

Company Name: SandRidge Energy

SU 0680 12-9H16

Jackson County, Colorado

Rig:

Created By: Shane Robbins

Date: 6/5/2018

SU 0680 12-9H16

Jackson County, Colorado

Q180\*\*\* & RM-180\*\*\*

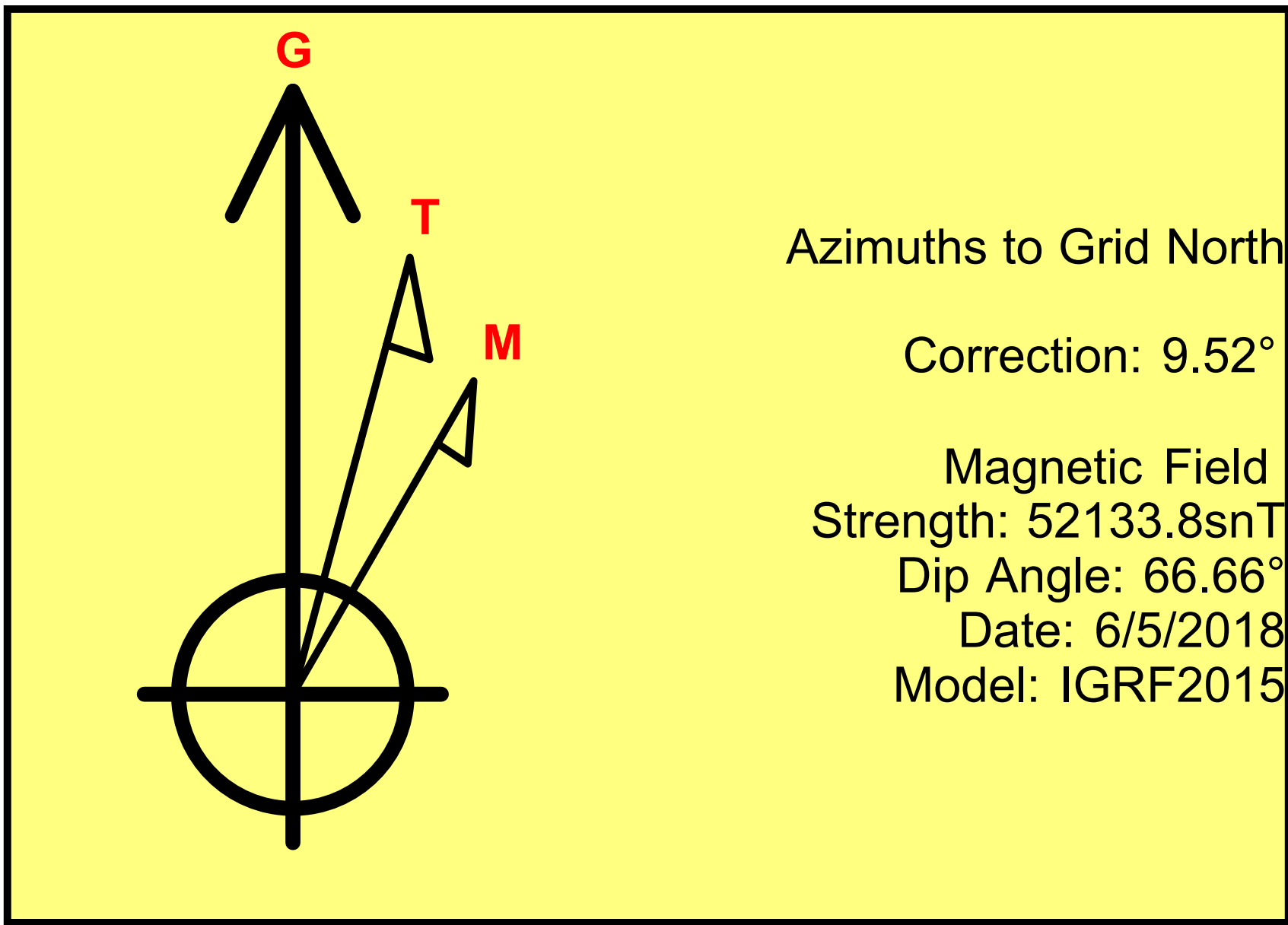
Design #1

# SandRidge Energy



WELL DETAILS: SU 0680 12-9H16						
			8264.0			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.0	0.0	1429888.21	2754173.34	40° 30' 36.288 N	106° 23' 2.754 W	

