



D90 ENERGY LLC

D90 Energy, LLC

Jackson County, Colorado
Sec 32, T7N, R80W, 6th PM
SU Spicer 0680 2-5H17

Wellbore #1

Plan: Prelim #1

KLX Well Planning Report

12 August, 2021



D90 Energy, LLC
Jackson County, Colorado
Sec 32, T7N, R80W, 6th PM
SU Spicer 0680 2-5H17
Prelim #1
26' kb

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
2600.0	0.00	0.00	2600.0	0.0	0.0	0.0	0.0	Build 2°/100'
3600.1	20.00	191.76	3579.9	-169.2	-35.2	169.9	172.8	EOB @ 20.00° Inc. / 191.76° Azm
4405.9	20.00	191.76	4337.1	-439.0	-91.4	440.8	448.4	Drop 2°/100'
5406.0	0.00	360.00	5317.0	-608.2	-126.6	610.7	621.2	EOD @ Vert.
6536.0	0.00	0.00	6447.0	-608.2	-126.6	610.7	621.2	Build 10°/100'
7436.0	90.00	192.20	7020.0	-1168.2	-247.7	1173.2	1194.2	EOB @ 90.00° Inc. / 192.20° Azm
9954.0	90.00	192.20	7020.0	-3629.3	-779.8	3645.0	3712.2	Turn 2°/100'
10503.5	90.00	181.21	7020.0	-4174.3	-843.9	4191.2	4261.8	EOT @ 90.00° Inc. / 181.21° Azm
20826.8	90.00	181.21	7020.0	-14495.3	-1061.6	14514.5	14585.0	TD @ 20826.8' MD / 7020.0' TVD

