



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



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

Created By: Janie Collins Date: 14:04, November 29 2016

WELL DETAILS: East Sauls Creek 26 2-1

+N/-S +E/-W GL 7466' & RKB 11' @ 7477.00usft (Aztec 507) 7466.00
0.00 0.00 Northing Easting Latitude Longitude Slot
1225165.69 2414617.17 37.2677368 -107.5117557

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
2735.00	65.00	88.34	2495.09	15.46	533.38	0.00	0.00	533.60	
2982.50	84.80	88.34	2559.25	22.35	771.05	8.00	0.00	771.37	
3314.32	84.80	105.00	2589.53	-15.90	1098.09	5.00	90.76	1097.17	
3514.32	84.80	105.00	2607.66	-67.45	1290.48	0.00	0.00	1287.99	
3846.14	84.80	88.34	2637.94	-105.70	1617.52	5.00	-90.76	1613.79	
7096.14	84.80	88.34	2932.50	-11.94	4852.79	0.00	0.00	4850.42	
7424.01	84.80	62.00	2962.75	70.89	5165.61	8.00	-91.21	5165.51	
7761.98	84.80	90.00	2994.00	151.50	5488.90	8.25	91.29	5490.98	
7792.06	84.22	87.65	2996.87	152.11	5518.84	8.00	-104.01	5520.93	
8409.15	84.22	87.65	3059.00	177.25	6132.28	0.00	0.00	6134.84	ESC 26 1-2 Lat 3 PBHL

