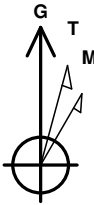
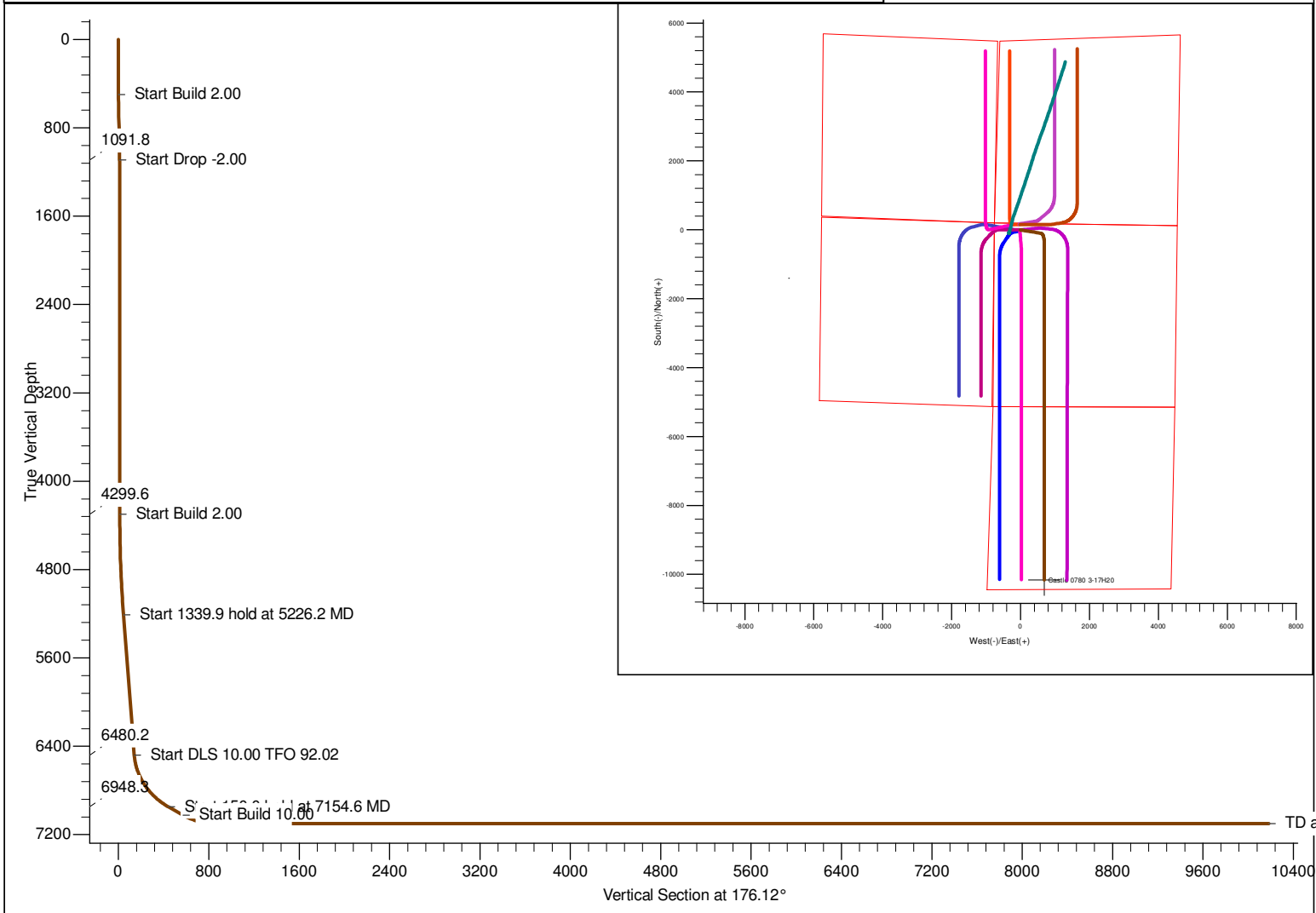


PROJECT DETAILS: North Park Basin								Azimuths to Grid North True North: 0.58° Magnetic North: 10.48°		
Geodetic System: US State Plane 1983 Datum: North American Datum 1983 Ellipsoid: GRS 1980 Zone: Colorado Northern Zone System Datum: Mean Sea Level								Magnetic Field Strength: 53188.9snT Dip Angle: 66.97° Date: 12/31/2009 Model: IGRF200510		
FORMATION TOP DETAILS								CASING DETAILS		
No formation data is available								No casing data is available		
DESIGN DETAILS: Design #1									Project: North Park Basin Site: T7N-R80W-S17 Well: Castle 0780 3-17H20 Wellbore: Wellbore #1 Design: Design #1	
0' Vertical Section coordinates										
Type	Target	Azimuth	Origin	Type	N/S	E/W	From	TVD		
TD	No Target	176.12	(Feet)		0.0	0.0	0.0			



SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.0		
3	608.2	2.16	116.57	608.2	-0.9	1.8	2.00	116.57	1.0		
4	1092.2	2.16	116.57	1091.8	-9.1	18.2	0.00	0.00	10.3		
5	1200.4	0.00	0.00	1200.0	-10.0	20.0	2.00	180.00	11.3		
6	4300.0	0.00	0.00	4299.6	-10.0	20.0	0.00	0.00	11.3		
7	5226.2	18.52	99.02	5209.7	-33.3	166.6	2.00	99.02	44.5		
8	6566.1	18.52	99.02	6480.2	-100.0	587.0	0.00	0.00	139.4		
9	7154.6	60.00	180.00	6948.3	-396.0	688.4	10.00	92.02	441.6	Castle 3-17H20	
10	7304.6	60.00	180.00	7023.3	-525.9	688.4	0.00	0.00	571.2		
11	7604.6	90.00	180.00	7100.0	-812.4	688.4	10.00	0.00	857.1	Castle 3-17H20	
12	16952.7	90.00	180.00	7100.0	-10160.5	688.4	0.00	0.00	10183.8	Castle 3-17H20	

SandRidge Energy

North Park Basin

T7N-R80W-S17

Castle 0780 3-17H20

Wellbore #1

Plan: Design #1

Standard Survey Report

14 December, 2015

SandRidge Energy

Survey Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 3-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Well:	Castle 0780 3-17H20	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDMProd

Project	North Park Basin		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	T7N-R80W-S17				
Site Position:		Northing:	1,456,885.51 usft	Latitude:	40° 35' 2.501 N
From:	Lat/Long	Easting:	2,748,625.91 usft	Longitude:	106° 24' 18.140 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.58 °

Well	Castle 0780 3-17H20					
Well Position	+N/-S	0.0 usft	Northing:	1,456,962.40 usft	Latitude:	40° 35' 3.279 N
	+E/-W	0.0 usft	Easting:	2,748,810.83 usft	Longitude:	106° 24' 15.754 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	8,156.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	9.89	66.97	53,189

Design	Design #1				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	176.12	

Survey Tool Program	Date	12/11/2015			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	16,952.7	Design #1 (Wellbore #1)	Sperry MWD	Fixed:v2:standard declination	

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
25.0	0.00	0.00	25.0	0.0	0.0	0.0	0.00	0.00	0.00	
50.0	0.00	0.00	50.0	0.0	0.0	0.0	0.00	0.00	0.00	
75.0	0.00	0.00	75.0	0.0	0.0	0.0	0.00	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00	
125.0	0.00	0.00	125.0	0.0	0.0	0.0	0.00	0.00	0.00	
150.0	0.00	0.00	150.0	0.0	0.0	0.0	0.00	0.00	0.00	
175.0	0.00	0.00	175.0	0.0	0.0	0.0	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00	
225.0	0.00	0.00	225.0	0.0	0.0	0.0	0.00	0.00	0.00	

SandRidge Energy

Survey Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 3-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Well:	Castle 0780 3-17H20	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDMProd

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
250.0	0.00	0.00	250.0	0.0	0.0	0.0	0.00	0.00	0.00
275.0	0.00	0.00	275.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
325.0	0.00	0.00	325.0	0.0	0.0	0.0	0.00	0.00	0.00
350.0	0.00	0.00	350.0	0.0	0.0	0.0	0.00	0.00	0.00
375.0	0.00	0.00	375.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
425.0	0.00	0.00	425.0	0.0	0.0	0.0	0.00	0.00	0.00
450.0	0.00	0.00	450.0	0.0	0.0	0.0	0.00	0.00	0.00
475.0	0.00	0.00	475.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
525.0	0.50	116.57	525.0	0.0	0.1	0.1	2.00	2.00	0.00
550.0	1.00	116.57	550.0	-0.2	0.4	0.2	2.00	2.00	0.00
575.0	1.50	116.57	575.0	-0.4	0.9	0.5	2.00	2.00	0.00
600.0	2.00	116.57	600.0	-0.8	1.6	0.9	2.00	2.00	0.00
608.2	2.16	116.57	608.2	-0.9	1.8	1.0	2.00	2.00	0.00
625.0	2.16	116.57	625.0	-1.2	2.4	1.4	0.00	0.00	0.00
650.0	2.16	116.57	649.9	-1.6	3.2	1.8	0.00	0.00	0.00
675.0	2.16	116.57	674.9	-2.0	4.1	2.3	0.00	0.00	0.00
700.0	2.16	116.57	699.9	-2.5	4.9	2.8	0.00	0.00	0.00
725.0	2.16	116.57	724.9	-2.9	5.8	3.3	0.00	0.00	0.00
750.0	2.16	116.57	749.9	-3.3	6.6	3.7	0.00	0.00	0.00
775.0	2.16	116.57	774.9	-3.7	7.5	4.2	0.00	0.00	0.00
800.0	2.16	116.57	799.8	-4.2	8.3	4.7	0.00	0.00	0.00
825.0	2.16	116.57	824.8	-4.6	9.1	5.2	0.00	0.00	0.00
850.0	2.16	116.57	849.8	-5.0	10.0	5.7	0.00	0.00	0.00
875.0	2.16	116.57	874.8	-5.4	10.8	6.1	0.00	0.00	0.00
900.0	2.16	116.57	899.8	-5.8	11.7	6.6	0.00	0.00	0.00
925.0	2.16	116.57	924.7	-6.3	12.5	7.1	0.00	0.00	0.00
950.0	2.16	116.57	949.7	-6.7	13.4	7.6	0.00	0.00	0.00
975.0	2.16	116.57	974.7	-7.1	14.2	8.1	0.00	0.00	0.00
1,000.0	2.16	116.57	999.7	-7.5	15.1	8.5	0.00	0.00	0.00
1,025.0	2.16	116.57	1,024.7	-8.0	15.9	9.0	0.00	0.00	0.00
1,050.0	2.16	116.57	1,049.7	-8.4	16.7	9.5	0.00	0.00	0.00
1,075.0	2.16	116.57	1,074.6	-8.8	17.6	10.0	0.00	0.00	0.00
1,092.2	2.16	116.57	1,091.8	-9.1	18.2	10.3	0.00	0.00	0.00
1,100.0	2.01	116.57	1,099.6	-9.2	18.4	10.4	2.00	-2.00	0.00
1,125.0	1.51	116.57	1,124.6	-9.6	19.1	10.8	2.00	-2.00	0.00
1,150.0	1.01	116.57	1,149.6	-9.8	19.6	11.1	2.00	-2.00	0.00
1,175.0	0.51	116.57	1,174.6	-9.9	19.9	11.3	2.00	-2.00	0.00
1,200.0	0.01	116.57	1,199.6	-10.0	20.0	11.3	2.00	-2.00	0.00
1,200.4	0.00	0.00	1,200.0	-10.0	20.0	11.3	2.00	-2.00	0.00
1,225.0	0.00	0.00	1,224.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,250.0	0.00	0.00	1,249.6	-10.0	20.0	11.3	0.00	0.00	0.00

