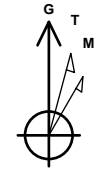




Company: B.P.
Project: La Plata County, CO NAD83
Site: Le Platt Pad
Well: Le Platt B2
Wellbore: Lateral 1 ST1 Lower Lemon
Design: Plan #5

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 ST1 Lower Lemon)

Created By: Janie Collins Date: 10:14, September 21 2017

DESIGN TARGET DETAILS

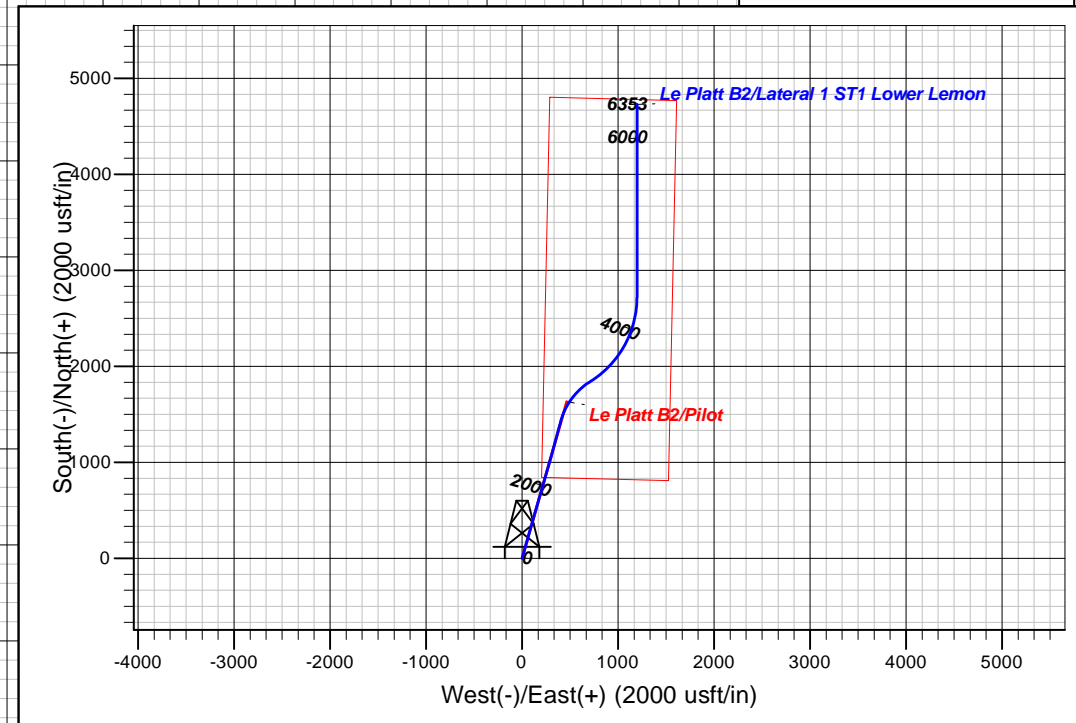
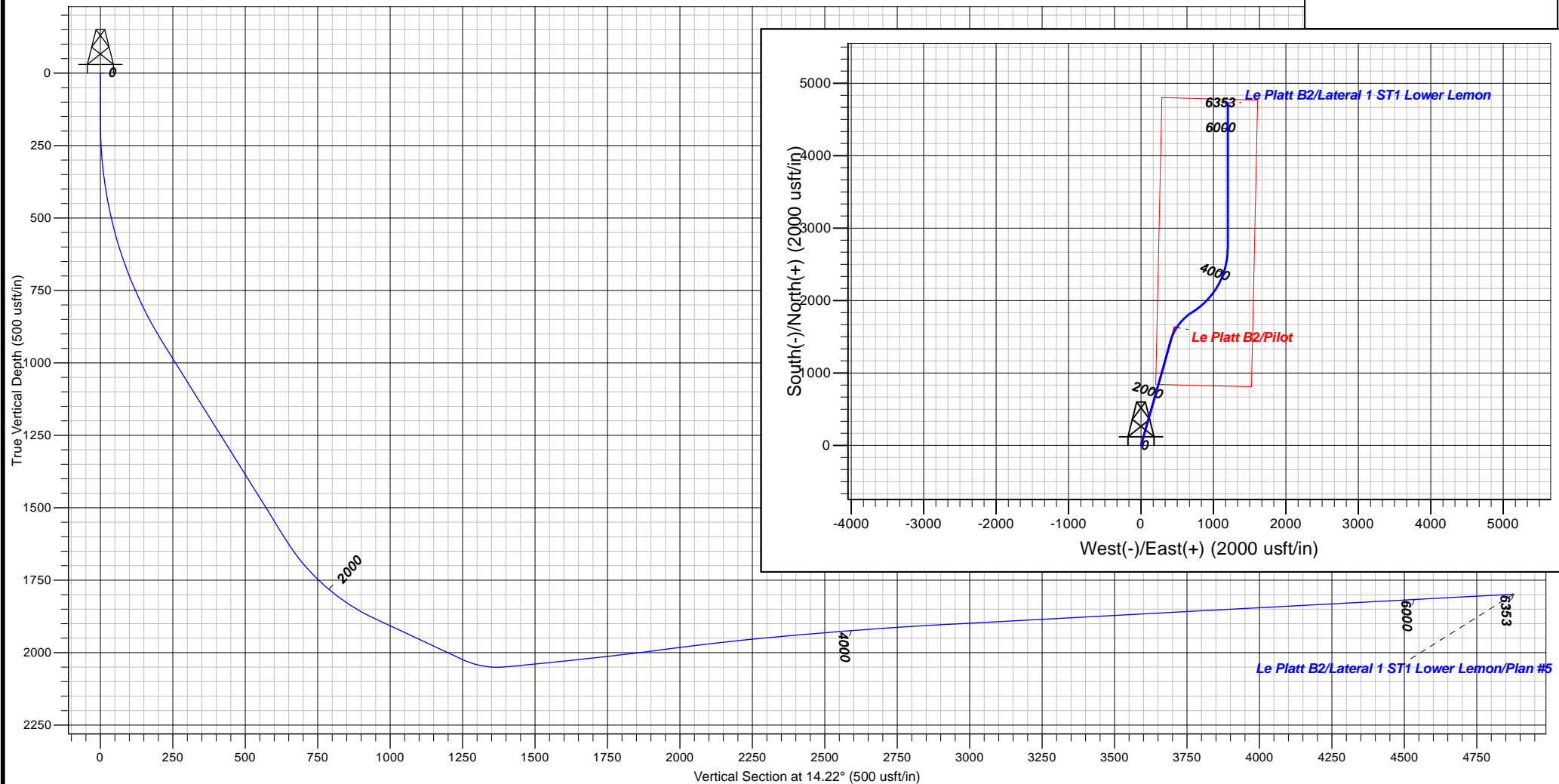
Name TVD +N/-S +E/-W Northing Easting
LPB2 Lat 1 ST1 PBHL 1798.00 4727.88 1197.71 1213504.27 2388613.79

