



Stone Energy

Mary Prospect

Blake Pad

6H

OH

Design: As Drilled

Standard Survey Report

15 April, 2014



www.scientificdrilling.com

06/02/2017



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



WELL DETAILS: 6H

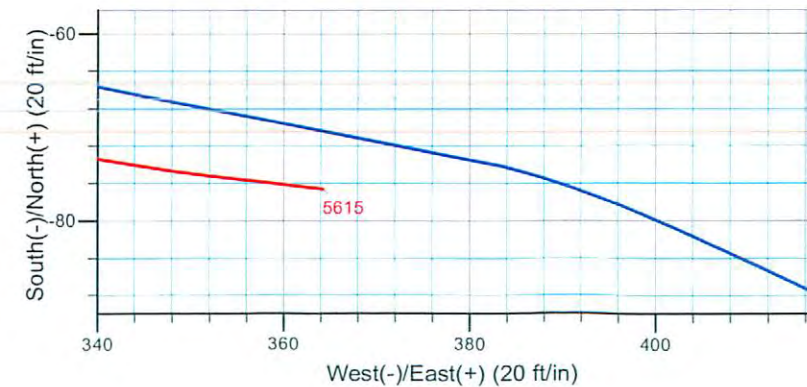
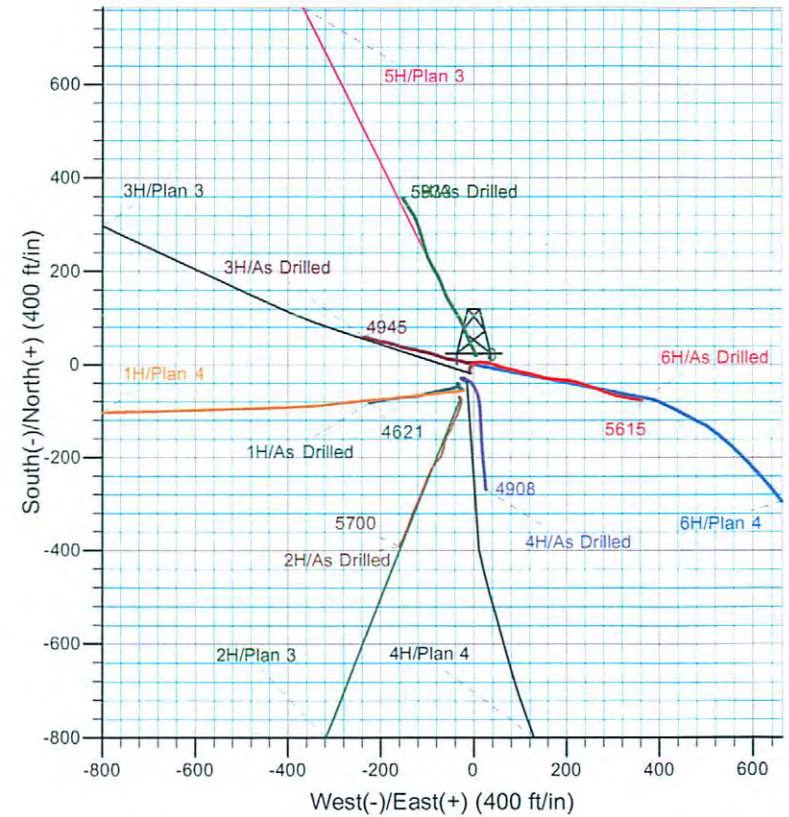
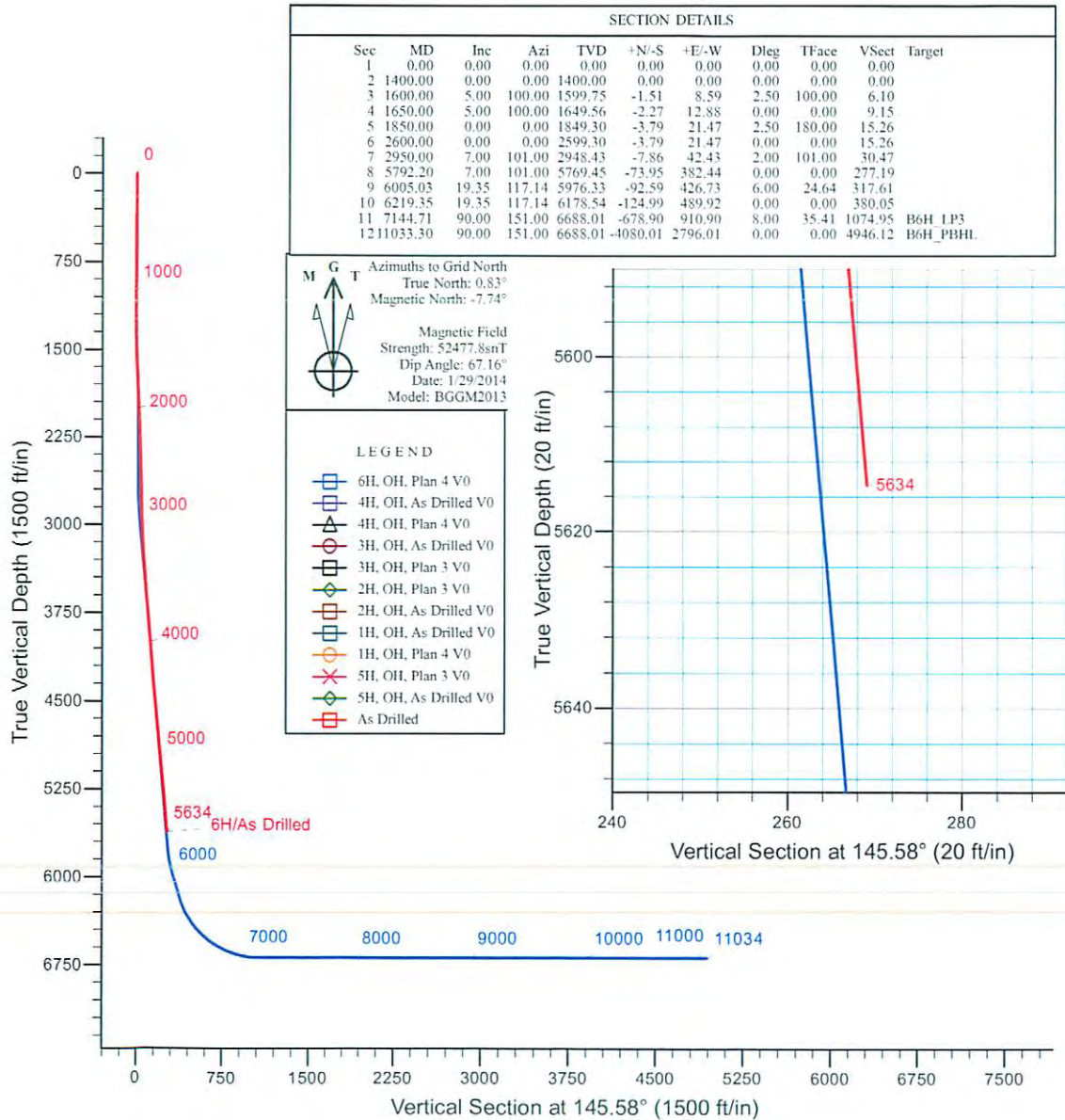
REFERENCE INFORMATION