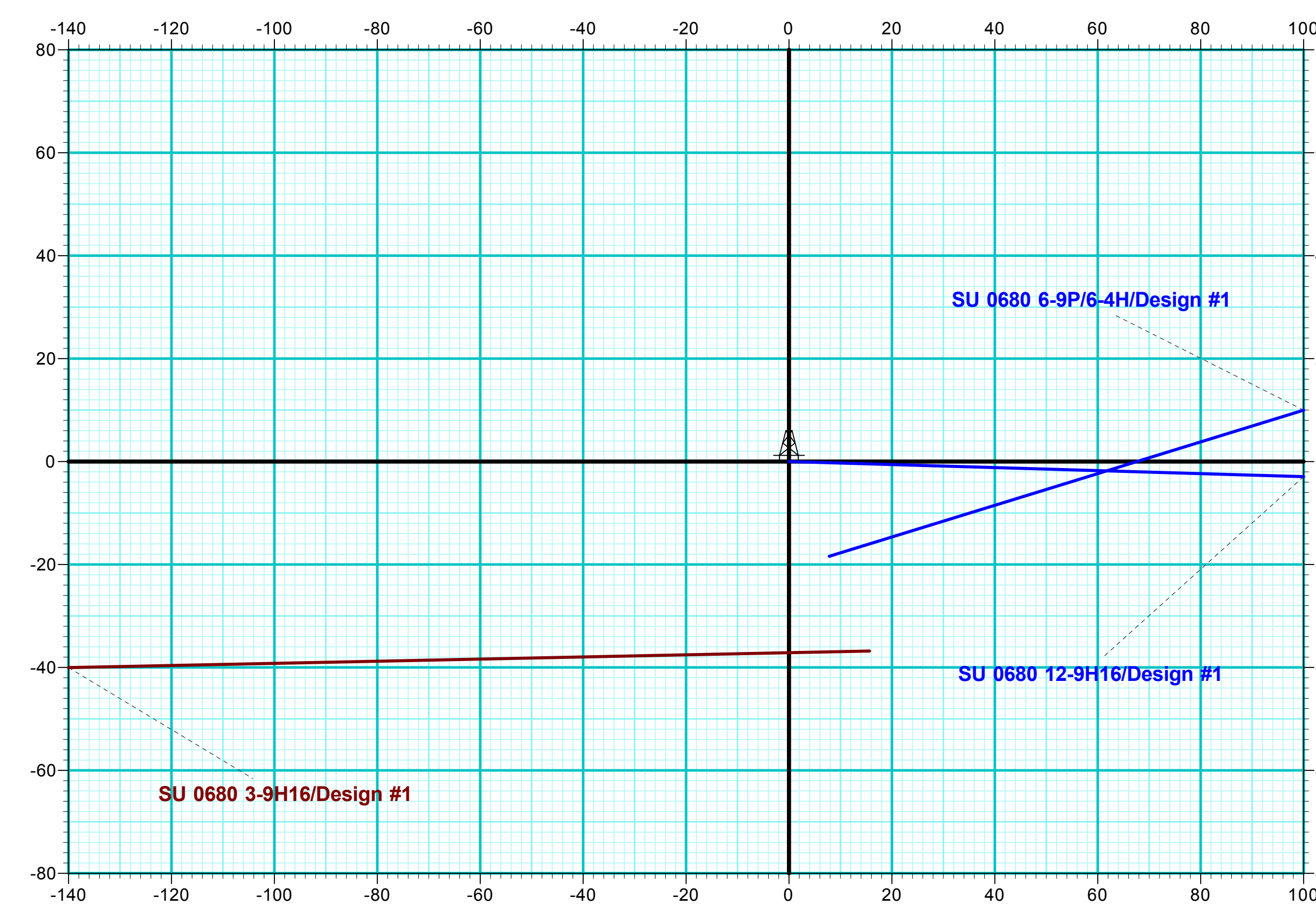
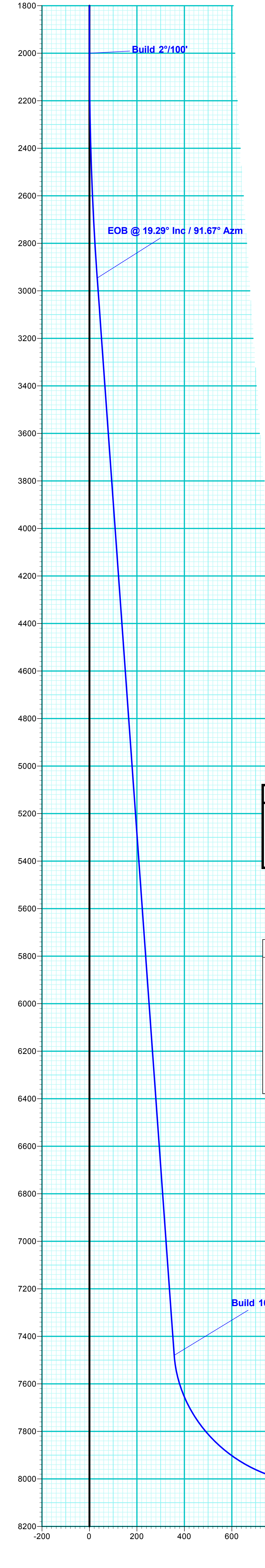
PROJECT DETAILS: Jackson County, Colorado	
Geodetic System: US State Plane 1983	
Datum: North American Datum 1983	
Ellipsoid: GRS 1980	
Zone: Colorado Northern Zone	
System Datum: Mean Sea Level	



