

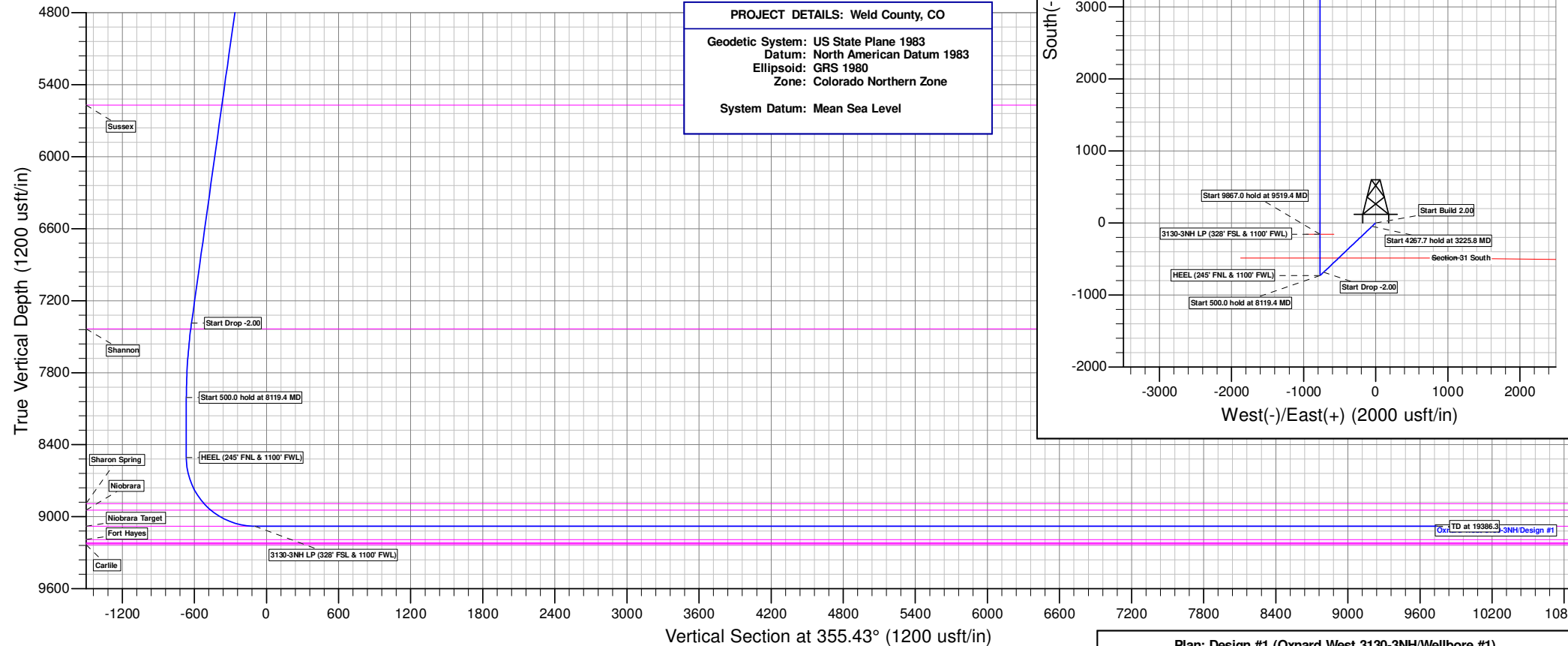
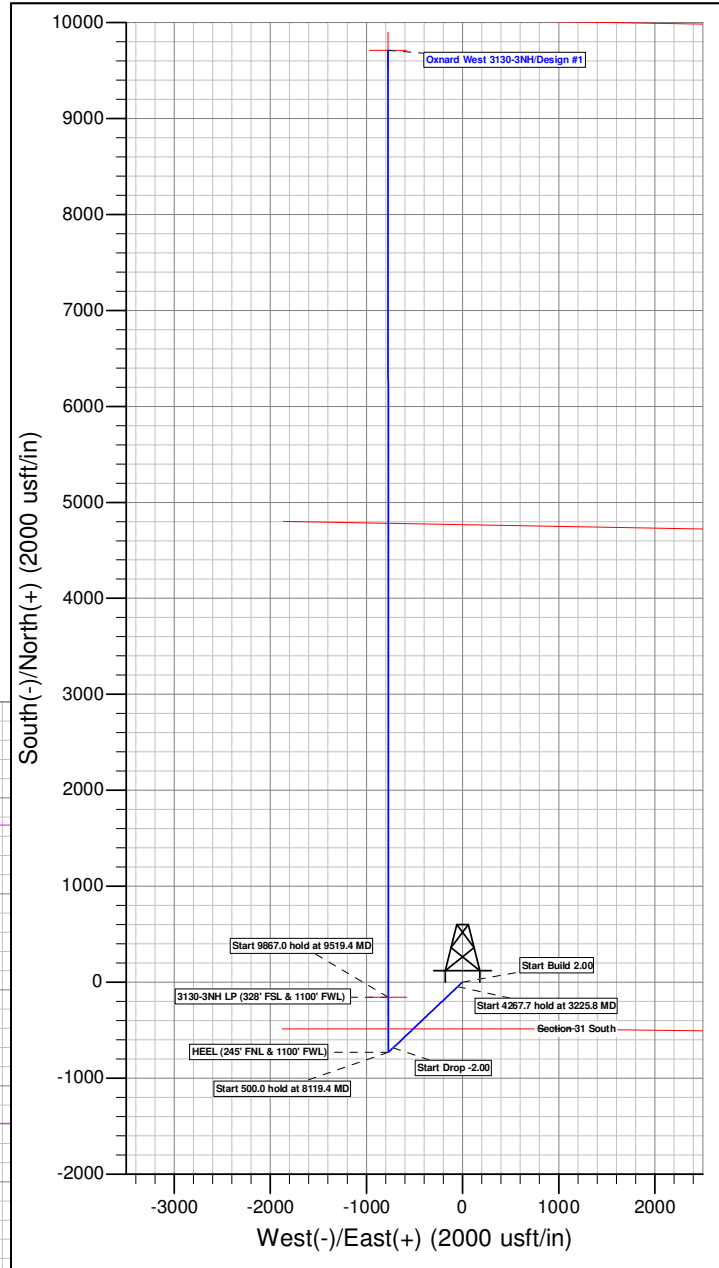
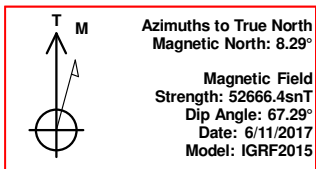
Longs Peak Resources  
 Project: Weld County, CO  
 Site: Southblock Ph 2 - Oxnard West Pad SEC.31-T12N-R66W  
 Well: Oxnard West 3130-3NH  
 Wellbore: Wellbore #1  
 Design: Design #1  
 Lat: 40.95897°N  
 Long: 104.82281°W  
 Pad GL: 6011.0  
 KB: GL 6011 + 25 KB @ 6036.0usft

