1.09	0.31	-1.05
8,073.00	90.54	340.66	6,818.58	1,950.39	-414.50	1,814.82	3.00	1.92	2.30
8,137.00	91.58	340.78	6,817.39	2,010.79	-435.62	1,869.23	1.64	1.63	0.19
8,200.00	91.94	340.15	6,815.46	2,070.14	-456.68	1,922.62	1.15	0.57	-1.00
8,263.00	90.80	339.17	6,813.95	2,129.19	-478.57	1,975.55	2.39	-1.81	-1.56
8,327.00	91.11	338.98	6,812.89	2,188.96	-501.43	2,028.98	0.57	0.48	-0.30
8,391.00	91.24	338.55	6,811.57	2,248.60	-524.60	2,082.20	0.70	0.20	-0.67
8,455.00	89.70	338.16	6,811.05	2,308.08	-548.21	2,135.18	2.48	-2.41	-0.61
8,518.00	89.67	338.29	6,811.40	2,366.59	-571.58	2,187.26	0.21	0.05	0.21
8,582.00	90.34	338.72	6,811.39	2,426.14	-595.03	2,240.34	1.24	1.05	0.67
8,646.00	90.84	339.48	6,810.73	2,485.92	-617.86	2,293.78	1.42	0.78	1.19
8,709.00	90.27	339.55	6,810.12	2,544.93	-639.90	2,346.64	0.91	-0.90	0.11
8,772.00	89.13	339.20	6,810.45	2,603.90	-662.10	2,399.41	1.89	1.89	-0.56
8,836.00	90.20	339.53	6,810.83	2,663.79	-684.65	2,453.02	1.75	1.67	0.52
8,900.00	91.11	338.99	6,810.09	2,723.64	-707.31	2,506.56	1.65	1.42	-0.84

RECEIVED
Office of Oil and Gas
APR 23 2015

WV Department of Environmental Protection
06/05/2015



Survey Report



Company:	Stone Energy	Local Co-ordinate Reference:	Well 5H
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:	5H	North Reference:	Grid
Wellbore:	ST02	Survey Calculation Method:	Minimum Curvature
Design:	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)
8,963.00	92.01	338.72	6,808.38	2,782.37	-730.03	2,559.00	1.49	1.43	-0.43
9,026.00	92.15	338.63	6,806.09	2,841.02	-752.92	2,611.32	0.26	0.22	-0.14
9,090.00	91.54	338.26	6,804.03	2,900.51	-776.42	2,664.33	1.11	-0.95	-0.58
9,153.00	90.60	336.85	6,802.85	2,958.73	-800.47	2,715.98	2.69	-1.49	-2.24
9,217.00	90.57	336.73	6,802.20	3,017.54	-825.69	2,767.96	0.19	-0.05	-0.19
9,281.00	91.41	336.58	6,801.10	3,076.30	-851.05	2,819.84	1.33	1.31	-0.23
9,344.00	91.37	335.96	6,799.57	3,133.95	-876.40	2,870.67	0.99	-0.06	-0.98
9,408.00	91.47	335.88	6,797.98	3,192.36	-902.50	2,922.06	0.20	0.16	-0.13
9,472.00	91.54	336.24	6,796.30	3,250.84	-928.46	2,973.55	0.57	0.11	0.56
9,537.00	90.70	336.65	6,795.03	3,310.41	-954.43	3,026.10	1.44	-1.29	0.63
9,601.00	91.21	338.00	6,793.96	3,369.45	-979.10	3,078.42	2.25	0.80	2.11
9,664.00	91.01	339.02	6,792.74	3,428.06	-1,002.18	3,130.66	1.65	-0.32	1.62
9,728.00	90.64	339.57	6,791.82	3,487.92	-1,024.80	3,184.22	1.04	-0.58	0.86
9,792.00	91.21	341.26	6,790.79	3,548.21	-1,046.25	3,238.45	2.79	0.89	2.64
9,855.00	92.79	343.37	6,788.59	3,608.19	-1,065.38	3,292.89	4.18	2.51	3.35
9,919.00	92.68	342.01	6,785.54	3,669.22	-1,084.40	3,348.37	2.13	-0.17	-2.13
9,982.00	91.98	340.05	6,782.97	3,728.75	-1,104.86	3,402.07	3.30	-1.11	-3.11
10,046.00	92.71	340.38	6,780.35	3,788.92	-1,126.50	3,456.14	1.25	1.14	0.52
10,109.00	92.04	339.40	6,777.74	3,848.02	-1,148.15	3,509.18	1.88	-1.06	-1.56
10,173.00	91.41	338.95	6,775.82	3,907.82	-1,170.89	3,562.65	1.21	-0.98	-0.70
10,237.00	91.24	338.40	6,774.34	3,967.42	-1,194.16	3,615.82	0.90	-0.27	-0.86
10,301.00	89.93	338.16	6,773.68	4,026.87	-1,217.84	3,668.75	2.08	-2.05	-0.38
10,364.00	89.73	338.08	6,773.87	4,085.33	-1,241.32	3,720.76	0.34	-0.32	-0.13
10,428.00	90.30	337.46	6,773.85	4,144.57	-1,265.53	3,773.38	1.32	0.89	-0.97
10,492.00	91.54	338.20	6,772.83	4,203.83	-1,289.68	3,826.02	2.26	1.94	1.16
10,555.00	91.71	338.60	6,771.04	4,262.38	-1,312.86	3,878.18	0.69	0.27	0.63
10,617.00	91.74	338.76	6,769.17	4,320.12	-1,335.39	3,929.68	0.26	0.05	0.26
10,680.00	92.82	338.68	6,766.67	4,378.77	-1,358.24	3,982.02	1.72	1.71	-0.13
10,744.00	92.55	338.24	6,763.67	4,438.24	-1,381.71	4,035.01	0.81	-0.42	-0.69
10,807.00	92.14	338.09	6,761.09	4,496.67	-1,405.12	4,087.01	0.69	-0.65	-0.24
10,871.00	92.08	338.17	6,758.74	4,556.02	-1,428.94	4,139.81	0.16	-0.09	0.13
10,934.00	90.84	338.67	6,757.13	4,614.59	-1,452.11	4,191.99	2.12	-1.97	0.79
10,997.00	89.80	338.85	6,756.78	4,673.30	-1,474.93	4,244.39	1.68	-1.65	0.29
11,061.00	90.87	338.89	6,756.40	4,733.00	-1,498.00	4,297.70	1.67	1.67	0.06
11,124.00	91.38	339.19	6,755.17	4,791.82	-1,520.53	4,350.26	0.94	0.81	0.48
11,188.00	90.77	339.85	6,753.97	4,851.76	-1,542.92	4,403.95	1.40	-0.95	1.03
11,251.00	90.90	339.86	6,753.05	4,910.90	-1,564.61	4,457.01	0.21	0.21	0.02
11,316.00	91.68	339.60	6,751.59	4,971.86	-1,587.13	4,511.67	1.26	1.26	-0.40
11,379.00	92.01	340.56	6,749.56	5,031.06	-1,608.58	4,564.84	1.61	0.52	1.52
11,443.00	91.51	340.81	6,747.59	5,091.43	-1,629.74	4,619.21	0.87	0.78	0.39
11,507.00	91.61	340.25	6,745.85	5,151.75	-1,651.06	4,673.50	0.89	0.16	-0.88
11,570.00	92.02	339.86	6,743.85	5,210.94	-1,672.54	4,726.65	0.90	0.65	-0.62
11,634.00	91.78	339.88	6,741.73	5,271.00	-1,694.56	4,780.54	0.38	-0.38	0.03

