



Company: B.P.  
Project: La Plata County, CO NAD83  
Site: East Sauls Creek Pad  
Well: East Sauls Creek 26 1- 1  
Wellbore: Lateral 2 (Lemon)  
Design: Plan #3

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



Plan: Plan #3 (East Sauls Creek 26 1- 1/Lateral 2 (Lemon))

Created By: Janie Collins Date: 15:46, December 05 2016

WELL DETAILS: East Sauls Creek 26 1- 1

GL 7340' & RKB 11' @ 7351.00usft (Aztec 507) 7340.00			
Northing	Easting	Latitude	Longitude
1227800.12	2414731.21	37.2749771	-107.5115588
		Slot	

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
2627.00	65.00	87.49	2414.75	21.47	489.72	0.00	0.00	490.12	
3015.35	87.27	65.00	2508.36	113.41	850.19	8.00	-47.77	855.50	
3065.35	87.27	65.00	2510.74	134.51	895.45	0.00	0.00	901.97	
3431.59	87.27	87.00	2528.41	222.47	1248.23	6.00	90.53	1259.43	
7331.59	87.27	87.00	2714.16	426.35	5138.47	0.00	0.00	5154.87	
7689.51	87.27	108.50	2731.41	378.42	5490.63	6.00	90.52	5503.48	
7948.39	87.24	85.98	2743.97	346.05	5745.50	8.69	-90.63	5755.91	
8281.02	87.24	85.98	2760.00	369.35	6076.92	0.00	0.00	6088.13	



Azimuths to Grid North  
True North: 1.23°  
Magnetic North: 10.63°  
  
Magnetic Field  
Strength: 50334.7nT  
Dip Angle: 63.80°  
Date: 9/30/2016  
Model: HDGM