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2600.0	0.00	0.00	2600.0	0.0	0.0	0.00	0.00	0.0	
3225.8	12.52	226.55	3220.8	-46.8	-49.4	2.00	226.55	-42.7	
7493.5	12.52	226.55	7387.2	-682.9	-720.9	0.00	0.00	-623.3	
8119.4	0.00	0.00	8008.0	-729.7	-770.3	2.00	180.00	-666.0	
8619.4	0.00	0.00	8508.0	-729.7	-770.3	0.00	0.00	-666.0	
9519.4	90.00	359.97	9081.0	-156.7	-770.6	10.00	359.97	-94.9	
19386.3	90.00	359.97	9081.0	9710.2	-775.9	0.00	0.00	9741.2	

WELL DETAILS: Oxnard West 3130-3NH						
				6011.0		
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1592921.33	3187047.41	40.95897°N	104.82281°W	

WELLBORE TARGET DETAILS (LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
3130-3NH BHL	9081.0	9710.2	-775.9	40.98562°N	104.82562°W	Point
3130-3NH LP	9081.0	-156.7	-770.6	40.95854°N	104.82560°W	Point

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



# **Longs Peak Resources**

**Weld County, CO**

**Southblock Ph 2 - Oxnard West Pad SEC.31-T12N-R66W**

**Oxnard West 3130-3NH**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**25 June, 2017**

## Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Oxnard West 3130-3NH
<b>Company:</b>	Longs Peak Resources	<b>TVD Reference:</b>	GL 6011 + 25 KB @ 6036.0usft
<b>Project:</b>	Weld County, CO	<b>MD Reference:</b>	GL 6011 + 25 KB @ 6036.0usft
<b>Site:</b>	Southblock Ph 2 - Oxnard West Pad SEC.31-T12N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Oxnard West 3130-3NH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project</b>	Weld County, CO, ,		
<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		

Site	Southblock Ph 2 - Oxnard West Pad SEC.31-T12N-R66W					
Site Position:		Northing:	1,592,920.72 usft	Latitude:	40.95897°N	
From:	Lat/Long	Easting:	3,186,967.31 usft	Longitude:	104.82310°W	
Position Uncertainty:		0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.44