Azimuths to Grid North

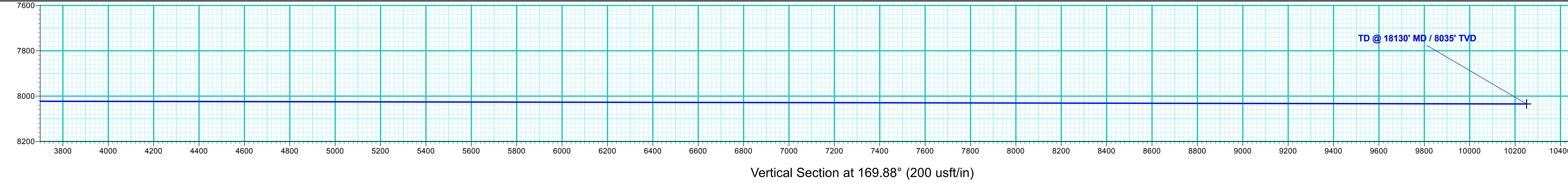
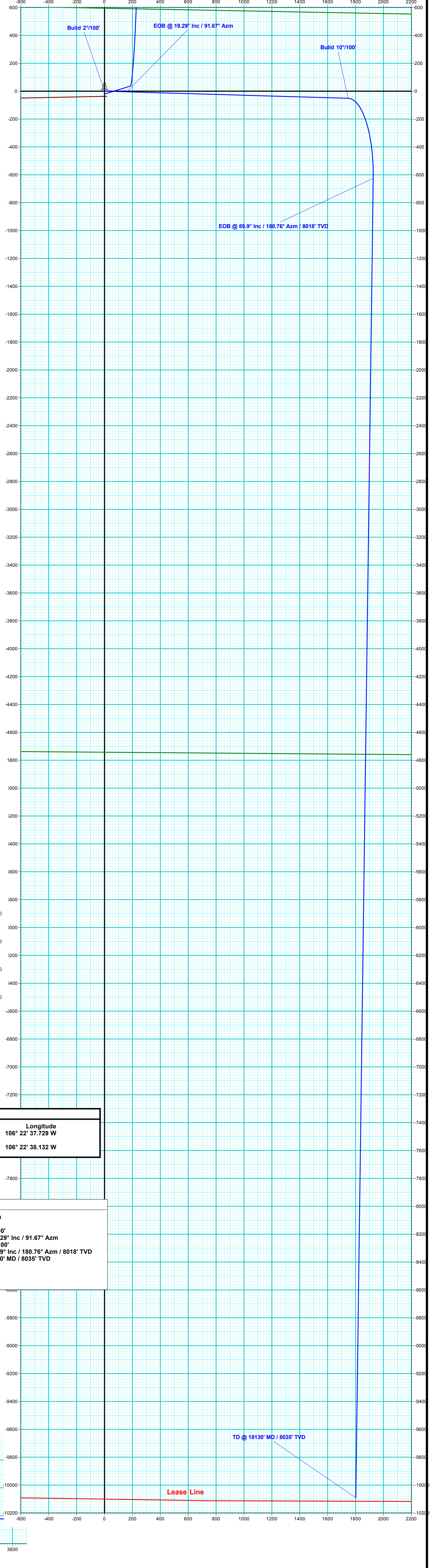
Correction: 9.52°

Magnetic Field  
Strength: 52133.8snT  
Dip Angle: 66.66°  
Date: 6/5/2018  
Model: IGRF2015



DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
LP 12-9H16	8018.0	-625.5	1926.8	1429262.75	2756100.15	40° 30' 30.297 N	106° 22' 37.729 W	
- plan hits target center								
PBHL 12-9H16	8034.5	-10091.3	1802.0	1419796.86	2755975.35	40° 28' 56.749 N	106° 22' 38.132 W	
- plan hits target center								

SECTION DETAILS											Annotation
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect		
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		Build 2°/100'
2	2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0		
3	2964.3	19.29	91.67	2946.2	-4.7	160.7	2.00	91.67	32.9		EOB @ 19.29° Inc / 91.67° Azm
4	7767.6	19.29	91.67	7479.9	-51.0	1746.5	0.00	0.00	357.2		Build 10°/100'
5	8663.6	89.90	180.76	8018.0	-625.5	1926.8	10.00	89.17	954.4	LP 12-9H16	EOB @ 89.9° Inc / 180.76° Azm / 8018' TVD
6	18130.3	89.90	180.76	8034.5	-10091.3	1802.0	0.00	0.00	10251.0	PBHL 12-9H16	TD @ 18130' MD / 8035' TVD



# **SandRidge Energy**

**Jackson County, Colorado  
Sec 9, T6N, R80W, 6th PM  
SU 0680 12-9H16**

**Wellbore #1**

**Plan: Design #1**

## **QES Well Planning Report**

**05 June, 2018**



# Well Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SU 0680 12-9H16
<b>Company:</b>	SandRidge Energy	<b>TVD Reference:</b>	WELL @ 8289.0usft
<b>Project:</b>	Jackson County, Colorado	<b>MD Reference:</b>	WELL @ 8289.0usft
<b>Site:</b>	Sec 9, T6N, R80W, 6th PM	<b>North Reference:</b>	Grid
<b>Well:</b>	SU 0680 12-9H16	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Project	Jackson County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		Sec 9, T6N, R80W, 6th PM			
Site Position:		Northing:	1,429,883.61 usft	Latitude:	40° 30' 36.243 N
From:	Map	Easting:	2,754,175.30 usft	Longitude:	106° 23' 2.728 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.57 °

