



Company: B. P.
Project: La Plata County, CO NAD83
Site: Le Platt Pad
Well: Le Platt B2
Wellbore: Lateral 1 Lower 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 1 Lower Lemon)

Created By: Janie Collins Date: 14:40, September 20 2017

DESIGN TARGET DETAILS

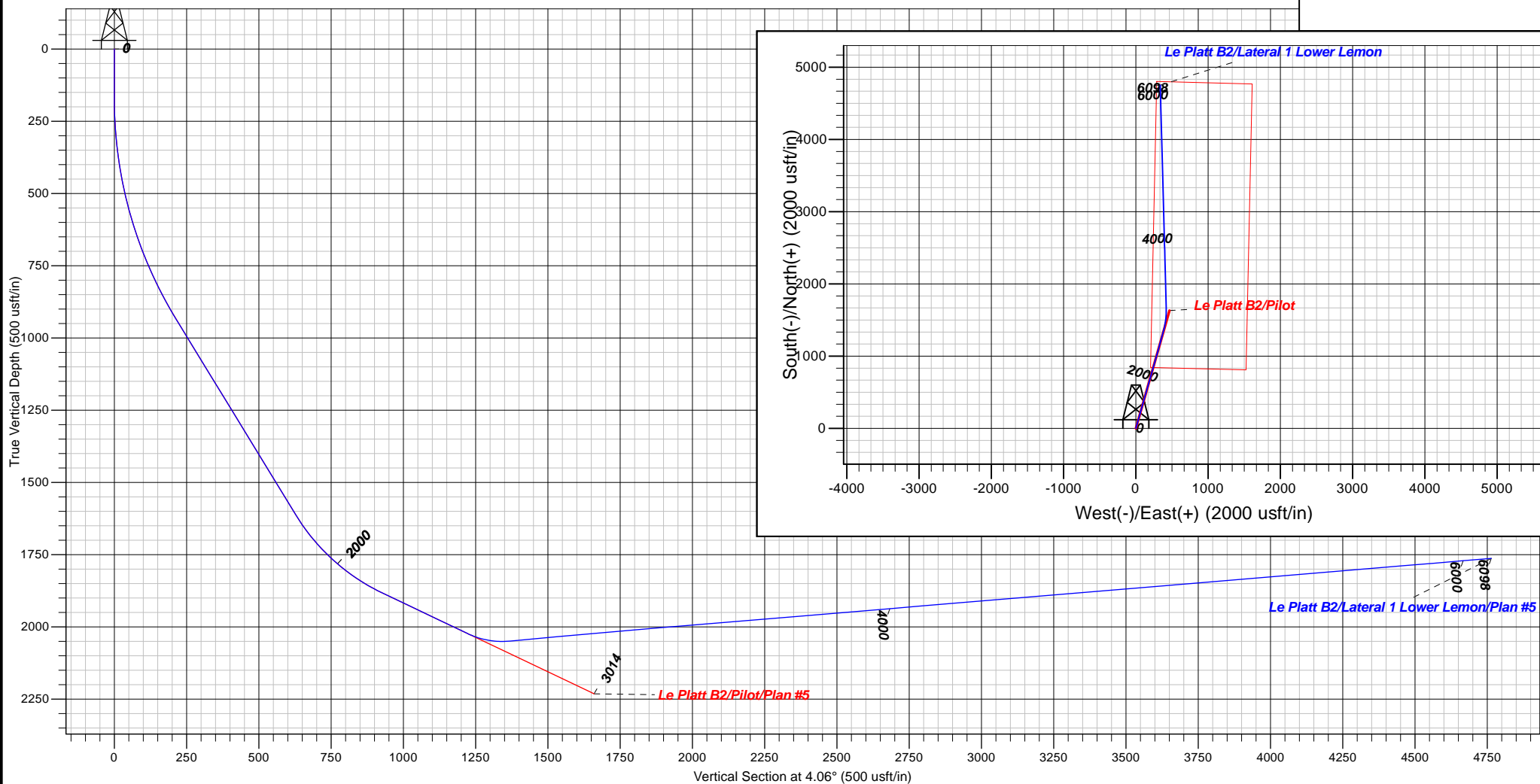
Name TVD +N/-S +E/-W Northing Easting
LPB2 Lat 1 PBHL 1763.00 4751.59 337.27 1213527.98 2387753.35