Well	Oxnard West 3130-3NH					
Well Position	+N/-S	0.0 usft	Northing:	1,592,921.33 usft	Latitude:	40.95897°N
	+E/-W	80.1 usft	Easting:	3,187,047.41 usft	Longitude:	104.82281°W
Position Uncertainty		0.0 usft	Wellhead Elevation:	25.0 usft	Ground Level:	6,011.0 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>
	IGRF2015	6/11/2017	8.29	67.29	52,666.43587653

<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	355.43

<b>Plan Survey Tool Program</b>	<b>Date</b>	6/25/2017		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.0	19,386.3	Design #1 (Wellbore #1)	

<b>Plan Sections</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>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
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	
3,225.8	12.52	226.55	3,220.8	-46.8	-49.4	2.00	2.00	0.00	226.55	
7,493.5	12.52	226.55	7,387.2	-682.9	-720.9	0.00	0.00	0.00	0.00	
8,119.4	0.00	0.00	8,008.0	-729.7	-770.3	2.00	-2.00	0.00	180.00	
8,619.4	0.00	0.00	8,508.0	-729.7	-770.3	0.00	0.00	0.00	0.00	
9,519.4	90.00	359.97	9,081.0	-156.7	-770.6	10.00	10.00	0.00	359.97	3130-3NH BHL
19,386.3	90.00	359.97	9,081.0	9,710.2	-775.9	0.00	0.00	0.00	0.00	3130-3NH BHL

# Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Oxnard West 3130-3NH
<b>Company:</b>	Longs Peak Resources	<b>TVD Reference:</b>	GL 6011 + 25 KB @ 6036.0usft
<b>Project:</b>	Weld County, CO	<b>MD Reference:</b>	GL 6011 + 25 KB @ 6036.0usft
<b>Site:</b>	Southblock Ph 2 - Oxnard West Pad SEC.31-T12N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Oxnard West 3130-3NH	<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
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
2,153.0	0.00	0.00	2,153.0	0.0	0.0	0.0	0.00	0.00	0.00
Fox Hills									
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
2,427.0	0.00	0.00	2,427.0	0.0	0.0	0.0	0.00	0.00	0.00
Pierre									
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	2.00	226.55	2,700.0	-1.2	-1.3	-1.1	2.00	2.00	0.00
2,782.1	3.64	226.55	2,782.0	-4.0	-4.2	-3.6	2.00	2.00	0.00
Teapot									
2,800.0	4.00	226.55	2,799.8	-4.8	-5.1	-4.4	2.00	2.00	0.00
2,900.0	6.00	226.55	2,899.5	-10.8	-11.4	-9.9	2.00	2.00	0.00
3,000.0	8.00	226.55	2,998.7	-19.2	-20.2	-17.5	2.00	2.00	0.00
3,100.0	10.00	226.55	3,097.5	-29.9	-31.6	-27.3	2.00	2.00	0.00
3,200.0	12.00	226.55	3,195.6	-43.1	-45.4	-39.3	2.00	2.00	0.00
3,225.8	12.52	226.55	3,220.8	-46.8	-49.4	-42.7	2.00	2.00	0.00
3,300.0	12.52	226.55	3,293.3	-57.9	-61.1	-52.8	0.00	0.00	0.00
3,400.0	12.52	226.55	3,390.9	-72.8	-76.8	-66.4	0.00	0.00	0.00
3,500.0	12.52	226.55	3,488.5	-87.7	-92.6	-80.0	0.00	0.00	0.00
3,600.0	12.52	226.55	3,586.1	-102.6	-108.3	-93.6	0.00	0.00	0.00
3,700.0	12.52	226.55	3,683.8	-117.5	-124.0	-107.2	0.00	0.00	0.00
3,800.0	12.52	226.55	3,781.4	-132.4	-139.8	-120.8	0.00	0.00	0.00
3,900.0	12.52	226.55	3,879.0	-147.3	-155.5	-134.4	0.00	0.00	0.00
4,000.0	12.52	226.55	3,976.6	-162.2	-171.2	-148.1	0.00	0.00	0.00
4,100.0	12.52	226.55	4,074.3	-177.1	-187.0	-161.7	0.00	0.00	0.00
4,200.0	12.52	226.55	4,171.9	-192.0	-202.7	-175.3	0.00	0.00	0.00
4,300.0	12.52	226.55	4,269.5	-206.9	-218.4	-188.9	0.00	0.00	0.00
4,400.0	12.52	226.55	4,367.1	-221.8	-234.2	-202.5	0.00	0.00	0.00
4,500.0	12.52	226.55	4,464.8	-236.7	-249.9	-216.1	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Oxnard West 3130-3NH
<b>Company:</b>	Longs Peak Resources	<b>TVD Reference:</b>	GL 6011 + 25 KB @ 6036.0usft
<b>Project:</b>	Weld County, CO	<b>MD Reference:</b>	GL 6011 + 25 KB @ 6036.0usft
<b>Site:</b>	Southblock Ph 2 - Oxnard West Pad SEC.31-T12N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Oxnard West 3130-3NH	<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)
4,600.0	12.52	226.55	4,562.4	-251.6	-265.6	-229.7	0.00	0.00	0.00
4,700.0	12.52	226.55	4,660.0	-266.5	-281.4	-243.3	0.00	0.00	0.00
4,711.3	12.52	226.55	4,671.0	-268.2	-283.1	-244.8	0.00	0.00	0.00
<b>Parkman</b>									
4,800.0	12.52	226.55	4,757.6	-281.4	-297.1	-256.9	0.00	0.00	0.00
4,900.0	12.52	226.55	4,855.2	-296.3	-312.8	-270.5	0.00	0.00	0.00
5,000.0	12.52	226.55	4,952.9	-311.2	-328.6	-284.1	0.00	0.00	0.00
5,100.0	12.52	226.55	5,050.5	-326.1	-344.3	-297.7	0.00	0.00	0.00