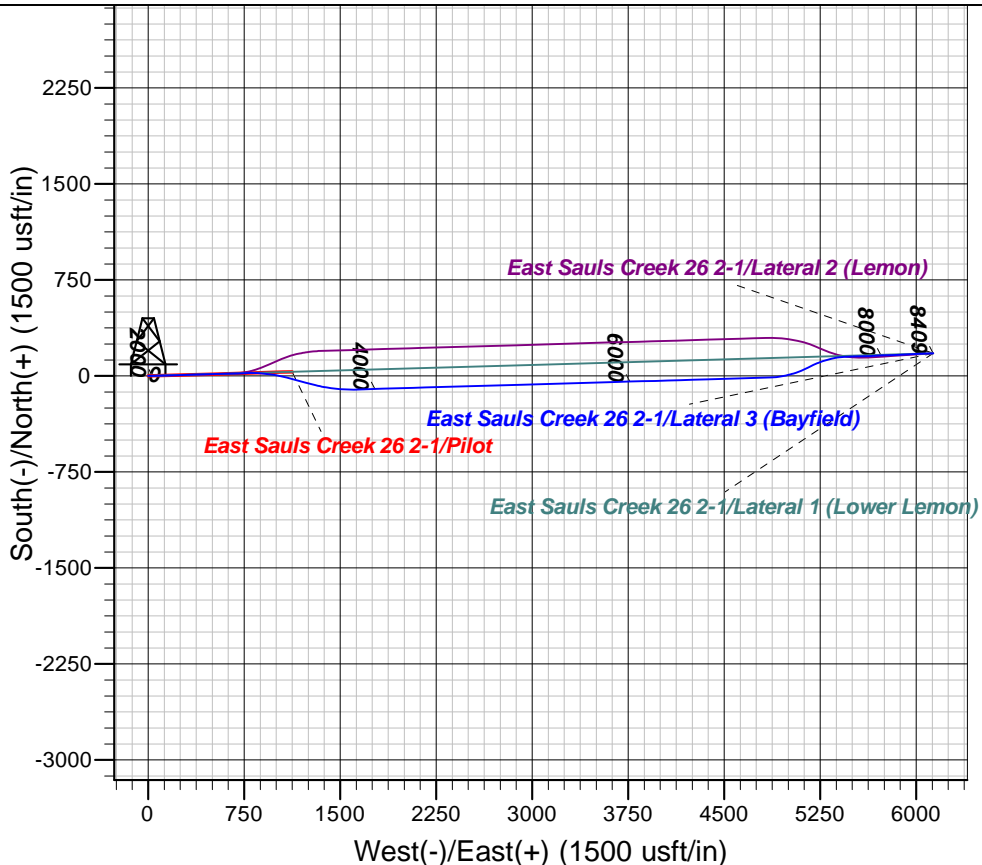
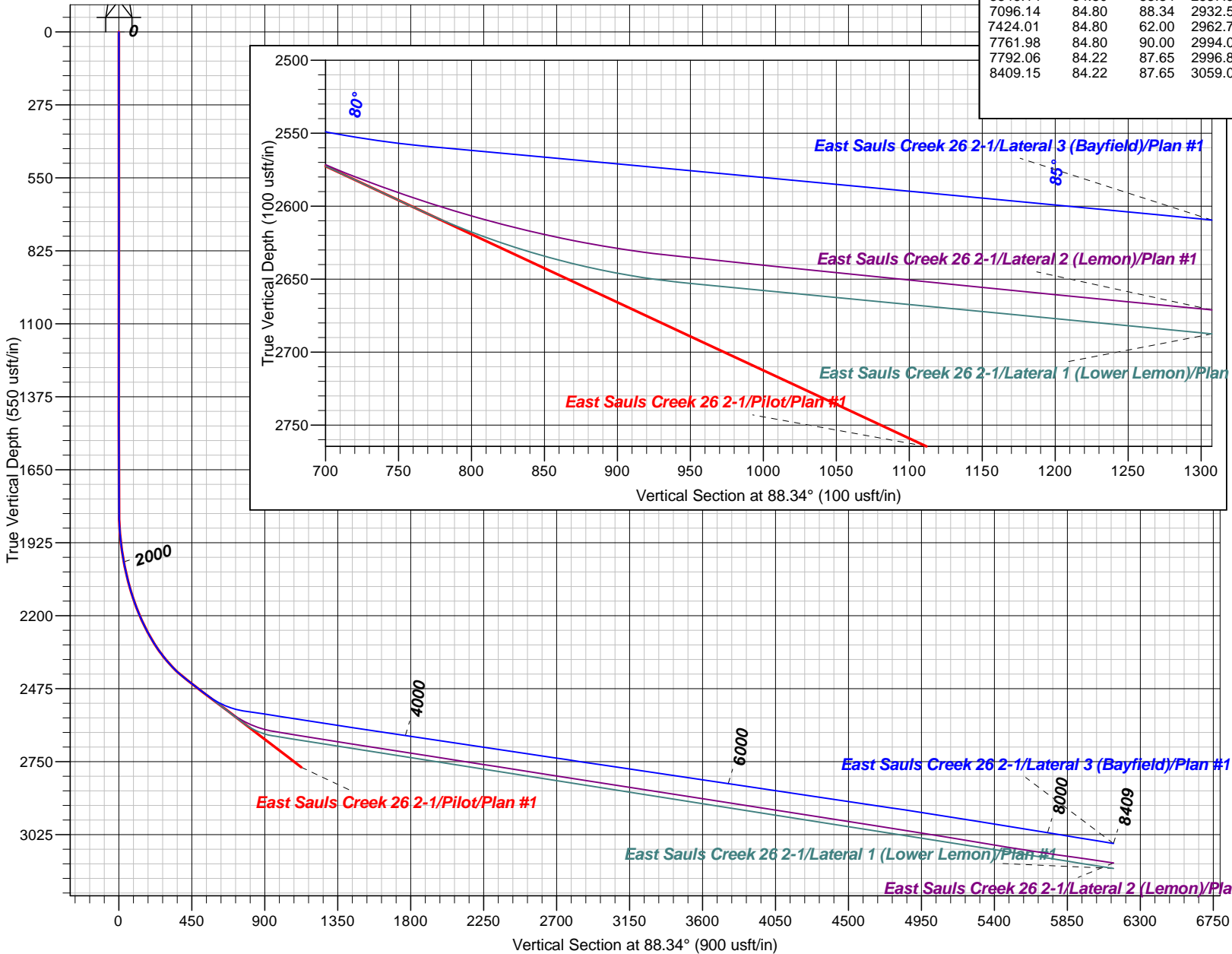


Azimuths to Grid North
True North: 1.23°
Magnetic North: 10.62°

Magnetic Field
Strength: 50315.0snT
Dip Angle: 63.78°
Date: 11/16/2016
Model: HDGM

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
ESC 26 1-2 Lat 3 PBHL	3059.00	177.25	6132.28	1225342.94	2420749.45	37.2685843	-107.4907005





B.P.

