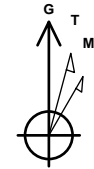




Company: B.P.  
Project: La Plata County, CO NAD83  
Site: Le Platt Pad  
Well: Le Platt B2  
Wellbore: Lateral 2 ST1 Lemon  
Design: Plan #5

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: 1.29°  
Magnetic North: 10.56°

Magnetic Field  
Strength: 50221.4snT  
Dip Angle: 63.73°  
Date: 2/14/2017  
Model: HDGM

WELL DETAILS: Le Platt B2

GL 6870' & RKB 11' @ 6881.00usft (Aztec 507)  
+N/-S +E/-W Northing Easting Latitude Longitude  
0.00 0.00 1208776.39 2387416.08 37.2210906 -107.6039369

Plan: Plan #5 (Le Platt B2/Lateral 2 ST1 Lemon)

Created By: Janie Collins Date: 11:29, September 21 2017

DESIGN TARGET DETAILS

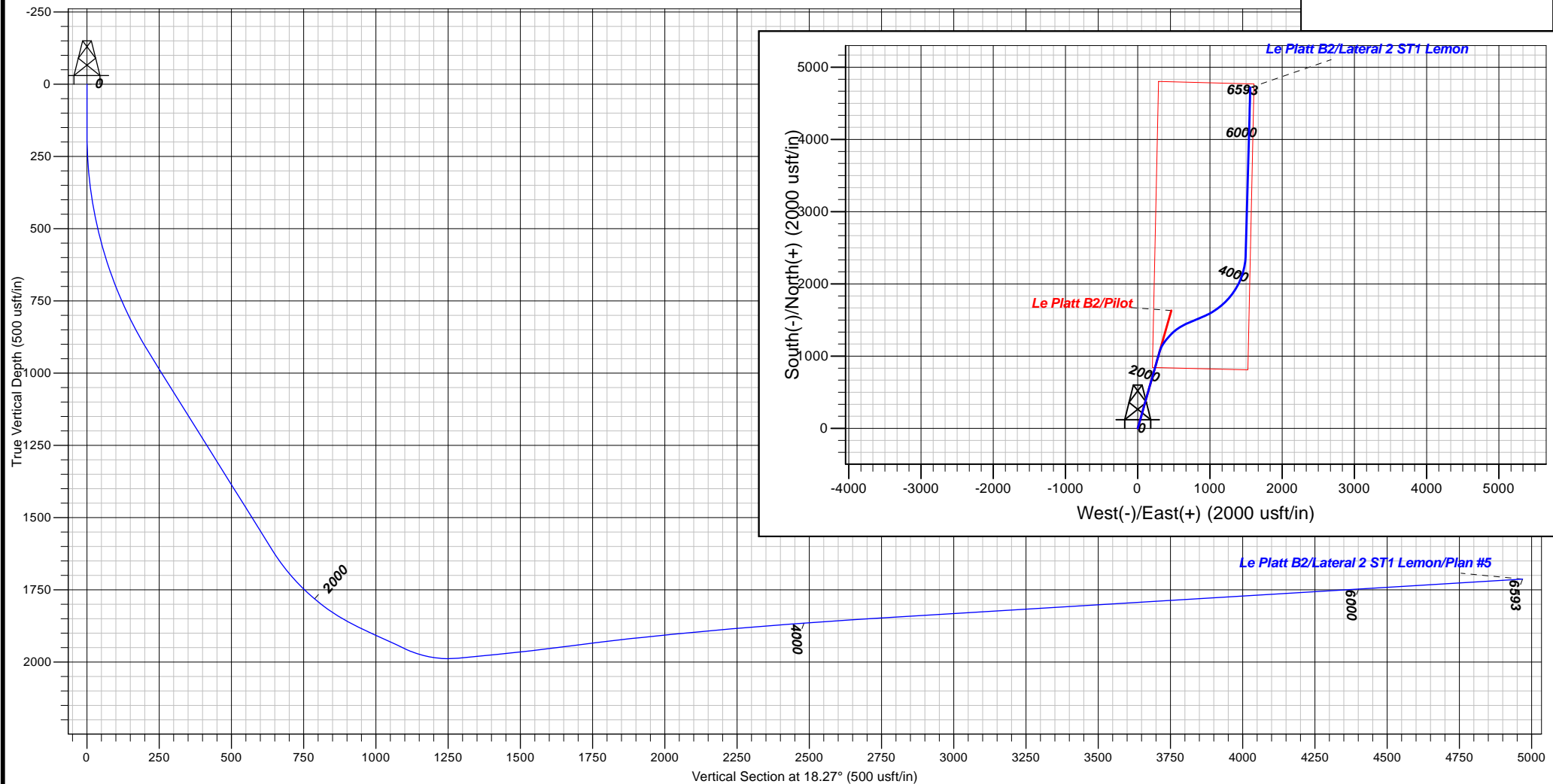
Name TVD +N/-S +E/-W Northing Easting  
LPB2 Lat 2 ST1 PBHL 1713.00 4717.95 1557.83 1213494.34 2388973.91