PROJECT DETAILS: Mary Prospect

+N/-S	+E/-W	Northing	Ground Level: Easting	1293.00	Latitude	Longitude
0.00	0.00	420306.00	1634349.00		39° 38' 48.217 N	80° 47' 54.810 W

Co-ordinate (N/E) Reference: Well 6H, 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





Scientific Drilling
Survey Report



Company:	Stone Energy	Local Co-ordinate Reference:	Well 6H
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:	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	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	6H					
Well Position	+N/-S	0.00 ft	Northing:	420,306.00 usft	Latitude:	39° 38' 48.217 N
	+E/-W	0.00 ft	Easting:	1,634,349.00 usft	Longitude:	80° 47' 54.810 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	145.58	

Survey Program	Date	4/15/2014			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
10.00	2,590.00	Survey 3 - SDI Gyro (OH)	SDI Standard Keeper 103	SDI Standard Wireline Keeper ver 1.0.3	
2,590.00	5,634.00	Survey 4 - 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	
10.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	
Ground Level										
25.00	0.14	341.53	25.00	0.02	-0.01	-0.02	0.93	0.93	0.00	
First SDI Gyro Survey										
50.00	0.27	341.53	50.00	0.10	-0.03	-0.10	0.52	0.52	0.00	
75.00	0.41	341.53	75.00	0.24	-0.08	-0.25	0.56	0.56	0.00	
100.00	0.55	341.53	100.00	0.44	-0.15	-0.45	0.56	0.56	0.00	



Scientific Drilling
Survey Report



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Site:	Blake Pad	MD Reference:	GL 1293' & KB 10' @ 1303.00ft (Highlands 2)
Well:	6H	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)	
125.00	0.54	330.16	125.00	0.66	-0.24	-0.68	0.43	-0.04	-45.48	
150.00	0.57	338.16	150.00	0.88	-0.35	-0.92	0.33	0.12	32.00	
175.00	0.59	336.46	174.99	1.11	-0.45	-1.17	0.11	0.08	-6.80	
200.00	0.54	338.42	199.99	1.34	-0.54	-1.41	0.21	-0.20	7.84	
225.00	0.63	316.53	224.99	1.55	-0.68	-1.66	0.96	0.36	-87.56	
250.00	0.45	338.85	249.99	1.74	-0.81	-1.89	1.09	-0.72	89.28	
275.00	0.53	352.37	274.99	1.94	-0.86	-2.09	0.56	0.32	54.08	
300.00	0.32	345.73	299.99	2.13	-0.89	-2.26	0.86	-0.84	-26.56	
325.00	0.27	339.68	324.99	2.25	-0.93	-2.38	0.24	-0.20	-24.20	
350.00	0.09	330.92	349.99	2.32	-0.96	-2.46	0.73	-0.72	-35.04	
375.00	0.21	2.83	374.99	2.38	-0.97	-2.51	0.57	0.48	127.64	
400.00	0.14	311.23	399.99	2.45	-0.99	-2.58	0.66	-0.28	-206.40	
425.00	0.06	297.29	424.99	2.48	-1.02	-2.62	0.33	-0.32	-55.76	
450.00	0.13	358.62	449.99	2.51	-1.04	-2.66	0.46	0.28	245.32	
475.00	0.13	24.85	474.99	2.56	-1.02	-2.69	0.24	0.00	104.92	
500.00	0.08	283.64	499.99	2.59	-1.03	-2.72	0.66	-0.20	-404.84	
525.00	0.14	314.34	524.99	2.62	-1.07	-2.76	0.33	0.24	122.80	
550.00	0.07	312.00	549.99	2.65	-1.10	-2.81	0.28	-0.28	-9.36	
575.00	0.07	271.11	574.99	2.66	-1.13	-2.83	0.20	0.00	-163.56	
600.00	0.07	333.56	599.99	2.68	-1.15	-2.86	0.29	0.00	249.80	
625.00	0.07	284.22	624.99	2.69	-1.17	-2.88	0.23	0.00	-197.36	
650.00	0.09	335.64	649.99	2.71	-1.19	-2.91	0.29	0.08	205.68	
675.00	0.13	283.89	674.99	2.74	-1.23	-2.95	0.41	0.16	-207.00	
700.00	0.04	29.51	699.99	2.75	-1.25	-2.98	0.58	-0.36	422.48	
725.00	0.13	324.73	724.99	2.78	-1.27	-3.01	0.47	0.36	-259.12	
750.00	0.06	333.95	749.99	2.82	-1.29	-3.05	0.29	-0.28	36.88	
775.00	0.06	344.69	774.99	2.84	-1.30	-3.08	0.04	0.00	42.96	
800.00	0.08	336.84	799.99	2.87	-1.31	-3.11	0.09	0.08	-31.40	
825.00	0.11	10.03	824.99	2.91	-1.31	-3.14	0.25	0.12	132.76	
850.00	0.06	276.31	849.99	2.94	-1.32	-3.17	0.51	-0.20	-374.88	
875.00	0.02	15.64	874.99	2.94	-1.33	-3.18	0.27	-0.16	397.32	
900.00	0.11	32.22	899.99	2.97	-1.32	-3.19	0.36	0.36	66.32	
925.00	0.07	43.32	924.99	3.00	-1.29	-3.20	0.17	-0.16	44.40	
950.00	0.14	40.69	949.99	3.03	-1.26	-3.22	0.28	0.28	-10.52	
975.00	0.06	14.79	974.99	3.07	-1.24	-3.23	0.36	-0.32	-103.60	
1,000.00	0.11	25.17	999.99	3.10	-1.23	-3.25	0.21	0.20	41.52	
1,025.00	0.11	9.37	1,024.99	3.15	-1.21	-3.28	0.12	0.00	-63.20	
1,050.00	0.11	316.57	1,049.99	3.19	-1.22	-3.32	0.39	0.00	-211.20	
1,075.00	0.11	47.41	1,074.99	3.22	-1.22	-3.35	0.63	0.00	363.36	
1,100.00	0.09	34.65	1,099.99	3.26	-1.19	-3.36	0.12	-0.08	-51.04	
1,125.00	0.09	330.41	1,124.99	3.29	-1.19	-3.39	0.38	0.00	-256.96	
1,150.00	0.09	15.92	1,149.99	3.32	-1.20	-3.42	0.28	0.00	182.04	
1,175.00	0.11	342.29	1,174.99	3.37	-1.20	-3.45	0.24	0.08	-134.52	
1,200.00	0.13	337.59	1,199.99	3.42	-1.22	-3.51	0.09	0.08	-18.80	