**La Plata County, CO NAD83
East Sauls Creek Pad
East Sauls Creek 26 2-1**

Lateral 3 (Bayfield)

Plan: Plan #1

Standard Planning Report

28 November, 2016





Database:	Grand Junction District	Local Co-ordinate Reference:	Well East Sauls Creek 26 2-1
Company:	B.P.	TVD Reference:	GL 7466' & RKB 11' @ 7477.00usft (Aztec 507)
Project:	La Plata County, CO NAD83	MD Reference:	GL 7466' & RKB 11' @ 7477.00usft (Aztec 507)
Site:	East Sauls Creek Pad	North Reference:	Grid
Well:	East Sauls Creek 26 2-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral 3 (Bayfield)		
Design:	Plan #1		

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		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 2-1					
Well Position	+N/-S	-2,640.76 usft	Northing:	1,225,165.69 usft	Latitude:	37.2677368
	+E/-W	-95.07 usft	Easting:	2,414,617.17 usft	Longitude:	-107.5117557
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	7,466.00 usft

Wellbore	Lateral 3 (Bayfield)				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	11/16/2016	9.38	63.78	50,315

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	2,735.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	88.34

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
2,735.00	65.00	88.34	2,495.09	15.46	533.38	0.00	0.00	0.00	0.00	
2,982.50	84.80	88.34	2,559.25	22.35	771.05	8.00	8.00	0.00	0.00	
3,314.32	84.80	105.00	2,589.53	-15.90	1,098.09	5.00	0.00	5.02	90.76	
3,514.32	84.80	105.00	2,607.66	-67.45	1,290.48	0.00	0.00	0.00	0.00	
3,846.14	84.80	88.34	2,637.94	-105.70	1,617.52	5.00	0.00	-5.02	-90.76	
7,096.14	84.80	88.34	2,932.50	-11.94	4,852.79	0.00	0.00	0.00	0.00	
7,424.01	84.80	62.00	2,962.75	70.89	5,165.61	8.00	0.00	-8.03	-91.21	
7,761.98	84.80	90.00	2,994.00	151.50	5,488.90	8.25	0.00	8.28	91.29	
7,792.06	84.22	87.65	2,996.87	152.11	5,518.84	8.00	-1.92	-7.80	-104.01	
8,409.16	84.22	87.65	3,059.00	177.25	6,132.28	0.00	0.00	0.00	0.00	ESC 26 1-2 Lat 3 PBT



