



Stone Energy

Mary Prospect

Blake Pad

2H

OH

Design: As Drilled

Standard Survey Report

20 February, 2014



www.scientificdrilling.com

06/02/2017



Project: Mary Prospect
 Site: Blake Pad
 Well: 2H
 Wellbore: OH
 Design: As Drilled



WELL DETAILS: 2H

REFERENCE INFORMATION

PROJECT DETAILS: Mary Prospect

+N/-S	+E/-W	Northing	Ground Level: Easting	2993.00	Latitude	Longitude
0.00	0.00	420231.00	1634321.00		39° 38' 47.472 N	80° 47' 55.154 W

Co-ordinate (N/E) Reference: Well 2H, Grid North
 Vertical (TVD) Reference: GL 1293' & KB 10' @ 1303.00ft (Highlands 2)
 Section (VS) Reference: Slot - (0.00N, 0.00E)
 Measured Depth Reference: GL 1293' & KB 10' @ 1303.00ft (Highlands 2)
 Calculation Method: Minimum Curvature

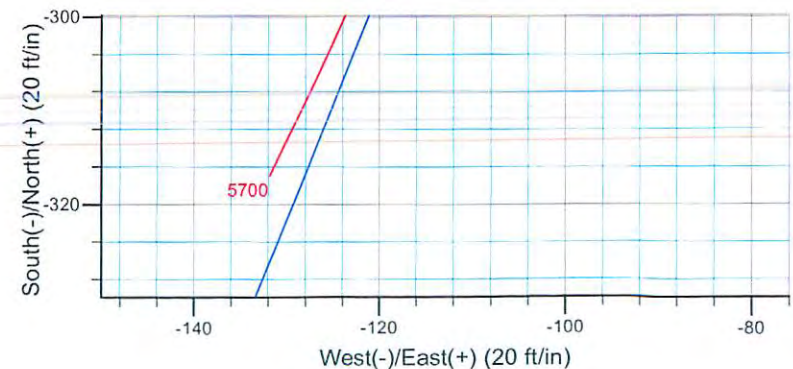
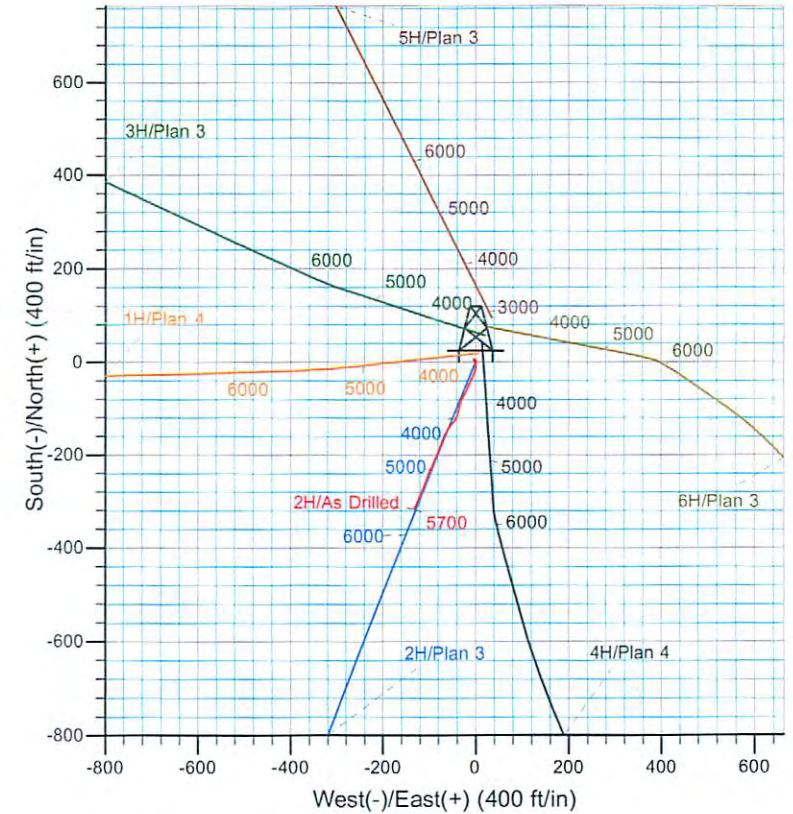
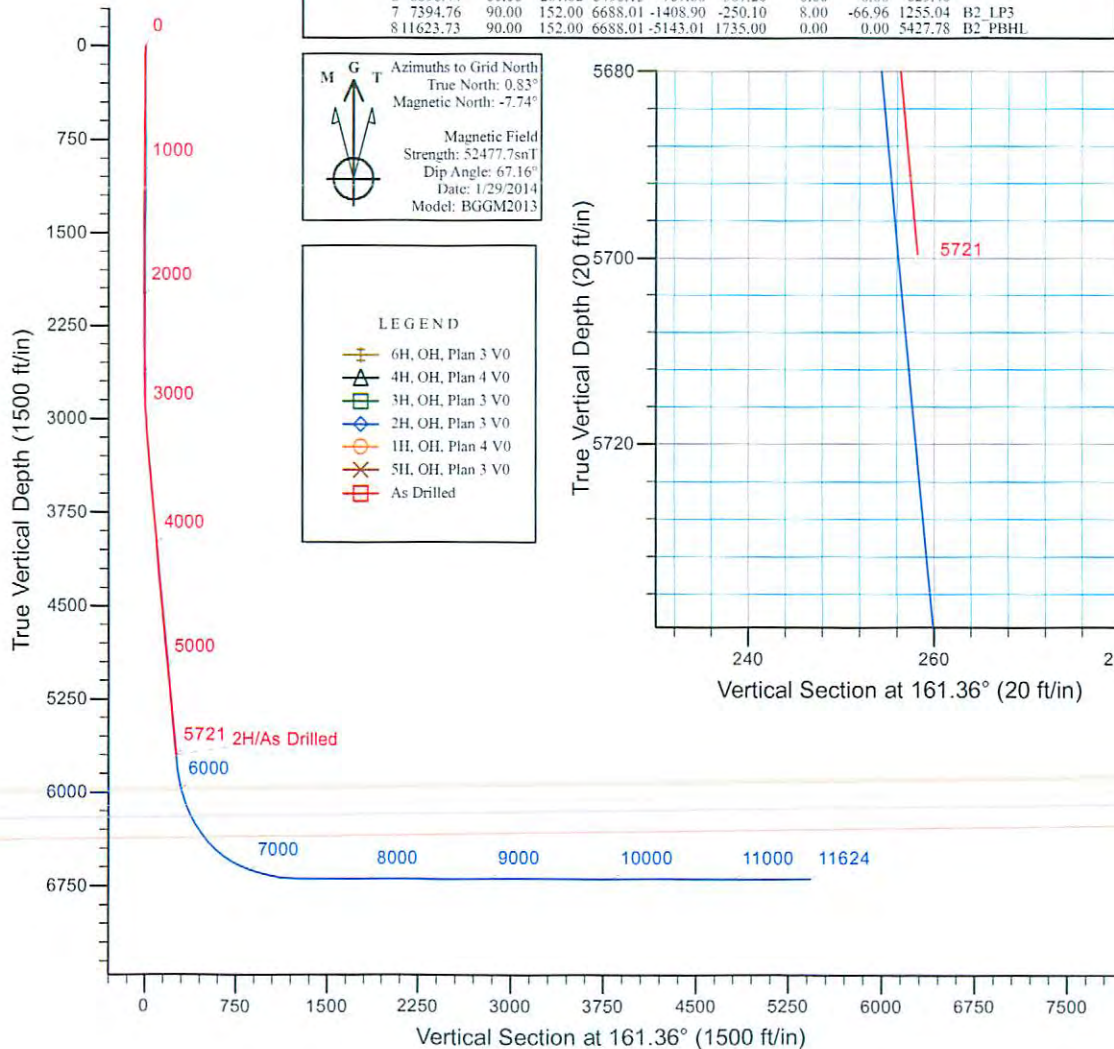
Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: West Virginia North 4701
 System Datum: Mean Sea Level

