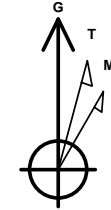




Company: B.P.
Project: La Plata County, CO NAD83
Site: Tiffany Pad 2
Well: Tiffany 2-2
Wellbore: Lateral 2
Design: Plan #1

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



Azimuths to Grid North
True North: 1.24°
Magnetic North: 10.53°

Magnetic Field
Strength: 50250.9snT
Dip Angle: 63.65°
Date: 4/6/2016
Model: HDGM

WELL DETAILS: Tiffany 2-2

GL 6669.66' & RKB 11' @ 6680.66usft (Aztec 507)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	1163284.22	2408617.09	37.0974694	-107.5277536	Tiffany 2-2

Plan: Plan #1 (Tiffany 2-2/Lateral 2)

Created By: Janie Collins Date: 12:05, April 07 2016

DESIGN TARGET DETAILS

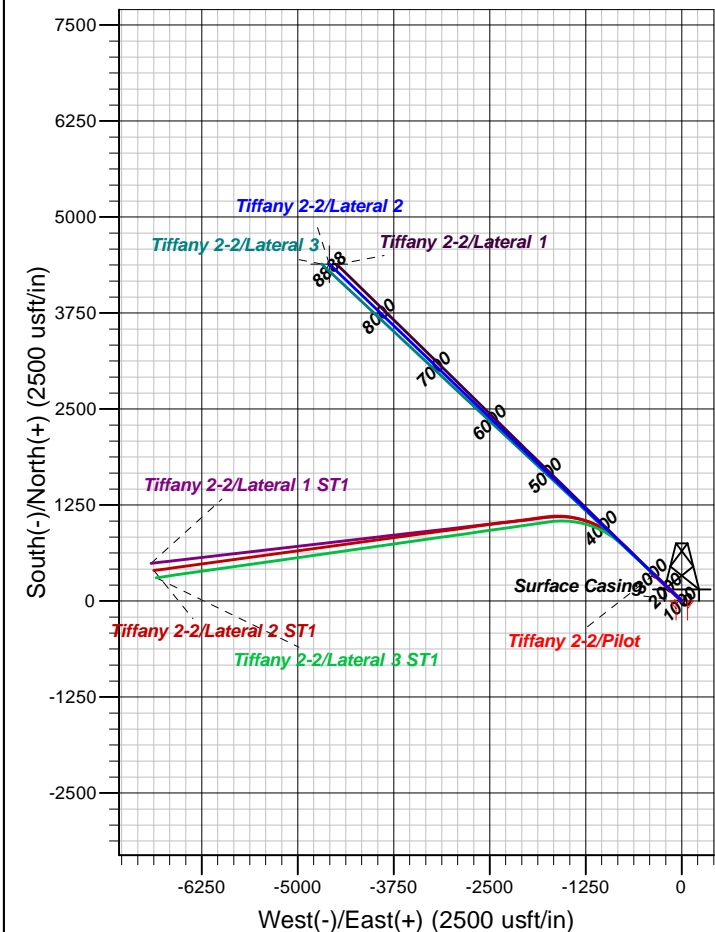
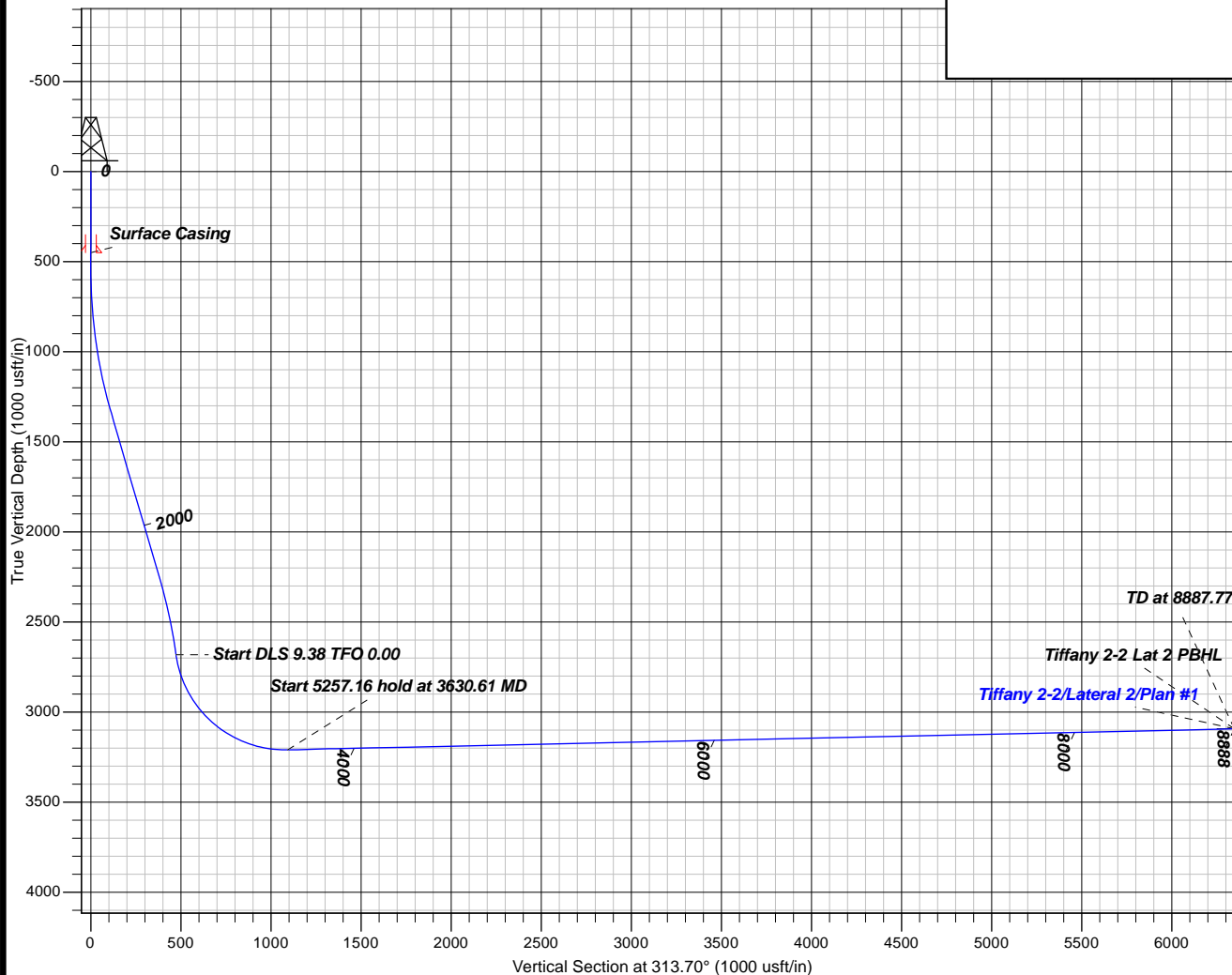
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Tiffany 2-2 Lat 2 PBHL	3093.00	4385.76	-4589.30	1167669.98	2404027.79	37.1092369	-107.5438135