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
2597.00	95.00	40.00	1982.70	1257.32	420.81	0.00	0.00	1325.86	
2933.28	94.72	67.00	1953.68	1454.75	687.65	8.00	89.42	1597.00	
3183.28	94.72	67.00	1933.11	1552.10	917.00	0.00	0.00	1761.35	
4271.13	93.32	1.56	1847.39	2400.52	1494.64	6.00	-88.52	2748.10	
6593.31	93.32	1.56	1713.00	4717.95	1557.83	0.00	0.00	4968.49	LPB2 Lat 2 ST1 PBHL

FORMATION TOP DETAILS

No formation data is available





**B.P.**

**La Plata County, CO NAD83**

**Le Platt Pad**

**Le Platt B2**

**Lateral 2 ST1 Lemon**

**Plan: Plan #5**

## **Standard Planning Report**

**21 September, 2017**



[www.scientificdrilling.com](http://www.scientificdrilling.com)





<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well Le Platt B2
<b>Company:</b>	B.P.	<b>TVD Reference:</b>	GL 6870' & RKB 11' @ 6881.00usft (Aztec 507)
<b>Project:</b>	La Plata County, CO NAD83	<b>MD Reference:</b>	GL 6870' & RKB 11' @ 6881.00usft (Aztec 507)
<b>Site:</b>	Le Platt Pad	<b>North Reference:</b>	Grid
<b>Well:</b>	Le Platt B2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Lateral 2 ST1 Lemon		
<b>Design:</b>	Plan #5		

<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		Le Platt Pad			
Site Position:		Northing:	1,208,776.39 usft	Latitude:	37.2210905
From:	Map	Easting:	2,387,416.08 usft	Longitude:	-107.6039370
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	-1.29 °

Well	Le Platt B2					
Well Position	+N/-S	0.00 usft	Northing:	1,208,776.39 usft	Latitude:	37.2210905
	+E/-W	0.00 usft	Easting:	2,387,416.08 usft	Longitude:	-107.6039370
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	6,863.00 usft

<b>Wellbore</b>	Lateral 2 ST1 Lemon				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM	2/14/2017	9.27	63.73	50,221

<b>Design</b>	Plan #5				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PLAN		<b>Tie On Depth:</b>	2,597.00
<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	18.27	

<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
2,597.00	95.00	40.00	1,982.70	1,257.32	420.81	0.00	0.00	0.00	0.00	
2,933.28	94.72	67.00	1,953.68	1,454.75	687.65	8.00	-0.08	8.03	89.42	
3,183.28	94.72	67.00	1,933.11	1,552.10	917.00	0.00	0.00	0.00	0.00	
4,271.13	93.32	1.56	1,847.39	2,400.52	1,494.64	6.00	-0.13	-6.02	-88.52	
6,593.31	93.32	1.56	1,713.00	4,717.95	1,557.83	0.00	0.00	0.00	0.00	LPB2 Lat 2 ST1 PBHI



<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well Le Platt B2
<b>Company:</b>	B.P.	<b>TVD Reference:</b>	GL 6870' & RKB 11' @ 6881.00usft (Aztec 507)
<b>Project:</b>	La Plata County, CO NAD83	<b>MD Reference:</b>	GL 6870' & RKB 11' @ 6881.00usft (Aztec 507)
<b>Site:</b>	Le Platt Pad	<b>North Reference:</b>	Grid
<b>Well:</b>	Le Platt B2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Lateral 2 ST1 Lemon		
<b>Design:</b>	Plan #5		