SandRidge Energy

Survey Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 3-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Well:	Castle 0780 3-17H20	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDMProd

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,275.0	0.00	0.00	1,274.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,300.0	0.00	0.00	1,299.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,325.0	0.00	0.00	1,324.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,350.0	0.00	0.00	1,349.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,375.0	0.00	0.00	1,374.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,400.0	0.00	0.00	1,399.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,425.0	0.00	0.00	1,424.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,450.0	0.00	0.00	1,449.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,475.0	0.00	0.00	1,474.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,500.0	0.00	0.00	1,499.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,525.0	0.00	0.00	1,524.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,550.0	0.00	0.00	1,549.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,575.0	0.00	0.00	1,574.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,600.0	0.00	0.00	1,599.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,625.0	0.00	0.00	1,624.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,650.0	0.00	0.00	1,649.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,675.0	0.00	0.00	1,674.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,700.0	0.00	0.00	1,699.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,725.0	0.00	0.00	1,724.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,750.0	0.00	0.00	1,749.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,775.0	0.00	0.00	1,774.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,800.0	0.00	0.00	1,799.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,825.0	0.00	0.00	1,824.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,850.0	0.00	0.00	1,849.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,875.0	0.00	0.00	1,874.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,900.0	0.00	0.00	1,899.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,925.0	0.00	0.00	1,924.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,950.0	0.00	0.00	1,949.6	-10.0	20.0	11.3	0.00	0.00	0.00
1,975.0	0.00	0.00	1,974.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,000.0	0.00	0.00	1,999.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,025.0	0.00	0.00	2,024.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,050.0	0.00	0.00	2,049.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,075.0	0.00	0.00	2,074.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,100.0	0.00	0.00	2,099.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,125.0	0.00	0.00	2,124.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,150.0	0.00	0.00	2,149.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,175.0	0.00	0.00	2,174.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,200.0	0.00	0.00	2,199.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,225.0	0.00	0.00	2,224.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,250.0	0.00	0.00	2,249.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,275.0	0.00	0.00	2,274.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,300.0	0.00	0.00	2,299.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,325.0	0.00	0.00	2,324.6	-10.0	20.0	11.3	0.00	0.00	0.00

SandRidge Energy

Survey Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 3-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Well:	Castle 0780 3-17H20	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDMProd

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,350.0	0.00	0.00	2,349.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,375.0	0.00	0.00	2,374.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,400.0	0.00	0.00	2,399.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,425.0	0.00	0.00	2,424.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,450.0	0.00	0.00	2,449.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,475.0	0.00	0.00	2,474.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,500.0	0.00	0.00	2,499.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,525.0	0.00	0.00	2,524.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,550.0	0.00	0.00	2,549.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,575.0	0.00	0.00	2,574.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,600.0	0.00	0.00	2,599.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,625.0	0.00	0.00	2,624.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,650.0	0.00	0.00	2,649.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,675.0	0.00	0.00	2,674.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,700.0	0.00	0.00	2,699.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,725.0	0.00	0.00	2,724.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,750.0	0.00	0.00	2,749.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,775.0	0.00	0.00	2,774.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,800.0	0.00	0.00	2,799.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,825.0	0.00	0.00	2,824.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,850.0	0.00	0.00	2,849.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,875.0	0.00	0.00	2,874.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,900.0	0.00	0.00	2,899.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,925.0	0.00	0.00	2,924.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,950.0	0.00	0.00	2,949.6	-10.0	20.0	11.3	0.00	0.00	0.00
2,975.0	0.00	0.00	2,974.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,000.0	0.00	0.00	2,999.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,025.0	0.00	0.00	3,024.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,050.0	0.00	0.00	3,049.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,075.0	0.00	0.00	3,074.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,100.0	0.00	0.00	3,099.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,125.0	0.00	0.00	3,124.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,150.0	0.00	0.00	3,149.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,175.0	0.00	0.00	3,174.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,200.0	0.00	0.00	3,199.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,225.0	0.00	0.00	3,224.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,250.0	0.00	0.00	3,249.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,275.0	0.00	0.00	3,274.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,300.0	0.00	0.00	3,299.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,325.0	0.00	0.00	3,324.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,350.0	0.00	0.00	3,349.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,375.0	0.00	0.00	3,374.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,400.0	0.00	0.00	3,399.6	-10.0	20.0	11.3	0.00	0.00	0.00

SandRidge Energy

Survey Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 3-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Well:	Castle 0780 3-17H20	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDMProd

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,425.0	0.00	0.00	3,424.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,450.0	0.00	0.00	3,449.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,475.0	0.00	0.00	3,474.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,500.0	0.00	0.00	3,499.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,525.0	0.00	0.00	3,524.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,550.0	0.00	0.00	3,549.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,575.0	0.00	0.00	3,574.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,600.0	0.00	0.00	3,599.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,625.0	0.00	0.00	3,624.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,650.0	0.00	0.00	3,649.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,675.0	0.00	0.00	3,674.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,700.0	0.00	0.00	3,699.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,725.0	0.00	0.00	3,724.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,750.0	0.00	0.00	3,749.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,775.0	0.00	0.00	3,774.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,800.0	0.00	0.00	3,799.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,825.0	0.00	0.00	3,824.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,850.0	0.00	0.00	3,849.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,875.0	0.00	0.00	3,874.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,900.0	0.00	0.00	3,899.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,925.0	0.00	0.00	3,924.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,950.0	0.00	0.00	3,949.6	-10.0	20.0	11.3	0.00	0.00	0.00
3,975.0	0.00	0.00	3,974.6	-10.0	20.0	11.3	0.00	0.00	0.00
4,000.0	0.00	0.00	3,999.6	-10.0	20.0	11.3	0.00	0.00	0.00
4,025.0	0.00	0.00	4,024.6	-10.0	20.0	11.3	0.00	0.00	0.00
4,050.0	0.00	0.00	4,049.6	-10.0	20.0	11.3	0.00	0.00	0.00
4,075.0	0.00	0.00	4,074.6	-10.0	20.0	11.3	0.00	0.00	0.00
4,100.0	0.00	0.00	4,099.6	-10.0	20.0	11.3	0.00	0.00	0.00
4,125.0	0.00	0.00	4,124.6	-10.0	20.0	11.3	0.00	0.00	0.00
4,150.0	0.00	0.00	4,149.6	-10.0	20.0	11.3	0.00	0.00	0.00
4,175.0	0.00	0.00	4,174.6	-10.0	20.0	11.3	0.00	0.00	0.00
4,200.0	0.00	0.00	4,199.6	-10.0	20.0	11.3	0.00	0.00	0.00
4,225.0	0.00	0.00	4,224.6	-10.0	20.0	11.3	0.00	0.00	0.00
4,250.0	0.00	0.00	4,249.6	-10.0	20.0	11.3	0.00	0.00	0.00
4,275.0	0.00	0.00	4,274.6	-10.0	20.0	11.3	0.00	0.00	0.00
4,300.0	0.00	0.00	4,299.6	-10.0	20.0	11.3	0.00	0.00	0.00
4,325.0	0.50	99.02	4,324.6	-10.0	20.1	11.4	2.00	2.00	0.00
4,350.0	1.00	99.02	4,349.6	-10.1	20.4	11.4	2.00	2.00	0.00
4,375.0	1.50	99.02	4,374.6	-10.2	21.0	11.5	2.00	2.00	0.00
4,400.0	2.00	99.02	4,399.6	-10.3	21.7	11.7	2.00	2.00	0.00
4,425.0	2.50	99.02	4,424.6	-10.4	22.7	11.9	2.00	2.00	0.00
4,450.0	3.00	99.02	4,449.5	-10.6	23.9	12.2	2.00	2.00	0.00
4,475.0	3.50	99.02	4,474.5	-10.8	25.3	12.5	2.00	2.00	0.00
4,500.0	4.00	99.02	4,499.4	-11.1	26.9	12.9	2.00	2.00	0.00

SandRidge Energy

Survey Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 3-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Well:	Castle 0780 3-17H20	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDMProd

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,525.0	4.50	99.02	4,524.4	-11.4	28.7	13.3	2.00	2.00	0.00
4,550.0	5.00	99.02	4,549.3	-11.7	30.8	13.8	2.00	2.00	0.00
4,575.0	5.50	99.02	4,574.2	-12.1	33.0	14.3	2.00	2.00	0.00
4,600.0	6.00	99.02	4,599.1	-12.5	35.5	14.8	2.00	2.00	0.00
4,625.0	6.50	99.02	4,623.9	-12.9	38.2	15.4	2.00	2.00	0.00
4,650.0	7.00	99.02	4,648.7	-13.3	41.1	16.1	2.00	2.00	0.00
4,675.0	7.50	99.02	4,673.5	-13.8	44.2	16.8	2.00	2.00	0.00
4,700.0	8.00	99.02	4,698.3	-14.4	47.5	17.6	2.00	2.00	0.00
4,725.0	8.50	99.02	4,723.0	-14.9	51.1	18.4	2.00	2.00	0.00
4,750.0	9.00	99.02	4,747.8	-15.5	54.8	19.2	2.00	2.00	0.00
4,775.0	9.50	99.02	4,772.4	-16.2	58.8	20.1	2.00	2.00	0.00
4,800.0	10.00	99.02	4,797.1	-16.8	63.0	21.0	2.00	2.00	0.00
4,825.0	10.50	99.02	4,821.7	-17.5	67.4	22.0	2.00	2.00	0.00
4,850.0	11.00	99.02	4,846.2	-18.3	72.0	23.1	2.00	2.00	0.00
4,875.0	11.50	99.02	4,870.8	-19.0	76.8	24.2	2.00	2.00	0.00
4,900.0	12.00	99.02	4,895.2	-19.8	81.8	25.3	2.00	2.00	0.00
4,925.0	12.50	99.02	4,919.7	-20.6	87.1	26.5	2.00	2.00	0.00
4,950.0	13.00	99.02	4,944.0	-21.5	92.5	27.7	2.00	2.00	0.00
4,975.0	13.50	99.02	4,968.4	-22.4	98.2	29.0	2.00	2.00	0.00
5,000.0	14.00	99.02	4,992.7	-23.3	104.0	30.3	2.00	2.00	0.00
5,025.0	14.50	99.02	5,016.9	-24.3	110.1	31.7	2.00	2.00	0.00
5,050.0	15.00	99.02	5,041.1	-25.3	116.4	33.1	2.00	2.00	0.00
5,075.0	15.50	99.02	5,065.2	-26.3	122.9	34.6	2.00	2.00	0.00
5,100.0	16.00	99.02	5,089.2	-27.4	129.6	36.1	2.00	2.00	0.00
5,125.0	16.50	99.02	5,113.2	-28.5	136.5	37.7	2.00	2.00	0.00
5,150.0	17.00	99.02	5,137.2	-29.6	143.6	39.3	2.00	2.00	0.00
5,175.0	17.50	99.02	5,161.1	-30.8	151.0	40.9	2.00	2.00	0.00
5,200.0	18.00	99.02	5,184.9	-32.0	158.5	42.6	2.00	2.00	0.00
5,225.0	18.50	99.02	5,208.6	-33.2	166.2	44.4	2.00	2.00	0.00
5,226.2	18.52	99.02	5,209.7	-33.3	166.6	44.5	2.00	2.00	0.00
5,250.0	18.52	99.02	5,232.3	-34.5	174.1	46.1	0.00	0.00	0.00
5,275.0	18.52	99.02	5,256.0	-35.7	181.9	47.9	0.00	0.00	0.00
5,300.0	18.52	99.02	5,279.7	-36.9	189.7	49.7	0.00	0.00	0.00
5,325.0	18.52	99.02	5,303.4	-38.2	197.6	51.5	0.00	0.00	0.00
5,350.0	18.52	99.02	5,327.1	-39.4	205.4	53.2	0.00	0.00	0.00
5,375.0	18.52	99.02	5,350.8	-40.7	213.3	55.0	0.00	0.00	0.00
5,400.0	18.52	99.02	5,374.5	-41.9	221.1	56.8	0.00	0.00	0.00
5,425.0	18.52	99.02	5,398.3	-43.2	229.0	58.5	0.00	0.00	0.00
5,450.0	18.52	99.02	5,422.0	-44.4	236.8	60.3	0.00	0.00	0.00
5,475.0	18.52	99.02	5,445.7	-45.7	244.7	62.1	0.00	0.00	0.00
5,500.0	18.52	99.02	5,469.4	-46.9	252.5	63.9	0.00	0.00	0.00
5,525.0	18.52	99.02	5,493.1	-48.1	260.3	65.6	0.00	0.00	0.00
5,550.0	18.52	99.02	5,516.8	-49.4	268.2	67.4	0.00	0.00	0.00

SandRidge Energy

Survey Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 3-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Well:	Castle 0780 3-17H20	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDMProd

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,575.0	18.52	99.02	5,540.5	-50.6	276.0	69.2	0.00	0.00	0.00
5,600.0	18.52	99.02	5,564.2	-51.9	283.9	71.0	0.00	0.00	0.00
5,625.0	18.52	99.02	5,587.9	-53.1	291.7	72.7	0.00	0.00	0.00
5,650.0	18.52	99.02	5,611.6	-54.4	299.6	74.5	0.00	0.00	0.00
5,675.0	18.52	99.02	5,635.3	-55.6	307.4	76.3	0.00	0.00	0.00
5,700.0	18.52	99.02	5,659.0	-56.9	315.3	78.0	0.00	0.00	0.00
5,725.0	18.52	99.02	5,682.7	-58.1	323.1	79.8	0.00	0.00	0.00
5,750.0	18.52	99.02	5,706.4	-59.4	330.9	81.6	0.00	0.00	0.00
5,775.0	18.52	99.02	5,730.1	-60.6	338.8	83.4	0.00	0.00	0.00
5,800.0	18.52	99.02	5,753.8	-61.8	346.6	85.1	0.00	0.00	0.00
5,825.0	18.52	99.02	5,777.5	-63.1	354.5	86.9	0.00	0.00	0.00
5,850.0	18.52	99.02	5,801.2	-64.3	362.3	88.7	0.00	0.00	0.00
5,875.0	18.52	99.02	5,824.9	-65.6	370.2	90.5	0.00	0.00	0.00
5,900.0	18.52	99.02	5,848.6	-66.8	378.0	92.2	0.00	0.00	0.00
5,925.0	18.52	99.02	5,872.3	-68.1	385.9	94.0	0.00	0.00	0.00
5,950.0	18.52	99.02	5,896.1	-69.3	393.7	95.8	0.00	0.00	0.00
5,975.0	18.52	99.02	5,919.8	-70.6	401.5	97.5	0.00	0.00	0.00
6,000.0	18.52	99.02	5,943.5	-71.8	409.4	99.3	0.00	0.00	0.00
6,025.0	18.52	99.02	5,967.2	-73.1	417.2	101.1	0.00	0.00	0.00
6,050.0	18.52	99.02	5,990.9	-74.3	425.1	102.9	0.00	0.00	0.00
6,075.0	18.52	99.02	6,014.6	-75.5	432.9	104.6	0.00	0.00	0.00
6,100.0	18.52	99.02	6,038.3	-76.8	440.8	106.4	0.00	0.00	0.00
6,125.0	18.52	99.02	6,062.0	-78.0	448.6	108.2	0.00	0.00	0.00
6,150.0	18.52	99.02	6,085.7	-79.3	456.5	110.0	0.00	0.00	0.00
6,175.0	18.52	99.02	6,109.4	-80.5	464.3	111.7	0.00	0.00	0.00
6,200.0	18.52	99.02	6,133.1	-81.8	472.1	113.5	0.00	0.00	0.00
6,225.0	18.52	99.02	6,156.8	-83.0	480.0	115.3	0.00	0.00	0.00
6,250.0	18.52	99.02	6,180.5	-84.3	487.8	117.0	0.00	0.00	0.00
6,275.0	18.52	99.02	6,204.2	-85.5	495.7	118.8	0.00	0.00	0.00
6,300.0	18.52	99.02	6,227.9	-86.7	503.5	120.6	0.00	0.00	0.00
6,325.0	18.52	99.02	6,251.6	-88.0	511.4	122.4	0.00	0.00	0.00
6,350.0	18.52	99.02	6,275.3	-89.2	519.2	124.1	0.00	0.00	0.00
6,375.0	18.52	99.02	6,299.0	-90.5	527.0	125.9	0.00	0.00	0.00
6,400.0	18.52	99.02	6,322.7	-91.7	534.9	127.7	0.00	0.00	0.00
6,425.0	18.52	99.02	6,346.4	-93.0	542.7	129.4	0.00	0.00	0.00
6,450.0	18.52	99.02	6,370.1	-94.2	550.6	131.2	0.00	0.00	0.00
6,475.0	18.52	99.02	6,393.9	-95.5	558.4	133.0	0.00	0.00	0.00
6,500.0	18.52	99.02	6,417.6	-96.7	566.3	134.8	0.00	0.00	0.00
6,525.0	18.52	99.02	6,441.3	-98.0	574.1	136.5	0.00	0.00	0.00
6,550.0	18.52	99.02	6,465.0	-99.2	582.0	138.3	0.00	0.00	0.00
6,566.1	18.52	99.02	6,480.2	-100.0	587.0	139.4	0.00	0.00	0.00
6,575.0	18.51	101.83	6,488.7	-100.5	589.8	140.2	10.00	-0.12	31.49
6,600.0	18.70	109.65	6,512.4	-102.7	597.5	142.8	10.00	0.76	31.27

SandRidge Energy

Survey Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 3-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Well:	Castle 0780 3-17H20	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDMProd

