



Company: B.P.  
Project: La Plata County, CO NAD83  
Site: Luchini Pad  
Well: Luchini 36-06-12 2  
Wellbore: Lateral 1 ST2  
Design: Plan #1

**PROJECT DETAILS: La Plata County, CO NAD83**

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



Azimuths to Grid North  
True North: 1.19°  
Magnetic North: 10.36°

Magnetic Field  
Strength: 50138.6snT  
Dip Angle: 63.60°  
Date: 3/24/2017  
Model: HDGM

**WELL DETAILS: Luchini 36-06-12 2**

GL 6266' & RKB 11' @ 6277.00usft (Aztec 507)  
+N/-S +E/-W Northing Easting Latitude Longitude  
0.00 0.00 1139306.97 2433750.94 37.0330995 -107.4398920

Plan: Plan #1 (Luchini 36-06-12 2/Lateral 1 ST2)

Created By: Janie Collins Date: 16:27, October 09 2017

**DESIGN TARGET DETAILS**

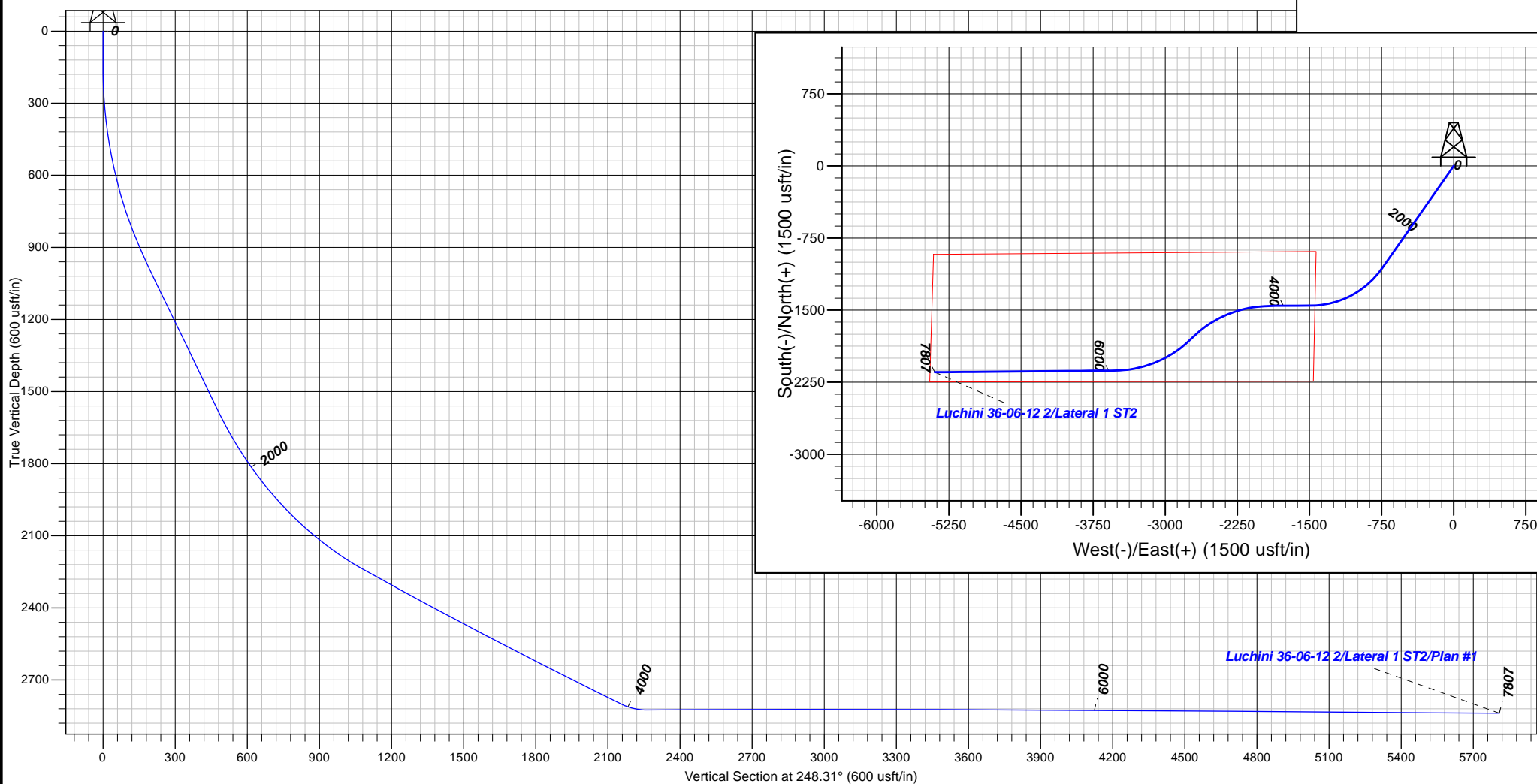
Name TVD +N/-S +E/-W Northing Easting  
Luchini Lat 1 ST2 PBHL 2839.00 -2146.73 -5397.86 1137160.24 2428353.08