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
2522.18	65.00	15.90	2023.50	1201.80	342.34	0.00	0.00	1223.02	
2675.09	95.57	15.00	2049.00	1345.37	381.96	20.00	-1.76	1369.03	
3005.02	94.75	358.46	2019.12	1670.54	420.30	5.00	-92.08	1696.11	
6097.81	94.75	358.46	1763.00	4751.59	337.27	0.00	0.00	4763.54	LPB2 Lat 1 PBHL

FORMATION TOP DETAILS

No formation data is available





B.P.

La Plata County, CO NAD83

Le Platt Pad

Le Platt B2

Lateral 1 Lower Lemon

Plan: Plan #5

Standard Planning Report

20 September, 2017





Database:	Grand Junction District	Local Co-ordinate Reference:	Well Le Platt B2
Company:	B.P.	TVD Reference:	GL 6870' & RKB 11' @ 6881.00usft (Aztec 507)
Project:	La Plata County, CO NAD83	MD Reference:	GL 6870' & RKB 11' @ 6881.00usft (Aztec 507)
Site:	Le Platt Pad	North Reference:	Grid
Well:	Le Platt B2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral 1 Lower Lemon		
Design:	Plan #5		

Project	La Plata County, CO NAD83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	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

Wellbore	Lateral 1 Lower Lemon				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	2/14/2017	9.27	63.73	50,221

Design	Plan #5				
Audit Notes:					
Version:	Phase:	PLAN		Tie On Depth:	2,522.18
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	4.06	

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
2,522.18	65.00	15.90	2,023.50	1,201.80	342.34	0.00	0.00	0.00	0.00	
2,675.09	95.57	15.00	2,049.00	1,345.37	381.96	20.00	19.99	-0.59	-1.76	
3,005.02	94.75	358.46	2,019.12	1,670.54	420.30	5.00	-0.25	-5.01	-92.08	
6,097.81	94.75	358.46	1,763.00	4,751.59	337.27	0.00	0.00	0.00	0.00	LPB2 Lat 1 PBHL



