



Stone Energy

Mary Prospect

Blake Pad

3H

OH

Design: As Drilled

Standard Survey Report

28 March, 2014



www.scientificdrilling.com

06/02/2017



Project: Mary Prospect
 Site: Blake Pad
 Well: 3H
 Wellbore: OH
 Design: As Drilled



WELL DETAILS: 3H

+N/-S	+E/-W	Northing	Ground Level: Easting	293.00	Latitude	Longitude
0.00	0.00	420287.00	1634342.00		39° 38' 48.029 N	80° 47' 54.896 W

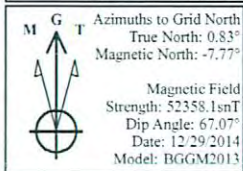
REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well 3H, Grid North
 Vertical (TVD) Reference: GL 1293° & KB 10° @ 1303.00R (Highlands 2)
 Section (VS) Reference: Slot - (0.00N, 0.00E)
 Measured Depth Reference: GL 1293° & KB 10° @ 1303.00R (Highlands 2)
 Calculation Method: Minimum Curvature

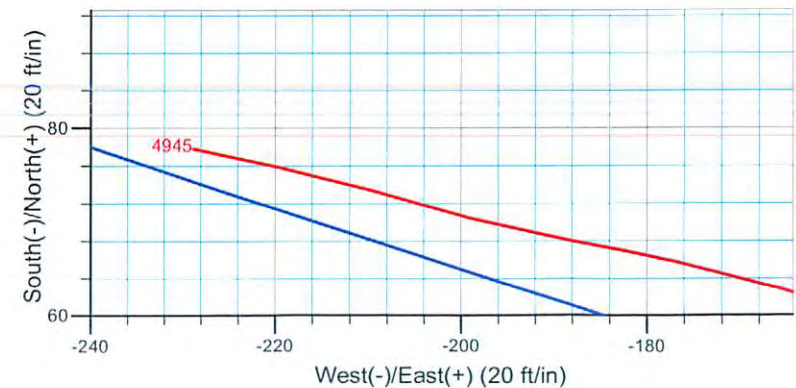
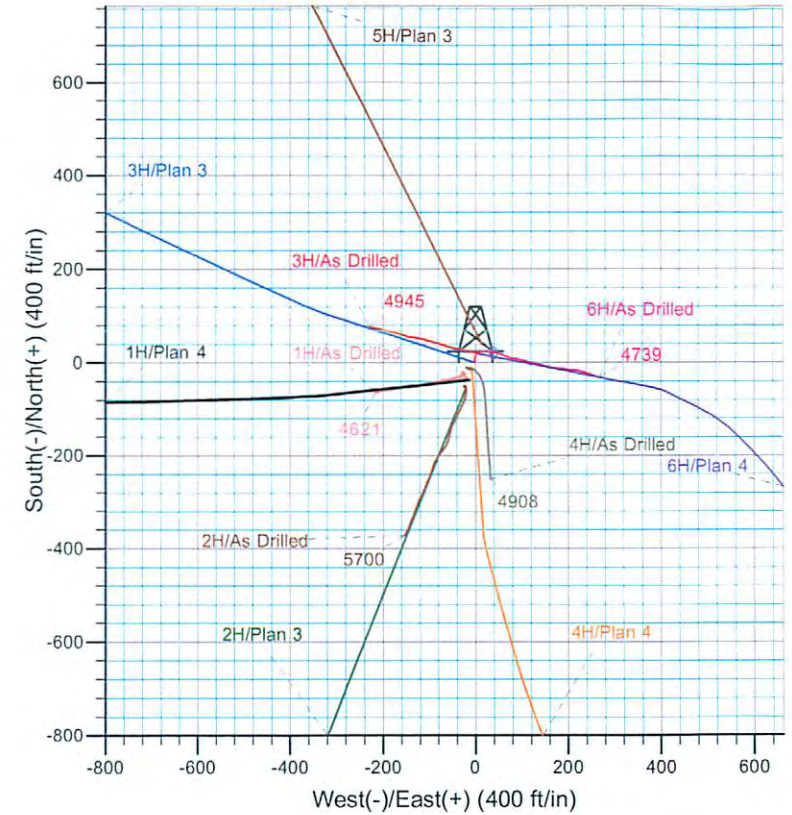
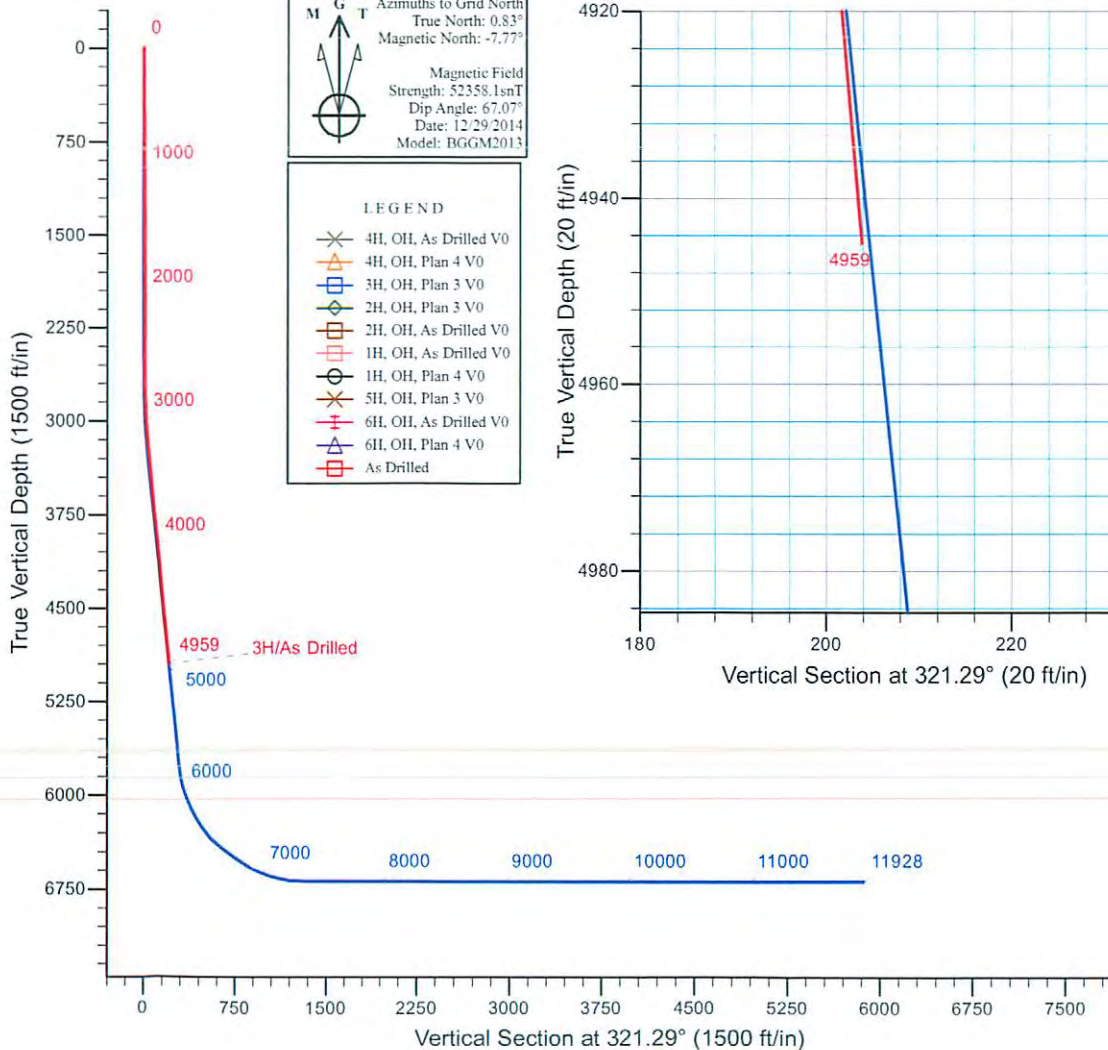
PROJECT DETAILS: Mary Prospect