RECEIVED
Office of Oil and Gas
APR 28 2015

WV Department of Environmental Protection
06/05/2015



Survey Report



Company:	Stone Energy	Local Co-ordinate Reference:	Well 5H
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:	5H	North Reference:	Grid
Wellbore:	ST02	Survey Calculation Method:	Minimum Curvature
Design:	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)
11,698.00	91.58	340.31	6,739.86	5,331.15	-1,716.34	4,834.56	0.74	-0.31	0.67
11,762.00	91.41	341.15	6,738.19	5,391.54	-1,737.45	4,888.97	1.34	-0.27	1.31
11,825.00	89.93	340.31	6,737.45	5,451.00	-1,758.24	4,942.54	2.70	-2.35	-1.33
11,889.00	89.63	339.69	6,737.69	5,511.14	-1,780.13	4,996.53	1.08	-0.47	-0.97
11,953.00	90.40	339.59	6,737.68	5,571.14	-1,802.40	5,050.31	1.21	1.20	-0.16
12,016.00	90.60	339.59	6,737.13	5,630.19	-1,824.36	5,103.21	0.32	0.32	0.00
12,079.00	91.14	340.24	6,736.17	5,689.35	-1,846.00	5,156.30	1.34	0.86	1.03
12,143.00	91.88	338.87	6,734.48	5,749.29	-1,868.34	5,210.00	2.43	1.16	-2.14
12,206.00	92.51	337.99	6,732.07	5,807.84	-1,891.49	5,262.17	1.72	1.00	-1.40
12,270.00	93.15	338.35	6,728.91	5,867.18	-1,915.26	5,314.97	1.15	1.00	0.56
12,334.00	92.01	337.88	6,726.03	5,926.50	-1,939.09	5,367.75	1.93	-1.78	-0.73
12,398.00	93.06	337.88	6,723.20	5,985.73	-1,963.16	5,420.38	1.64	1.64	0.00
Last SDI MWD Survey									
12,456.00	93.06	337.88	6,720.10	6,039.39	-1,984.97	5,468.06	0.00	0.00	0.00
Projection to Bit									

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
18.00	18.00	0.00	0.00	Ground level
103.00	102.99	-0.71	-0.45	First SDI Gyro Survey
2,438.00	2,436.35	42.63	15.08	Last SDI Gyro Survey
2,510.00	2,508.32	44.70	14.55	First SDI MWD Survey
12,398.00	6,723.20	5,985.73	-1,963.16	Last SDI MWD Survey
12,456.00	6,720.10	6,039.39	-1,984.97	Projection to Bit

Checked By: _____ Approved By: _____ Date: _____