Database:	Grand Junction District	Local Co-ordinate Reference:	Well Le Platt B2
Company:	B.P.	TVD Reference:	GL 6870' & RKB 11' @ 6881.00usft (Aztec 507)
Project:	La Plata County, CO NAD83	MD Reference:	GL 6870' & RKB 11' @ 6881.00usft (Aztec 507)
Site:	Le Platt Pad	North Reference:	Grid
Well:	Le Platt B2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral 1 Lower Lemon		
Design:	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)
2,522.18	65.00	15.90	2,023.50	1,201.80	342.34	1,223.02	0.00	0.00	0.00
2,600.00	80.56	15.42	2,046.47	1,273.15	362.33	1,295.61	20.00	19.99	-0.62
2,675.09	95.57	15.00	2,049.00	1,345.37	381.96	1,369.03	20.00	19.99	-0.56
2,700.00	95.52	13.75	2,046.59	1,369.38	388.12	1,393.42	5.00	-0.19	-5.02
2,800.00	95.31	8.73	2,037.15	1,466.99	407.52	1,492.16	5.00	-0.21	-5.02
2,900.00	95.06	3.72	2,028.11	1,565.96	418.31	1,591.65	5.00	-0.25	-5.01
3,000.00	94.77	358.71	2,019.54	1,665.54	420.42	1,691.13	5.00	-0.29	-5.01
3,005.02	94.75	358.46	2,019.12	1,670.54	420.30	1,696.11	5.00	-0.31	-5.01
3,100.00	94.75	358.46	2,011.26	1,765.16	417.75	1,790.31	0.00	0.00	0.00
3,200.00	94.75	358.46	2,002.98	1,864.78	415.06	1,889.49	0.00	0.00	0.00
3,300.00	94.75	358.46	1,994.69	1,964.40	412.38	1,988.67	0.00	0.00	0.00
3,400.00	94.75	358.46	1,986.41	2,064.02	409.69	2,087.85	0.00	0.00	0.00
3,500.00	94.75	358.46	1,978.13	2,163.64	407.01	2,187.03	0.00	0.00	0.00
3,600.00	94.75	358.46	1,969.85	2,263.26	404.32	2,286.21	0.00	0.00	0.00
3,700.00	94.75	358.46	1,961.57	2,362.88	401.64	2,385.39	0.00	0.00	0.00
3,800.00	94.75	358.46	1,953.29	2,462.51	398.95	2,484.57	0.00	0.00	0.00
3,900.00	94.75	358.46	1,945.01	2,562.13	396.27	2,583.75	0.00	0.00	0.00
4,000.00	94.75	358.46	1,936.73	2,661.75	393.59	2,682.93	0.00	0.00	0.00
4,100.00	94.75	358.46	1,928.44	2,761.37	390.90	2,782.11	0.00	0.00	0.00
4,200.00	94.75	358.46	1,920.16	2,860.99	388.22	2,881.29	0.00	0.00	0.00
4,300.00	94.75	358.46	1,911.88	2,960.61	385.53	2,980.47	0.00	0.00	0.00
4,400.00	94.75	358.46	1,903.60	3,060.23	382.85	3,079.65	0.00	0.00	0.00
4,500.00	94.75	358.46	1,895.32	3,159.85	380.16	3,178.83	0.00	0.00	0.00
4,600.00	94.75	358.46	1,887.04	3,259.47	377.48	3,278.01	0.00	0.00	0.00
4,700.00	94.75	358.46	1,878.76	3,359.09	374.79	3,377.19	0.00	0.00	0.00
4,800.00	94.75	358.46	1,870.47	3,458.71	372.11	3,476.37	0.00	0.00	0.00
4,900.00	94.75	358.46	1,862.19	3,558.33	369.42	3,575.56	0.00	0.00	0.00
5,000.00	94.75	358.46	1,853.91	3,657.95	366.74	3,674.74	0.00	0.00	0.00
5,100.00	94.75	358.46	1,845.63	3,757.57	364.06	3,773.92	0.00	0.00	0.00
5,200.00	94.75	358.46	1,837.35	3,857.19	361.37	3,873.10	0.00	0.00	0.00
5,300.00	94.75	358.46	1,829.07	3,956.81	358.69	3,972.28	0.00	0.00	0.00
5,400.00	94.75	358.46	1,820.79	4,056.43	356.00	4,071.46	0.00	0.00	0.00
5,500.00	94.75	358.46	1,812.51	4,156.05	353.32	4,170.64	0.00	0.00	0.00
5,600.00	94.75	358.46	1,804.22	4,255.67	350.63	4,269.82	0.00	0.00	0.00
5,700.00	94.75	358.46	1,795.94	4,355.29	347.95	4,369.00	0.00	0.00	0.00
5,800.00	94.75	358.46	1,787.66	4,454.91	345.26	4,468.18	0.00	0.00	0.00
5,900.00	94.75	358.46	1,779.38	4,554.53	342.58	4,567.36	0.00	0.00	0.00
6,000.00	94.75	358.46	1,771.10	4,654.15	339.90	4,666.54	0.00	0.00	0.00
6,097.81	94.75	358.46	1,763.00	4,751.59	337.27	4,763.54	0.00	0.00	0.00
LPB2 Lat 1 PBHL									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LPB2 Lat 1 PBHL	0.00	360.00	1,763.00	4,751.59	337.27	1,213,527.98	2,387,753.35	37.2341578	-107.6031464
- hit/miss target									
- Shape									
- plan hits target center									
- Point									



Database:	Grand Junction District	Local Co-ordinate Reference:	Well Le Platt B2
Company:	B.P.	TVD Reference:	GL 6870' & RKB 11' @ 6881.00usft (Aztec 507)
Project:	La Plata County, CO NAD83	MD Reference:	GL 6870' & RKB 11' @ 6881.00usft (Aztec 507)
Site:	Le Platt Pad	North Reference:	Grid
Well:	Le Platt B2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral 1 Lower Lemon		
Design:	Plan #5		