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	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	288.00	3298.27	13.20	-40.62	1.00	288.00	35.70	
4	5781.01	7.00	288.00	5760.78	106.63	-328.18	0.00	0.00	288.45	
5	6665.46	60.01	295.14	6472.38	300.05	-757.27	6.00	7.74	707.73	
6	6812.42	60.01	295.14	6545.84	354.14	-872.49	0.00	0.00	821.99	
7	7353.90	90.00	328.00	6688.01	700.00	-1246.20	8.00	52.26	1325.59	B3H LP
8	11927.91	90.00	328.00	6688.01	4579.01	-3670.01	0.00	90.00	5868.24	B3H PBHL



LEGEND	
✕	4H, OH, As Drilled V0
△	4H, OH, Plan 4 V0
□	3H, OH, Plan 3 V0
◇	2H, OH, Plan 3 V0
■	2H, OH, As Drilled V0
▨	1H, OH, As Drilled V0
○	1H, OH, Plan 4 V0
✱	5H, OH, Plan 3 V0
+	6H, OH, As Drilled V0
△	6H, OH, Plan 4 V0
▨	As Drilled





Scientific Drilling
Survey Report



Company:	Stone Energy	Local Co-ordinate Reference:	Well 3H
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:	3H	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	3H					
Well Position	+N/-S	0.00 ft	Northing:	420,287.00 usft	Latitude:	39° 38' 48.029 N
	+E/-W	0.00 ft	Easting:	1,634,342.00 usft	Longitude:	80° 47' 54.896 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	12/29/2014	-8.59	67.07	52,358

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	321.29	

Survey Program	Date	3/28/2014			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.00	4,959.00	Survey 1 - Vaughn Gyro (OH)	NS-GYRO-MS	North sensing gyrocompassing m/s	

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	
100.00	0.69	330.85	100.00	0.53	-0.29	0.59	0.69	0.69	0.00	
First Vaughn Gyro Survey										
200.00	0.70	338.11	199.99	1.62	-0.81	1.77	0.09	0.01	7.26	
300.00	0.60	341.89	299.98	2.68	-1.20	2.85	0.11	-0.10	3.78	
400.00	0.60	357.73	399.98	3.70	-1.39	3.76	0.17	0.00	15.84	
500.00	0.59	354.73	499.97	4.74	-1.46	4.61	0.03	-0.01	-3.00	
600.00	0.62	352.80	599.97	5.79	-1.57	5.50	0.04	0.03	-1.93	
700.00	0.56	7.42	699.96	6.81	-1.58	6.30	0.16	-0.06	14.62	