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Ddeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2600.01	0.00	0.00	2600.01	0.00	0.00	0.00	0.00	0.00	
3	3300.01	7.00	202.00	3298.27	-39.60	-16.00	1.00	202.00	32.41	
4	5802.71	7.00	202.00	5782.32	-322.39	-130.25	0.00	0.00	263.84	
5	6686.01	60.00	201.62	6492.92	-759.48	-303.87	6.00	-0.42	622.50	
6	6696.44	60.00	201.62	6498.13	-767.88	-307.20	0.00	0.00	629.40	
7	7394.76	90.00	152.00	6688.01	-1408.90	-250.10	8.00	-66.96	1255.04	B2_LP3
8	11623.73	90.00	152.00	6688.01	-5143.01	1735.00	0.00	0.00	5427.78	B2_PBHL

Azimuths to Grid North
 True North: 0.83°
 Magnetic North: -7.74°
 Magnetic Field
 Strength: 52477.7snI
 Dip Angle: 67.16°
 Date: 1/29/2014
 Model: BGGM2013

LEGEND

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





Scientific Drilling

Survey Report



Company:	Stone Energy	Local Co-ordinate Reference:	Well 2H
Project:	Mary Prospect	TVD Reference:	GL 1293' & KB 10' @ 1303.00ft (Highlands 2)
Site:	Blake Pad	MD Reference:	GL 1293' & KB 10' @ 1303.00ft (Highlands 2)
Well:	2H	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	Blake Pad				
Site Position:		Northing:	420,250.00 usft	Latitude:	39° 38' 47.661 N
From:	Map	Easting:	1,634,328.00 usft	Longitude:	80° 47' 55.068 W
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.83 °

Well	2H					
Well Position	+N/-S	0.00 ft	Northing:	420,231.00 usft	Latitude:	39° 38' 47.472 N
	+E/-W	0.00 ft	Easting:	1,634,321.00 usft	Longitude:	80° 47' 55.154 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	1,293.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	11/14/2013	-8.56	67.18	52,505
	BGGM2013	1/29/2014	-8.57	67.16	52,478

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	161.36	

Survey Program	Date	2/20/2014			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
10.00	3,400.00	Survey 1 - SDI Gyro (OH)	SDI Standard Keeper 103	SDI Standard Wireline Keeper ver 1.0.3	
3,500.00	5,721.00	Survey 2 - 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	0.00
10.00	0.00	360.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ground Level										
100.00	0.16	330.46	100.00	0.11	-0.06	-0.12	0.18	0.18	0.00	0.00
First SDI Gyro Survey										
200.00	0.22	331.36	200.00	0.40	-0.22	-0.45	0.06	0.06	0.90	0.00
300.00	0.18	325.88	300.00	0.70	-0.40	-0.79	0.04	-0.04	-5.48	0.00
400.00	0.28	333.96	400.00	1.05	-0.60	-1.18	0.10	0.10	8.08	0.00



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Survey Report



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Site:	Blake Pad	MD Reference:	GL 1293' & KB 10' @ 1303.00ft (Highlands 2)
Well:	2H	North Reference:	Grid
Wellbore:	OH	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)	
500.00	0.11	324.89	500.00	1.35	-0.76	-1.52	0.17	-0.17	-9.07	
