

# **SandRidge Energy**

**North Park Basin**

**T7N-R80W-S9**

**Janet 0780 1-16H21**

**Wellbore #1**

**Plan: Design #1**

## **Standard Survey Report**

**18 December, 2017**

# SandRidge Energy

## Survey Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Janet 0780 1-16H21
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8151.0usft (Original Well Elev)
<b>Site:</b>	T7N-R80W-S9	<b>MD Reference:</b>	WELL @ 8151.0usft (Original Well Elev)
<b>Well:</b>	Janet 0780 1-16H21	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Design #1	<b>Database:</b>	EDMProd

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

<b>Site</b>	T7N-R80W-S9		
<b>Site Position:</b>		<b>Northing:</b>	1,457,270.18 usft
<b>From:</b>	Map	<b>Easting:</b>	2,753,429.57 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	40° 35' 6.782 N
		<b>Longitude:</b>	106° 23' 15.932 W
		<b>Grid Convergence:</b>	-0.57 °

<b>Well</b>	Janet 0780 1-16H21		
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>
<b>Position Uncertainty</b>	0.0 usft	<b>Wellhead Elevation:</b>	0.0 usft
		<b>Latitude:</b>	40° 35' 2.948 N
		<b>Longitude:</b>	106° 23' 14.391 W
		<b>Ground Level:</b>	8,126.0 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	12/31/2009	9.88	66.98	53,191.01483563

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	180.19

<b>Survey Tool Program</b>	<b>Date</b>	12/18/2017		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	17,487.6	Design #1 (Wellbore #1)	Sperry MWD	Fixed:v2:standard declination

<b>Planned Survey</b>									
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>
0.0	0.00	0.00	0.0	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
200.0	0.00	0.00	200.0	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
400.0	0.00	0.00	400.0	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
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00

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<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8151.0usft (Original Well Elev)
<b>Site:</b>	T7N-R80W-S9	<b>MD Reference:</b>	WELL @ 8151.0usft (Original Well Elev)
<b>Well:</b>	Janet 0780 1-16H21	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Design #1	<b>Database:</b>	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)
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Start Build 2.00</b>									
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00

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<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Design #1	<b>Database:</b>	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)
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,573.8	0.00	0.00	5,573.8	0.0	0.0	0.0	0.00	0.00	0.00
<b>Start 1272.8 hold at 5573.8 MD</b>									
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	2.00	90.00	6,100.0	0.0	1.7	0.0	2.00	2.00	0.00
6,200.0	4.00	90.00	6,199.8	0.0	7.0	0.0	2.00	2.00	0.00
6,300.0	6.00	90.00	6,299.5	0.0	15.7	-0.1	2.00	2.00	0.00
6,400.0	8.00	90.00	6,398.7	0.0	27.9	-0.1	2.00	2.00	0.00
6,431.2	8.62	90.00	6,429.6	0.0	32.4	-0.1	2.00	2.00	0.00
6,500.0	8.62	90.00	6,497.6	0.0	42.7	-0.1	0.00	0.00	0.00
6,600.0	8.62	90.00	6,596.5	0.0	57.7	-0.2	0.00	0.00	0.00
6,700.0	8.62	90.00	6,695.3	0.0	72.7	-0.2	0.00	0.00	0.00
6,800.0	8.62	90.00	6,794.2	0.0	87.7	-0.3	0.00	0.00	0.00
6,846.6	8.62	90.00	6,840.2	0.0	94.7	-0.3	0.00	0.00	0.00
<b>Start DLS 10.00 TFO 165.60</b>									
6,900.0	8.62	90.00	6,893.1	0.0	102.7	-0.3	0.00	0.00	0.00
6,908.7	8.62	90.00	6,901.7	0.0	104.0	-0.3	0.00	0.00	0.00
7,000.0	12.40	137.63	6,991.6	-7.3	117.5	6.9	10.00	4.13	52.18
7,100.0	20.74	157.65	7,087.4	-31.6	131.5	31.2	10.00	8.35	20.02
7,200.0	30.09	166.08	7,177.7	-72.4	144.3	72.0	10.00	9.35	8.43
7,300.0	39.73	170.74	7,259.6	-128.5	155.5	127.9	10.00	9.64	4.66
7,327.1	42.37	171.69	7,280.0	-146.0	158.2	145.5	10.00	9.74	3.48
<b>Niobara</b>									
7,400.0	49.50	173.81	7,330.7	-198.0	164.7	197.4	10.00	9.78	2.92
7,500.0	59.33	176.09	7,388.8	-278.9	171.8	278.3	10.00	9.83	2.28
7,600.0	69.19	177.95	7,432.2	-368.7	176.4	368.1	10.00	9.86	1.86
7,700.0	79.07	179.58	7,459.5	-464.8	178.4	464.2	10.00	9.88	1.63
7,800.0	88.95	181.10	7,469.9	-564.1	177.8	563.5	10.00	9.89	1.52
7,810.6	90.00	181.25	7,470.0	-574.7	177.6	574.1	10.00	9.89	1.50
7,857.8	90.00	181.25	7,470.0	-621.9	176.6	621.3	0.00	0.00	0.00
<b>Start 9988.2 hold at 7857.8 MD</b>									
7,900.0	90.00	181.25	7,470.0	-664.1	175.7	663.5	0.00	0.00	0.00
8,000.0	90.00	181.25	7,470.0	-764.1	173.5	763.5	0.00	0.00	0.00
8,100.0	90.00	181.25	7,470.0	-864.0	171.3	863.4	0.00	0.00	0.00
8,200.0	90.00	181.25	7,470.0	-964.0	169.1	963.4	0.00	0.00	0.00
8,300.0	90.00	181.25	7,470.0	-1,064.0	166.9	1,063.4	0.00	0.00	0.00
8,400.0	90.00	181.25	7,470.0	-1,164.0	164.7	1,163.4	0.00	0.00	0.00
8,500.0	90.00	181.25	7,470.0	-1,263.9	162.5	1,263.4	0.00	0.00	0.00