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Well:	3H	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)	
800.00	0.61	5.46	799.96	7.83	-1.46	7.02	0.05	0.05	-1.96	
900.00	0.60	7.28	899.95	8.87	-1.35	7.77	0.02	-0.01	1.82	
1,000.00	0.51	18.37	999.95	9.82	-1.14	8.37	0.14	-0.09	11.09	
1,100.00	0.70	32.02	1,099.94	10.76	-0.67	8.82	0.24	0.19	13.65	
1,200.00	0.61	30.38	1,199.93	11.73	-0.08	9.21	0.09	-0.09	-1.64	
1,300.00	0.73	27.37	1,299.93	12.76	0.48	9.65	0.13	0.12	-3.01	
1,400.00	0.90	28.22	1,399.92	14.02	1.14	10.22	0.17	0.17	0.85	
1,500.00	1.02	23.34	1,499.90	15.53	1.87	10.95	0.15	0.12	-4.88	
1,600.00	1.04	17.67	1,599.89	17.21	2.50	11.87	0.10	0.02	-5.67	
1,700.00	1.00	10.06	1,699.87	18.93	2.92	12.94	0.14	-0.04	-7.61	
1,800.00	0.76	8.20	1,799.86	20.45	3.17	13.97	0.24	-0.24	-1.86	
1,900.00	0.72	10.73	1,899.85	21.72	3.38	14.83	0.05	-0.04	2.53	
2,000.00	0.40	24.26	1,999.85	22.66	3.64	15.40	0.34	-0.32	13.53	
2,100.00	0.46	38.26	2,099.84	23.29	4.04	15.65	0.12	0.06	14.00	
2,200.00	0.41	95.38	2,199.84	23.57	4.64	15.49	0.42	-0.05	57.12	
2,300.00	0.55	103.36	2,299.84	23.43	5.46	14.86	0.15	0.14	7.98	
2,400.00	0.49	108.26	2,399.83	23.18	6.34	14.13	0.07	-0.06	4.90	
2,500.00	0.65	106.92	2,499.83	22.88	7.29	13.30	0.16	0.16	-1.34	
2,550.00	0.74	118.89	2,549.83	22.64	7.84	12.77	0.34	0.18	23.94	
2,616.00	0.32	94.12	2,615.82	22.43	8.40	12.25	0.71	-0.64	-37.53	
2,710.00	1.33	275.89	2,709.82	22.52	7.57	12.83	1.76	1.07	-189.61	
2,805.00	2.82	275.17	2,804.75	22.84	4.15	15.23	1.57	1.57	-0.76	
2,899.00	3.13	266.97	2,898.62	22.91	-0.72	18.33	0.56	0.33	-8.72	
2,993.00	4.24	276.90	2,992.43	23.20	-6.73	22.31	1.36	1.18	10.56	
3,087.00	5.53	285.59	3,086.09	24.83	-14.54	28.47	1.58	1.37	9.24	
3,181.00	7.10	281.01	3,179.51	27.16	-24.61	36.58	1.75	1.67	-4.87	
3,275.00	7.37	277.54	3,272.77	29.06	-36.29	45.37	0.55	0.29	-3.69	
3,370.00	6.73	281.52	3,367.05	30.97	-47.78	54.05	0.85	-0.67	4.19	
3,464.00	6.70	292.00	3,460.41	34.12	-58.26	63.07	1.30	-0.03	11.15	
3,558.00	6.16	290.71	3,553.82	37.96	-68.07	72.19	0.59	-0.57	-1.37	
3,652.00	6.20	285.62	3,647.27	41.11	-77.67	80.66	0.58	0.04	-5.41	
3,746.00	7.44	282.91	3,740.60	43.84	-88.49	89.55	1.36	1.32	-2.88	
3,840.00	8.27	285.14	3,833.72	46.96	-100.95	99.78	0.94	0.88	2.37	
3,934.00	7.72	282.50	3,926.81	50.10	-113.64	110.16	0.70	-0.59	-2.81	
4,028.00	6.86	280.64	4,020.05	52.50	-125.32	119.34	0.95	-0.91	-1.98	
4,123.00	5.92	276.24	4,114.46	54.08	-135.77	127.11	1.11	-0.99	-4.63	
4,217.00	5.51	286.72	4,207.99	55.91	-144.91	134.25	1.19	-0.44	11.15	
4,311.00	6.32	290.93	4,301.49	59.05	-154.06	142.43	0.98	0.86	4.48	
4,405.00	7.58	285.94	4,394.80	62.60	-164.86	151.95	1.49	1.34	-5.31	
4,499.00	7.53	283.38	4,487.98	65.73	-176.81	161.87	0.36	-0.05	-2.72	
4,594.00	6.61	279.36	4,582.26	68.06	-188.26	170.85	1.10	-0.97	-4.23	
4,688.00	6.89	285.63	4,675.61	70.46	-199.03	179.45	0.84	0.30	6.67	
4,782.00	6.32	285.88	4,768.98	73.39	-209.44	188.25	0.61	-0.61	0.27	



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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)	
4,867.00	6.48	282.29	4,853.46	75.70	-218.63	195.79	0.51	0.19	-4.22	
Last Vaughn Gyro Survey										
4,876.00	6.50	281.92	4,862.40	75.91	-219.62	196.58	0.51	0.21	-4.11	
4,959.00	6.50	281.92	4,944.86	77.85	-228.81	203.85	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)		
100.00	100.00	0.53	-0.29	First Vaughn Gyro Survey	
4,867.00	4,853.46	75.70	-218.63	Last Vaughn Gyro Survey	
4,959.00	4,944.86	77.85	-228.81	Projection to Bit	

Checked By: _____ Approved By: _____ Date: _____