600.00	0.12	316.71	600.00	1.50	-0.89	-1.71	0.02	0.01	-8.18	
700.00	0.30	306.16	700.00	1.73	-1.17	-2.01	0.18	0.18	-10.55	
800.00	0.23	309.32	800.00	2.01	-1.54	-2.40	0.07	-0.07	3.16	
900.00	0.20	311.68	899.99	2.26	-1.82	-2.72	0.03	-0.03	2.36	
1,000.00	0.16	313.04	999.99	2.47	-2.06	-2.99	0.04	-0.04	1.36	
1,100.00	0.22	313.68	1,099.99	2.70	-2.30	-3.29	0.06	0.06	0.64	
1,200.00	0.22	321.09	1,199.99	2.98	-2.56	-3.64	0.03	0.00	7.41	
1,300.00	0.21	319.16	1,299.99	3.27	-2.80	-3.99	0.01	-0.01	-1.93	
1,400.00	0.19	330.98	1,399.99	3.55	-3.00	-4.32	0.05	-0.02	11.82	
1,500.00	0.31	337.69	1,499.99	3.94	-3.18	-4.75	0.12	0.12	6.71	
1,600.00	0.30	346.62	1,599.99	4.45	-3.34	-5.28	0.05	-0.01	8.93	
1,700.00	0.38	354.71	1,699.99	5.03	-3.43	-5.87	0.09	0.08	8.09	
1,800.00	0.38	359.62	1,799.99	5.70	-3.47	-6.51	0.03	0.00	4.91	
1,900.00	0.26	5.22	1,899.98	6.25	-3.45	-7.03	0.12	-0.12	5.60	
2,000.00	0.17	65.50	1,999.98	6.54	-3.29	-7.25	0.23	-0.09	60.28	
2,100.00	0.48	121.65	2,099.98	6.38	-2.80	-6.94	0.41	0.31	56.15	
2,200.00	0.52	124.84	2,199.98	5.90	-2.07	-6.26	0.05	0.04	3.19	
2,300.00	0.56	129.39	2,299.97	5.33	-1.32	-5.48	0.06	0.04	4.55	
2,400.00	0.67	136.80	2,399.97	4.60	-0.54	-4.53	0.14	0.11	7.41	
2,500.00	0.53	138.20	2,499.96	3.83	0.16	-3.57	0.14	-0.14	1.40	
2,600.00	0.42	141.40	2,599.96	3.20	0.70	-2.80	0.11	-0.11	3.20	
2,700.00	0.48	153.44	2,699.96	2.53	1.12	-2.04	0.11	0.06	12.04	
2,800.00	2.10	178.45	2,799.93	0.33	1.35	0.12	1.68	1.62	25.01	
2,900.00	3.60	183.48	2,899.80	-4.64	1.21	4.78	1.52	1.50	5.03	
3,000.00	4.27	186.22	2,999.56	-11.47	0.62	11.07	0.70	0.67	2.74	
3,100.00	4.36	196.20	3,099.28	-18.82	-0.84	17.57	0.76	0.09	9.98	
3,200.00	5.26	203.40	3,198.93	-26.68	-3.73	24.09	1.08	0.90	7.20	
3,300.00	7.13	204.74	3,298.34	-36.52	-8.14	32.01	1.88	1.87	1.34	
3,400.00	7.66	204.49	3,397.51	-48.23	-13.50	41.38	0.53	0.53	-0.25	
Last SDI Gyro Survey										
3,500.00	6.56	201.78	3,496.74	-59.60	-18.39	50.59	1.15	-1.10	-2.71	
First SDI MWD Survey										
3,556.00	6.59	210.34	3,552.37	-65.34	-21.20	55.14	1.75	0.05	15.29	
3,651.00	6.63	210.76	3,646.74	-74.76	-26.75	62.28	0.07	0.04	0.44	
3,745.00	7.34	197.27	3,740.05	-85.16	-31.31	70.68	1.90	0.76	-14.35	
3,839.00	8.30	189.97	3,833.18	-97.57	-34.27	81.50	1.47	1.02	-7.77	
3,933.00	7.09	195.52	3,926.33	-109.84	-37.00	92.26	1.51	-1.29	5.90	
4,028.00	6.74	207.75	4,020.64	-120.43	-41.16	100.95	1.59	-0.37	12.87	
4,122.00	6.78	218.67	4,113.99	-129.64	-47.20	107.75	1.37	0.04	11.62	
4,216.00	7.62	218.86	4,207.25	-138.83	-54.58	114.10	0.89	0.89	0.20	
4,309.00	8.36	207.59	4,299.35	-149.62	-61.58	122.09	1.86	0.80	-12.12	
4,403.00	7.15	203.89	4,392.49	-161.03	-67.11	131.13	1.39	-1.29	-3.94	
4,497.00	6.94	196.05	4,485.79	-171.83	-71.05	140.11	1.05	-0.22	-8.34	