Database:	Grand Junction District	Local Co-ordinate Reference:	Well East Sauls Creek 26 2-1
Company:	B.P.	TVD Reference:	GL 7466' & RKB 11' @ 7477.00usft (Aztec 507)
Project:	La Plata County, CO NAD83	MD Reference:	GL 7466' & RKB 11' @ 7477.00usft (Aztec 507)
Site:	East Sauls Creek Pad	North Reference:	Grid
Well:	East Sauls Creek 26 2-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral 3 (Bayfield)		
Design:	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)
2,735.00	65.00	88.34	2,495.09	15.46	533.38	533.60	0.00	0.00	0.00
2,800.00	70.20	88.34	2,519.85	17.20	593.43	593.68	8.00	8.00	0.00
2,900.00	78.20	88.34	2,547.06	19.98	689.53	689.82	8.00	8.00	0.00
2,982.50	84.80	88.34	2,559.25	22.35	771.05	771.37	8.00	8.00	0.00
3,000.00	84.79	89.22	2,560.83	22.72	788.47	788.80	5.00	-0.06	5.02
3,100.00	84.75	94.24	2,569.96	19.71	887.98	888.18	5.00	-0.04	5.02
3,200.00	84.75	99.26	2,579.11	8.01	986.84	986.66	5.00	0.00	5.02
3,300.00	84.79	104.28	2,588.23	-12.30	1,084.29	1,083.49	5.00	0.04	5.02
3,314.32	84.80	105.00	2,589.53	-15.90	1,098.09	1,097.17	5.00	0.06	5.02
3,400.00	84.80	105.00	2,597.30	-37.98	1,180.51	1,178.92	0.00	0.00	0.00
3,500.00	84.80	105.00	2,606.36	-63.76	1,276.71	1,274.33	0.00	0.00	0.00
3,514.32	84.80	105.00	2,607.66	-67.45	1,290.48	1,287.99	0.00	0.00	0.00
3,600.00	84.76	100.70	2,615.46	-86.42	1,373.65	1,370.58	5.00	-0.05	-5.02
3,700.00	84.75	95.68	2,624.61	-100.60	1,472.18	1,468.66	5.00	-0.01	-5.02
3,800.00	84.77	90.66	2,633.75	-106.10	1,571.58	1,567.86	5.00	0.03	-5.02
3,846.14	84.80	88.34	2,637.94	-105.70	1,617.52	1,613.79	5.00	0.06	-5.02
3,900.00	84.80	88.34	2,642.83	-104.14	1,671.14	1,667.43	0.00	0.00	0.00
4,000.00	84.80	88.34	2,651.89	-101.26	1,770.69	1,767.02	0.00	0.00	0.00
4,100.00	84.80	88.34	2,660.95	-98.37	1,870.23	1,866.61	0.00	0.00	0.00
4,200.00	84.80	88.34	2,670.02	-95.49	1,969.78	1,966.20	0.00	0.00	0.00
4,300.00	84.80	88.34	2,679.08	-92.60	2,069.33	2,065.79	0.00	0.00	0.00
4,400.00	84.80	88.34	2,688.14	-89.72	2,168.87	2,165.38	0.00	0.00	0.00
4,500.00	84.80	88.34	2,697.21	-86.83	2,268.42	2,264.97	0.00	0.00	0.00
4,600.00	84.80	88.34	2,706.27	-83.95	2,367.97	2,364.55	0.00	0.00	0.00
4,700.00	84.80	88.34	2,715.33	-81.06	2,467.51	2,464.14	0.00	0.00	0.00
4,800.00	84.80	88.34	2,724.40	-78.18	2,567.06	2,563.73	0.00	0.00	0.00
4,900.00	84.80	88.34	2,733.46	-75.29	2,666.61	2,663.32	0.00	0.00	0.00
5,000.00	84.80	88.34	2,742.52	-72.41	2,766.15	2,762.91	0.00	0.00	0.00
5,100.00	84.80	88.34	2,751.58	-69.52	2,865.70	2,862.50	0.00	0.00	0.00
5,200.00	84.80	88.34	2,760.65	-66.64	2,965.25	2,962.08	0.00	0.00	0.00
5,300.00	84.80	88.34	2,769.71	-63.75	3,064.79	3,061.67	0.00	0.00	0.00
5,400.00	84.80	88.34	2,778.77	-60.87	3,164.34	3,161.26	0.00	0.00	0.00
5,500.00	84.80	88.34	2,787.84	-57.98	3,263.89	3,260.85	0.00	0.00	0.00
5,600.00	84.80	88.34	2,796.90	-55.10	3,363.43	3,360.44	0.00	0.00	0.00
5,700.00	84.80	88.34	2,805.96	-52.21	3,462.98	3,460.03	0.00	0.00	0.00
5,800.00	84.80	88.34	2,815.03	-49.33	3,562.53	3,559.62	0.00	0.00	0.00
5,900.00	84.80	88.34	2,824.09	-46.44	3,662.07	3,659.20	0.00	0.00	0.00
6,000.00	84.80	88.34	2,833.15	-43.56	3,761.62	3,758.79	0.00	0.00	0.00
6,100.00	84.80	88.34	2,842.22	-40.67	3,861.17	3,858.38	0.00	0.00	0.00
6,200.00	84.80	88.34	2,851.28	-37.79	3,960.71	3,957.97	0.00	0.00	0.00
6,300.00	84.80	88.34	2,860.34	-34.90	4,060.26	4,057.56	0.00	0.00	0.00
6,400.00	84.80	88.34	2,869.41	-32.02	4,159.81	4,157.15	0.00	0.00	0.00
6,500.00	84.80	88.34	2,878.47	-29.13	4,259.35	4,256.73	0.00	0.00	0.00
6,600.00	84.80	88.34	2,887.53	-26.25	4,358.90	4,356.32	0.00	0.00	0.00
6,700.00	84.80	88.34	2,896.60	-23.36	4,458.45	4,455.91	0.00	0.00	0.00
6,800.00	84.80	88.34	2,905.66	-20.48	4,557.99	4,555.50	0.00	0.00	0.00
6,900.00	84.80	88.34	2,914.72	-17.59	4,657.54	4,655.09	0.00	0.00	0.00
7,000.00	84.80	88.34	2,923.79	-14.71	4,757.09	4,754.68	0.00	0.00	0.00
7,096.14	84.80	88.34	2,932.50	-11.94	4,852.79	4,850.42	0.00	0.00	0.00
7,100.00	84.79	88.03	2,932.85	-11.81	4,856.63	4,854.26	8.00	-0.17	-8.03
7,200.00	84.68	80.00	2,942.04	-1.44	4,955.59	4,953.48	8.00	-0.11	-8.03
7,300.00	84.67	71.96	2,951.34	22.67	5,052.11	5,050.65	8.00	-0.01	-8.03