Well	SU 0680 12-9H16					
Well Position	+N/-S	4.6 usft	Northing:	1,429,888.21 usft	Latitude:	40° 30' 36.288 N
	+E/-W	-2.0 usft	Easting:	2,754,173.34 usft	Longitude:	106° 23' 2.754 W
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level:	8,264.0 usft	

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	6/5/2018	8.95	66.66	52,133.79159738

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	169.88

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,964.3	19.29	91.67	2,946.2	-4.7	160.7	2.00	2.00	0.00	91.67	
7,767.6	19.29	91.67	7,479.9	-51.0	1,746.5	0.00	0.00	0.00	0.00	
8,663.6	89.90	180.76	8,018.0	-625.5	1,926.8	10.00	7.88	9.94	89.17	LP 12-9H16
18,130.3	89.90	180.76	8,034.5	-10,091.3	1,802.0	0.00	0.00	0.00	0.00	PBHL 12-9H16



# Well Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SU 0680 12-9H16
<b>Company:</b>	SandRidge Energy	<b>TVD Reference:</b>	WELL @ 8289.0usft
<b>Project:</b>	Jackson County, Colorado	<b>MD Reference:</b>	WELL @ 8289.0usft
<b>Site:</b>	Sec 9, T6N, R80W, 6th PM	<b>North Reference:</b>	Grid
<b>Well:</b>	SU 0680 12-9H16	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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
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
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
<b>Build 2°/100'</b>									
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	2.00	91.67	2,100.0	-0.1	1.7	0.4	2.00	2.00	0.00
2,200.0	4.00	91.67	2,199.8	-0.2	7.0	1.4	2.00	2.00	0.00
2,300.0	6.00	91.67	2,299.5	-0.5	15.7	3.2	2.00	2.00	0.00
2,400.0	8.00	91.67	2,398.7	-0.8	27.9	5.7	2.00	2.00	0.00
2,500.0	10.00	91.67	2,497.5	-1.3	43.5	8.9	2.00	2.00	0.00
2,600.0	12.00	91.67	2,595.6	-1.8	62.6	12.8	2.00	2.00	0.00
2,700.0	14.00	91.67	2,693.1	-2.5	85.1	17.4	2.00	2.00	0.00
2,800.0	16.00	91.67	2,789.6	-3.2	110.9	22.7	2.00	2.00	0.00
2,900.0	18.00	91.67	2,885.3	-4.1	140.2	28.7	2.00	2.00	0.00
<b>EOB @ 19.29° Inc / 91.67° Azm</b>									
2,964.3	19.29	91.67	2,946.2	-4.7	160.7	32.9	2.00	2.00	0.00
3,000.0	19.29	91.67	2,979.9	-5.0	172.5	35.3	0.00	0.00	0.00
3,100.0	19.29	91.67	3,074.3	-6.0	205.5	42.0	0.00	0.00	0.00
3,200.0	19.29	91.67	3,168.7	-7.0	238.5	48.8	0.00	0.00	0.00
3,300.0	19.29	91.67	3,263.1	-7.9	271.5	55.5	0.00	0.00	0.00
3,400.0	19.29	91.67	3,357.4	-8.9	304.5	62.3	0.00	0.00	0.00
3,500.0	19.29	91.67	3,451.8	-9.9	337.6	69.0	0.00	0.00	0.00
3,600.0	19.29	91.67	3,546.2	-10.8	370.6	75.8	0.00	0.00	0.00
3,700.0	19.29	91.67	3,640.6	-11.8	403.6	82.6	0.00	0.00	0.00
3,800.0	19.29	91.67	3,735.0	-12.8	436.6	89.3	0.00	0.00	0.00
3,900.0	19.29	91.67	3,829.4	-13.7	469.6	96.1	0.00	0.00	0.00
4,000.0	19.29	91.67	3,923.8	-14.7	502.6	102.8	0.00	0.00	0.00
4,100.0	19.29	91.67	4,018.2	-15.6	535.6	109.6	0.00	0.00	0.00
4,200.0	19.29	91.67	4,112.5	-16.6	568.7	116.3	0.00	0.00	0.00
4,300.0	19.29	91.67	4,206.9	-17.6	601.7	123.1	0.00	0.00	0.00
4,400.0	19.29	91.67	4,301.3	-18.5	634.7	129.8	0.00	0.00	0.00
4,500.0	19.29	91.67	4,395.7	-19.5	667.7	136.6	0.00	0.00	0.00
4,600.0	19.29	91.67	4,490.1	-20.5	700.7	143.3	0.00	0.00	0.00
4,700.0	19.29	91.67	4,584.5	-21.4	733.7	150.1	0.00	0.00	0.00
4,800.0	19.29	91.67	4,678.9	-22.4	766.7	156.8	0.00	0.00	0.00
4,900.0	19.29	91.67	4,773.3	-23.4	799.8	163.6	0.00	0.00	0.00
5,000.0	19.29	91.67	4,867.7	-24.3	832.8	170.3	0.00	0.00	0.00