5,200.0	12.52	226.55	5,148.1	-341.1	-360.0	-311.3	0.00	0.00	0.00
5,300.0	12.52	226.55	5,245.7	-356.0	-375.8	-324.9	0.00	0.00	0.00
5,400.0	12.52	226.55	5,343.4	-370.9	-391.5	-338.5	0.00	0.00	0.00
5,500.0	12.52	226.55	5,441.0	-385.8	-407.2	-352.1	0.00	0.00	0.00
5,600.0	12.52	226.55	5,538.6	-400.7	-423.0	-365.7	0.00	0.00	0.00
5,633.2	12.52	226.55	5,571.0	-405.6	-428.2	-370.2	0.00	0.00	0.00
<b>Sussex</b>									
5,700.0	12.52	226.55	5,636.2	-415.6	-438.7	-379.3	0.00	0.00	0.00
5,800.0	12.52	226.55	5,733.9	-430.5	-454.4	-392.9	0.00	0.00	0.00
5,900.0	12.52	226.55	5,831.5	-445.4	-470.2	-406.5	0.00	0.00	0.00
6,000.0	12.52	226.55	5,929.1	-460.3	-485.9	-420.1	0.00	0.00	0.00
6,100.0	12.52	226.55	6,026.7	-475.2	-501.6	-433.7	0.00	0.00	0.00
6,200.0	12.52	226.55	6,124.4	-490.1	-517.4	-447.3	0.00	0.00	0.00
6,300.0	12.52	226.55	6,222.0	-505.0	-533.1	-460.9	0.00	0.00	0.00
6,400.0	12.52	226.55	6,319.6	-519.9	-548.8	-474.5	0.00	0.00	0.00
6,500.0	12.52	226.55	6,417.2	-534.8	-564.6	-488.1	0.00	0.00	0.00
6,600.0	12.52	226.55	6,514.8	-549.7	-580.3	-501.7	0.00	0.00	0.00
6,700.0	12.52	226.55	6,612.5	-564.6	-596.0	-515.3	0.00	0.00	0.00
6,800.0	12.52	226.55	6,710.1	-579.5	-611.8	-528.9	0.00	0.00	0.00
6,900.0	12.52	226.55	6,807.7	-594.4	-627.5	-542.6	0.00	0.00	0.00
7,000.0	12.52	226.55	6,905.3	-609.3	-643.2	-556.2	0.00	0.00	0.00
7,100.0	12.52	226.55	7,003.0	-624.2	-659.0	-569.8	0.00	0.00	0.00
7,200.0	12.52	226.55	7,100.6	-639.1	-674.7	-583.4	0.00	0.00	0.00
7,300.0	12.52	226.55	7,198.2	-654.0	-690.4	-597.0	0.00	0.00	0.00
7,400.0	12.52	226.55	7,295.8	-668.9	-706.2	-610.6	0.00	0.00	0.00
7,493.5	12.52	226.55	7,387.2	-682.9	-720.9	-623.3	0.00	0.00	0.00
7,500.0	12.39	226.55	7,393.5	-683.8	-721.9	-624.2	2.00	-2.00	0.00
7,543.5	11.52	226.55	7,436.0	-690.0	-728.4	-629.8	2.00	-2.00	0.00
<b>Shannon</b>									
7,600.0	10.39	226.55	7,491.5	-697.4	-736.2	-636.6	2.00	-2.00	0.00
7,700.0	8.39	226.55	7,590.1	-708.6	-748.1	-646.8	2.00	-2.00	0.00
7,800.0	6.39	226.55	7,689.3	-717.5	-757.4	-654.9	2.00	-2.00	0.00
7,900.0	4.39	226.55	7,788.9	-723.9	-764.2	-660.8	2.00	-2.00	0.00
8,000.0	2.39	226.55	7,888.7	-728.0	-768.5	-664.5	2.00	-2.00	0.00
8,100.0	0.39	226.55	7,988.6	-729.7	-770.3	-666.0	2.00	-2.00	0.00
8,119.4	0.00	0.00	8,008.0	-729.7	-770.3	-666.0	2.00	-2.00	0.00
8,200.0	0.00	0.00	8,088.6	-729.7	-770.3	-666.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,188.6	-729.7	-770.3	-666.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,288.6	-729.7	-770.3	-666.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,388.6	-729.7	-770.3	-666.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,488.6	-729.7	-770.3	-666.0	0.00	0.00	0.00
8,619.4	0.00	0.00	8,508.0	-729.7	-770.3	-666.0	0.00	0.00	0.00
8,650.0	3.06	359.97	8,538.6	-728.9	-770.3	-665.2	10.00	10.00	0.00
8,700.0	8.06	359.97	8,588.4	-724.0	-770.3	-660.4	10.00	10.00	0.00
8,750.0	13.06	359.97	8,637.5	-714.9	-770.3	-651.2	10.00	10.00	0.00

# Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Oxnard West 3130-3NH
<b>Company:</b>	Longs Peak Resources	<b>TVD Reference:</b>	GL 6011 + 25 KB @ 6036.0usft
<b>Project:</b>	Weld County, CO	<b>MD Reference:</b>	GL 6011 + 25 KB @ 6036.0usft
<b>Site:</b>	Southblock Ph 2 - Oxnard West Pad SEC.31-T12N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Oxnard West 3130-3NH	<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)
8,800.0	18.06	359.97	8,685.7	-701.5	-770.3	-637.9	10.00	10.00	0.00
8,850.0	23.06	359.97	8,732.5	-683.9	-770.3	-620.4	10.00	10.00	0.00
8,900.0	28.06	359.97	8,777.6	-662.3	-770.3	-598.9	10.00	10.00	0.00
8,950.0	33.06	359.97	8,820.6	-636.9	-770.3	-573.5	10.00	10.00	0.00
9,000.0	38.06	359.97	8,861.3	-607.8	-770.4	-544.6	10.00	10.00	0.00
9,038.8	41.95	359.97	8,891.0	-582.9	-770.4	-519.7	10.00	10.00	0.00
<b>Sharon Spring</b>									
9,050.0	43.06	359.97	8,899.2	-575.3	-770.4	-512.2	10.00	10.00	0.00
9,100.0	48.06	359.97	8,934.2	-539.6	-770.4	-476.6	10.00	10.00	0.00
9,117.9	49.86	359.97	8,946.0	-526.1	-770.4	-463.1	10.00	10.00	0.00
<b>Niobrara</b>									
9,150.0	53.06	359.97	8,966.0	-501.0	-770.4	-438.1	10.00	10.00	0.00
9,200.0	58.06	359.97	8,994.2	-459.8	-770.4	-397.0	10.00	10.00	0.00
9,250.0	63.06	359.97	9,018.8	-416.3	-770.5	-353.6	10.00	10.00	0.00
9,300.0	68.06	359.97	9,039.5	-370.8	-770.5	-308.2	10.00	10.00	0.00
9,350.0	73.06	359.97	9,056.1	-323.6	-770.5	-261.2	10.00	10.00	0.00
9,400.0	78.06	359.97	9,068.6	-275.2	-770.5	-213.0	10.00	10.00	0.00
9,450.0	83.06	359.97	9,076.8	-225.9	-770.6	-163.8	10.00	10.00	0.00
9,500.0	88.06	359.97	9,080.6	-176.1	-770.6	-114.2	10.00	10.00	0.00
9,519.4	90.00	359.97	9,081.0	-156.7	-770.6	-94.9	10.00	10.00	0.00
<b>Niobrara Target</b>									
9,519.4	90.00	359.97	9,081.0	-156.7	-770.6	-94.8	0.00	0.00	0.00
<b>3130-3NH LP</b>									
9,600.0	90.00	359.97	9,081.0	-76.1	-770.6	-14.5	0.00	0.00	0.00
9,700.0	90.00	359.97	9,081.0	23.9	-770.7	85.2	0.00	0.00	0.00
9,800.0	90.00	359.97	9,081.0	123.9	-770.8	184.9	0.00	0.00	0.00
9,900.0	90.00	359.97	9,081.0	223.9	-770.8	284.6	0.00	0.00	0.00
10,000.0	90.00	359.97	9,081.0	323.9	-770.9	384.3	0.00	0.00	0.00
10,100.0	90.00	359.97	9,081.0	423.9	-770.9	484.0	0.00	0.00	0.00
10,200.0	90.00	359.97	9,081.0	523.9	-771.0	583.6	0.00	0.00	0.00
10,300.0	90.00	359.97	9,081.0	623.9	-771.0	683.3	0.00	0.00	0.00
10,400.0	90.00	359.97	9,081.0	723.9	-771.1	783.0	0.00	0.00	0.00
10,500.0	90.00	359.97	9,081.0	823.9	-771.1	882.7	0.00	0.00	0.00
10,600.0	90.00	359.97	9,081.0	923.9	-771.2	982.4	0.00	0.00	0.00
10,700.0	90.00	359.97	9,081.0	1,023.9	-771.2	1,082.1	0.00	0.00	0.00
10,800.0	90.00	359.97	9,081.0	1,123.9	-771.3	1,181.8	0.00	0.00	0.00
10,900.0	90.00	359.97	9,081.0	1,223.9	-771.3	1,281.4	0.00	0.00	0.00
11,000.0	90.00	359.97	9,081.0	1,323.9	-771.4	1,381.1	0.00	0.00	0.00
11,100.0	90.00	359.97	9,081.0	1,423.9	-771.4	1,480.8	0.00	0.00	0.00
11,200.0	90.00	359.97	9,081.0	1,523.9	-771.5	1,580.5	0.00	0.00	0.00
11,300.0	90.00	359.97	9,081.0	1,623.9	-771.6	1,680.2	0.00	0.00	0.00
11,400.0	90.00	359.97	9,081.0	1,723.9	-771.6	1,779.9	0.00	0.00	0.00
11,500.0	90.00	359.97	9,081.0	1,823.9	-771.7	1,879.6	0.00	0.00	0.00
11,600.0	90.00	359.97	9,081.0	1,923.9	-771.7	1,979.3	0.00	0.00	0.00
11,700.0	90.00	359.97	9,081.0	2,023.9	-771.8	2,078.9	0.00	0.00	0.00
11,800.0	90.00	359.97	9,081.0	2,123.9	-771.8	2,178.6	0.00	0.00	0.00
11,900.0	90.00	359.97	9,081.0	2,223.9	-771.9	2,278.3	0.00	0.00	0.00
12,000.0	90.00	359.97	9,081.0	2,323.9	-771.9	2,378.0	0.00	0.00	0.00
12,100.0	90.00	359.97	9,081.0	2,423.9	-772.0	2,477.7	0.00	0.00	0.00
12,200.0	90.00	359.97	9,081.0	2,523.9	-772.0	2,577.4	0.00	0.00	0.00
12,300.0	90.00	359.97	9,081.0	2,623.9	-772.1	2,677.1	0.00	0.00	0.00
12,400.0	90.00	359.97	9,081.0	2,723.9	-772.1	2,776.7	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Oxnard West 3130-3NH
<b>Company:</b>	Longs Peak Resources	<b>TVD Reference:</b>	GL 6011 + 25 KB @ 6036.0usft