## 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)
2,597.00	95.00	40.00	1,982.70	1,257.32	420.81	1,325.86	0.00	0.00	0.00
2,600.00	95.00	40.24	1,982.44	1,259.61	422.74	1,328.64	8.00	0.08	8.03
2,700.00	95.03	48.27	1,973.68	1,330.90	492.20	1,418.11	8.00	0.03	8.03
2,800.00	94.96	56.30	1,964.96	1,391.78	570.94	1,500.62	8.00	-0.07	8.03
2,900.00	94.80	64.33	1,956.44	1,441.09	657.43	1,574.55	8.00	-0.17	8.03
2,933.28	94.72	67.00	1,953.68	1,454.75	687.65	1,597.00	8.00	-0.23	8.02
3,000.00	94.72	67.00	1,948.19	1,480.73	748.86	1,640.86	0.00	0.00	0.00
3,100.00	94.72	67.00	1,939.96	1,519.67	840.59	1,706.60	0.00	0.00	0.00
3,183.28	94.72	67.00	1,933.11	1,552.10	917.00	1,761.35	0.00	0.00	0.00
3,200.00	94.75	65.99	1,931.73	1,558.75	932.27	1,772.45	6.00	0.15	-6.02
3,300.00	94.87	59.97	1,923.34	1,603.99	1,021.01	1,843.24	6.00	0.12	-6.02
3,400.00	94.93	53.95	1,914.79	1,658.28	1,104.49	1,920.97	6.00	0.07	-6.02
3,500.00	94.95	47.93	1,906.18	1,721.03	1,181.82	2,004.80	6.00	0.01	-6.02
3,600.00	94.90	41.91	1,897.58	1,791.55	1,252.14	2,093.81	6.00	-0.04	-6.02
3,700.00	94.81	35.89	1,889.11	1,869.06	1,314.67	2,187.02	6.00	-0.10	-6.02
3,800.00	94.66	29.87	1,880.85	1,952.72	1,368.75	2,283.41	6.00	-0.15	-6.02
3,900.00	94.46	23.85	1,872.89	2,041.61	1,413.76	2,381.93	6.00	-0.20	-6.02
4,000.00	94.21	17.84	1,865.32	2,134.75	1,449.23	2,481.50	6.00	-0.25	-6.01
4,100.00	93.92	11.83	1,858.22	2,231.13	1,474.76	2,581.02	6.00	-0.29	-6.01
4,200.00	93.58	5.83	1,851.68	2,329.69	1,490.07	2,679.41	6.00	-0.34	-6.00
4,271.13	93.32	1.56	1,847.39	2,400.52	1,494.64	2,748.10	6.00	-0.37	-6.00
4,300.00	93.32	1.56	1,845.72	2,429.33	1,495.43	2,775.71	0.00	0.00	0.00
4,400.00	93.32	1.56	1,839.94	2,529.13	1,498.15	2,871.33	0.00	0.00	0.00
4,500.00	93.32	1.56	1,834.15	2,628.92	1,500.87	2,966.95	0.00	0.00	0.00
4,600.00	93.32	1.56	1,828.36	2,728.72	1,503.59	3,062.56	0.00	0.00	0.00
4,700.00	93.32	1.56	1,822.57	2,828.51	1,506.31	3,158.18	0.00	0.00	0.00
4,800.00	93.32	1.56	1,816.79	2,928.31	1,509.03	3,253.79	0.00	0.00	0.00
4,900.00	93.32	1.56	1,811.00	3,028.11	1,511.76	3,349.41	0.00	0.00	0.00
5,000.00	93.32	1.56	1,805.21	3,127.90	1,514.48	3,445.03	0.00	0.00	0.00
5,100.00	93.32	1.56	1,799.42	3,227.70	1,517.20	3,540.64	0.00	0.00	0.00
5,200.00	93.32	1.56	1,793.64	3,327.49	1,519.92	3,636.26	0.00	0.00	0.00
5,300.00	93.32	1.56	1,787.85	3,427.29	1,522.64	3,731.88	0.00	0.00	0.00
5,400.00	93.32	1.56	1,782.06	3,527.08	1,525.36	3,827.49	0.00	0.00	0.00
5,500.00	93.32	1.56	1,776.27	3,626.88	1,528.08	3,923.11	0.00	0.00	0.00
5,600.00	93.32	1.56	1,770.49	3,726.67	1,530.80	4,018.72	0.00	0.00	0.00
5,700.00	93.32	1.56	1,764.70	3,826.47	1,533.52	4,114.34	0.00	0.00	0.00
5,800.00	93.32	1.56	1,758.91	3,926.26	1,536.24	4,209.96	0.00	0.00	0.00
5,900.00	93.32	1.56	1,753.12	4,026.06	1,538.97	4,305.57	0.00	0.00	0.00
6,000.00	93.32	1.56	1,747.34	4,125.85	1,541.69	4,401.19	0.00	0.00	0.00
6,100.00	93.32	1.56	1,741.55	4,225.65	1,544.41	4,496.80	0.00	0.00	0.00
6,200.00	93.32	1.56	1,735.76	4,325.44	1,547.13	4,592.42	0.00	0.00	0.00
6,300.00	93.32	1.56	1,729.98	4,425.24	1,549.85	4,688.04	0.00	0.00	0.00
6,400.00	93.32	1.56	1,724.19	4,525.04	1,552.57	4,783.65	0.00	0.00	0.00
6,500.00	93.32	1.56	1,718.40	4,624.83	1,555.29	4,879.27	0.00	0.00	0.00
6,588.50	93.32	1.56	1,713.28	4,713.15	1,557.70	4,963.89	0.00	0.00	0.00
<b>LPB2 Lat 1 ST1 PBHL</b>									
6,593.31	93.32	1.56	1,713.00	4,717.95	1,557.83	4,968.49	0.00	0.00	0.00
<b>LPB2 Lat 2 ST1 PBHL</b>									



<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well Le Platt B2
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<b>Well:</b>	Le Platt B2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Lateral 2 ST1 Lemon		
<b>Design:</b>	Plan #5		

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)		
LPB2 Lat 2 ST1 PBHL	0.00	360.00	1,713.00	4,717.95	1,557.83	1,213,494.34	2,388,973.91	37.2341409	-107.5989524
- plan hits target center									
- Point									