# Well Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SU 0680 12-9H16
<b>Company:</b>	SandRidge Energy	<b>TVD Reference:</b>	WELL @ 8289.0usft
<b>Project:</b>	Jackson County, Colorado	<b>MD Reference:</b>	WELL @ 8289.0usft
<b>Site:</b>	Sec 9, T6N, R80W, 6th PM	<b>North Reference:</b>	Grid
<b>Well:</b>	SU 0680 12-9H16	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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)
5,100.0	19.29	91.67	4,962.0	-25.3	865.8	177.1	0.00	0.00	0.00
5,200.0	19.29	91.67	5,056.4	-26.3	898.8	183.8	0.00	0.00	0.00
5,300.0	19.29	91.67	5,150.8	-27.2	931.8	190.6	0.00	0.00	0.00
5,400.0	19.29	91.67	5,245.2	-28.2	964.8	197.4	0.00	0.00	0.00
5,500.0	19.29	91.67	5,339.6	-29.2	997.8	204.1	0.00	0.00	0.00
5,600.0	19.29	91.67	5,434.0	-30.1	1,030.9	210.9	0.00	0.00	0.00
5,700.0	19.29	91.67	5,528.4	-31.1	1,063.9	217.6	0.00	0.00	0.00
5,800.0	19.29	91.67	5,622.8	-32.0	1,096.9	224.4	0.00	0.00	0.00
5,900.0	19.29	91.67	5,717.1	-33.0	1,129.9	231.1	0.00	0.00	0.00
6,000.0	19.29	91.67	5,811.5	-34.0	1,162.9	237.9	0.00	0.00	0.00
6,100.0	19.29	91.67	5,905.9	-34.9	1,195.9	244.6	0.00	0.00	0.00
6,200.0	19.29	91.67	6,000.3	-35.9	1,228.9	251.4	0.00	0.00	0.00
6,300.0	19.29	91.67	6,094.7	-36.9	1,261.9	258.1	0.00	0.00	0.00
6,400.0	19.29	91.67	6,189.1	-37.8	1,295.0	264.9	0.00	0.00	0.00
6,500.0	19.29	91.67	6,283.5	-38.8	1,328.0	271.6	0.00	0.00	0.00
6,600.0	19.29	91.67	6,377.9	-39.8	1,361.0	278.4	0.00	0.00	0.00
6,700.0	19.29	91.67	6,472.3	-40.7	1,394.0	285.1	0.00	0.00	0.00
6,800.0	19.29	91.67	6,566.6	-41.7	1,427.0	291.9	0.00	0.00	0.00
6,900.0	19.29	91.67	6,661.0	-42.7	1,460.0	298.7	0.00	0.00	0.00
7,000.0	19.29	91.67	6,755.4	-43.6	1,493.0	305.4	0.00	0.00	0.00
7,100.0	19.29	91.67	6,849.8	-44.6	1,526.1	312.2	0.00	0.00	0.00
7,200.0	19.29	91.67	6,944.2	-45.6	1,559.1	318.9	0.00	0.00	0.00
7,300.0	19.29	91.67	7,038.6	-46.5	1,592.1	325.7	0.00	0.00	0.00
7,400.0	19.29	91.67	7,133.0	-47.5	1,625.1	332.4	0.00	0.00	0.00
7,500.0	19.29	91.67	7,227.4	-48.4	1,658.1	339.2	0.00	0.00	0.00
7,600.0	19.29	91.67	7,321.7	-49.4	1,691.1	345.9	0.00	0.00	0.00
7,700.0	19.29	91.67	7,416.1	-50.4	1,724.1	352.7	0.00	0.00	0.00
<b>Build 10°/100'</b>									
7,767.6	19.29	91.67	7,479.9	-51.0	1,746.5	357.2	0.00	0.00	0.00
7,800.0	19.59	101.38	7,510.5	-52.3	1,757.1	360.3	10.00	0.95	29.95
7,850.0	21.02	115.22	7,557.4	-57.7	1,773.5	368.6	10.00	2.86	27.69
7,900.0	23.41	126.87	7,603.7	-67.5	1,789.6	381.1	10.00	4.78	23.30
7,950.0	26.50	136.22	7,649.1	-81.5	1,805.2	397.6	10.00	6.18	18.69
8,000.0	30.07	143.62	7,693.1	-99.7	1,820.4	418.1	10.00	7.15	14.79
8,050.0	33.98	149.51	7,735.5	-121.8	1,834.9	442.5	10.00	7.81	11.80
8,100.0	38.11	154.30	7,775.9	-147.8	1,848.7	470.5	10.00	8.27	9.57
8,150.0	42.41	158.27	7,814.1	-177.4	1,861.6	501.9	10.00	8.59	7.93
8,200.0	46.82	161.62	7,849.7	-210.4	1,873.6	536.4	10.00	8.82	6.71
8,250.0	51.31	164.52	7,882.4	-246.5	1,884.6	573.9	10.00	8.99	5.80
8,300.0	55.87	167.07	7,912.1	-285.5	1,894.4	614.1	10.00	9.12	5.11
8,350.0	60.48	169.36	7,938.5	-327.1	1,903.1	656.5	10.00	9.21	4.58
8,400.0	65.12	171.45	7,961.3	-370.9	1,910.5	701.0	10.00	9.28	4.18
8,450.0	69.79	173.39	7,980.5	-416.7	1,916.6	747.1	10.00	9.34	3.87
8,500.0	74.48	175.21	7,995.8	-464.0	1,921.3	794.5	10.00	9.38	3.65
8,550.0	79.18	176.96	8,007.2	-512.6	1,924.6	842.9	10.00	9.41	3.49
8,600.0	83.90	178.65	8,014.6	-562.0	1,926.5	891.9	10.00	9.43	3.38
8,650.0	88.61	180.31	8,017.8	-611.8	1,926.9	941.0	10.00	9.44	3.32
<b>EOB @ 89.9° Inc / 180.76° Azm / 8018' TVD</b>									
8,663.6	89.90	180.75	8,018.0	-625.4	1,926.8	954.4	10.00	9.44	3.30
8,700.0	89.90	180.76	8,018.1	-661.8	1,926.3	990.2	0.01	0.01	0.00
8,800.0	89.90	180.76	8,018.2	-761.8	1,925.0	1,088.4	0.00	0.00	0.00
8,900.0	89.90	180.76	8,018.4	-861.8	1,923.7	1,186.6	0.00	0.00	0.00
9,000.0	89.90	180.76	8,018.6	-961.8	1,922.4	1,284.8	0.00	0.00	0.00
9,100.0	89.90	180.76	8,018.8	-1,061.8	1,921.1	1,383.0	0.00	0.00	0.00