<b>Project:</b>	Weld County, CO	<b>MD Reference:</b>	GL 6011 + 25 KB @ 6036.0usft
<b>Site:</b>	Southblock Ph 2 - Oxnard West Pad SEC.31-T12N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Oxnard West 3130-3NH	<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)	
12,500.0	90.00	359.97	9,081.0	2,823.9	-772.2	2,876.4	0.00	0.00	0.00	
12,600.0	90.00	359.97	9,081.0	2,923.9	-772.2	2,976.1	0.00	0.00	0.00	
12,700.0	90.00	359.97	9,081.0	3,023.9	-772.3	3,075.8	0.00	0.00	0.00	
12,800.0	90.00	359.97	9,081.0	3,123.9	-772.3	3,175.5	0.00	0.00	0.00	
12,900.0	90.00	359.97	9,081.0	3,223.9	-772.4	3,275.2	0.00	0.00	0.00	
13,000.0	90.00	359.97	9,081.0	3,323.9	-772.5	3,374.9	0.00	0.00	0.00	
13,100.0	90.00	359.97	9,081.0	3,423.9	-772.5	3,474.6	0.00	0.00	0.00	
13,200.0	90.00	359.97	9,081.0	3,523.9	-772.6	3,574.2	0.00	0.00	0.00	
13,300.0	90.00	359.97	9,081.0	3,623.9	-772.6	3,673.9	0.00	0.00	0.00	
13,400.0	90.00	359.97	9,081.0	3,723.9	-772.7	3,773.6	0.00	0.00	0.00	
13,500.0	90.00	359.97	9,081.0	3,823.9	-772.7	3,873.3	0.00	0.00	0.00	
13,600.0	90.00	359.97	9,081.0	3,923.9	-772.8	3,973.0	0.00	0.00	0.00	
13,700.0	90.00	359.97	9,081.0	4,023.9	-772.8	4,072.7	0.00	0.00	0.00	
13,800.0	90.00	359.97	9,081.0	4,123.9	-772.9	4,172.4	0.00	0.00	0.00	
13,900.0	90.00	359.97	9,081.0	4,223.9	-772.9	4,272.0	0.00	0.00	0.00	
14,000.0	90.00	359.97	9,081.0	4,323.9	-773.0	4,371.7	0.00	0.00	0.00	
14,100.0	90.00	359.97	9,081.0	4,423.9	-773.0	4,471.4	0.00	0.00	0.00	
14,200.0	90.00	359.97	9,081.0	4,523.9	-773.1	4,571.1	0.00	0.00	0.00	
14,300.0	90.00	359.97	9,081.0	4,623.9	-773.1	4,670.8	0.00	0.00	0.00	
14,400.0	90.00	359.97	9,081.0	4,723.9	-773.2	4,770.5	0.00	0.00	0.00	
14,500.0	90.00	359.97	9,081.0	4,823.9	-773.3	4,870.2	0.00	0.00	0.00	
14,600.0	90.00	359.97	9,081.0	4,923.9	-773.3	4,969.9	0.00	0.00	0.00	
14,700.0	90.00	359.97	9,081.0	5,023.9	-773.4	5,069.5	0.00	0.00	0.00	
14,800.0	90.00	359.97	9,081.0	5,123.9	-773.4	5,169.2	0.00	0.00	0.00	
14,900.0	90.00	359.97	9,081.0	5,223.9	-773.5	5,268.9	0.00	0.00	0.00	
15,000.0	90.00	359.97	9,081.0	5,323.9	-773.5	5,368.6	0.00	0.00	0.00	
15,100.0	90.00	359.97	9,081.0	5,423.9	-773.6	5,468.3	0.00	0.00	0.00	
15,200.0	90.00	359.97	9,081.0	5,523.9	-773.6	5,568.0	0.00	0.00	0.00	
15,300.0	90.00	359.97	9,081.0	5,623.9	-773.7	5,667.7	0.00	0.00	0.00	
15,400.0	90.00	359.97	9,081.0	5,723.9	-773.7	5,767.3	0.00	0.00	0.00	
15,500.0	90.00	359.97	9,081.0	5,823.9	-773.8	5,867.0	0.00	0.00	0.00	
15,600.0	90.00	359.97	9,081.0	5,923.9	-773.8	5,966.7	0.00	0.00	0.00	
15,700.0	90.00	359.97	9,081.0	6,023.9	-773.9	6,066.4	0.00	0.00	0.00	
15,800.0	90.00	359.97	9,081.0	6,123.9	-773.9	6,166.1	0.00	0.00	0.00	
15,900.0	90.00	359.97	9,081.0	6,223.9	-774.0	6,265.8	0.00	0.00	0.00	
16,000.0	90.00	359.97	9,081.0	6,323.9	-774.1	6,365.5	0.00	0.00	0.00	
16,100.0	90.00	359.97	9,081.0	6,423.9	-774.1	6,465.1	0.00	0.00	0.00	
16,200.0	90.00	359.97	9,081.0	6,523.9	-774.2	6,564.8	0.00	0.00	0.00	
16,300.0	90.00	359.97	9,081.0	6,623.9	-774.2	6,664.5	0.00	0.00	0.00	
16,400.0	90.00	359.97	9,081.0	6,723.9	-774.3	6,764.2	0.00	0.00	0.00	
16,500.0	90.00	359.97	9,081.0	6,823.9	-774.3	6,863.9	0.00	0.00	0.00	
16,600.0	90.00	359.97	9,081.0	6,923.9	-774.4	6,963.6	0.00	0.00	0.00	
16,700.0	90.00	359.97	9,081.0	7,023.9	-774.4	7,063.3	0.00	0.00	0.00	
16,800.0	90.00	359.97	9,081.0	7,123.9	-774.5	7,163.0	0.00	0.00	0.00	
16,900.0	90.00	359.97	9,081.0	7,223.9	-774.5	7,262.6	0.00	0.00	0.00	
17,000.0	90.00	359.97	9,081.0	7,323.9	-774.6	7,362.3	0.00	0.00	0.00	
17,100.0	90.00	359.97	9,081.0	7,423.9	-774.6	7,462.0	0.00	0.00	0.00	
17,200.0	90.00	359.97	9,081.0	7,523.9	-774.7	7,561.7	0.00	0.00	0.00	
17,300.0	90.00	359.97	9,081.0	7,623.9	-774.7	7,661.4	0.00	0.00	0.00	
17,400.0	90.00	359.97	9,081.0	7,723.9	-774.8	7,761.1	0.00	0.00	0.00	
17,500.0	90.00	359.97	9,081.0	7,823.9	-774.8	7,860.8	0.00	0.00	0.00	
17,600.0	90.00	359.97	9,081.0	7,923.9	-774.9	7,960.4	0.00	0.00	0.00	
17,700.0	90.00	359.97	9,081.0	8,023.9	-775.0	8,060.1	0.00	0.00	0.00	

## Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Oxnard West 3130-3NH
<b>Company:</b>	Longs Peak Resources	<b>TVD Reference:</b>	GL 6011 + 25 KB @ 6036.0usft
<b>Project:</b>	Weld County, CO	<b>MD Reference:</b>	GL 6011 + 25 KB @ 6036.0usft
<b>Site:</b>	Southblock Ph 2 - Oxnard West Pad SEC.31-T12N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Oxnard West 3130-3NH	<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)
17,800.0	90.00	359.97	9,081.0	8,123.9	-775.0	8,159.8	0.00	0.00	0.00
17,900.0	90.00	359.97	9,081.0	8,223.9	-775.1	8,259.5	0.00	0.00	0.00
18,000.0	90.00	359.97	9,081.0	8,323.9	-775.1	8,359.2	0.00	0.00	0.00
18,100.0	90.00	359.97	9,081.0	8,423.9	-775.2	8,458.9	0.00	0.00	0.00
18,200.0	90.00	359.97	9,081.0	8,523.9	-775.2	8,558.6	0.00	0.00	0.00
18,300.0	90.00	359.97	9,081.0	8,623.9	-775.3	8,658.3	0.00	0.00	0.00
18,400.0	90.00	359.97	9,081.0	8,723.9	-775.3	8,757.9	0.00	0.00	0.00
18,500.0	90.00	359.97	9,081.0	8,823.9	-775.4	8,857.6	0.00	0.00	0.00
18,600.0	90.00	359.97	9,081.0	8,923.9	-775.4	8,957.3	0.00	0.00	0.00
18,700.0	90.00	359.97	9,081.0	9,023.9	-775.5	9,057.0	0.00	0.00	0.00
18,800.0	90.00	359.97	9,081.0	9,123.9	-775.5	9,156.7	0.00	0.00	0.00
18,900.0	90.00	359.97	9,081.0	9,223.9	-775.6	9,256.4	0.00	0.00	0.00
19,000.0	90.00	359.97	9,081.0	9,323.9	-775.6	9,356.1	0.00	0.00	0.00
19,100.0	90.00	359.97	9,081.0	9,423.9	-775.7	9,455.7	0.00	0.00	0.00
19,200.0	90.00	359.97	9,081.0	9,523.9	-775.8	9,555.4	0.00	0.00	0.00
19,300.0	90.00	359.97	9,081.0	9,623.9	-775.8	9,655.1	0.00	0.00	0.00
19,386.3	90.00	359.97	9,081.0	9,710.2	-775.9	9,741.2	0.00	0.00	0.00
3130-3NH BHL									

### 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									
3130-3NH BHL	0.00	0.00	9,081.0	9,710.2	-775.9	1,602,625.36	3,186,197.42	40.98562°N	104.82562°W
- plan hits target center									
- Point									
3130-3NH LP	0.00	0.00	9,081.0	-156.7	-770.6	1,592,758.80	3,186,277.98	40.95854°N	104.82560°W
- plan hits target center									
- Point									

### Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,153.0	2,153.0	Fox Hills			
2,427.0	2,427.0	Pierre			
2,782.1	2,782.0	Teapot			
4,711.3	4,671.0	Parkman			
5,633.2	5,571.0	Sussex			
7,543.5	7,436.0	Shannon			
9,038.8	8,891.0	Sharon Spring			
9,117.9	8,946.0	Niobrara			
9,519.4	9,081.0	Niobrara Target			