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Project:	La Plata County, CO NAD83	MD Reference:	GL 7466' & RKB 11' @ 7477.00usft (Aztec 507)
Site:	East Sauls Creek Pad	North Reference:	Grid
Well:	East Sauls Creek 26 2-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral 3 (Bayfield)		
Design:	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)
7,400.00	84.76	63.93	2,960.56	60.02	5,144.32	5,143.91	8.00	0.09	-8.03
7,424.01	84.80	62.00	2,962.75	70.89	5,165.61	5,165.51	8.00	0.16	-8.03
7,500.00	84.69	68.29	2,969.71	102.68	5,234.24	5,235.03	8.25	-0.14	8.28
7,600.00	84.64	76.58	2,979.03	132.70	5,329.09	5,330.69	8.25	-0.05	8.29
7,700.00	84.71	84.87	2,988.32	148.73	5,427.26	5,429.30	8.25	0.06	8.29
7,761.98	84.80	90.00	2,994.00	151.50	5,488.90	5,490.99	8.25	0.15	8.28
7,792.06	84.22	87.65	2,996.87	152.11	5,518.84	5,520.93	8.00	-1.92	-7.80
7,800.00	84.22	87.65	2,997.67	152.43	5,526.73	5,528.83	0.00	0.00	0.00
7,900.00	84.22	87.65	3,007.74	156.51	5,626.14	5,628.31	0.00	0.00	0.00
8,000.00	84.22	87.65	3,017.81	160.58	5,725.55	5,727.79	0.00	0.00	0.00
8,100.00	84.22	87.65	3,027.88	164.65	5,824.95	5,827.28	0.00	0.00	0.00
8,200.00	84.22	87.65	3,037.94	168.73	5,924.36	5,926.76	0.00	0.00	0.00
8,300.00	84.22	87.65	3,048.01	172.80	6,023.77	6,026.25	0.00	0.00	0.00
8,400.00	84.22	87.65	3,058.08	176.88	6,123.18	6,125.73	0.00	0.00	0.00
8,409.16	84.22	87.65	3,059.00	177.25	6,132.28	6,134.84	0.00	0.00	0.00

ESC 26 1-2 Lat 3 PBHL

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
ESC 26 1-2 Lat 3 PBHL	0.00	0.00	3,059.00	177.25	6,132.28	1,225,342.94	2,420,749.45	37.2685842	-107.4907006
- plan hits target center									
- Point									