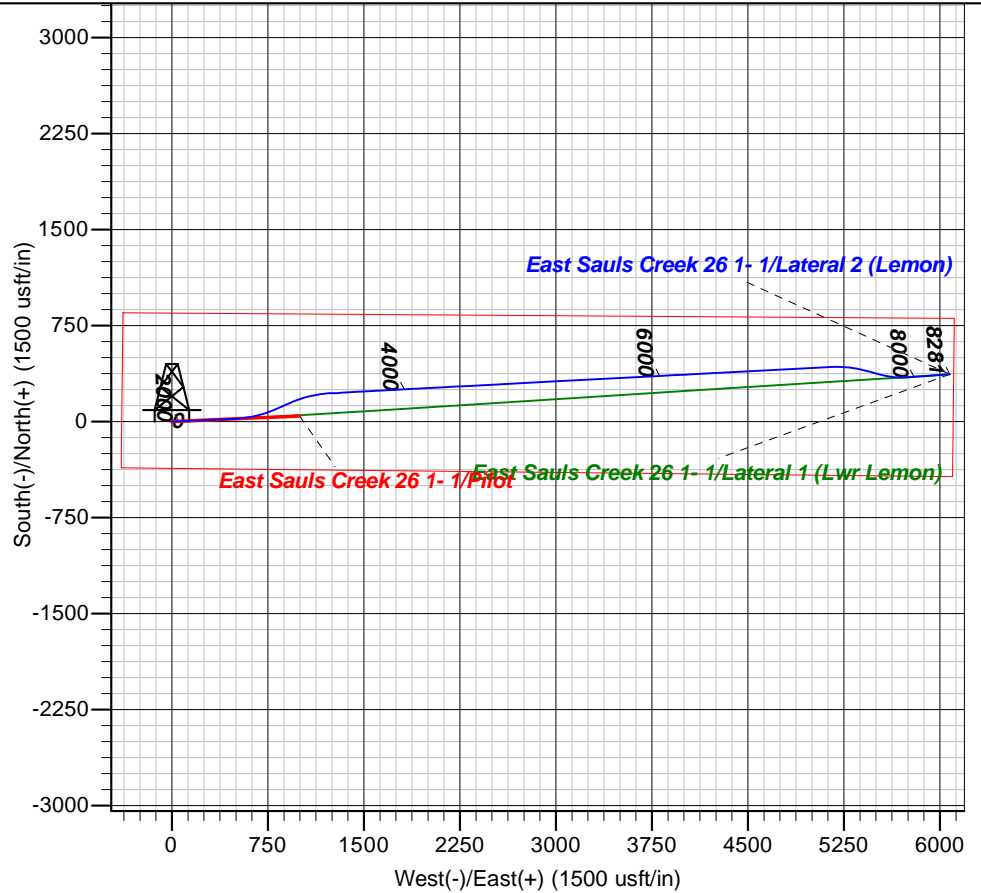
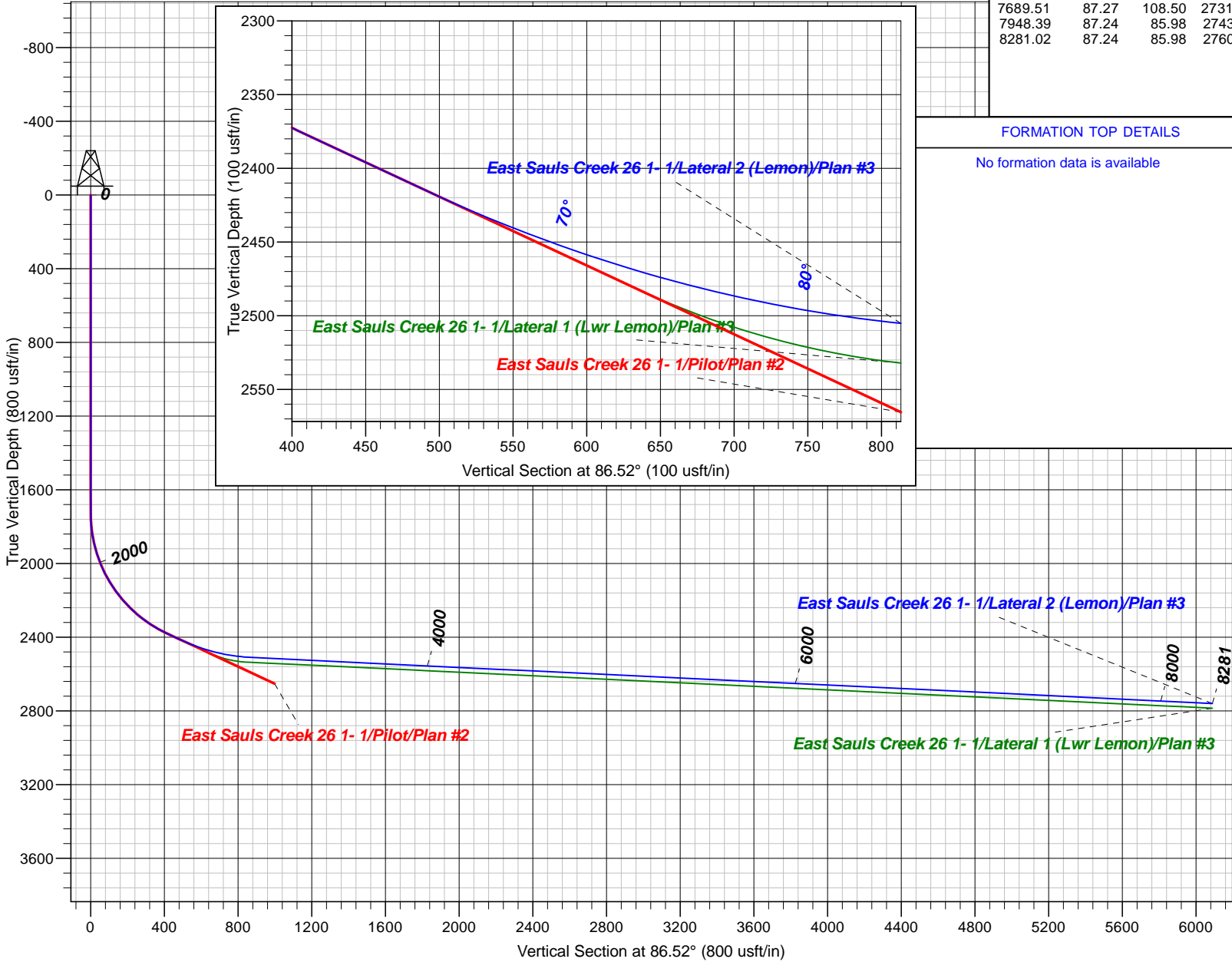
ESC Lat 2 Lemon PBHL