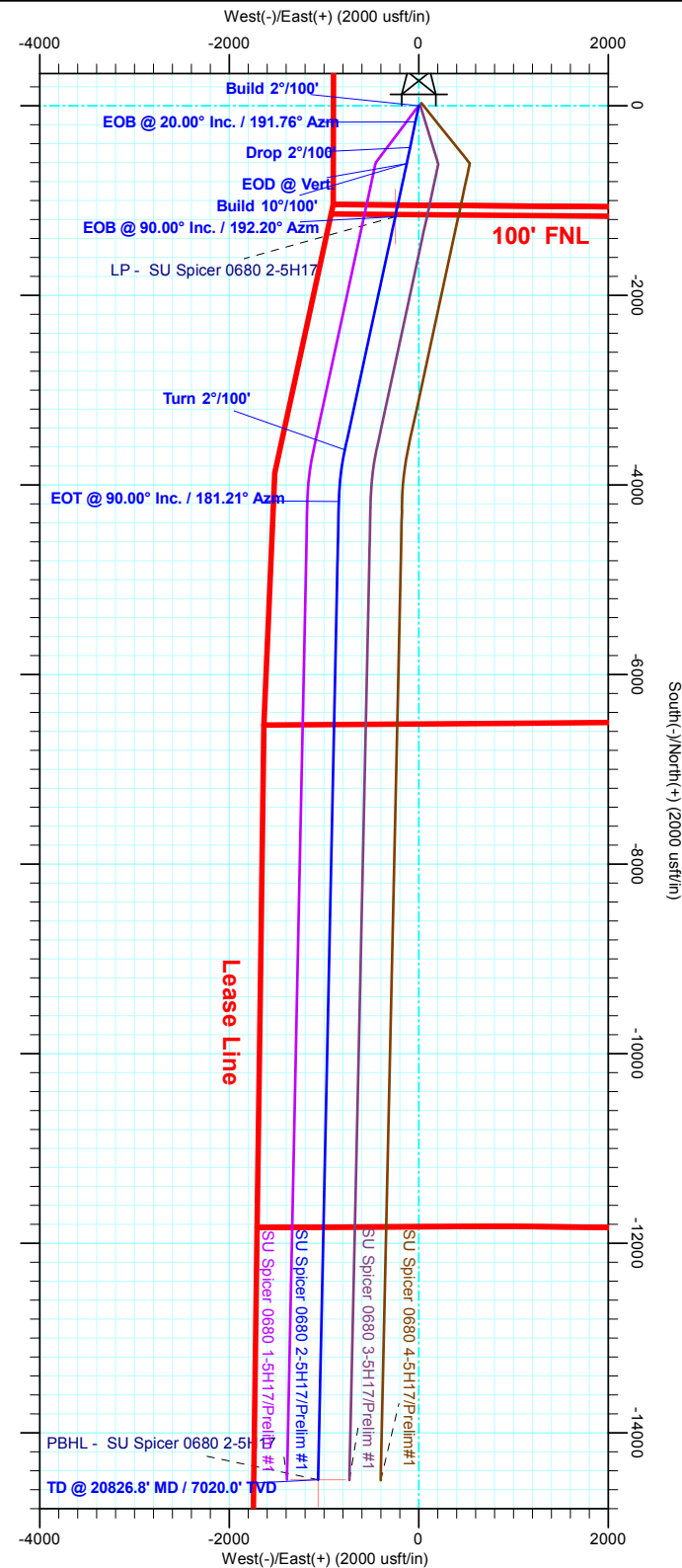
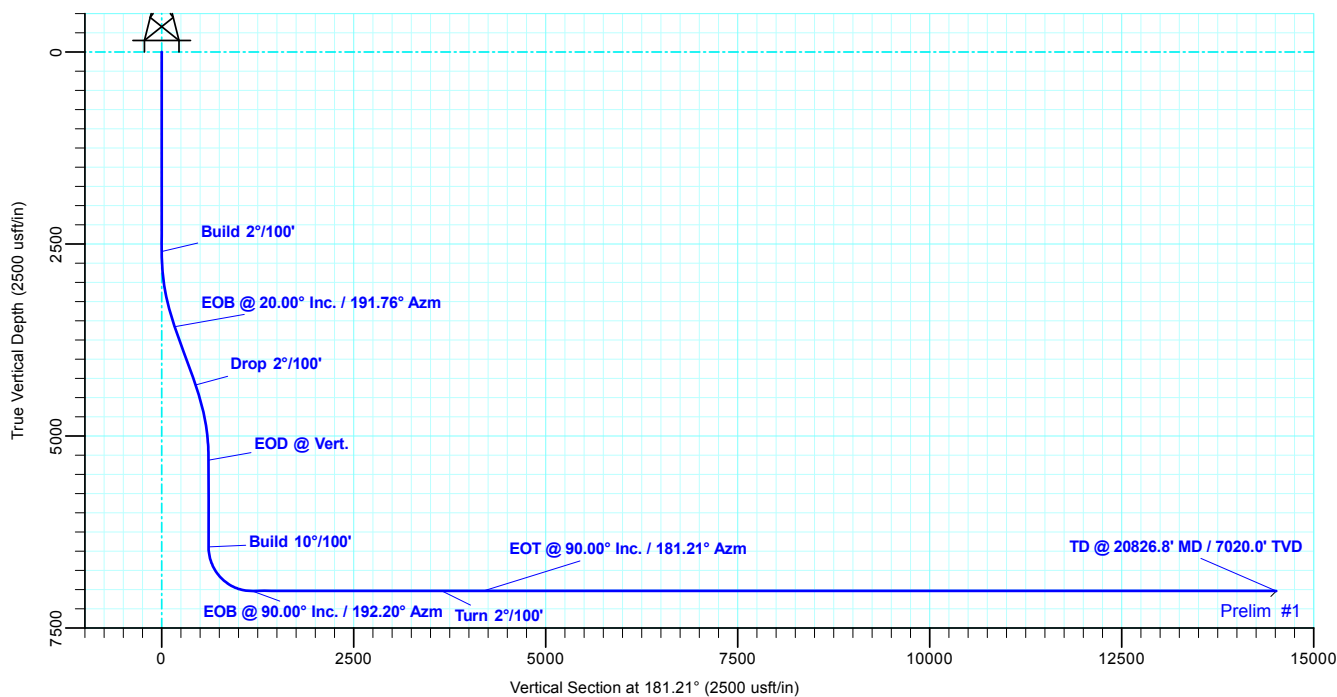
PROJECT DETAILS: Jackson County, Colorado

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
System Datum: Mean Sea Level

WELL DETAILS: SU Spicer 0680 2-5H17

8213.2					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1437006.71	2748735.52	40.529468	-106.403915

D90 ENERGY LLC





Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well SU Spicer 0680 2-5H17
Company:	D90 Energy, LLC	TVD Reference:	RKB @ 8239.2usft (26' kb)
Project:	Jackson County, Colorado	MD Reference:	RKB @ 8239.2usft (26' kb)
Site:	Sec 32, T7N, R80W, 6th PM	North Reference:	Grid
Well:	SU Spicer 0680 2-5H17	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Prelim #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 32, T7N, R80W, 6th PM		
Site Position:		Northing:	1,437,036.34 usft
From:	Map	Easting:	2,748,762.37 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	40.529551
		Longitude:	-106.403820
		Grid Convergence:	-0.58 °

Well	SU Spicer 0680 2-5H17		
Well Position	+N/-S	-29.6 usft	Northing: 1,437,006.71 usft
	+E/-W	-26.8 usft	Easting: 2,748,735.52 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Latitude: 40.529469
			Longitude: -106.403915
			Ground Level: 8,213.2 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2021	8/12/2021	8.58	66.48	51,815.30000000