**SECTION DETAILS**

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
4187.00	90.21	267.92	2824.64	-1458.87	-1957.35	0.00	0.00	2357.92	
5045.46	90.00	225.00	2822.98	-1793.75	-2726.10	5.00	-90.23	3196.00	
5934.85	89.61	269.47	2826.18	-2129.34	-3525.76	5.00	90.56	4063.08	
7807.07	89.61	269.47	2839.00	-2146.73	-5397.86	0.00	0.00	5809.07	Luchini Lat 1 ST2 PBHL

**FORMATION TOP DETAILS**

No formation data is available





**B.P.**

**La Plata County, CO NAD83**

**Luchini Pad**

**Luchini 36-06-12 2**

**Lateral 1 ST2**

**Plan: Plan #1**

## **Standard Planning Report**

**09 October, 2017**





<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well Luchini 36-06-12 2
<b>Company:</b>	B.P.	<b>TVD Reference:</b>	GL 6266' & RKB 11' @ 6277.00usft (Aztec 507)
<b>Project:</b>	La Plata County, CO NAD83	<b>MD Reference:</b>	GL 6266' & RKB 11' @ 6277.00usft (Aztec 507)
<b>Site:</b>	Luchini Pad	<b>North Reference:</b>	Grid
<b>Well:</b>	Luchini 36-06-12 2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Lateral 1 ST2		
<b>Design:</b>	Plan #1		

<b>Project</b>	La Plata County, CO NAD83		
<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 Southern Zone		

Site		Luchini Pad			
Site Position:		Northing:	1,139,289.65 usft	Latitude:	37.0330501
From:	Map	Easting:	2,433,719.01 usft	Longitude:	-107.4400002
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	-1.19 °

Well	Luchini 36-06-12 2					
Well Position	+N/-S	17.32 usft	Northing:	1,139,306.97 usft	Latitude:	37.0330995
	+E/-W	31.93 usft	Easting:	2,433,750.94 usft	Longitude:	-107.4398920
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	6,266.00 usft

<b>Wellbore</b>	Lateral 1 ST2				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM	3/24/2017	9.17	63.60	50,139

<b>Design</b>	Plan #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	4,187.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	248.31

<b>Plan Sections</b>										
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
4,187.00	90.21	267.92	2,824.64	-1,458.87	-1,957.35	0.00	0.00	0.00	0.00	
5,045.46	90.00	225.00	2,822.98	-1,793.75	-2,726.10	5.00	-0.02	-5.00	-90.23	
5,934.85	89.61	269.47	2,826.18	-2,129.34	-3,525.76	5.00	-0.04	5.00	90.56	
7,807.07	89.61	269.47	2,839.00	-2,146.73	-5,397.86	0.00	0.00	0.00	0.00	Luchini Lat 1 ST2 PBI