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<b>Site:</b>	T7N-R80W-S9	<b>MD Reference:</b>	WELL @ 8151.0usft (Original Well Elev)
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<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
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### 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)
8,600.0	90.00	181.25	7,470.0	-1,363.9	160.3	1,363.4	0.00	0.00	0.00
8,700.0	90.00	181.25	7,470.0	-1,463.9	158.1	1,463.3	0.00	0.00	0.00
8,800.0	90.00	181.25	7,470.0	-1,563.9	156.0	1,563.3	0.00	0.00	0.00
8,900.0	90.00	181.25	7,470.0	-1,663.8	153.8	1,663.3	0.00	0.00	0.00
9,000.0	90.00	181.25	7,470.0	-1,763.8	151.6	1,763.3	0.00	0.00	0.00
9,100.0	90.00	181.25	7,470.0	-1,863.8	149.4	1,863.3	0.00	0.00	0.00
9,200.0	90.00	181.25	7,470.0	-1,963.8	147.2	1,963.3	0.00	0.00	0.00
9,300.0	90.00	181.25	7,470.0	-2,063.7	145.0	2,063.2	0.00	0.00	0.00
9,400.0	90.00	181.25	7,470.0	-2,163.7	142.8	2,163.2	0.00	0.00	0.00
9,500.0	90.00	181.25	7,470.0	-2,263.7	140.6	2,263.2	0.00	0.00	0.00
9,600.0	90.00	181.25	7,470.0	-2,363.7	138.4	2,363.2	0.00	0.00	0.00
9,700.0	90.00	181.25	7,470.0	-2,463.6	136.2	2,463.2	0.00	0.00	0.00
9,800.0	90.00	181.25	7,470.0	-2,563.6	134.1	2,563.2	0.00	0.00	0.00
9,900.0	90.00	181.25	7,470.0	-2,663.6	131.9	2,663.1	0.00	0.00	0.00
10,000.0	90.00	181.25	7,470.0	-2,763.6	129.7	2,763.1	0.00	0.00	0.00
10,100.0	90.00	181.25	7,470.0	-2,863.5	127.5	2,863.1	0.00	0.00	0.00
10,200.0	90.00	181.25	7,470.0	-2,963.5	125.3	2,963.1	0.00	0.00	0.00
10,300.0	90.00	181.25	7,470.0	-3,063.5	123.1	3,063.1	0.00	0.00	0.00
10,400.0	90.00	181.25	7,470.0	-3,163.5	120.9	3,163.1	0.00	0.00	0.00
10,500.0	90.00	181.25	7,470.0	-3,263.5	118.7	3,263.0	0.00	0.00	0.00
10,600.0	90.00	181.25	7,470.0	-3,363.4	116.5	3,363.0	0.00	0.00	0.00
10,700.0	90.00	181.25	7,470.0	-3,463.4	114.3	3,463.0	0.00	0.00	0.00
10,800.0	90.00	181.25	7,470.0	-3,563.4	112.2	3,563.0	0.00	0.00	0.00
10,900.0	90.00	181.25	7,470.0	-3,663.4	110.0	3,663.0	0.00	0.00	0.00
11,000.0	90.00	181.25	7,470.0	-3,763.3	107.8	3,763.0	0.00	0.00	0.00
11,100.0	90.00	181.25	7,470.0	-3,863.3	105.6	3,862.9	0.00	0.00	0.00
11,200.0	90.00	181.25	7,470.0	-3,963.3	103.4	3,962.9	0.00	0.00	0.00
11,300.0	90.00	181.25	7,470.0	-4,063.3	101.2	4,062.9	0.00	0.00	0.00
11,400.0	90.00	181.25	7,470.0	-4,163.2	99.0	4,162.9	0.00	0.00	0.00
11,500.0	90.00	181.25	7,470.0	-4,263.2	96.8	4,262.9	0.00	0.00	0.00
11,600.0	90.00	181.25	7,470.0	-4,363.2	94.6	4,362.8	0.00	0.00	0.00
11,700.0	90.00	181.25	7,470.0	-4,463.2	92.5	4,462.8	0.00	0.00	0.00
11,800.0	90.00	181.25	7,470.0	-4,563.1	90.3	4,562.8	0.00	0.00	0.00
11,900.0	90.00	181.25	7,470.0	-4,663.1	88.1	4,662.8	0.00	0.00	0.00
12,000.0	90.00	181.25	7,470.0	-4,763.1	85.9	4,762.8	0.00	0.00	0.00
12,100.0	90.00	181.25	7,470.0	-4,863.1	83.7	4,862.8	0.00	0.00	0.00
12,200.0	90.00	181.25	7,470.0	-4,963.0	81.5	4,962.7	0.00	0.00	0.00
12,300.0	90.00	181.25	7,470.0	-5,063.0	79.3	5,062.7	0.00	0.00	0.00
12,400.0	90.00	181.25	7,470.0	-5,163.0	77.1	5,162.7	0.00	0.00	0.00
12,500.0	90.00	181.25	7,470.0	-5,263.0	74.9	5,262.7	0.00	0.00	0.00
12,600.0	90.00	181.25	7,470.0	-5,362.9	72.7	5,362.7	0.00	0.00	0.00
12,700.0	90.00	181.25	7,470.0	-5,462.9	70.6	5,462.7	0.00	0.00	0.00
12,800.0	90.00	181.25	7,470.0	-5,562.9	68.4	5,562.6	0.00	0.00	0.00