Design	Prelim #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	181.21

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	
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,600.1	20.00	191.76	3,579.9	-169.2	-35.2	2.00	2.00	0.00	191.76	
4,405.9	20.00	191.76	4,337.1	-439.0	-91.4	0.00	0.00	0.00	0.00	
5,406.0	0.00	360.00	5,317.0	-608.2	-126.6	2.00	-2.00	0.00	180.00	
6,536.0	0.00	360.00	6,447.0	-608.2	-126.6	0.00	0.00	0.00	360.00	
7,436.0	90.00	192.20	7,020.0	-1,168.2	-247.7	10.00	10.00	0.00	192.20	
9,954.0	90.00	192.20	7,020.0	-3,629.3	-779.8	0.00	0.00	0.00	0.00	
10,503.5	90.00	181.21	7,020.0	-4,174.3	-843.9	2.00	0.00	-2.00	-90.00	
20,826.8	90.00	181.21	7,020.0	-14,495.3	-1,061.6	0.00	0.00	0.00	0.00	PBHL - SU Spicer

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Well:	SU Spicer 0680 2-5H17	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Prelim #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
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
Build 2°/100'									
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	2.00	191.76	2,700.0	-1.7	-0.4	1.7	2.00	2.00	0.00
2,800.0	4.00	191.76	2,799.8	-6.8	-1.4	6.9	2.00	2.00	0.00
2,900.0	6.00	191.76	2,899.5	-15.4	-3.2	15.4	2.00	2.00	0.00
3,000.0	8.00	191.76	2,998.7	-27.3	-5.7	27.4	2.00	2.00	0.00
3,100.0	10.00	191.76	3,097.5	-42.6	-8.9	42.8	2.00	2.00	0.00
3,200.0	12.00	191.76	3,195.6	-61.3	-12.8	61.5	2.00	2.00	0.00
3,300.0	14.00	191.76	3,293.1	-83.3	-17.3	83.7	2.00	2.00	0.00
3,400.0	16.00	191.76	3,389.6	-108.6	-22.6	109.1	2.00	2.00	0.00
3,500.0	18.00	191.76	3,485.3	-137.3	-28.6	137.8	2.00	2.00	0.00
EOB @ 20.00° Inc. / 191.76° Azm									
3,600.1	20.00	191.76	3,579.9	-169.2	-35.2	169.9	2.00	2.00	0.00
3,700.0	20.00	191.76	3,673.8	-202.6	-42.2	203.5	0.00	0.00	0.00
3,800.0	20.00	191.76	3,767.8	-236.1	-49.1	237.1	0.00	0.00	0.00
3,900.0	20.00	191.76	3,861.7	-269.6	-56.1	270.7	0.00	0.00	0.00
4,000.0	20.00	191.76	3,955.7	-303.1	-63.1	304.4	0.00	0.00	0.00
4,100.0	20.00	191.76	4,049.7	-336.6	-70.1	338.0	0.00	0.00	0.00
4,200.0	20.00	191.76	4,143.6	-370.1	-77.0	371.6	0.00	0.00	0.00
4,300.0	20.00	191.76	4,237.6	-403.6	-84.0	405.2	0.00	0.00	0.00
Drop 2°/100'									
4,405.9	20.00	191.76	4,337.1	-439.0	-91.4	440.8	0.00	0.00	0.00
4,500.0	18.12	191.76	4,426.0	-469.1	-97.6	471.1	2.00	-2.00	0.00
4,600.0	16.12	191.76	4,521.6	-497.9	-103.6	500.0	2.00	-2.00	0.00
4,700.0	14.12	191.76	4,618.1	-523.5	-109.0	525.6	2.00	-2.00	0.00
4,800.0	12.12	191.76	4,715.5	-545.7	-113.6	548.0	2.00	-2.00	0.00
4,900.0	10.12	191.76	4,813.6	-564.6	-117.5	566.9	2.00	-2.00	0.00