<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well Luchini 36-06-12 2
<b>Company:</b>	B.P.	<b>TVD Reference:</b>	GL 6266' & RKB 11' @ 6277.00usft (Aztec 507)
<b>Project:</b>	La Plata County, CO NAD83	<b>MD Reference:</b>	GL 6266' & RKB 11' @ 6277.00usft (Aztec 507)
<b>Site:</b>	Luchini Pad	<b>North Reference:</b>	Grid
<b>Well:</b>	Luchini 36-06-12 2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Lateral 1 ST2		
<b>Design:</b>	Plan #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)
4,187.00	90.21	267.92	2,824.64	-1,458.87	-1,957.35	2,357.92	0.00	0.00	0.00
4,200.00	90.21	267.27	2,824.59	-1,459.41	-1,970.34	2,370.19	5.00	-0.02	-5.00
4,300.00	90.19	262.27	2,824.24	-1,468.52	-2,069.89	2,466.06	5.00	-0.02	-5.00
4,400.00	90.17	257.27	2,823.93	-1,486.27	-2,168.27	2,564.03	5.00	-0.02	-5.00
4,500.00	90.14	252.27	2,823.67	-1,512.53	-2,264.73	2,663.37	5.00	-0.02	-5.00
4,600.00	90.12	247.27	2,823.44	-1,547.09	-2,358.53	2,763.30	5.00	-0.02	-5.00
4,700.00	90.09	242.27	2,823.26	-1,589.70	-2,448.97	2,863.08	5.00	-0.03	-5.00
4,800.00	90.07	237.27	2,823.12	-1,640.03	-2,535.34	2,961.94	5.00	-0.03	-5.00
4,900.00	90.04	232.27	2,823.03	-1,697.69	-2,617.00	3,059.13	5.00	-0.03	-5.00
5,000.00	90.01	227.27	2,822.98	-1,762.25	-2,693.33	3,153.91	5.00	-0.03	-5.00
5,045.46	90.00	225.00	2,822.98	-1,793.75	-2,726.10	3,196.00	5.00	-0.03	-5.00
5,100.00	89.97	227.73	2,822.99	-1,831.38	-2,765.57	3,246.59	5.00	-0.05	5.00
5,200.00	89.92	232.73	2,823.08	-1,895.34	-2,842.41	3,341.61	5.00	-0.05	5.00
5,300.00	89.88	237.73	2,823.25	-1,952.35	-2,924.52	3,438.99	5.00	-0.05	5.00
5,400.00	89.83	242.73	2,823.51	-2,002.00	-3,011.29	3,537.96	5.00	-0.05	5.00
5,500.00	89.78	247.73	2,823.85	-2,043.89	-3,102.06	3,637.78	5.00	-0.05	5.00
5,600.00	89.74	252.73	2,824.26	-2,077.71	-3,196.13	3,737.70	5.00	-0.04	5.00
5,700.00	89.70	257.73	2,824.75	-2,103.20	-3,292.79	3,836.94	5.00	-0.04	5.00
5,800.00	89.66	262.73	2,825.32	-2,120.17	-3,391.31	3,934.75	5.00	-0.04	5.00
5,900.00	89.62	267.73	2,825.95	-2,128.49	-3,490.93	4,030.39	5.00	-0.04	5.00
5,934.85	89.61	269.47	2,826.18	-2,129.34	-3,525.76	4,063.08	5.00	-0.04	5.00
6,000.00	89.61	269.47	2,826.63	-2,129.95	-3,590.91	4,123.84	0.00	0.00	0.00
6,100.00	89.61	269.47	2,827.31	-2,130.88	-3,690.91	4,217.09	0.00	0.00	0.00
6,200.00	89.61	269.47	2,828.00	-2,131.81	-3,790.90	4,310.35	0.00	0.00	0.00
6,300.00	89.61	269.47	2,828.68	-2,132.73	-3,890.89	4,403.61	0.00	0.00	0.00
6,400.00	89.61	269.47	2,829.37	-2,133.66	-3,990.89	4,496.87	0.00	0.00	0.00
6,500.00	89.61	269.47	2,830.05	-2,134.59	-4,090.88	4,590.13	0.00	0.00	0.00
6,600.00	89.61	269.47	2,830.74	-2,135.52	-4,190.87	4,683.38	0.00	0.00	0.00
6,700.00	89.61	269.47	2,831.42	-2,136.45	-4,290.87	4,776.64	0.00	0.00	0.00
6,800.00	89.61	269.47	2,832.11	-2,137.38	-4,390.86	4,869.90	0.00	0.00	0.00
6,900.00	89.61	269.47	2,832.79	-2,138.31	-4,490.85	4,963.16	0.00	0.00	0.00
7,000.00	89.61	269.47	2,833.47	-2,139.24	-4,590.85	5,056.42	0.00	0.00	0.00
7,100.00	89.61	269.47	2,834.16	-2,140.16	-4,690.84	5,149.68	0.00	0.00	0.00
7,200.00	89.61	269.47	2,834.84	-2,141.09	-4,790.83	5,242.93	0.00	0.00	0.00
7,300.00	89.61	269.47	2,835.53	-2,142.02	-4,890.83	5,336.19	0.00	0.00	0.00
7,400.00	89.61	269.47	2,836.21	-2,142.95	-4,990.82	5,429.45	0.00	0.00	0.00
7,500.00	89.61	269.47	2,836.90	-2,143.88	-5,090.81	5,522.71	0.00	0.00	0.00
7,600.00	89.61	269.47	2,837.58	-2,144.81	-5,190.81	5,615.97	0.00	0.00	0.00
7,700.00	89.61	269.47	2,838.27	-2,145.74	-5,290.80	5,709.22	0.00	0.00	0.00
7,800.00	89.61	269.47	2,838.95	-2,146.66	-5,390.79	5,802.48	0.00	0.00	0.00
7,807.07	89.61	269.47	2,839.00	-2,146.73	-5,397.86	5,809.07	0.00	0.00	0.00
<b>Luchini Lat 1 ST2 PBHL</b>									



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<b>Wellbore:</b>	Lateral 1 ST2		
<b>Design:</b>	Plan #1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
Luchini Lat 1 ST2 PBHL	0.00	0.00	2,839.00	-2,146.73	-5,397.86	1,137,160.24	2,428,353.08	37.0268958	-107.4582248
- plan hits target center									
- Point									