FORMATION TOP DETAILS

No formation data is available

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
ESC Lat 2 Lemon PBHL	2760.00	369.35	6076.92	1228169.47	2420808.13	37.2763487	-107.4907059





**B.P.**

**La Plata County, CO NAD83  
East Sauls Creek Pad  
East Sauls Creek 26 1- 1**

**Lateral 2 (Lemon)**

**Plan: Plan #3**

## **Standard Planning Report**

**05 December, 2016**





<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well East Sauls Creek 26 1- 1
<b>Company:</b>	B.P.	<b>TVD Reference:</b>	GL 7340' & RKB 11' @ 7351.00usft (Aztec 507)
<b>Project:</b>	La Plata County, CO NAD83	<b>MD Reference:</b>	GL 7340' & RKB 11' @ 7351.00usft (Aztec 507)
<b>Site:</b>	East Sauls Creek Pad	<b>North Reference:</b>	Grid
<b>Well:</b>	East Sauls Creek 26 1- 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Lateral 2 (Lemon)		
<b>Design:</b>	Plan #3		

<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		East Sauls Creek Pad			
Site Position:		Northing:	1,227,806.45 usft	Latitude:	37.2749933
From:	Map	Easting:	2,414,712.24 usft	Longitude:	-107.5116245
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	-1.23 °

Well	East Sauls Creek 26 1- 1					
Well Position	+N/-S	-6.33 usft	Northing:	1,227,800.12 usft	Latitude:	37.2749770
	+E/-W	18.97 usft	Easting:	2,414,731.21 usft	Longitude:	-107.5115588
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	7,340.00 usft

<b>Wellbore</b>	Lateral 2 (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	9/30/2016	9.40	63.80	50,335

<b>Design</b>	Plan #3			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	2,627.00
<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	86.52

<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
2,627.00	65.00	87.49	2,414.75	21.47	489.72	0.00	0.00	0.00	0.00	
3,015.35	87.27	65.00	2,508.36	113.41	850.19	8.00	5.73	-5.79	-47.77	
3,065.35	87.27	65.00	2,510.74	134.51	895.45	0.00	0.00	0.00	0.00	
3,431.59	87.27	87.00	2,528.41	222.47	1,248.23	6.00	0.00	6.01	90.53	
7,331.59	87.27	87.00	2,714.16	426.35	5,138.47	0.00	0.00	0.00	0.00	
7,689.51	87.27	108.50	2,731.41	378.42	5,490.63	6.00	0.00	6.01	90.52	
7,948.39	87.24	85.98	2,743.97	346.05	5,745.50	8.69	-0.01	-8.70	-90.63	
8,281.02	87.24	85.98	2,760.00	369.35	6,076.92	0.00	0.00	0.00	0.00	ESC Lat 2 Lemon PB



<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well East Sauls Creek 26 1- 1
<b>Company:</b>	B.P.	<b>TVD Reference:</b>	GL 7340' & RKB 11' @ 7351.00usft (Aztec 507)
<b>Project:</b>	La Plata County, CO NAD83	<b>MD Reference:</b>	GL 7340' & RKB 11' @ 7351.00usft (Aztec 507)
<b>Site:</b>	East Sauls Creek Pad	<b>North Reference:</b>	Grid
<b>Well:</b>	East Sauls Creek 26 1- 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Lateral 2 (Lemon)		
<b>Design:</b>	Plan #3		