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Wellbore:	Wellbore #1		
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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)
5,000.0	8.12	191.76	4,912.4	-580.1	-120.7	582.5	2.00	-2.00	0.00
5,100.0	6.12	191.76	5,011.6	-592.2	-123.3	594.7	2.00	-2.00	0.00
5,200.0	4.12	191.76	5,111.2	-601.0	-125.1	603.5	2.00	-2.00	0.00
5,300.0	2.12	191.76	5,211.0	-606.3	-126.2	608.8	2.00	-2.00	0.00
EOD @ Vert.									
5,406.0	0.00	360.00	5,317.0	-608.2	-126.6	610.7	2.00	-2.00	0.00
5,500.0	0.00	0.00	5,411.0	-608.2	-126.6	610.7	0.00	0.00	0.00
5,600.0	0.00	0.00	5,511.0	-608.2	-126.6	610.7	0.00	0.00	0.00
5,700.0	0.00	0.00	5,611.0	-608.2	-126.6	610.7	0.00	0.00	0.00
5,800.0	0.00	0.00	5,711.0	-608.2	-126.6	610.7	0.00	0.00	0.00
5,900.0	0.00	0.00	5,811.0	-608.2	-126.6	610.7	0.00	0.00	0.00
6,000.0	0.00	0.00	5,911.0	-608.2	-126.6	610.7	0.00	0.00	0.00
6,100.0	0.00	0.00	6,011.0	-608.2	-126.6	610.7	0.00	0.00	0.00
6,200.0	0.00	0.00	6,111.0	-608.2	-126.6	610.7	0.00	0.00	0.00
6,300.0	0.00	0.00	6,211.0	-608.2	-126.6	610.7	0.00	0.00	0.00
6,400.0	0.00	0.00	6,311.0	-608.2	-126.6	610.7	0.00	0.00	0.00
6,500.0	0.00	0.00	6,411.0	-608.2	-126.6	610.7	0.00	0.00	0.00
Build 10°/100'									
6,536.0	0.00	0.00	6,447.0	-608.2	-126.6	610.7	0.00	0.00	0.00
6,550.0	1.40	192.20	6,461.0	-608.4	-126.6	610.9	10.00	10.00	0.00
6,600.0	6.40	192.20	6,510.9	-611.7	-127.4	614.2	10.00	10.00	0.00
6,650.0	11.40	192.20	6,560.3	-619.3	-129.0	621.8	10.00	10.00	0.00
6,700.0	16.40	192.20	6,608.8	-631.0	-131.5	633.6	10.00	10.00	0.00
6,750.0	21.40	192.20	6,656.1	-646.8	-134.9	649.5	10.00	10.00	0.00
6,800.0	26.40	192.20	6,701.8	-666.6	-139.2	669.4	10.00	10.00	0.00
6,850.0	31.40	192.20	6,745.5	-690.2	-144.3	693.1	10.00	10.00	0.00
6,900.0	36.40	192.20	6,787.0	-717.5	-150.2	720.5	10.00	10.00	0.00
6,950.0	41.40	192.20	6,825.9	-748.1	-156.9	751.3	10.00	10.00	0.00
7,000.0	46.40	192.20	6,861.9	-782.0	-164.2	785.3	10.00	10.00	0.00
7,050.0	51.40	192.20	6,894.8	-818.8	-172.1	822.3	10.00	10.00	0.00
7,100.0	56.40	192.20	6,924.2	-858.3	-180.7	861.9	10.00	10.00	0.00
7,150.0	61.40	192.20	6,950.1	-900.2	-189.7	904.0	10.00	10.00	0.00
7,200.0	66.40	192.20	6,972.0	-944.0	-199.2	948.0	10.00	10.00	0.00
7,250.0	71.40	192.20	6,990.0	-989.6	-209.1	993.8	10.00	10.00	0.00
7,300.0	76.40	192.20	7,003.9	-1,036.5	-219.2	1,040.9	10.00	10.00	0.00
7,350.0	81.40	192.20	7,013.5	-1,084.5	-229.6	1,089.1	10.00	10.00	0.00
7,400.0	86.40	192.20	7,018.8	-1,133.1	-240.1	1,137.9	10.00	10.00	0.00
EOB @ 90.00° Inc. / 192.20° Azm									
7,436.0	90.00	192.20	7,020.0	-1,168.2	-247.7	1,173.2	10.00	10.00	0.00
7,500.0	90.00	192.20	7,020.0	-1,230.8	-261.2	1,236.0	0.00	0.00	0.00
7,600.0	90.00	192.20	7,020.0	-1,328.5	-282.3	1,334.2	0.00	0.00	0.00
7,700.0	90.00	192.20	7,020.0	-1,426.3	-303.5	1,432.4	0.00	0.00	0.00
7,800.0	90.00	192.20	7,020.0	-1,524.0	-324.6	1,530.5	0.00	0.00	0.00
7,900.0	90.00	192.20	7,020.0	-1,621.7	-345.7	1,628.7	0.00	0.00	0.00
8,000.0	90.00	192.20	7,020.0	-1,719.5	-366.9	1,726.9	0.00	0.00	0.00
8,100.0	90.00	192.20	7,020.0	-1,817.2	-388.0	1,825.0	0.00	0.00	0.00
8,200.0	90.00	192.20	7,020.0	-1,915.0	-409.1	1,923.2	0.00	0.00	0.00
8,300.0	90.00	192.20	7,020.0	-2,012.7	-430.3	2,021.4	0.00	0.00	0.00
8,400.0	90.00	192.20	7,020.0	-2,110.5	-451.4	2,119.5	0.00	0.00	0.00
8,500.0	90.00	192.20	7,020.0	-2,208.2	-472.5	2,217.7	0.00	0.00	0.00
8,600.0	90.00	192.20	7,020.0	-2,305.9	-493.7	2,315.9	0.00	0.00	0.00
8,700.0	90.00	192.20	7,020.0	-2,403.7	-514.8	2,414.0	0.00	0.00	0.00
8,800.0	90.00	192.20	7,020.0	-2,501.4	-535.9	2,512.2	0.00	0.00	0.00