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
2740.90	7.81	313.70	2681.61	327.08	-342.26	0.00	0.00	473.42	
3630.61	91.27	313.70	3209.26	754.52	-789.53	9.38	0.00	1092.09	
8887.77	91.27	313.70	3093.00	4385.76	-4589.30	0.00	0.00	6347.96	Tiffany 2-2 Lat 2 PBHL

FORMATION TOP DETAILS

No formation data is available





B.P.

La Plata County, CO NAD83

Tiffany Pad 2

Tiffany 2-2 - Slot Tiffany 2-2

Lateral 2

Plan: Plan #1

Standard Planning Report

07 April, 2016





Database:	Grand Junction District	Local Co-ordinate Reference:	Well Tiffany 2-2 - Slot Tiffany 2-2
Company:	B.P.	TVD Reference:	GL 6669.66' & RKB 11' @ 6680.66usft (Aztec 507)
Project:	La Plata County, CO NAD83	MD Reference:	GL 6669.66' & RKB 11' @ 6680.66usft (Aztec 507)
Site:	Tiffany Pad 2	North Reference:	Grid
Well:	Tiffany 2-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral 2		
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		Tiffany Pad 2			
Site Position:		Northing:	1,163,257.22 usft	Latitude:	37.0973972
From:	Map	Easting:	2,408,649.91 usft	Longitude:	-107.5276391
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	-1.24 °

Well	Tiffany 2-2 - Slot Tiffany 2-2					
Well Position	+N/-S	27.00 usft	Northing:	1,163,284.22 usft	Latitude:	37.0974694
	+E/-W	-32.82 usft	Easting:	2,408,617.09 usft	Longitude:	-107.5277536
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	6,669.66 usft