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,625.0	19.21	117.19	6,536.0	-105.9	604.9	146.5	10.00	2.02	30.17
6,650.0	20.00	124.26	6,559.6	-110.2	612.1	151.3	10.00	3.18	28.27
6,675.0	21.06	130.73	6,583.0	-115.5	619.0	157.1	10.00	4.21	25.88
6,700.0	22.33	136.55	6,606.2	-121.9	625.7	163.9	10.00	5.10	23.29
6,725.0	23.79	141.74	6,629.2	-129.3	632.1	171.7	10.00	5.84	20.73
6,750.0	25.41	146.32	6,652.0	-137.7	638.2	180.6	10.00	6.46	18.36
6,775.0	27.15	150.38	6,674.4	-147.2	644.0	190.4	10.00	6.96	16.23
6,800.0	28.99	153.97	6,696.4	-157.6	649.4	201.1	10.00	7.38	14.36
6,825.0	30.92	157.16	6,718.1	-168.9	654.6	212.8	10.00	7.71	12.75
6,850.0	32.92	160.00	6,739.3	-181.2	659.4	225.4	10.00	7.99	11.37
6,875.0	34.97	162.55	6,760.0	-194.5	663.9	238.9	10.00	8.22	10.19
6,900.0	37.08	164.85	6,780.3	-208.6	668.0	253.3	10.00	8.42	9.19
6,925.0	39.22	166.93	6,799.9	-223.5	671.8	268.4	10.00	8.58	8.33
6,950.0	41.40	168.83	6,819.0	-239.4	675.2	284.5	10.00	8.71	7.59
6,975.0	43.61	170.57	6,837.4	-256.0	678.2	301.2	10.00	8.83	6.96
7,000.0	45.84	172.17	6,855.2	-273.4	680.8	318.8	10.00	8.92	6.42
7,025.0	48.09	173.66	6,872.2	-291.5	683.1	337.0	10.00	9.01	5.95
7,050.0	50.36	175.04	6,888.6	-310.3	684.9	355.9	10.00	9.08	5.54
7,075.0	52.64	176.34	6,904.1	-329.8	686.4	375.5	10.00	9.14	5.19
7,100.0	54.94	177.56	6,918.9	-350.0	687.5	395.7	10.00	9.19	4.88
7,125.0	57.25	178.71	6,932.8	-370.7	688.1	416.4	10.00	9.24	4.61
7,150.0	59.57	179.80	6,945.9	-392.0	688.4	437.7	10.00	9.28	4.38
7,154.6	60.00	180.00	6,948.3	-396.0	688.4	441.6	10.00	9.30	4.25
7,175.0	60.00	180.00	6,958.5	-413.7	688.4	459.2	0.00	0.00	0.00
7,200.0	60.00	180.00	6,971.0	-435.3	688.4	480.8	0.00	0.00	0.00
7,225.0	60.00	180.00	6,983.5	-457.0	688.4	502.5	0.00	0.00	0.00
7,250.0	60.00	180.00	6,996.0	-478.6	688.4	524.1	0.00	0.00	0.00
7,275.0	60.00	180.00	7,008.5	-500.3	688.4	545.7	0.00	0.00	0.00
7,300.0	60.00	180.00	7,021.0	-521.9	688.4	567.3	0.00	0.00	0.00
7,304.6	60.00	180.00	7,023.3	-525.9	688.4	571.2	0.00	0.00	0.00
7,325.0	62.04	180.00	7,033.1	-543.7	688.4	589.0	10.00	10.00	0.00
7,350.0	64.54	180.00	7,044.4	-566.1	688.4	611.3	10.00	10.00	0.00
7,375.0	67.04	180.00	7,054.6	-588.9	688.4	634.1	10.00	10.00	0.00
7,400.0	69.54	180.00	7,063.9	-612.1	688.4	657.2	10.00	10.00	0.00
7,425.0	72.04	180.00	7,072.1	-635.7	688.4	680.8	10.00	10.00	0.00
7,450.0	74.54	180.00	7,079.3	-659.6	688.4	704.7	10.00	10.00	0.00
7,475.0	77.04	180.00	7,085.4	-683.9	688.4	728.8	10.00	10.00	0.00
7,500.0	79.54	180.00	7,090.5	-708.4	688.4	753.3	10.00	10.00	0.00
7,525.0	82.04	180.00	7,094.5	-733.0	688.4	777.9	10.00	10.00	0.00
7,550.0	84.54	180.00	7,097.4	-757.9	688.4	802.7	10.00	10.00	0.00
7,575.0	87.04	180.00	7,099.2	-782.8	688.4	827.5	10.00	10.00	0.00
7,600.0	89.54	180.00	7,100.0	-807.8	688.4	852.5	10.00	10.00	0.00
7,604.6	90.00	180.00	7,100.0	-812.4	688.4	857.1	10.00	10.00	0.00
7,625.0	90.00	180.00	7,100.0	-832.8	688.4	877.4	0.00	0.00	0.00

SandRidge Energy

Survey Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 3-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Well:	Castle 0780 3-17H20	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDMProd

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,650.0	90.00	180.00	7,100.0	-857.8	688.4	902.3	0.00	0.00	0.00
7,675.0	90.00	180.00	7,100.0	-882.8	688.4	927.3	0.00	0.00	0.00
7,700.0	90.00	180.00	7,100.0	-907.8	688.4	952.2	0.00	0.00	0.00
7,725.0	90.00	180.00	7,100.0	-932.8	688.4	977.2	0.00	0.00	0.00
7,750.0	90.00	180.00	7,100.0	-957.8	688.4	1,002.1	0.00	0.00	0.00
7,775.0	90.00	180.00	7,100.0	-982.8	688.4	1,027.1	0.00	0.00	0.00
7,800.0	90.00	180.00	7,100.0	-1,007.8	688.4	1,052.0	0.00	0.00	0.00
7,825.0	90.00	180.00	7,100.0	-1,032.8	688.4	1,076.9	0.00	0.00	0.00
7,850.0	90.00	180.00	7,100.0	-1,057.8	688.4	1,101.9	0.00	0.00	0.00
7,875.0	90.00	180.00	7,100.0	-1,082.8	688.4	1,126.8	0.00	0.00	0.00
7,900.0	90.00	180.00	7,100.0	-1,107.8	688.4	1,151.8	0.00	0.00	0.00
7,925.0	90.00	180.00	7,100.0	-1,132.8	688.4	1,176.7	0.00	0.00	0.00
7,950.0	90.00	180.00	7,100.0	-1,157.8	688.4	1,201.7	0.00	0.00	0.00
7,975.0	90.00	180.00	7,100.0	-1,182.8	688.4	1,226.6	0.00	0.00	0.00
8,000.0	90.00	180.00	7,100.0	-1,207.8	688.4	1,251.5	0.00	0.00	0.00
8,025.0	90.00	180.00	7,100.0	-1,232.8	688.4	1,276.5	0.00	0.00	0.00
8,050.0	90.00	180.00	7,100.0	-1,257.8	688.4	1,301.4	0.00	0.00	0.00
8,075.0	90.00	180.00	7,100.0	-1,282.8	688.4	1,326.4	0.00	0.00	0.00
8,100.0	90.00	180.00	7,100.0	-1,307.8	688.4	1,351.3	0.00	0.00	0.00
8,125.0	90.00	180.00	7,100.0	-1,332.8	688.4	1,376.3	0.00	0.00	0.00
8,150.0	90.00	180.00	7,100.0	-1,357.8	688.4	1,401.2	0.00	0.00	0.00
8,175.0	90.00	180.00	7,100.0	-1,382.8	688.4	1,426.1	0.00	0.00	0.00
8,200.0	90.00	180.00	7,100.0	-1,407.8	688.4	1,451.1	0.00	0.00	0.00
8,225.0	90.00	180.00	7,100.0	-1,432.8	688.4	1,476.0	0.00	0.00	0.00
8,250.0	90.00	180.00	7,100.0	-1,457.8	688.4	1,501.0	0.00	0.00	0.00
8,275.0	90.00	180.00	7,100.0	-1,482.8	688.4	1,525.9	0.00	0.00	0.00
8,300.0	90.00	180.00	7,100.0	-1,507.8	688.4	1,550.9	0.00	0.00	0.00
8,325.0	90.00	180.00	7,100.0	-1,532.8	688.4	1,575.8	0.00	0.00	0.00
8,350.0	90.00	180.00	7,100.0	-1,557.8	688.4	1,600.7	0.00	0.00	0.00
8,375.0	90.00	180.00	7,100.0	-1,582.8	688.4	1,625.7	0.00	0.00	0.00
8,400.0	90.00	180.00	7,100.0	-1,607.8	688.4	1,650.6	0.00	0.00	0.00
8,425.0	90.00	180.00	7,100.0	-1,632.8	688.4	1,675.6	0.00	0.00	0.00
8,450.0	90.00	180.00	7,100.0	-1,657.8	688.4	1,700.5	0.00	0.00	0.00
8,475.0	90.00	180.00	7,100.0	-1,682.8	688.4	1,725.5	0.00	0.00	0.00
8,500.0	90.00	180.00	7,100.0	-1,707.8	688.4	1,750.4	0.00	0.00	0.00
8,525.0	90.00	180.00	7,100.0	-1,732.8	688.4	1,775.3	0.00	0.00	0.00
8,550.0	90.00	180.00	7,100.0	-1,757.8	688.4	1,800.3	0.00	0.00	0.00
8,575.0	90.00	180.00	7,100.0	-1,782.8	688.4	1,825.2	0.00	0.00	0.00
8,600.0	90.00	180.00	7,100.0	-1,807.8	688.4	1,850.2	0.00	0.00	0.00
8,625.0	90.00	180.00	7,100.0	-1,832.8	688.4	1,875.1	0.00	0.00	0.00
8,650.0	90.00	180.00	7,100.0	-1,857.8	688.4	1,900.1	0.00	0.00	0.00
8,675.0	90.00	180.00	7,100.0	-1,882.8	688.4	1,925.0	0.00	0.00	0.00
8,700.0	90.00	180.00	7,100.0	-1,907.8	688.4	1,949.9	0.00	0.00	0.00

SandRidge Energy

Survey Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 3-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Well:	Castle 0780 3-17H20	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDMProd

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,725.0	90.00	180.00	7,100.0	-1,932.8	688.4	1,974.9	0.00	0.00	0.00
8,750.0	90.00	180.00	7,100.0	-1,957.8	688.4	1,999.8	0.00	0.00	0.00
8,775.0	90.00	180.00	7,100.0	-1,982.8	688.4	2,024.8	0.00	0.00	0.00
8,800.0	90.00	180.00	7,100.0	-2,007.8	688.4	2,049.7	0.00	0.00	0.00
8,825.0	90.00	180.00	7,100.0	-2,032.8	688.4	2,074.7	0.00	0.00	0.00
8,850.0	90.00	180.00	7,100.0	-2,057.8	688.4	2,099.6	0.00	0.00	0.00
8,875.0	90.00	180.00	7,100.0	-2,082.8	688.4	2,124.5	0.00	0.00	0.00
8,900.0	90.00	180.00	7,100.0	-2,107.8	688.4	2,149.5	0.00	0.00	0.00
8,925.0	90.00	180.00	7,100.0	-2,132.8	688.4	2,174.4	0.00	0.00	0.00
8,950.0	90.00	180.00	7,100.0	-2,157.8	688.4	2,199.4	0.00	0.00	0.00
8,975.0	90.00	180.00	7,100.0	-2,182.8	688.4	2,224.3	0.00	0.00	0.00
9,000.0	90.00	180.00	7,100.0	-2,207.8	688.4	2,249.3	0.00	0.00	0.00
9,025.0	90.00	180.00	7,100.0	-2,232.8	688.4	2,274.2	0.00	0.00	0.00
9,050.0	90.00	180.00	7,100.0	-2,257.8	688.4	2,299.1	0.00	0.00	0.00
9,075.0	90.00	180.00	7,100.0	-2,282.8	688.4	2,324.1	0.00	0.00	0.00
9,100.0	90.00	180.00	7,100.0	-2,307.8	688.4	2,349.0	0.00	0.00	0.00
9,125.0	90.00	180.00	7,100.0	-2,332.8	688.4	2,374.0	0.00	0.00	0.00
9,150.0	90.00	180.00	7,100.0	-2,357.8	688.4	2,398.9	0.00	0.00	0.00
9,175.0	90.00	180.00	7,100.0	-2,382.8	688.4	2,423.9	0.00	0.00	0.00
9,200.0	90.00	180.00	7,100.0	-2,407.8	688.4	2,448.8	0.00	0.00	0.00
9,225.0	90.00	180.00	7,100.0	-2,432.8	688.4	2,473.7	0.00	0.00	0.00
9,250.0	90.00	180.00	7,100.0	-2,457.8	688.4	2,498.7	0.00	0.00	0.00
9,275.0	90.00	180.00	7,100.0	-2,482.8	688.4	2,523.6	0.00	0.00	0.00
9,300.0	90.00	180.00	7,100.0	-2,507.8	688.4	2,548.6	0.00	0.00	0.00
9,325.0	90.00	180.00	7,100.0	-2,532.8	688.4	2,573.5	0.00	0.00	0.00
9,350.0	90.00	180.00	7,100.0	-2,557.8	688.4	2,598.5	0.00	0.00	0.00
9,375.0	90.00	180.00	7,100.0	-2,582.8	688.4	2,623.4	0.00	0.00	0.00
9,400.0	90.00	180.00	7,100.0	-2,607.8	688.4	2,648.3	0.00	0.00	0.00
9,425.0	90.00	180.00	7,100.0	-2,632.8	688.4	2,673.3	0.00	0.00	0.00
9,450.0	90.00	180.00	7,100.0	-2,657.8	688.4	2,698.2	0.00	0.00	0.00
9,475.0	90.00	180.00	7,100.0	-2,682.8	688.4	2,723.2	0.00	0.00	0.00
9,500.0	90.00	180.00	7,100.0	-2,707.8	688.4	2,748.1	0.00	0.00	0.00
9,525.0	90.00	180.00	7,100.0	-2,732.8	688.4	2,773.1	0.00	0.00	0.00
9,550.0	90.00	180.00	7,100.0	-2,757.8	688.4	2,798.0	0.00	0.00	0.00
9,575.0	90.00	180.00	7,100.0	-2,782.8	688.4	2,822.9	0.00	0.00	0.00
9,600.0	90.00	180.00	7,100.0	-2,807.8	688.4	2,847.9	0.00	0.00	0.00
9,625.0	90.00	180.00	7,100.0	-2,832.8	688.4	2,872.8	0.00	0.00	0.00
9,650.0	90.00	180.00	7,100.0	-2,857.8	688.4	2,897.8	0.00	0.00	0.00
9,675.0	90.00	180.00	7,100.0	-2,882.8	688.4	2,922.7	0.00	0.00	0.00
9,700.0	90.00	180.00	7,100.0	-2,907.8	688.4	2,947.7	0.00	0.00	0.00
9,725.0	90.00	180.00	7,100.0	-2,932.8	688.4	2,972.6	0.00	0.00	0.00
9,750.0	90.00	180.00	7,100.0	-2,957.8	688.4	2,997.5	0.00	0.00	0.00
9,775.0	90.00	180.00	7,100.0	-2,982.8	688.4	3,022.5	0.00	0.00	0.00

SandRidge Energy

Survey Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 3-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Well:	Castle 0780 3-17H20	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDMPProd

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,800.0	90.00	180.00	7,100.0	-3,007.8	688.4	3,047.4	0.00	0.00	0.00
9,825.0	90.00	180.00	7,100.0	-3,032.8	688.4	3,072.4	0.00	0.00	0.00
9,850.0	90.00	180.00	7,100.0	-3,057.8	688.4	3,097.3	0.00	0.00	0.00
9,875.0	90.00	180.00	7,100.0	-3,082.8	688.4	3,122.3	0.00	0.00	0.00
9,900.0	90.00	180.00	7,100.0	-3,107.8	688.4	3,147.2	0.00	0.00	0.00
9,925.0	90.00	180.00	7,100.0	-3,132.8	688.4	3,172.1	0.00	0.00	0.00
9,950.0	90.00	180.00	7,100.0	-3,157.8	688.4	3,197.1	0.00	0.00	0.00
9,975.0	90.00	180.00	7,100.0	-3,182.8	688.4	3,222.0	0.00	0.00	0.00
10,000.0	90.00	180.00	7,100.0	-3,207.8	688.4	3,247.0	0.00	0.00	0.00
10,025.0	90.00	180.00	7,100.0	-3,232.8	688.4	3,271.9	0.00	0.00	0.00
10,050.0	90.00	180.00	7,100.0	-3,257.8	688.4	3,296.9	0.00	0.00	0.00
10,075.0	90.00	180.00	7,100.0	-3,282.8	688.4	3,321.8	0.00	0.00	0.00
10,100.0	90.00	180.00	7,100.0	-3,307.8	688.4	3,346.7	0.00	0.00	0.00
10,125.0	90.00	180.00	7,100.0	-3,332.8	688.4	3,371.7	0.00	0.00	0.00
10,150.0	90.00	180.00	7,100.0	-3,357.8	688.4	3,396.6	0.00	0.00	0.00
10,175.0	90.00	180.00	7,100.0	-3,382.8	688.4	3,421.6	0.00	0.00	0.00
10,200.0	90.00	180.00	7,100.0	-3,407.8	688.4	3,446.5	0.00	0.00	0.00
10,225.0	90.00	180.00	7,100.0	-3,432.8	688.4	3,471.5	0.00	0.00	0.00
10,250.0	90.00	180.00	7,100.0	-3,457.8	688.4	3,496.4	0.00	0.00	0.00
10,275.0	90.00	180.00	7,100.0	-3,482.8	688.4	3,521.3	0.00	0.00	0.00
10,300.0	90.00	180.00	7,100.0	-3,507.8	688.4	3,546.3	0.00	0.00	0.00
10,325.0	90.00	180.00	7,100.0	-3,532.8	688.4	3,571.2	0.00	0.00	0.00
10,350.0	90.00	180.00	7,100.0	-3,557.8	688.4	3,596.2	0.00	0.00	0.00
10,375.0	90.00	180.00	7,100.0	-3,582.8	688.4	3,621.1	0.00	0.00	0.00
10,400.0	90.00	180.00	7,100.0	-3,607.8	688.4	3,646.1	0.00	0.00	0.00
10,425.0	90.00	180.00	7,100.0	-3,632.8	688.4	3,671.0	0.00	0.00	0.00
10,450.0	90.00	180.00	7,100.0	-3,657.8	688.4	3,695.9	0.00	0.00	0.00
10,475.0	90.00	180.00	7,100.0	-3,682.8	688.4	3,720.9	0.00	0.00	0.00
10,500.0	90.00	180.00	7,100.0	-3,707.8	688.4	3,745.8	0.00	0.00	0.00
10,525.0	90.00	180.00	7,100.0	-3,732.8	688.4	3,770.8	0.00	0.00	0.00
10,550.0	90.00	180.00	7,100.0	-3,757.8	688.4	3,795.7	0.00	0.00	0.00
10,575.0	90.00	180.00	7,100.0	-3,782.8	688.4	3,820.7	0.00	0.00	0.00
10,600.0	90.00	180.00	7,100.0	-3,807.8	688.4	3,845.6	0.00	0.00	0.00
10,625.0	90.00	180.00	7,100.0	-3,832.8	688.4	3,870.5	0.00	0.00	0.00
10,650.0	90.00	180.00	7,100.0	-3,857.8	688.4	3,895.5	0.00	0.00	0.00
10,675.0	90.00	180.00	7,100.0	-3,882.8	688.4	3,920.4	0.00	0.00	0.00
10,700.0	90.00	180.00	7,100.0	-3,907.8	688.4	3,945.4	0.00	0.00	0.00
10,725.0	90.00	180.00	7,100.0	-3,932.8	688.4	3,970.3	0.00	0.00	0.00
10,750.0	90.00	180.00	7,100.0	-3,957.8	688.4	3,995.3	0.00	0.00	0.00
10,775.0	90.00	180.00	7,100.0	-3,982.8	688.4	4,020.2	0.00	0.00	0.00
10,800.0	90.00	180.00	7,100.0	-4,007.8	688.4	4,045.1	0.00	0.00	0.00
10,825.0	90.00	180.00	7,100.0	-4,032.8	688.4	4,070.1	0.00	0.00	0.00
10,850.0	90.00	180.00	7,100.0	-4,057.8	688.4	4,095.0	0.00	0.00	0.00
10,875.0	90.00	180.00	7,100.0	-4,082.8	688.4	4,120.0	0.00	0.00	0.00

SandRidge Energy

Survey Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 3-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Well:	Castle 0780 3-17H20	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDMProd

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,900.0	90.00	180.00	7,100.0	-4,107.8	688.4	4,144.9	0.00	0.00	0.00
10,925.0	90.00	180.00	7,100.0	-4,132.8	688.4	4,169.9	0.00	0.00	0.00
10,950.0	90.00	180.00	7,100.0	-4,157.8	688.4	4,194.8	0.00	0.00	0.00
10,975.0	90.00	180.00	7,100.0	-4,182.8	688.4	4,219.7	0.00	0.00	0.00
11,000.0	90.00	180.00	7,100.0	-4,207.8	688.4	4,244.7	0.00	0.00	0.00
11,025.0	90.00	180.00	7,100.0	-4,232.8	688.4	4,269.6	0.00	0.00	0.00
11,050.0	90.00	180.00	7,100.0	-4,257.8	688.4	4,294.6	0.00	0.00	0.00
11,075.0	90.00	180.00	7,100.0	-4,282.8	688.4	4,319.5	0.00	0.00	0.00
11,100.0	90.00	180.00	7,100.0	-4,307.8	688.4	4,344.5	0.00	0.00	0.00
11,125.0	90.00	180.00	7,100.0	-4,332.8	688.4	4,369.4	0.00	0.00	0.00
11,150.0	90.00	180.00	7,100.0	-4,357.8	688.4	4,394.3	0.00	0.00	0.00
11,175.0	90.00	180.00	7,100.0	-4,382.8	688.4	4,419.3	0.00	0.00	0.00
11,200.0	90.00	180.00	7,100.0	-4,407.8	688.4	4,444.2	0.00	0.00	0.00
11,225.0	90.00	180.00	7,100.0	-4,432.8	688.4	4,469.2	0.00	0.00	0.00
11,250.0	90.00	180.00	7,100.0	-4,457.8	688.4	4,494.1	0.00	0.00	0.00
11,275.0	90.00	180.00	7,100.0	-4,482.8	688.4	4,519.1	0.00	0.00	0.00
11,300.0	90.00	180.00	7,100.0	-4,507.8	688.4	4,544.0	0.00	0.00	0.00
11,325.0	90.00	180.00	7,100.0	-4,532.8	688.4	4,568.9	0.00	0.00	0.00
11,350.0	90.00	180.00	7,100.0	-4,557.8	688.4	4,593.9	0.00	0.00	0.00
11,375.0	90.00	180.00	7,100.0	-4,582.8	688.4	4,618.8	0.00	0.00	0.00
11,400.0	90.00	180.00	7,100.0	-4,607.8	688.4	4,643.8	0.00	0.00	0.00
11,425.0	90.00	180.00	7,100.0	-4,632.8	688.4	4,668.7	0.00	0.00	0.00
11,450.0	90.00	180.00	7,100.0	-4,657.8	688.4	4,693.7	0.00	0.00	0.00
11,475.0	90.00	180.00	7,100.0	-4,682.8	688.4	4,718.6	0.00	0.00	0.00
11,500.0	90.00	180.00	7,100.0	-4,707.8	688.4	4,743.5	0.00	0.00	0.00
11,525.0	90.00	180.00	7,100.0	-4,732.8	688.4	4,768.5	0.00	0.00	0.00
11,550.0	90.00	180.00	7,100.0	-4,757.8	688.4	4,793.4	0.00	0.00	0.00
11,575.0	90.00	180.00	7,100.0	-4,782.8	688.4	4,818.4	0.00	0.00	0.00
11,600.0	90.00	180.00	7,100.0	-4,807.8	688.4	4,843.3	0.00	0.00	0.00
11,625.0	90.00	180.00	7,100.0	-4,832.8	688.4	4,868.3	0.00	0.00	0.00
11,650.0	90.00	180.00	7,100.0	-4,857.8	688.4	4,893.2	0.00	0.00	0.00
11,675.0	90.00	180.00	7,100.0	-4,882.8	688.4	4,918.1	0.00	0.00	0.00
11,700.0	90.00	180.00	7,100.0	-4,907.8	688.4	4,943.1	0.00	0.00	0.00
11,725.0	90.00	180.00	7,100.0	-4,932.8	688.4	4,968.0	0.00	0.00	0.00
11,750.0	90.00	180.00	7,100.0	-4,957.8	688.4	4,993.0	0.00	0.00	0.00
11,775.0	90.00	180.00	7,100.0	-4,982.8	688.4	5,017.9	0.00	0.00	0.00
11,800.0	90.00	180.00	7,100.0	-5,007.8	688.4	5,042.9	0.00	0.00	0.00
11,825.0	90.00	180.00	7,100.0	-5,032.8	688.4	5,067.8	0.00	0.00	0.00
11,850.0	90.00	180.00	7,100.0	-5,057.8	688.4	5,092.7	0.00	0.00	0.00
11,875.0	90.00	180.00	7,100.0	-5,082.8	688.4	5,117.7	0.00	0.00	0.00
11,900.0	90.00	180.00	7,100.0	-5,107.8	688.4	5,142.6	0.00	0.00	0.00
11,925.0	90.00	180.00	7,100.0	-5,132.8	688.4	5,167.6	0.00	0.00	0.00
11,950.0	90.00	180.00	7,100.0	-5,157.8	688.4	5,192.5	0.00	0.00	0.00

SandRidge Energy

Survey Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 3-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Well:	Castle 0780 3-17H20	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDMProd

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,975.0	90.00	180.00	7,100.0	-5,182.8	688.4	5,217.5	0.00	0.00	0.00
12,000.0	90.00	180.00	7,100.0	-5,207.8	688.4	5,242.4	0.00	0.00	0.00
12,025.0	90.00	180.00	7,100.0	-5,232.8	688.4	5,267.3	0.00	0.00	0.00
12,050.0	90.00	180.00	7,100.0	-5,257.8	688.4	5,292.3	0.00	0.00	0.00
12,075.0	90.00	180.00	7,100.0	-5,282.8	688.4	5,317.2	0.00	0.00	0.00
12,100.0	90.00	180.00	7,100.0	-5,307.8	688.4	5,342.2	0.00	0.00	0.00
12,125.0	90.00	180.00	7,100.0	-5,332.8	688.4	5,367.1	0.00	0.00	0.00
12,150.0	90.00	180.00	7,100.0	-5,357.8	688.4	5,392.1	0.00	0.00	0.00
12,175.0	90.00	180.00	7,100.0	-5,382.8	688.4	5,417.0	0.00	0.00	0.00
12,200.0	90.00	180.00	7,100.0	-5,407.8	688.4	5,441.9	0.00	0.00	0.00
12,225.0	90.00	180.00	7,100.0	-5,432.8	688.4	5,466.9	0.00	0.00	0.00
12,250.0	90.00	180.00	7,100.0	-5,457.8	688.4	5,491.8	0.00	0.00	0.00
12,275.0	90.00	180.00	7,100.0	-5,482.8	688.4	5,516.8	0.00	0.00	0.00
12,300.0	90.00	180.00	7,100.0	-5,507.8	688.4	5,541.7	0.00	0.00	0.00
12,325.0	90.00	180.00	7,100.0	-5,532.8	688.4	5,566.7	0.00	0.00	0.00
12,350.0	90.00	180.00	7,100.0	-5,557.8	688.4	5,591.6	0.00	0.00	0.00
12,375.0	90.00	180.00	7,100.0	-5,582.8	688.4	5,616.5	0.00	0.00	0.00
12,400.0	90.00	180.00	7,100.0	-5,607.8	688.4	5,641.5	0.00	0.00	0.00
12,425.0	90.00	180.00	7,100.0	-5,632.8	688.4	5,666.4	0.00	0.00	0.00
12,450.0	90.00	180.00	7,100.0	-5,657.8	688.4	5,691.4	0.00	0.00	0.00
12,475.0	90.00	180.00	7,100.0	-5,682.8	688.4	5,716.3	0.00	0.00	0.00
12,500.0	90.00	180.00	7,100.0	-5,707.8	688.4	5,741.3	0.00	0.00	0.00
12,525.0	90.00	180.00	7,100.0	-5,732.8	688.4	5,766.2	0.00	0.00	0.00
12,550.0	90.00	180.00	7,100.0	-5,757.8	688.4	5,791.1	0.00	0.00	0.00
12,575.0	90.00	180.00	7,100.0	-5,782.8	688.4	5,816.1	0.00	0.00	0.00
12,600.0	90.00	180.00	7,100.0	-5,807.8	688.4	5,841.0	0.00	0.00	0.00
12,625.0	90.00	180.00	7,100.0	-5,832.8	688.4	5,866.0	0.00	0.00	0.00
12,650.0	90.00	180.00	7,100.0	-5,857.8	688.4	5,890.9	0.00	0.00	0.00
12,675.0	90.00	180.00	7,100.0	-5,882.8	688.4	5,915.9	0.00	0.00	0.00
12,700.0	90.00	180.00	7,100.0	-5,907.8	688.4	5,940.8	0.00	0.00	0.00
12,725.0	90.00	180.00	7,100.0	-5,932.8	688.4	5,965.7	0.00	0.00	0.00
12,750.0	90.00	180.00	7,100.0	-5,957.8	688.4	5,990.7	0.00	0.00	0.00
12,775.0	90.00	180.00	7,100.0	-5,982.8	688.4	6,015.6	0.00	0.00	0.00
12,800.0	90.00	180.00	7,100.0	-6,007.8	688.4	6,040.6	0.00	0.00	0.00
12,825.0	90.00	180.00	7,100.0	-6,032.8	688.4	6,065.5	0.00	0.00	0.00
12,850.0	90.00	180.00	7,100.0	-6,057.8	688.4	6,090.5	0.00	0.00	0.00
12,875.0	90.00	180.00	7,100.0	-6,082.8	688.4	6,115.4	0.00	0.00	0.00
12,900.0	90.00	180.00	7,100.0	-6,107.8	688.4	6,140.3	0.00	0.00	0.00
12,925.0	90.00	180.00	7,100.0	-6,132.8	688.4	6,165.3	0.00	0.00	0.00
12,950.0	90.00	180.00	7,100.0	-6,157.8	688.4	6,190.2	0.00	0.00	0.00
12,975.0	90.00	180.00	7,100.0	-6,182.8	688.4	6,215.2	0.00	0.00	0.00
13,000.0	90.00	180.00	7,100.0	-6,207.8	688.4	6,240.1	0.00	0.00	0.00
13,025.0	90.00	180.00	7,100.0	-6,232.8	688.4	6,265.1	0.00	0.00	0.00