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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)
8,900.0	90.00	192.20	7,020.0	-2,599.2	-557.1	2,610.3	0.00	0.00	0.00
9,000.0	90.00	192.20	7,020.0	-2,696.9	-578.2	2,708.5	0.00	0.00	0.00
9,100.0	90.00	192.20	7,020.0	-2,794.6	-599.3	2,806.7	0.00	0.00	0.00
9,200.0	90.00	192.20	7,020.0	-2,892.4	-620.5	2,904.8	0.00	0.00	0.00
9,300.0	90.00	192.20	7,020.0	-2,990.1	-641.6	3,003.0	0.00	0.00	0.00
9,400.0	90.00	192.20	7,020.0	-3,087.9	-662.7	3,101.2	0.00	0.00	0.00
9,500.0	90.00	192.20	7,020.0	-3,185.6	-683.9	3,199.3	0.00	0.00	0.00
9,600.0	90.00	192.20	7,020.0	-3,283.4	-705.0	3,297.5	0.00	0.00	0.00
9,700.0	90.00	192.20	7,020.0	-3,381.1	-726.1	3,395.7	0.00	0.00	0.00
9,800.0	90.00	192.20	7,020.0	-3,478.8	-747.3	3,493.8	0.00	0.00	0.00
9,900.0	90.00	192.20	7,020.0	-3,576.6	-768.4	3,592.0	0.00	0.00	0.00
Turn 2°/100'									
9,954.0	90.00	192.20	7,020.0	-3,629.3	-779.8	3,645.0	0.00	0.00	0.00
10,000.0	90.00	191.28	7,020.0	-3,674.4	-789.2	3,690.2	2.00	0.00	-2.00
10,100.0	90.00	189.28	7,020.0	-3,772.8	-807.0	3,789.0	2.00	0.00	-2.00
10,200.0	90.00	187.28	7,020.0	-3,871.7	-821.4	3,888.2	2.00	0.00	-2.00
10,300.0	90.00	185.28	7,020.0	-3,971.1	-832.3	3,987.8	2.00	0.00	-2.00
10,400.0	90.00	183.28	7,020.0	-4,070.9	-839.8	4,087.7	2.00	0.00	-2.00
EOT @ 90.00° Inc. / 181.21° Azm									
10,503.5	90.00	181.21	7,020.0	-4,174.3	-843.9	4,191.2	2.00	0.00	-2.00
10,600.0	90.00	181.21	7,020.0	-4,270.7	-845.9	4,287.7	0.00	0.00	0.00
10,700.0	90.00	181.21	7,020.0	-4,370.7	-848.0	4,387.7	0.00	0.00	0.00
10,800.0	90.00	181.21	7,020.0	-4,470.7	-850.1	4,487.7	0.00	0.00	0.00
10,900.0	90.00	181.21	7,020.0	-4,570.7	-852.2	4,587.7	0.00	0.00	0.00
11,000.0	90.00	181.21	7,020.0	-4,670.7	-854.3	4,687.7	0.00	0.00	0.00
11,100.0	90.00	181.21	7,020.0	-4,770.6	-856.4	4,787.7	0.00	0.00	0.00
11,200.0	90.00	181.21	7,020.0	-4,870.6	-858.5	4,887.7	0.00	0.00	0.00
11,300.0	90.00	181.21	7,020.0	-4,970.6	-860.7	4,987.7	0.00	0.00	0.00
11,400.0	90.00	181.21	7,020.0	-5,070.6	-862.8	5,087.7	0.00	0.00	0.00
11,500.0	90.00	181.21	7,020.0	-5,170.5	-864.9	5,187.7	0.00	0.00	0.00
11,600.0	90.00	181.21	7,020.0	-5,270.5	-867.0	5,287.7	0.00	0.00	0.00
11,700.0	90.00	181.21	7,020.0	-5,370.5	-869.1	5,387.7	0.00	0.00	0.00
11,800.0	90.00	181.21	7,020.0	-5,470.5	-871.2	5,487.7	0.00	0.00	0.00
11,900.0	90.00	181.21	7,020.0	-5,570.5	-873.3	5,587.7	0.00	0.00	0.00
12,000.0	90.00	181.21	7,020.0	-5,670.4	-875.4	5,687.7	0.00	0.00	0.00
12,100.0	90.00	181.21	7,020.0	-5,770.4	-877.5	5,787.7	0.00	0.00	0.00
12,200.0	90.00	181.21	7,020.0	-5,870.4	-879.6	5,887.7	0.00	0.00	0.00
12,300.0	90.00	181.21	7,020.0	-5,970.4	-881.7	5,987.7	0.00	0.00	0.00