# Well Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SU 0680 12-9H16
<b>Company:</b>	SandRidge Energy	<b>TVD Reference:</b>	WELL @ 8289.0usft
<b>Project:</b>	Jackson County, Colorado	<b>MD Reference:</b>	WELL @ 8289.0usft
<b>Site:</b>	Sec 9, T6N, R80W, 6th PM	<b>North Reference:</b>	Grid
<b>Well:</b>	SU 0680 12-9H16	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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)
9,200.0	89.90	180.76	8,018.9	-1,161.8	1,919.7	1,481.2	0.00	0.00	0.00
9,300.0	89.90	180.76	8,019.1	-1,261.8	1,918.4	1,579.4	0.00	0.00	0.00
9,400.0	89.90	180.76	8,019.3	-1,361.8	1,917.1	1,677.6	0.00	0.00	0.00
9,500.0	89.90	180.76	8,019.5	-1,461.8	1,915.8	1,775.8	0.00	0.00	0.00
9,600.0	89.90	180.76	8,019.6	-1,561.8	1,914.5	1,874.0	0.00	0.00	0.00
9,700.0	89.90	180.76	8,019.8	-1,661.7	1,913.1	1,972.2	0.00	0.00	0.00
9,800.0	89.90	180.76	8,020.0	-1,761.7	1,911.8	2,070.4	0.00	0.00	0.00
9,900.0	89.90	180.76	8,020.2	-1,861.7	1,910.5	2,168.6	0.00	0.00	0.00
10,000.0	89.90	180.76	8,020.3	-1,961.7	1,909.2	2,266.8	0.00	0.00	0.00
10,100.0	89.90	180.76	8,020.5	-2,061.7	1,907.9	2,365.0	0.00	0.00	0.00
10,200.0	89.90	180.76	8,020.7	-2,161.7	1,906.6	2,463.2	0.00	0.00	0.00
10,300.0	89.90	180.76	8,020.9	-2,261.7	1,905.2	2,561.4	0.00	0.00	0.00
10,400.0	89.90	180.76	8,021.0	-2,361.7	1,903.9	2,659.6	0.00	0.00	0.00
10,500.0	89.90	180.76	8,021.2	-2,461.7	1,902.6	2,757.8	0.00	0.00	0.00
10,600.0	89.90	180.76	8,021.4	-2,561.7	1,901.3	2,856.0	0.00	0.00	0.00
10,700.0	89.90	180.76	8,021.6	-2,661.7	1,900.0	2,954.2	0.00	0.00	0.00
10,800.0	89.90	180.76	8,021.7	-2,761.6	1,898.6	3,052.4	0.00	0.00	0.00
10,900.0	89.90	180.76	8,021.9	-2,861.6	1,897.3	3,150.6	0.00	0.00	0.00
11,000.0	89.90	180.76	8,022.1	-2,961.6	1,896.0	3,248.8	0.00	0.00	0.00
11,100.0	89.90	180.76	8,022.3	-3,061.6	1,894.7	3,347.0	0.00	0.00	0.00
11,200.0	89.90	180.76	8,022.4	-3,161.6	1,893.4	3,445.2	0.00	0.00	0.00
11,300.0	89.90	180.76	8,022.6	-3,261.6	1,892.1	3,543.4	0.00	0.00	0.00
11,400.0	89.90	180.76	8,022.8	-3,361.6	1,890.7	3,641.6	0.00	0.00	0.00
11,500.0	89.90	180.76	8,023.0	-3,461.6	1,889.4	3,739.8	0.00	0.00	0.00