# SandRidge Energy

## Survey Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Janet 0780 1-16H21
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8151.0usft (Original Well Elev)
<b>Site:</b>	T7N-R80W-S9	<b>MD Reference:</b>	WELL @ 8151.0usft (Original Well Elev)
<b>Well:</b>	Janet 0780 1-16H21	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Design #1	<b>Database:</b>	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)
12,900.0	90.00	181.25	7,470.0	-5,662.9	66.2	5,662.6	0.00	0.00	0.00
13,000.0	90.00	181.25	7,470.0	-5,762.9	64.0	5,762.6	0.00	0.00	0.00
13,100.0	90.00	181.25	7,470.0	-5,862.8	61.8	5,862.6	0.00	0.00	0.00
13,200.0	90.00	181.25	7,470.0	-5,962.8	59.6	5,962.6	0.00	0.00	0.00
13,300.0	90.00	181.25	7,470.0	-6,062.8	57.4	6,062.6	0.00	0.00	0.00
13,400.0	90.00	181.25	7,470.0	-6,162.8	55.2	6,162.5	0.00	0.00	0.00
13,500.0	90.00	181.25	7,470.0	-6,262.7	53.0	6,262.5	0.00	0.00	0.00
13,600.0	90.00	181.25	7,470.0	-6,362.7	50.8	6,362.5	0.00	0.00	0.00
13,700.0	90.00	181.25	7,470.0	-6,462.7	48.7	6,462.5	0.00	0.00	0.00
13,800.0	90.00	181.25	7,470.0	-6,562.7	46.5	6,562.5	0.00	0.00	0.00
13,900.0	90.00	181.25	7,470.0	-6,662.6	44.3	6,662.5	0.00	0.00	0.00
14,000.0	90.00	181.25	7,470.0	-6,762.6	42.1	6,762.4	0.00	0.00	0.00
14,100.0	90.00	181.25	7,470.0	-6,862.6	39.9	6,862.4	0.00	0.00	0.00
14,200.0	90.00	181.25	7,470.0	-6,962.6	37.7	6,962.4	0.00	0.00	0.00
14,300.0	90.00	181.25	7,470.0	-7,062.5	35.5	7,062.4	0.00	0.00	0.00
14,400.0	90.00	181.25	7,470.0	-7,162.5	33.3	7,162.4	0.00	0.00	0.00
14,500.0	90.00	181.25	7,470.0	-7,262.5	31.1	7,262.3	0.00	0.00	0.00
14,600.0	90.00	181.25	7,470.0	-7,362.5	28.9	7,362.3	0.00	0.00	0.00
14,700.0	90.00	181.25	7,470.0	-7,462.4	26.8	7,462.3	0.00	0.00	0.00
14,800.0	90.00	181.25	7,470.0	-7,562.4	24.6	7,562.3	0.00	0.00	0.00
14,900.0	90.00	181.25	7,470.0	-7,662.4	22.4	7,662.3	0.00	0.00	0.00
15,000.0	90.00	181.25	7,470.0	-7,762.4	20.2	7,762.3	0.00	0.00	0.00
15,100.0	90.00	181.25	7,470.0	-7,862.3	18.0	7,862.2	0.00	0.00	0.00
15,200.0	90.00	181.25	7,470.0	-7,962.3	15.8	7,962.2	0.00	0.00	0.00
15,300.0	90.00	181.25	7,470.0	-8,062.3	13.6	8,062.2	0.00	0.00	0.00
15,400.0	90.00	181.25	7,470.0	-8,162.3	11.4	8,162.2	0.00	0.00	0.00
15,500.0	90.00	181.25	7,470.0	-8,262.3	9.2	8,262.2	0.00	0.00	0.00
15,600.0	90.00	181.25	7,470.0	-8,362.2	7.1	8,362.2	0.00	0.00	0.00
15,700.0	90.00	181.25	7,470.0	-8,462.2	4.9	8,462.1	0.00	0.00	0.00