**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)
2,627.00	65.00	87.49	2,414.75	21.47	489.72	490.12	0.00	0.00	0.00
2,700.00	69.00	82.86	2,443.28	27.16	556.64	557.26	8.00	5.47	-6.34
2,800.00	74.66	76.91	2,474.49	43.91	650.07	651.54	8.00	5.66	-5.95
<b>ESC 26-1 Lat 1 LL LP</b>									
2,900.00	80.46	71.27	2,496.04	70.71	743.89	746.81	8.00	5.81	-5.64
3,000.00	86.36	65.83	2,507.51	107.03	836.26	841.21	8.00	5.90	-5.45
3,015.35	87.27	65.00	2,508.36	113.41	850.19	855.50	8.00	5.92	-5.39
3,065.35	87.27	65.00	2,510.74	134.51	895.45	901.97	0.00	0.00	0.00
3,100.00	87.25	67.08	2,512.40	148.57	927.08	934.39	6.00	-0.05	6.01
3,200.00	87.22	73.09	2,517.22	182.58	1,020.95	1,030.15	6.00	-0.03	6.01
3,300.00	87.22	79.10	2,522.07	206.57	1,117.86	1,128.33	6.00	0.00	6.01
3,400.00	87.25	85.10	2,526.90	220.30	1,216.75	1,227.88	6.00	0.03	6.01
3,431.59	87.27	87.00	2,528.41	222.47	1,248.23	1,259.43	6.00	0.05	6.01
3,500.00	87.27	87.00	2,531.66	226.05	1,316.47	1,327.76	0.00	0.00	0.00
3,600.00	87.27	87.00	2,536.43	231.27	1,416.22	1,427.64	0.00	0.00	0.00
3,700.00	87.27	87.00	2,541.19	236.50	1,515.97	1,527.52	0.00	0.00	0.00
3,800.00	87.27	87.00	2,545.95	241.73	1,615.72	1,627.41	0.00	0.00	0.00
3,900.00	87.27	87.00	2,550.72	246.96	1,715.47	1,727.29	0.00	0.00	0.00
4,000.00	87.27	87.00	2,555.48	252.18	1,815.22	1,827.17	0.00	0.00	0.00
4,100.00	87.27	87.00	2,560.24	257.41	1,914.97	1,927.05	0.00	0.00	0.00
4,200.00	87.27	87.00	2,565.00	262.64	2,014.72	2,026.94	0.00	0.00	0.00
4,300.00	87.27	87.00	2,569.77	267.87	2,114.47	2,126.82	0.00	0.00	0.00
4,400.00	87.27	87.00	2,574.53	273.10	2,214.21	2,226.70	0.00	0.00	0.00
4,500.00	87.27	87.00	2,579.29	278.32	2,313.96	2,326.59	0.00	0.00	0.00
4,600.00	87.27	87.00	2,584.06	283.55	2,413.71	2,426.47	0.00	0.00	0.00
4,700.00	87.27	87.00	2,588.82	288.78	2,513.46	2,526.35	0.00	0.00	0.00
4,800.00	87.27	87.00	2,593.58	294.01	2,613.21	2,626.24	0.00	0.00	0.00
4,900.00	87.27	87.00	2,598.35	299.23	2,712.96	2,726.12	0.00	0.00	0.00
5,000.00	87.27	87.00	2,603.11	304.46	2,812.71	2,826.00	0.00	0.00	0.00
5,100.00	87.27	87.00	2,607.87	309.69	2,912.46	2,925.89	0.00	0.00	0.00
5,200.00	87.27	87.00	2,612.63	314.92	3,012.21	3,025.77	0.00	0.00	0.00
5,300.00	87.27	87.00	2,617.40	320.14	3,111.96	3,125.65	0.00	0.00	0.00
5,400.00	87.27	87.00	2,622.16	325.37	3,211.71	3,225.53	0.00	0.00	0.00
5,500.00	87.27	87.00	2,626.92	330.60	3,311.46	3,325.42	0.00	0.00	0.00
5,600.00	87.27	87.00	2,631.69	335.83	3,411.21	3,425.30	0.00	0.00	0.00
5,700.00	87.27	87.00	2,636.45	341.05	3,510.96	3,525.18	0.00	0.00	0.00
5,800.00	87.27	87.00	2,641.21	346.28	3,610.71	3,625.07	0.00	0.00	0.00
5,900.00	87.27	87.00	2,645.97	351.51	3,710.46	3,724.95	0.00	0.00	0.00
6,000.00	87.27	87.00	2,650.74	356.74	3,810.21	3,824.83	0.00	0.00	0.00
6,100.00	87.27	87.00	2,655.50	361.97	3,909.96	3,924.72	0.00	0.00	0.00
6,200.00	87.27	87.00	2,660.26	367.19	4,009.71	4,024.60	0.00	0.00	0.00
6,300.00	87.27	87.00	2,665.03	372.42	4,109.46	4,124.48	0.00	0.00	0.00
6,400.00	87.27	87.00	2,669.79	377.65	4,209.21	4,224.36	0.00	0.00	0.00
6,500.00	87.27	87.00	2,674.55	382.88	4,308.96	4,324.25	0.00	0.00	0.00
6,600.00	87.27	87.00	2,679.32	388.10	4,408.71	4,424.13	0.00	0.00	0.00
6,700.00	87.27	87.00	2,684.08	393.33	4,508.46	4,524.01	0.00	0.00	0.00
6,800.00	87.27	87.00	2,688.84	398.56	4,608.21	4,623.90	0.00	0.00	0.00
6,900.00	87.27	87.00	2,693.60	403.79	4,707.96	4,723.78	0.00	0.00	0.00
7,000.00	87.27	87.00	2,698.37	409.01	4,807.70	4,823.66	0.00	0.00	0.00
7,100.00	87.27	87.00	2,703.13	414.24	4,907.45	4,923.55	0.00	0.00	0.00
7,200.00	87.27	87.00	2,707.89	419.47	5,007.20	5,023.43	0.00	0.00	0.00
7,300.00	87.27	87.00	2,712.66	424.70	5,106.95	5,123.31	0.00	0.00	0.00