11,600.0	89.90	180.76	8,023.1	-3,561.6	1,888.1	3,838.0	0.00	0.00	0.00
11,700.0	89.90	180.76	8,023.3	-3,661.6	1,886.8	3,936.2	0.00	0.00	0.00
11,800.0	89.90	180.76	8,023.5	-3,761.6	1,885.5	4,034.4	0.00	0.00	0.00
11,900.0	89.90	180.76	8,023.6	-3,861.6	1,884.1	4,132.6	0.00	0.00	0.00
12,000.0	89.90	180.76	8,023.8	-3,961.5	1,882.8	4,230.8	0.00	0.00	0.00
12,100.0	89.90	180.76	8,024.0	-4,061.5	1,881.5	4,329.0	0.00	0.00	0.00
12,200.0	89.90	180.76	8,024.2	-4,161.5	1,880.2	4,427.2	0.00	0.00	0.00
12,300.0	89.90	180.76	8,024.3	-4,261.5	1,878.9	4,525.4	0.00	0.00	0.00
12,400.0	89.90	180.76	8,024.5	-4,361.5	1,877.6	4,623.6	0.00	0.00	0.00
12,500.0	89.90	180.76	8,024.7	-4,461.5	1,876.2	4,721.8	0.00	0.00	0.00
12,600.0	89.90	180.76	8,024.9	-4,561.5	1,874.9	4,820.0	0.00	0.00	0.00
12,700.0	89.90	180.76	8,025.0	-4,661.5	1,873.6	4,918.2	0.00	0.00	0.00
12,800.0	89.90	180.76	8,025.2	-4,761.5	1,872.3	5,016.5	0.00	0.00	0.00
12,900.0	89.90	180.76	8,025.4	-4,861.5	1,871.0	5,114.7	0.00	0.00	0.00
13,000.0	89.90	180.76	8,025.6	-4,961.5	1,869.6	5,212.9	0.00	0.00	0.00
13,100.0	89.90	180.76	8,025.7	-5,061.4	1,868.3	5,311.1	0.00	0.00	0.00
13,200.0	89.90	180.76	8,025.9	-5,161.4	1,867.0	5,409.3	0.00	0.00	0.00
13,300.0	89.90	180.76	8,026.1	-5,261.4	1,865.7	5,507.5	0.00	0.00	0.00
13,400.0	89.90	180.76	8,026.3	-5,361.4	1,864.4	5,605.7	0.00	0.00	0.00
13,500.0	89.90	180.76	8,026.4	-5,461.4	1,863.1	5,703.9	0.00	0.00	0.00
13,600.0	89.90	180.76	8,026.6	-5,561.4	1,861.7	5,802.1	0.00	0.00	0.00
13,700.0	89.90	180.76	8,026.8	-5,661.4	1,860.4	5,900.3	0.00	0.00	0.00
13,800.0	89.90	180.76	8,027.0	-5,761.4	1,859.1	5,998.5	0.00	0.00	0.00
13,900.0	89.90	180.76	8,027.1	-5,861.4	1,857.8	6,096.7	0.00	0.00	0.00
14,000.0	89.90	180.76	8,027.3	-5,961.4	1,856.5	6,194.9	0.00	0.00	0.00
14,100.0	89.90	180.76	8,027.5	-6,061.4	1,855.1	6,293.1	0.00	0.00	0.00
14,200.0	89.90	180.76	8,027.7	-6,161.3	1,853.8	6,391.3	0.00	0.00	0.00
14,300.0	89.90	180.76	8,027.8	-6,261.3	1,852.5	6,489.5	0.00	0.00	0.00
14,400.0	89.90	180.76	8,028.0	-6,361.3	1,851.2	6,587.7	0.00	0.00	0.00
14,500.0	89.90	180.76	8,028.2	-6,461.3	1,849.9	6,685.9	0.00	0.00	0.00