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Site:	Blake Pad	MD Reference:	GL 1293' & KB 10' @ 1303.00ft (Highlands 2)
Well:	6H	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)
1,255.00	0.20	332.70	1,254.99	3.56	-1.28	-3.66	0.13	0.13	-8.89
1,350.00	1.74	84.73	1,349.97	3.84	0.08	-3.12	1.92	1.62	117.93
1,444.00	3.48	75.07	1,443.87	4.70	4.25	-1.48	1.90	1.85	-10.28
1,538.00	4.11	89.89	1,537.67	5.45	10.38	1.37	1.23	0.67	15.77
1,632.00	4.19	88.34	1,631.42	5.55	17.18	5.13	0.15	0.09	-1.65
1,726.00	4.24	101.23	1,725.17	4.97	24.02	9.48	1.01	0.05	13.71
1,820.00	4.52	98.70	1,818.90	3.74	31.09	14.49	0.36	0.30	-2.69
1,914.00	3.08	103.65	1,912.69	2.58	37.21	18.90	1.57	-1.53	5.27
2,009.00	3.33	106.87	2,007.54	1.18	42.33	22.96	0.32	0.26	3.39
2,100.00	3.48	105.71	2,098.38	-0.34	47.51	27.14	0.18	0.16	-1.27
2,200.00	2.96	110.37	2,198.22	-2.06	52.86	31.58	0.58	-0.52	4.66
2,300.00	2.32	112.94	2,298.11	-3.74	57.14	35.39	0.65	-0.64	2.57
2,400.00	2.05	113.07	2,398.04	-5.23	60.65	38.60	0.27	-0.27	0.13
2,500.00	1.76	108.99	2,497.98	-6.43	63.75	41.34	0.32	-0.29	-4.08
2,590.00	1.48	107.31	2,587.95	-7.23	66.17	43.37	0.32	-0.31	-1.87
Last SDI Gyro Survey									
2,710.00	1.18	99.49	2,707.92	-7.90	68.86	45.44	0.29	-0.25	-6.52
First SDI MWD Survey									
2,772.00	1.32	103.85	2,769.90	-8.17	70.19	46.42	0.27	0.23	7.03
2,866.00	1.71	99.29	2,863.87	-8.66	72.62	48.19	0.43	0.41	-4.85
2,960.00	1.72	96.30	2,957.83	-9.04	75.41	50.08	0.10	0.01	-3.18
3,054.00	2.85	103.26	3,051.75	-9.73	79.08	52.73	1.24	1.20	7.40
3,149.00	4.40	104.38	3,146.56	-11.18	84.91	57.22	1.63	1.63	1.18
3,243.00	5.89	105.78	3,240.18	-13.38	93.05	63.64	1.59	1.59	1.49
3,337.00	6.07	104.12	3,333.66	-15.91	102.51	71.07	0.27	0.19	-1.77
3,431.00	5.90	101.61	3,427.15	-18.09	112.06	78.27	0.33	-0.18	-2.67
3,525.00	5.75	97.79	3,520.67	-19.70	121.46	84.91	0.44	-0.16	-4.06
3,622.00	6.75	107.31	3,617.09	-22.06	131.72	92.65	1.48	1.03	9.81
3,716.00	6.91	105.75	3,710.43	-25.24	142.43	101.33	0.26	0.17	-1.66
3,810.00	6.49	103.15	3,803.78	-27.98	153.05	109.60	0.55	-0.45	-2.77
3,904.00	6.14	99.95	3,897.21	-30.06	163.17	117.03	0.53	-0.37	-3.40
3,999.00	6.83	96.47	3,991.60	-31.57	173.79	124.29	0.84	0.73	-3.66
4,093.00	6.41	92.14	4,084.98	-32.40	184.59	131.07	0.69	-0.45	-4.61
4,187.00	6.91	97.01	4,178.34	-33.28	195.44	137.94	0.80	0.53	5.18
4,281.00	6.67	97.19	4,271.69	-34.66	206.47	145.31	0.26	-0.26	0.19
4,375.00	6.71	103.06	4,365.05	-36.58	217.24	152.98	0.73	0.04	6.24
4,470.00	6.47	102.58	4,459.42	-39.00	227.87	160.98	0.26	-0.25	-0.51
4,564.00	6.87	108.83	4,552.78	-41.97	238.36	169.36	0.88	0.43	6.65
4,658.00	7.45	111.56	4,646.05	-46.02	249.35	178.92	0.72	0.62	2.90
4,752.00	7.12	109.42	4,739.29	-50.20	260.51	188.67	0.45	-0.35	-2.28
4,847.00	6.76	109.05	4,833.60	-53.98	271.35	197.92	0.38	-0.38	-0.39
4,941.00	6.83	107.89	4,926.94	-57.50	281.90	206.79	0.16	0.07	-1.23
5,038.00	6.72	108.20	5,023.26	-61.05	292.78	215.86	0.12	-0.11	0.32