12,400.0	90.00	181.21	7,020.0	-6,070.3	-883.9	6,087.7	0.00	0.00	0.00
12,500.0	90.00	181.21	7,020.0	-6,170.3	-886.0	6,187.7	0.00	0.00	0.00
12,600.0	90.00	181.21	7,020.0	-6,270.3	-888.1	6,287.7	0.00	0.00	0.00
12,700.0	90.00	181.21	7,020.0	-6,370.3	-890.2	6,387.7	0.00	0.00	0.00
12,800.0	90.00	181.21	7,020.0	-6,470.3	-892.3	6,487.7	0.00	0.00	0.00
12,900.0	90.00	181.21	7,020.0	-6,570.2	-894.4	6,587.7	0.00	0.00	0.00
13,000.0	90.00	181.21	7,020.0	-6,670.2	-896.5	6,687.7	0.00	0.00	0.00
13,100.0	90.00	181.21	7,020.0	-6,770.2	-898.6	6,787.7	0.00	0.00	0.00
13,200.0	90.00	181.21	7,020.0	-6,870.2	-900.7	6,887.7	0.00	0.00	0.00
13,300.0	90.00	181.21	7,020.0	-6,970.1	-902.8	6,987.7	0.00	0.00	0.00
13,400.0	90.00	181.21	7,020.0	-7,070.1	-904.9	7,087.7	0.00	0.00	0.00
13,500.0	90.00	181.21	7,020.0	-7,170.1	-907.1	7,187.7	0.00	0.00	0.00
13,600.0	90.00	181.21	7,020.0	-7,270.1	-909.2	7,287.7	0.00	0.00	0.00
13,700.0	90.00	181.21	7,020.0	-7,370.1	-911.3	7,387.7	0.00	0.00	0.00
13,800.0	90.00	181.21	7,020.0	-7,470.0	-913.4	7,487.7	0.00	0.00	0.00
13,900.0	90.00	181.21	7,020.0	-7,570.0	-915.5	7,587.7	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well SU Spicer 0680 2-5H17
Company:	D90 Energy, LLC	TVD Reference:	RKB @ 8239.2usft (26' kb)
Project:	Jackson County, Colorado	MD Reference:	RKB @ 8239.2usft (26' kb)
Site:	Sec 32, T7N, R80W, 6th PM	North Reference:	Grid
Well:	SU Spicer 0680 2-5H17	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Prelim #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)
14,000.0	90.00	181.21	7,020.0	-7,670.0	-917.6	7,687.7	0.00	0.00	0.00
14,100.0	90.00	181.21	7,020.0	-7,770.0	-919.7	7,787.7	0.00	0.00	0.00
14,200.0	90.00	181.21	7,020.0	-7,869.9	-921.8	7,887.7	0.00	0.00	0.00
14,300.0	90.00	181.21	7,020.0	-7,969.9	-923.9	7,987.7	0.00	0.00	0.00
14,400.0	90.00	181.21	7,020.0	-8,069.9	-926.0	8,087.7	0.00	0.00	0.00
14,500.0	90.00	181.21	7,020.0	-8,169.9	-928.2	8,187.7	0.00	0.00	0.00
14,600.0	90.00	181.21	7,020.0	-8,269.9	-930.3	8,287.7	0.00	0.00	0.00
14,700.0	90.00	181.21	7,020.0	-8,369.8	-932.4	8,387.7	0.00	0.00	0.00
14,800.0	90.00	181.21	7,020.0	-8,469.8	-934.5	8,487.7	0.00	0.00	0.00
14,900.0	90.00	181.21	7,020.0	-8,569.8	-936.6	8,587.7	0.00	0.00	0.00
15,000.0	90.00	181.21	7,020.0	-8,669.8	-938.7	8,687.7	0.00	0.00	0.00
15,100.0	90.00	181.21	7,020.0	-8,769.7	-940.8	8,787.7	0.00	0.00	0.00
15,200.0	90.00	181.21	7,020.0	-8,869.7	-942.9	8,887.7	0.00	0.00	0.00
15,300.0	90.00	181.21	7,020.0	-8,969.7	-945.0	8,987.7	0.00	0.00	0.00
15,400.0	90.00	181.21	7,020.0	-9,069.7	-947.1	9,087.7	0.00	0.00	0.00
15,500.0	90.00	181.21	7,020.0	-9,169.7	-949.2	9,187.7	0.00	0.00	0.00