SandRidge Energy

Survey Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 3-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Well:	Castle 0780 3-17H20	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDMPProd

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,050.0	90.00	180.00	7,100.0	-6,257.8	688.4	6,290.0	0.00	0.00	0.00
13,075.0	90.00	180.00	7,100.0	-6,282.8	688.4	6,314.9	0.00	0.00	0.00
13,100.0	90.00	180.00	7,100.0	-6,307.8	688.4	6,339.9	0.00	0.00	0.00
13,125.0	90.00	180.00	7,100.0	-6,332.8	688.4	6,364.8	0.00	0.00	0.00
13,150.0	90.00	180.00	7,100.0	-6,357.8	688.4	6,389.8	0.00	0.00	0.00
13,175.0	90.00	180.00	7,100.0	-6,382.8	688.4	6,414.7	0.00	0.00	0.00
13,200.0	90.00	180.00	7,100.0	-6,407.8	688.4	6,439.7	0.00	0.00	0.00
13,225.0	90.00	180.00	7,100.0	-6,432.8	688.4	6,464.6	0.00	0.00	0.00
13,250.0	90.00	180.00	7,100.0	-6,457.8	688.4	6,489.5	0.00	0.00	0.00
13,275.0	90.00	180.00	7,100.0	-6,482.8	688.4	6,514.5	0.00	0.00	0.00
13,300.0	90.00	180.00	7,100.0	-6,507.8	688.4	6,539.4	0.00	0.00	0.00
13,325.0	90.00	180.00	7,100.0	-6,532.8	688.4	6,564.4	0.00	0.00	0.00
13,350.0	90.00	180.00	7,100.0	-6,557.8	688.4	6,589.3	0.00	0.00	0.00
13,375.0	90.00	180.00	7,100.0	-6,582.8	688.4	6,614.3	0.00	0.00	0.00
13,400.0	90.00	180.00	7,100.0	-6,607.8	688.4	6,639.2	0.00	0.00	0.00
13,425.0	90.00	180.00	7,100.0	-6,632.8	688.4	6,664.1	0.00	0.00	0.00
13,450.0	90.00	180.00	7,100.0	-6,657.8	688.4	6,689.1	0.00	0.00	0.00
13,475.0	90.00	180.00	7,100.0	-6,682.8	688.4	6,714.0	0.00	0.00	0.00
13,500.0	90.00	180.00	7,100.0	-6,707.8	688.4	6,739.0	0.00	0.00	0.00
13,525.0	90.00	180.00	7,100.0	-6,732.8	688.4	6,763.9	0.00	0.00	0.00
13,550.0	90.00	180.00	7,100.0	-6,757.8	688.4	6,788.9	0.00	0.00	0.00
13,575.0	90.00	180.00	7,100.0	-6,782.8	688.4	6,813.8	0.00	0.00	0.00
13,600.0	90.00	180.00	7,100.0	-6,807.8	688.4	6,838.7	0.00	0.00	0.00
13,625.0	90.00	180.00	7,100.0	-6,832.8	688.4	6,863.7	0.00	0.00	0.00
13,650.0	90.00	180.00	7,100.0	-6,857.8	688.4	6,888.6	0.00	0.00	0.00
13,675.0	90.00	180.00	7,100.0	-6,882.8	688.4	6,913.6	0.00	0.00	0.00
13,700.0	90.00	180.00	7,100.0	-6,907.8	688.4	6,938.5	0.00	0.00	0.00
13,725.0	90.00	180.00	7,100.0	-6,932.8	688.4	6,963.5	0.00	0.00	0.00
13,750.0	90.00	180.00	7,100.0	-6,957.8	688.4	6,988.4	0.00	0.00	0.00
13,775.0	90.00	180.00	7,100.0	-6,982.8	688.4	7,013.3	0.00	0.00	0.00
13,800.0	90.00	180.00	7,100.0	-7,007.8	688.4	7,038.3	0.00	0.00	0.00
13,825.0	90.00	180.00	7,100.0	-7,032.8	688.4	7,063.2	0.00	0.00	0.00
13,850.0	90.00	180.00	7,100.0	-7,057.8	688.4	7,088.2	0.00	0.00	0.00
13,875.0	90.00	180.00	7,100.0	-7,082.8	688.4	7,113.1	0.00	0.00	0.00
13,900.0	90.00	180.00	7,100.0	-7,107.8	688.4	7,138.1	0.00	0.00	0.00
13,925.0	90.00	180.00	7,100.0	-7,132.8	688.4	7,163.0	0.00	0.00	0.00
13,950.0	90.00	180.00	7,100.0	-7,157.8	688.4	7,187.9	0.00	0.00	0.00
13,975.0	90.00	180.00	7,100.0	-7,182.8	688.4	7,212.9	0.00	0.00	0.00
14,000.0	90.00	180.00	7,100.0	-7,207.8	688.4	7,237.8	0.00	0.00	0.00
14,025.0	90.00	180.00	7,100.0	-7,232.8	688.4	7,262.8	0.00	0.00	0.00
14,050.0	90.00	180.00	7,100.0	-7,257.8	688.4	7,287.7	0.00	0.00	0.00
14,075.0	90.00	180.00	7,100.0	-7,282.8	688.4	7,312.7	0.00	0.00	0.00
14,100.0	90.00	180.00	7,100.0	-7,307.8	688.4	7,337.6	0.00	0.00	0.00
14,125.0	90.00	180.00	7,100.0	-7,332.8	688.4	7,362.5	0.00	0.00	0.00

SandRidge Energy

Survey Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 3-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Well:	Castle 0780 3-17H20	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDMProd

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,150.0	90.00	180.00	7,100.0	-7,357.8	688.4	7,387.5	0.00	0.00	0.00
14,175.0	90.00	180.00	7,100.0	-7,382.8	688.4	7,412.4	0.00	0.00	0.00
14,200.0	90.00	180.00	7,100.0	-7,407.8	688.4	7,437.4	0.00	0.00	0.00
14,225.0	90.00	180.00	7,100.0	-7,432.8	688.4	7,462.3	0.00	0.00	0.00
14,250.0	90.00	180.00	7,100.0	-7,457.8	688.4	7,487.3	0.00	0.00	0.00
14,275.0	90.00	180.00	7,100.0	-7,482.8	688.4	7,512.2	0.00	0.00	0.00
14,300.0	90.00	180.00	7,100.0	-7,507.8	688.4	7,537.1	0.00	0.00	0.00
14,325.0	90.00	180.00	7,100.0	-7,532.8	688.4	7,562.1	0.00	0.00	0.00
14,350.0	90.00	180.00	7,100.0	-7,557.8	688.4	7,587.0	0.00	0.00	0.00
14,375.0	90.00	180.00	7,100.0	-7,582.8	688.4	7,612.0	0.00	0.00	0.00
14,400.0	90.00	180.00	7,100.0	-7,607.8	688.4	7,636.9	0.00	0.00	0.00
14,425.0	90.00	180.00	7,100.0	-7,632.8	688.4	7,661.9	0.00	0.00	0.00
14,450.0	90.00	180.00	7,100.0	-7,657.8	688.4	7,686.8	0.00	0.00	0.00
14,475.0	90.00	180.00	7,100.0	-7,682.8	688.4	7,711.7	0.00	0.00	0.00
14,500.0	90.00	180.00	7,100.0	-7,707.8	688.4	7,736.7	0.00	0.00	0.00
14,525.0	90.00	180.00	7,100.0	-7,732.8	688.4	7,761.6	0.00	0.00	0.00
14,550.0	90.00	180.00	7,100.0	-7,757.8	688.4	7,786.6	0.00	0.00	0.00
14,575.0	90.00	180.00	7,100.0	-7,782.8	688.4	7,811.5	0.00	0.00	0.00
14,600.0	90.00	180.00	7,100.0	-7,807.8	688.4	7,836.5	0.00	0.00	0.00
14,625.0	90.00	180.00	7,100.0	-7,832.8	688.4	7,861.4	0.00	0.00	0.00
14,650.0	90.00	180.00	7,100.0	-7,857.8	688.4	7,886.3	0.00	0.00	0.00
14,675.0	90.00	180.00	7,100.0	-7,882.8	688.4	7,911.3	0.00	0.00	0.00
14,700.0	90.00	180.00	7,100.0	-7,907.8	688.4	7,936.2	0.00	0.00	0.00
14,725.0	90.00	180.00	7,100.0	-7,932.8	688.4	7,961.2	0.00	0.00	0.00
14,750.0	90.00	180.00	7,100.0	-7,957.8	688.4	7,986.1	0.00	0.00	0.00
14,775.0	90.00	180.00	7,100.0	-7,982.8	688.4	8,011.0	0.00	0.00	0.00
14,800.0	90.00	180.00	7,100.0	-8,007.8	688.4	8,036.0	0.00	0.00	0.00
14,825.0	90.00	180.00	7,100.0	-8,032.8	688.4	8,060.9	0.00	0.00	0.00
14,850.0	90.00	180.00	7,100.0	-8,057.8	688.4	8,085.9	0.00	0.00	0.00
14,875.0	90.00	180.00	7,100.0	-8,082.8	688.4	8,110.8	0.00	0.00	0.00
14,900.0	90.00	180.00	7,100.0	-8,107.8	688.4	8,135.8	0.00	0.00	0.00
14,925.0	90.00	180.00	7,100.0	-8,132.8	688.4	8,160.7	0.00	0.00	0.00
14,950.0	90.00	180.00	7,100.0	-8,157.8	688.4	8,185.6	0.00	0.00	0.00
14,975.0	90.00	180.00	7,100.0	-8,182.8	688.4	8,210.6	0.00	0.00	0.00
15,000.0	90.00	180.00	7,100.0	-8,207.8	688.4	8,235.5	0.00	0.00	0.00
15,025.0	90.00	180.00	7,100.0	-8,232.8	688.4	8,260.5	0.00	0.00	0.00
15,050.0	90.00	180.00	7,100.0	-8,257.8	688.4	8,285.4	0.00	0.00	0.00
15,075.0	90.00	180.00	7,100.0	-8,282.8	688.4	8,310.4	0.00	0.00	0.00
15,100.0	90.00	180.00	7,100.0	-8,307.8	688.4	8,335.3	0.00	0.00	0.00
15,125.0	90.00	180.00	7,100.0	-8,332.8	688.4	8,360.2	0.00	0.00	0.00
15,150.0	90.00	180.00	7,100.0	-8,357.8	688.4	8,385.2	0.00	0.00	0.00
15,175.0	90.00	180.00	7,100.0	-8,382.8	688.4	8,410.1	0.00	0.00	0.00
15,200.0	90.00	180.00	7,100.0	-8,407.8	688.4	8,435.1	0.00	0.00	0.00