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Well:	2H	North Reference:	Grid
Wellbore:	OH	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)	
4,590.00	6.55	204.47	4,578.14	-182.06	-74.80	148.60	1.14	-0.42	9.05	
4,684.00	6.22	201.85	4,671.56	-191.67	-78.92	156.39	0.47	-0.35	-2.79	
4,778.00	6.86	203.15	4,764.95	-201.56	-83.02	164.44	0.70	0.68	1.38	
4,873.00	7.20	199.73	4,859.24	-212.38	-87.26	173.34	0.57	0.36	-3.60	
4,967.00	7.57	207.97	4,952.46	-223.39	-92.15	182.21	1.19	0.39	8.77	
5,061.00	7.86	204.91	5,045.61	-234.69	-97.76	191.13	0.53	0.31	-3.26	
5,155.00	8.77	199.50	5,138.62	-247.27	-102.86	201.42	1.28	0.97	-5.76	
5,249.00	7.68	201.71	5,231.65	-259.86	-107.58	211.84	1.21	-1.16	2.35	
5,344.00	7.82	198.32	5,325.78	-271.90	-111.96	221.84	0.50	0.15	-3.57	
5,438.00	7.31	204.37	5,418.97	-283.42	-116.44	231.33	1.01	-0.54	6.44	
5,532.00	7.69	202.79	5,512.16	-294.66	-121.34	240.42	0.46	0.40	-1.68	
5,626.00	7.43	206.04	5,605.35	-305.92	-126.44	249.45	0.53	-0.28	3.46	
Last SDI MWD Survey										
5,721.00	7.43	206.04	5,699.55	-316.96	-131.84	258.19	0.00	0.00	0.00	
Projection to Bit										

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
10.00	10.00	0.00	0.00	Ground Level	
100.00	100.00	0.11	-0.06	First SDI Gyro Survey	
3,400.00	3,397.51	-48.23	-13.50	Last SDI Gyro Survey	
3,500.00	3,496.74	-59.60	-18.39	First SDI MWD Survey	
5,626.00	5,605.35	-305.92	-126.44	Last SDI MWD Survey	
5,721.00	5,699.55	-316.96	-131.84	Projection to Bit	

Checked By: _____ Approved By: _____ Date: _____