15,600.0	90.00	181.21	7,020.0	-9,269.6	-951.4	9,287.7	0.00	0.00	0.00
15,700.0	90.00	181.21	7,020.0	-9,369.6	-953.5	9,387.7	0.00	0.00	0.00
15,800.0	90.00	181.21	7,020.0	-9,469.6	-955.6	9,487.7	0.00	0.00	0.00
15,900.0	90.00	181.21	7,020.0	-9,569.6	-957.7	9,587.7	0.00	0.00	0.00
16,000.0	90.00	181.21	7,020.0	-9,669.5	-959.8	9,687.7	0.00	0.00	0.00
16,100.0	90.00	181.21	7,020.0	-9,769.5	-961.9	9,787.7	0.00	0.00	0.00
16,200.0	90.00	181.21	7,020.0	-9,869.5	-964.0	9,887.7	0.00	0.00	0.00
16,300.0	90.00	181.21	7,020.0	-9,969.5	-966.1	9,987.7	0.00	0.00	0.00
16,400.0	90.00	181.21	7,020.0	-10,069.5	-968.2	10,087.7	0.00	0.00	0.00
16,500.0	90.00	181.21	7,020.0	-10,169.4	-970.3	10,187.7	0.00	0.00	0.00
16,600.0	90.00	181.21	7,020.0	-10,269.4	-972.4	10,287.7	0.00	0.00	0.00
16,700.0	90.00	181.21	7,020.0	-10,369.4	-974.6	10,387.7	0.00	0.00	0.00
16,800.0	90.00	181.21	7,020.0	-10,469.4	-976.7	10,487.7	0.00	0.00	0.00
16,900.0	90.00	181.21	7,020.0	-10,569.3	-978.8	10,587.7	0.00	0.00	0.00
17,000.0	90.00	181.21	7,020.0	-10,669.3	-980.9	10,687.7	0.00	0.00	0.00
17,100.0	90.00	181.21	7,020.0	-10,769.3	-983.0	10,787.7	0.00	0.00	0.00
17,200.0	90.00	181.21	7,020.0	-10,869.3	-985.1	10,887.7	0.00	0.00	0.00
17,300.0	90.00	181.21	7,020.0	-10,969.3	-987.2	10,987.7	0.00	0.00	0.00
17,400.0	90.00	181.21	7,020.0	-11,069.2	-989.3	11,087.7	0.00	0.00	0.00
17,500.0	90.00	181.21	7,020.0	-11,169.2	-991.4	11,187.7	0.00	0.00	0.00
17,600.0	90.00	181.21	7,020.0	-11,269.2	-993.5	11,287.7	0.00	0.00	0.00
17,700.0	90.00	181.21	7,020.0	-11,369.2	-995.6	11,387.7	0.00	0.00	0.00
17,800.0	90.00	181.21	7,020.0	-11,469.1	-997.8	11,487.7	0.00	0.00	0.00
17,900.0	90.00	181.21	7,020.0	-11,569.1	-999.9	11,587.7	0.00	0.00	0.00
18,000.0	90.00	181.21	7,020.0	-11,669.1	-1,002.0	11,687.7	0.00	0.00	0.00
18,100.0	90.00	181.21	7,020.0	-11,769.1	-1,004.1	11,787.7	0.00	0.00	0.00
18,200.0	90.00	181.21	7,020.0	-11,869.1	-1,006.2	11,887.7	0.00	0.00	0.00
18,300.0	90.00	181.21	7,020.0	-11,969.0	-1,008.3	11,987.7	0.00	0.00	0.00
18,400.0	90.00	181.21	7,020.0	-12,069.0	-1,010.4	12,087.7	0.00	0.00	0.00
18,500.0	90.00	181.21	7,020.0	-12,169.0	-1,012.5	12,187.7	0.00	0.00	0.00
18,600.0	90.00	181.21	7,020.0	-12,269.0	-1,014.6	12,287.7	0.00	0.00	0.00
18,700.0	90.00	181.21	7,020.0	-12,368.9	-1,016.7	12,387.7	0.00	0.00	0.00
18,800.0	90.00	181.21	7,020.0	-12,468.9	-1,018.8	12,487.7	0.00	0.00	0.00
18,900.0	90.00	181.21	7,020.0	-12,568.9	-1,021.0	12,587.7	0.00	0.00	0.00
19,000.0	90.00	181.21	7,020.0	-12,668.9	-1,023.1	12,687.7	0.00	0.00	0.00
19,100.0	90.00	181.21	7,020.0	-12,768.9	-1,025.2	12,787.7	0.00	0.00	0.00
19,200.0	90.00	181.21	7,020.0	-12,868.8	-1,027.3	12,887.7	0.00	0.00	0.00