# Well Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SU 0680 12-9H16
<b>Company:</b>	SandRidge Energy	<b>TVD Reference:</b>	WELL @ 8289.0usft
<b>Project:</b>	Jackson County, Colorado	<b>MD Reference:</b>	WELL @ 8289.0usft
<b>Site:</b>	Sec 9, T6N, R80W, 6th PM	<b>North Reference:</b>	Grid
<b>Well:</b>	SU 0680 12-9H16	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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)	
14,600.0	89.90	180.76	8,028.4	-6,561.3	1,848.6	6,784.1	0.00	0.00	0.00	
14,700.0	89.90	180.76	8,028.5	-6,661.3	1,847.2	6,882.3	0.00	0.00	0.00	
14,800.0	89.90	180.76	8,028.7	-6,761.3	1,845.9	6,980.5	0.00	0.00	0.00	
14,900.0	89.90	180.76	8,028.9	-6,861.3	1,844.6	7,078.7	0.00	0.00	0.00	
15,000.0	89.90	180.76	8,029.1	-6,961.3	1,843.3	7,176.9	0.00	0.00	0.00	
15,100.0	89.90	180.76	8,029.2	-7,061.3	1,842.0	7,275.1	0.00	0.00	0.00	
15,200.0	89.90	180.76	8,029.4	-7,161.3	1,840.6	7,373.3	0.00	0.00	0.00	
15,300.0	89.90	180.76	8,029.6	-7,261.3	1,839.3	7,471.5	0.00	0.00	0.00	
15,400.0	89.90	180.76	8,029.8	-7,361.2	1,838.0	7,569.7	0.00	0.00	0.00	
15,500.0	89.90	180.76	8,029.9	-7,461.2	1,836.7	7,667.9	0.00	0.00	0.00	
15,600.0	89.90	180.76	8,030.1	-7,561.2	1,835.4	7,766.1	0.00	0.00	0.00	
15,700.0	89.90	180.76	8,030.3	-7,661.2	1,834.0	7,864.3	0.00	0.00	0.00	
15,800.0	89.90	180.76	8,030.5	-7,761.2	1,832.7	7,962.5	0.00	0.00	0.00	
15,900.0	89.90	180.76	8,030.6	-7,861.2	1,831.4	8,060.7	0.00	0.00	0.00	
16,000.0	89.90	180.76	8,030.8	-7,961.2	1,830.1	8,158.9	0.00	0.00	0.00	
16,100.0	89.90	180.76	8,031.0	-8,061.2	1,828.8	8,257.1	0.00	0.00	0.00	
16,200.0	89.90	180.76	8,031.2	-8,161.2	1,827.5	8,355.3	0.00	0.00	0.00	
16,300.0	89.90	180.76	8,031.3	-8,261.2	1,826.1	8,453.5	0.00	0.00	0.00	
16,400.0	89.90	180.76	8,031.5	-8,361.2	1,824.8	8,551.7	0.00	0.00	0.00	
16,500.0	89.90	180.76	8,031.7	-8,461.1	1,823.5	8,649.9	0.00	0.00	0.00	
16,600.0	89.90	180.76	8,031.9	-8,561.1	1,822.2	8,748.1	0.00	0.00	0.00	
16,700.0	89.90	180.76	8,032.0	-8,661.1	1,820.9	8,846.3	0.00	0.00	0.00	
16,800.0	89.90	180.76	8,032.2	-8,761.1	1,819.5	8,944.5	0.00	0.00	0.00	
16,900.0	89.90	180.76	8,032.4	-8,861.1	1,818.2	9,042.7	0.00	0.00	0.00	
17,000.0	89.90	180.76	8,032.5	-8,961.1	1,816.9	9,141.0	0.00	0.00	0.00	
17,100.0	89.90	180.76	8,032.7	-9,061.1	1,815.6	9,239.2	0.00	0.00	0.00	
17,200.0	89.90	180.76	8,032.9	-9,161.1	1,814.3	9,337.4	0.00	0.00	0.00	
17,300.0	89.90	180.76	8,033.1	-9,261.1	1,813.0	9,435.6	0.00	0.00	0.00	
17,400.0	89.90	180.76	8,033.2	-9,361.1	1,811.6	9,533.8	0.00	0.00	0.00	
17,500.0	89.90	180.76	8,033.4	-9,461.1	1,810.3	9,632.0	0.00	0.00	0.00	
17,600.0	89.90	180.76	8,033.6	-9,561.0	1,809.0	9,730.2	0.00	0.00	0.00	
17,700.0	89.90	180.76	8,033.8	-9,661.0	1,807.7	9,828.4	0.00	0.00	0.00	
17,800.0	89.90	180.76	8,033.9	-9,761.0	1,806.4	9,926.6	0.00	0.00	0.00	
17,900.0	89.90	180.76	8,034.1	-9,861.0	1,805.0	10,024.8	0.00	0.00	0.00	
18,000.0	89.90	180.76	8,034.3	-9,961.0	1,803.7	10,123.0	0.00	0.00	0.00	
18,100.0	89.90	180.76	8,034.5	-10,061.0	1,802.4	10,221.2	0.00	0.00	0.00	
<b>TD @ 18130' MD / 8035' TVD</b>										
18,130.3	89.90	180.76	8,034.5	-10,091.3	1,802.0	10,250.9	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	
LP 12-9H16	0.00	360.00	8,018.0	-625.5	1,926.8	1,429,262.75	2,756,100.15	40° 30' 30.297 N	106° 22' 37.729 W	
- hit/miss target										
- Shape										
- Point										
PBHL 12-9H16	0.00	0.00	8,034.5	-10,091.3	1,802.0	1,419,796.86	2,755,975.35	40° 28' 56.749 N	106° 22' 38.132 W	
- plan misses target center by 0.1usft at 18130.3usft MD (8034.5 TVD, -10091.3 N, 1802.0 E)										
- Point										

# Well Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SU 0680 12-9H16
<b>Company:</b>	SandRidge Energy	<b>TVD Reference:</b>	WELL @ 8289.0usft
<b>Project:</b>	Jackson County, Colorado	<b>MD Reference:</b>	WELL @ 8289.0usft
<b>Site:</b>	Sec 9, T6N, R80W, 6th PM	<b>North Reference:</b>	Grid
<b>Well:</b>	SU 0680 12-9H16	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,000.0	2,000.0	0.0	0.0	Build 2°/100'
2,964.3	2,946.2	-4.7	160.7	EOB @ 19.29° Inc / 91.67° Azm
7,767.6	7,479.9	-51.0	1,746.5	Build 10°/100'
8,663.6	8,018.0	-625.4	1,926.8	EOB @ 89.9° Inc / 180.76° Azm / 8018' TVD
18,130.3	8,034.5	-10,091.3	1,802.0	TD @ 18130' MD / 8035' TVD