<b>Database:</b>	Grand Junction District	<b>Local Co-ordinate Reference:</b>	Well East Sauls Creek 26 1- 1
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<b>Project:</b>	La Plata County, CO NAD83	<b>MD Reference:</b>	GL 7340' & RKB 11' @ 7351.00usft (Aztec 507)
<b>Site:</b>	East Sauls Creek Pad	<b>North Reference:</b>	Grid
<b>Well:</b>	East Sauls Creek 26 1- 1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Lateral 2 (Lemon)		
<b>Design:</b>	Plan #3		

## 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)
7,331.59	87.27	87.00	2,714.16	426.35	5,138.47	5,154.87	0.00	0.00	0.00
7,400.00	87.24	91.11	2,717.44	427.48	5,206.77	5,223.12	6.00	-0.04	6.01
7,500.00	87.22	97.12	2,722.27	420.32	5,306.35	5,322.08	6.00	-0.02	6.01
7,600.00	87.23	103.12	2,727.12	402.77	5,404.64	5,419.12	6.00	0.01	6.01
7,689.51	87.27	108.50	2,731.41	378.42	5,490.63	5,503.48	6.00	0.04	6.01
7,700.00	87.26	107.59	2,731.91	375.18	5,500.59	5,513.22	8.69	-0.09	-8.70
7,800.00	87.20	98.89	2,736.75	352.33	5,597.73	5,608.79	8.69	-0.06	-8.70
7,900.00	87.21	90.19	2,741.63	344.43	5,697.20	5,707.60	8.69	0.01	-8.70
7,948.39	87.24	85.98	2,743.97	346.05	5,745.50	5,755.91	8.69	0.06	-8.70
8,000.00	87.24	85.98	2,746.46	349.66	5,796.92	5,807.45	0.00	0.00	0.00
8,100.00	87.24	85.98	2,751.28	356.67	5,896.55	5,907.33	0.00	0.00	0.00
8,175.44	87.24	85.98	2,754.91	361.95	5,971.72	5,982.68	0.00	0.00	0.00
<b>ESC 26-1 2 PBHL</b>									
8,200.00	87.24	85.98	2,756.10	363.67	5,996.19	6,007.21	0.00	0.00	0.00
8,277.26	87.24	85.98	2,759.82	369.09	6,073.18	6,084.38	0.00	0.00	0.00
<b>ESC 26-1 1 Bayfield Lat 3 PBHL - ESC Lat 3 Lemon PBHL 2</b>									
8,281.02	87.24	85.98	2,760.00	369.35	6,076.92	6,088.13	0.00	0.00	0.00
<b>ESC 26-1 Lat 1 LL PBHL - ESC Lat 2 Lemon PBHL</b>									

## Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
ESC Lat 2 Lemon PBHL - plan hits target center - Point	0.00	360.00	2,760.00	369.35	6,076.92	1,228,169.47	2,420,808.13	37.2763487	-107.4907060