Scientific Drilling
Survey Report



Company:	Stone Energy	Local Co-ordinate Reference:	Well 6H
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:	6H	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)
5,131.00	6.78	108.19	5,115.61	-64.46	303.16	224.55	0.06	0.06	-0.01
5,226.00	6.86	108.46	5,209.94	-68.01	313.87	233.53	0.09	0.08	0.28
5,320.00	6.73	100.58	5,303.28	-70.80	324.61	241.90	1.00	-0.14	-8.38
5,414.00	7.33	99.18	5,396.58	-72.77	335.94	249.93	0.66	0.64	-1.49
5,508.00	7.51	98.38	5,489.79	-74.62	347.94	258.24	0.22	0.19	-0.85
5,539.00	7.50	96.58	5,520.52	-75.14	351.95	260.94	0.76	-0.03	-5.81
Last SDI MWD Survey									
5,634.00	7.50	96.58	5,614.71	-76.57	364.27	269.08	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	
25.00	25.00	0.02	-0.01	First SDI Gyro Survey	
2,590.00	2,587.95	-7.23	66.17	Last SDI Gyro Survey	
2,710.00	2,707.92	-7.90	68.86	First SDI MWD Survey	
5,539.00	5,520.52	-75.14	351.95	Last SDI MWD Survey	
5,634.00	5,614.71	-76.57	364.27	Projection to Bit	

Checked By: _____ Approved By: _____ Date: _____