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
2725.00	95.47	12.49	2044.20	1393.62	393.77	0.00	0.00	1447.64	
3291.05	95.52	58.00	1986.96	1841.53	710.28	8.00	87.64	1959.56	
4342.75	92.96	0.03	1901.86	2719.94	1196.49	5.50	-89.97	2930.48	
6353.37	92.96	0.03	1798.00	4727.88	1197.71	0.00	0.00	4877.23	

FORMATION TOP DETAILS

No formation data is available





B.P.

La Plata County, CO NAD83

Le Platt Pad

Le Platt B2

Lateral 1 ST1 Lower Lemon

Plan: Plan #5

Standard Planning Report

21 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 ST1 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 ST1 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:	2,725.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	14.22	

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
2,725.00	95.47	12.49	2,044.20	1,393.62	393.77	0.00	0.00	0.00	0.00	
3,291.05	95.52	58.00	1,986.96	1,841.53	710.28	8.00	0.01	8.04	87.64	
4,342.75	92.96	0.03	1,901.86	2,719.94	1,196.49	5.50	-0.24	-5.51	-89.97	
6,353.37	92.96	0.03	1,798.00	4,727.88	1,197.71	0.00	0.00	0.00	0.00	



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 ST1 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)
2,725.00	95.47	12.49	2,044.20	1,393.62	393.77	1,447.64	0.00	0.00	0.00
2,800.00	95.69	18.52	2,036.90	1,465.51	413.72	1,522.23	8.00	0.29	8.03
2,900.00	95.88	26.56	2,026.80	1,557.32	451.82	1,620.59	8.00	0.19	8.04
3,000.00	95.96	34.60	2,016.47	1,642.89	502.38	1,715.95	8.00	0.08	8.04
3,100.00	95.92	42.64	2,006.11	1,720.53	564.41	1,806.45	8.00	-0.04	8.04
3,200.00	95.76	50.68	1,995.92	1,788.74	636.71	1,890.33	8.00	-0.16	8.04
3,291.05	95.52	58.00	1,986.96	1,841.53	710.28	1,959.56	8.00	-0.26	8.03
3,300.00	95.52	57.51	1,986.10	1,846.28	717.81	1,966.02	5.50	0.00	-5.53
3,400.00	95.49	51.98	1,976.50	1,903.71	799.06	2,041.65	5.50	-0.03	-5.53
3,500.00	95.42	46.46	1,966.99	1,968.71	874.41	2,123.16	5.50	-0.08	-5.52
3,600.00	95.29	40.93	1,957.65	2,040.67	943.16	2,209.80	5.50	-0.13	-5.52
3,700.00	95.11	35.41	1,948.58	2,118.93	1,004.68	2,300.77	5.50	-0.18	-5.52
3,800.00	94.89	29.90	1,939.86	2,202.77	1,058.42	2,395.24	5.50	-0.22	-5.52
3,900.00	94.62	24.38	1,931.57	2,291.42	1,103.86	2,492.33	5.50	-0.27	-5.51
4,000.00	94.31	18.88	1,923.78	2,384.06	1,140.59	2,591.16	5.50	-0.31	-5.51
4,100.00	93.96	13.37	1,916.57	2,479.84	1,168.28	2,690.80	5.50	-0.35	-5.50
4,200.00	93.57	7.88	1,910.01	2,577.88	1,186.67	2,790.35	5.50	-0.39	-5.50
4,300.00	93.15	2.38	1,904.14	2,677.27	1,195.59	2,888.89	5.50	-0.42	-5.49
4,342.75	92.96	0.03	1,901.86	2,719.94	1,196.49	2,930.48	5.50	-0.44	-5.49
4,400.00	92.96	0.03	1,898.90	2,777.12	1,196.52	2,985.91	0.00	0.00	0.00
4,500.00	92.96	0.03	1,893.74	2,876.98	1,196.58	3,082.73	0.00	0.00	0.00
4,600.00	92.96	0.03	1,888.57	2,976.85	1,196.64	3,179.56	0.00	0.00	0.00
4,700.00	92.96	0.03	1,883.41	3,076.72	1,196.71	3,276.38	0.00	0.00	0.00
4,800.00	92.96	0.03	1,878.24	3,176.58	1,196.77	3,373.20	0.00	0.00	0.00
4,900.00	92.96	0.03	1,873.08	3,276.45	1,196.83	3,470.03	0.00	0.00	0.00
5,000.00	92.96	0.03	1,867.91	3,376.32	1,196.89	3,566.85	0.00	0.00	0.00
5,100.00	92.96	0.03	1,862.74	3,476.18	1,196.95	3,663.67	0.00	0.00	0.00
5,200.00	92.96	0.03	1,857.58	3,576.05	1,197.01	3,760.50	0.00	0.00	0.00
5,300.00	92.96	0.03	1,852.41	3,675.92	1,197.07	3,857.32	0.00	0.00	0.00
5,400.00	92.96	0.03	1,847.25	3,775.78	1,197.13	3,954.14	0.00	0.00	0.00
5,500.00	92.96	0.03	1,842.08	3,875.65	1,197.19	4,050.97	0.00	0.00	0.00
5,600.00	92.96	0.03	1,836.92	3,975.52	1,197.25	4,147.79	0.00	0.00	0.00
5,700.00	92.96	0.03	1,831.75	4,075.38	1,197.31	4,244.61	0.00	0.00	0.00
5,800.00	92.96	0.03	1,826.59	4,175.25	1,197.37	4,341.44	0.00	0.00	0.00
5,900.00	92.96	0.03	1,821.42	4,275.11	1,197.43	4,438.26	0.00	0.00	0.00
6,000.00	92.96	0.03	1,816.25	4,374.98	1,197.50	4,535.08	0.00	0.00	0.00
6,100.00	92.96	0.03	1,811.09	4,474.85	1,197.56	4,631.91	0.00	0.00	0.00
6,200.00	92.96	0.03	1,805.92	4,574.71	1,197.62	4,728.73	0.00	0.00	0.00
6,300.00	92.96	0.03	1,800.76	4,674.58	1,197.68	4,825.55	0.00	0.00	0.00
6,348.06	92.96	0.03	1,798.27	4,722.58	1,197.71	4,872.09	0.00	0.00	0.00
LPB2 Lat 2 ST1 PBHL									
6,353.37	92.96	0.03	1,798.00	4,727.88	1,197.71	4,877.23	0.00	0.00	0.00
LPB2 Lat 1 ST1 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 ST1 Lower Lemon		
Design:	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 1 ST1 PBHL	0.00	360.00	1,798.00	4,727.88	1,197.71	1,213,504.27	2,388,613.79	37.2341459	-107.6001898
- plan hits target center									
- Point									