15,800.0	90.00	181.25	7,470.0	-8,562.2	2.7	8,562.1	0.00	0.00	0.00
15,900.0	90.00	181.25	7,470.0	-8,662.2	0.5	8,662.1	0.00	0.00	0.00
16,000.0	90.00	181.25	7,470.0	-8,762.1	-1.7	8,762.1	0.00	0.00	0.00
16,100.0	90.00	181.25	7,470.0	-8,862.1	-3.9	8,862.1	0.00	0.00	0.00
16,200.0	90.00	181.25	7,470.0	-8,962.1	-6.1	8,962.1	0.00	0.00	0.00
16,300.0	90.00	181.25	7,470.0	-9,062.1	-8.3	9,062.0	0.00	0.00	0.00
16,400.0	90.00	181.25	7,470.0	-9,162.0	-10.5	9,162.0	0.00	0.00	0.00
16,500.0	90.00	181.25	7,470.0	-9,262.0	-12.7	9,262.0	0.00	0.00	0.00
16,600.0	90.00	181.25	7,470.0	-9,362.0	-14.8	9,362.0	0.00	0.00	0.00
16,700.0	90.00	181.25	7,470.0	-9,462.0	-17.0	9,462.0	0.00	0.00	0.00
16,800.0	90.00	181.25	7,470.0	-9,561.9	-19.2	9,562.0	0.00	0.00	0.00
16,900.0	90.00	181.25	7,470.0	-9,661.9	-21.4	9,661.9	0.00	0.00	0.00
17,000.0	90.00	181.25	7,470.0	-9,761.9	-23.6	9,761.9	0.00	0.00	0.00
17,100.0	90.00	181.25	7,470.0	-9,861.9	-25.8	9,861.9	0.00	0.00	0.00
17,200.0	90.00	181.25	7,470.0	-9,961.8	-28.0	9,961.9	0.00	0.00	0.00

# SandRidge Energy

## Survey Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Janet 0780 1-16H21
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8151.0usft (Original Well Elev)
<b>Site:</b>	T7N-R80W-S9	<b>MD Reference:</b>	WELL @ 8151.0usft (Original Well Elev)
<b>Well:</b>	Janet 0780 1-16H21	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Design #1	<b>Database:</b>	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)
17,300.0	90.00	181.25	7,470.0	-10,061.8	-30.2	10,061.9	0.00	0.00	0.00
17,400.0	90.00	181.25	7,470.0	-10,161.8	-32.4	10,161.8	0.00	0.00	0.00
17,488.0	90.00	181.25	7,470.0	-10,249.8	-34.3	10,249.9	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
Janet 1 BHL	0.00	360.00	7,470.0	-10,249.8	-34.3	1,446,631.27	2,753,510.34	40° 33' 21.665 N	106° 23' 13.506 W
- hit/miss target									
- Shape									
- plan hits target center									
- Point									

### Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,327.1	7,280.0	Niobara		0.00	

### Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates	Comment
		+N/-S (usft)	+E/-W (usft)
5000	5000	0	0
5574	5574	0	0
6847	6840	0	95
7858	7470	-622	177
17,846			
			Start Build 2.00
			Start 1272.8 hold at 5573.8 MD
			Start DLS 10.00 TFO 165.60
			Start 9988.2 hold at 7857.8 MD
			TD at 17846.0

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_