SandRidge Energy

Survey Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 3-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Well:	Castle 0780 3-17H20	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDMProd

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,225.0	90.00	180.00	7,100.0	-8,432.8	688.4	8,460.0	0.00	0.00	0.00
15,250.0	90.00	180.00	7,100.0	-8,457.8	688.4	8,485.0	0.00	0.00	0.00
15,275.0	90.00	180.00	7,100.0	-8,482.8	688.4	8,509.9	0.00	0.00	0.00
15,300.0	90.00	180.00	7,100.0	-8,507.8	688.4	8,534.8	0.00	0.00	0.00
15,325.0	90.00	180.00	7,100.0	-8,532.8	688.4	8,559.8	0.00	0.00	0.00
15,350.0	90.00	180.00	7,100.0	-8,557.8	688.4	8,584.7	0.00	0.00	0.00
15,375.0	90.00	180.00	7,100.0	-8,582.8	688.4	8,609.7	0.00	0.00	0.00
15,400.0	90.00	180.00	7,100.0	-8,607.8	688.4	8,634.6	0.00	0.00	0.00
15,425.0	90.00	180.00	7,100.0	-8,632.8	688.4	8,659.6	0.00	0.00	0.00
15,450.0	90.00	180.00	7,100.0	-8,657.8	688.4	8,684.5	0.00	0.00	0.00
15,475.0	90.00	180.00	7,100.0	-8,682.8	688.4	8,709.4	0.00	0.00	0.00
15,500.0	90.00	180.00	7,100.0	-8,707.8	688.4	8,734.4	0.00	0.00	0.00
15,525.0	90.00	180.00	7,100.0	-8,732.8	688.4	8,759.3	0.00	0.00	0.00
15,550.0	90.00	180.00	7,100.0	-8,757.8	688.4	8,784.3	0.00	0.00	0.00
15,575.0	90.00	180.00	7,100.0	-8,782.8	688.4	8,809.2	0.00	0.00	0.00
15,600.0	90.00	180.00	7,100.0	-8,807.8	688.4	8,834.2	0.00	0.00	0.00
15,625.0	90.00	180.00	7,100.0	-8,832.8	688.4	8,859.1	0.00	0.00	0.00
15,650.0	90.00	180.00	7,100.0	-8,857.8	688.4	8,884.0	0.00	0.00	0.00
15,675.0	90.00	180.00	7,100.0	-8,882.8	688.4	8,909.0	0.00	0.00	0.00
15,700.0	90.00	180.00	7,100.0	-8,907.8	688.4	8,933.9	0.00	0.00	0.00
15,725.0	90.00	180.00	7,100.0	-8,932.8	688.4	8,958.9	0.00	0.00	0.00
15,750.0	90.00	180.00	7,100.0	-8,957.8	688.4	8,983.8	0.00	0.00	0.00
15,775.0	90.00	180.00	7,100.0	-8,982.8	688.4	9,008.8	0.00	0.00	0.00
15,800.0	90.00	180.00	7,100.0	-9,007.8	688.4	9,033.7	0.00	0.00	0.00
15,825.0	90.00	180.00	7,100.0	-9,032.8	688.4	9,058.6	0.00	0.00	0.00
15,850.0	90.00	180.00	7,100.0	-9,057.8	688.4	9,083.6	0.00	0.00	0.00
15,875.0	90.00	180.00	7,100.0	-9,082.8	688.4	9,108.5	0.00	0.00	0.00
15,900.0	90.00	180.00	7,100.0	-9,107.8	688.4	9,133.5	0.00	0.00	0.00
15,925.0	90.00	180.00	7,100.0	-9,132.8	688.4	9,158.4	0.00	0.00	0.00
15,950.0	90.00	180.00	7,100.0	-9,157.8	688.4	9,183.4	0.00	0.00	0.00
15,975.0	90.00	180.00	7,100.0	-9,182.8	688.4	9,208.3	0.00	0.00	0.00
16,000.0	90.00	180.00	7,100.0	-9,207.8	688.4	9,233.2	0.00	0.00	0.00
16,025.0	90.00	180.00	7,100.0	-9,232.8	688.4	9,258.2	0.00	0.00	0.00
16,050.0	90.00	180.00	7,100.0	-9,257.8	688.4	9,283.1	0.00	0.00	0.00
16,075.0	90.00	180.00	7,100.0	-9,282.8	688.4	9,308.1	0.00	0.00	0.00
16,100.0	90.00	180.00	7,100.0	-9,307.8	688.4	9,333.0	0.00	0.00	0.00
16,125.0	90.00	180.00	7,100.0	-9,332.8	688.4	9,358.0	0.00	0.00	0.00
16,150.0	90.00	180.00	7,100.0	-9,357.8	688.4	9,382.9	0.00	0.00	0.00
16,175.0	90.00	180.00	7,100.0	-9,382.8	688.4	9,407.8	0.00	0.00	0.00
16,200.0	90.00	180.00	7,100.0	-9,407.8	688.4	9,432.8	0.00	0.00	0.00
16,225.0	90.00	180.00	7,100.0	-9,432.8	688.4	9,457.7	0.00	0.00	0.00
16,250.0	90.00	180.00	7,100.0	-9,457.8	688.4	9,482.7	0.00	0.00	0.00
16,275.0	90.00	180.00	7,100.0	-9,482.8	688.4	9,507.6	0.00	0.00	0.00

SandRidge Energy

Survey Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 3-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Well:	Castle 0780 3-17H20	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDMProd

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
16,300.0	90.00	180.00	7,100.0	-9,507.8	688.4	9,532.6	0.00	0.00	0.00
16,325.0	90.00	180.00	7,100.0	-9,532.8	688.4	9,557.5	0.00	0.00	0.00
16,350.0	90.00	180.00	7,100.0	-9,557.8	688.4	9,582.4	0.00	0.00	0.00
16,375.0	90.00	180.00	7,100.0	-9,582.8	688.4	9,607.4	0.00	0.00	0.00
16,400.0	90.00	180.00	7,100.0	-9,607.8	688.4	9,632.3	0.00	0.00	0.00
16,425.0	90.00	180.00	7,100.0	-9,632.8	688.4	9,657.3	0.00	0.00	0.00
16,450.0	90.00	180.00	7,100.0	-9,657.8	688.4	9,682.2	0.00	0.00	0.00
16,475.0	90.00	180.00	7,100.0	-9,682.8	688.4	9,707.2	0.00	0.00	0.00
16,500.0	90.00	180.00	7,100.0	-9,707.8	688.4	9,732.1	0.00	0.00	0.00
16,525.0	90.00	180.00	7,100.0	-9,732.8	688.4	9,757.0	0.00	0.00	0.00
16,550.0	90.00	180.00	7,100.0	-9,757.8	688.4	9,782.0	0.00	0.00	0.00
16,575.0	90.00	180.00	7,100.0	-9,782.8	688.4	9,806.9	0.00	0.00	0.00
16,600.0	90.00	180.00	7,100.0	-9,807.8	688.4	9,831.9	0.00	0.00	0.00
16,625.0	90.00	180.00	7,100.0	-9,832.8	688.4	9,856.8	0.00	0.00	0.00
16,650.0	90.00	180.00	7,100.0	-9,857.8	688.4	9,881.8	0.00	0.00	0.00
16,675.0	90.00	180.00	7,100.0	-9,882.8	688.4	9,906.7	0.00	0.00	0.00
16,700.0	90.00	180.00	7,100.0	-9,907.8	688.4	9,931.6	0.00	0.00	0.00
16,725.0	90.00	180.00	7,100.0	-9,932.8	688.4	9,956.6	0.00	0.00	0.00
16,750.0	90.00	180.00	7,100.0	-9,957.8	688.4	9,981.5	0.00	0.00	0.00
16,775.0	90.00	180.00	7,100.0	-9,982.8	688.4	10,006.5	0.00	0.00	0.00
16,800.0	90.00	180.00	7,100.0	-10,007.8	688.4	10,031.4	0.00	0.00	0.00
16,825.0	90.00	180.00	7,100.0	-10,032.8	688.4	10,056.4	0.00	0.00	0.00
16,850.0	90.00	180.00	7,100.0	-10,057.8	688.4	10,081.3	0.00	0.00	0.00
16,875.0	90.00	180.00	7,100.0	-10,082.8	688.4	10,106.2	0.00	0.00	0.00
16,900.0	90.00	180.00	7,100.0	-10,107.8	688.4	10,131.2	0.00	0.00	0.00
16,925.0	90.00	180.00	7,100.0	-10,132.8	688.4	10,156.1	0.00	0.00	0.00
16,950.0	90.00	180.00	7,100.0	-10,157.8	688.4	10,181.1	0.00	0.00	0.00
16,952.7	90.00	180.00	7,100.0	-10,160.5	688.4	10,183.8	0.00	0.00	0.00

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Castle 3-17H20	0.00	360.00	7,100.0	-10,160.5	688.4	1,446,801.90	2,749,499.20	40° 33' 22.951 N	106° 24' 5.493 W
- hit/miss target									
- Shape									
- plan hits target center									
- Point									

Checked By: _____ Approved By: _____ Date: _____