19,300.0	90.00	181.21	7,020.0	-12,968.8	-1,029.4	12,987.7	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well SU Spicer 0680 2-5H17
Company:	D90 Energy, LLC	TVD Reference:	RKB @ 8239.2usft (26' kb)
Project:	Jackson County, Colorado	MD Reference:	RKB @ 8239.2usft (26' kb)
Site:	Sec 32, T7N, R80W, 6th PM	North Reference:	Grid
Well:	SU Spicer 0680 2-5H17	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Prelim #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)
19,400.0	90.00	181.21	7,020.0	-13,068.8	-1,031.5	13,087.7	0.00	0.00	0.00
19,500.0	90.00	181.21	7,020.0	-13,168.8	-1,033.6	13,187.7	0.00	0.00	0.00
19,600.0	90.00	181.21	7,020.0	-13,268.7	-1,035.7	13,287.7	0.00	0.00	0.00
19,700.0	90.00	181.21	7,020.0	-13,368.7	-1,037.8	13,387.7	0.00	0.00	0.00
19,800.0	90.00	181.21	7,020.0	-13,468.7	-1,039.9	13,487.7	0.00	0.00	0.00
19,900.0	90.00	181.21	7,020.0	-13,568.7	-1,042.1	13,587.7	0.00	0.00	0.00
20,000.0	90.00	181.21	7,020.0	-13,668.7	-1,044.2	13,687.7	0.00	0.00	0.00
20,100.0	90.00	181.21	7,020.0	-13,768.6	-1,046.3	13,787.7	0.00	0.00	0.00
20,200.0	90.00	181.21	7,020.0	-13,868.6	-1,048.4	13,887.7	0.00	0.00	0.00
20,300.0	90.00	181.21	7,020.0	-13,968.6	-1,050.5	13,987.7	0.00	0.00	0.00
20,400.0	90.00	181.21	7,020.0	-14,068.6	-1,052.6	14,087.7	0.00	0.00	0.00
20,500.0	90.00	181.21	7,020.0	-14,168.5	-1,054.7	14,187.7	0.00	0.00	0.00
20,600.0	90.00	181.21	7,020.0	-14,268.5	-1,056.8	14,287.7	0.00	0.00	0.00
20,700.0	90.00	181.21	7,020.0	-14,368.5	-1,058.9	14,387.7	0.00	0.00	0.00
20,800.0	90.00	181.21	7,020.0	-14,468.5	-1,061.0	14,487.7	0.00	0.00	0.00
TD @ 20826.8' MD / 7020.0' TVD									
20,826.8	90.00	181.21	7,020.0	-14,495.3	-1,061.6	14,514.5	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
- hit/miss target									
- Shape									
PBHL - SU Spicer 06	0.00	360.00	7,020.0	-14,495.3	-1,061.6	1,422,511.42	2,747,673.92	40.489652	-106.407200
- plan hits target center									
- Point									
LP - SU Spicer 0680	0.00	360.00	7,020.0	-1,168.1	-247.6	1,435,838.56	2,748,487.87	40.526255	-106.404763
- plan hits target center									
- Point									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,600.0	2,600.0	0.0	0.0	Build 2°/100'
3,600.1	3,579.9	-169.2	-35.2	EOB @ 20.00° Inc. / 191.76° Azm
4,405.9	4,337.1	-439.0	-91.4	Drop 2°/100'
5,406.0	5,317.0	-608.2	-126.6	EOD @ Vert.
6,536.0	6,447.0	-608.2	-126.6	Build 10°/100'
7,436.0	7,020.0	-1,168.2	-247.7	EOB @ 90.00° Inc. / 192.20° Azm
9,954.0	7,020.0	-3,629.3	-779.8	Turn 2°/100'
10,503.5	7,020.0	-4,174.3	-843.9	EOT @ 90.00° Inc. / 181.21° Azm
20,826.8	7,020.0	-14,495.3	-1,061.6	TD @ 20826.8' MD / 7020.0' TVD