Wellbore	Lateral 2				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	4/6/2016	9.28	63.65	50,251

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	2,740.90
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	313.70

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
2,740.90	7.81	313.70	2,681.61	327.08	-342.26	0.00	0.00	0.00	0.00	
3,630.61	91.27	313.70	3,209.26	754.52	-789.53	9.38	9.38	0.00	0.00	
8,887.77	91.27	313.70	3,093.00	4,385.76	-4,589.30	0.00	0.00	0.00	0.00	Tiffany 2-2 Lat 2 PBH



Database:	Grand Junction District	Local Co-ordinate Reference:	Well Tiffany 2-2 - Slot Tiffany 2-2
Company:	B.P.	TVD Reference:	GL 6669.66' & RKB 11' @ 6680.66usft (Aztec 507)
Project:	La Plata County, CO NAD83	MD Reference:	GL 6669.66' & RKB 11' @ 6680.66usft (Aztec 507)
Site:	Tiffany Pad 2	North Reference:	Grid
Well:	Tiffany 2-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral 2		
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)
2,740.00	7.81	313.70	2,681.61	327.08	-342.26	473.42	0.00	0.00	0.00
2,800.00	13.36	313.70	2,739.68	334.58	-350.10	484.27	9.38	9.38	0.00
2,900.00	22.74	313.70	2,834.66	355.96	-372.47	515.21	9.38	9.38	0.00
3,000.00	32.12	313.70	2,923.32	387.74	-405.74	561.22	9.38	9.38	0.00
3,100.00	41.50	313.70	3,003.30	429.09	-449.00	621.06	9.38	9.38	0.00
3,200.00	50.88	313.70	3,072.45	478.89	-501.11	693.14	9.38	9.38	0.00
3,300.00	60.26	313.70	3,128.93	535.81	-560.67	775.52	9.38	9.38	0.00
3,400.00	69.64	313.70	3,171.23	598.32	-626.09	866.01	9.38	9.38	0.00
3,500.00	79.02	313.70	3,198.22	664.77	-695.62	962.19	9.38	9.38	0.00
3,600.00	88.40	313.70	3,209.17	733.37	-767.40	1,061.47	9.38	9.38	0.00
3,630.61	91.27	313.70	3,209.26	754.52	-789.53	1,092.09	9.38	9.38	0.00
3,700.00	91.27	313.70	3,207.73	802.44	-839.68	1,161.45	0.00	0.00	0.00
3,800.00	91.27	313.70	3,205.52	871.51	-911.96	1,261.43	0.00	0.00	0.00
3,900.00	91.27	313.70	3,203.31	940.59	-984.24	1,361.41	0.00	0.00	0.00
4,000.00	91.27	313.70	3,201.09	1,009.66	-1,056.51	1,461.38	0.00	0.00	0.00
4,100.00	91.27	313.70	3,198.88	1,078.73	-1,128.79	1,561.36	0.00	0.00	0.00
4,200.00	91.27	313.70	3,196.67	1,147.80	-1,201.07	1,661.33	0.00	0.00	0.00
4,300.00	91.27	313.70	3,194.46	1,216.88	-1,273.35	1,761.31	0.00	0.00	0.00
4,400.00	91.27	313.70	3,192.25	1,285.95	-1,345.63	1,861.28	0.00	0.00	0.00
4,500.00	91.27	313.70	3,190.04	1,355.02	-1,417.90	1,961.26	0.00	0.00	0.00
4,600.00	91.27	313.70	3,187.83	1,424.09	-1,490.18	2,061.23	0.00	0.00	0.00
4,700.00	91.27	313.70	3,185.61	1,493.17	-1,562.46	2,161.21	0.00	0.00	0.00
4,800.00	91.27	313.70	3,183.40	1,562.24	-1,634.74	2,261.19	0.00	0.00	0.00
4,900.00	91.27	313.70	3,181.19	1,631.31	-1,707.02	2,361.16	0.00	0.00	0.00
5,000.00	91.27	313.70	3,178.98	1,700.38	-1,779.29	2,461.14	0.00	0.00	0.00
5,100.00	91.27	313.70	3,176.77	1,769.46	-1,851.57	2,561.11	0.00	0.00	0.00
5,200.00	91.27	313.70	3,174.56	1,838.53	-1,923.85	2,661.09	0.00	0.00	0.00
5,300.00	91.27	313.70	3,172.34	1,907.60	-1,996.13	2,761.06	0.00	0.00	0.00
5,400.00	91.27	313.70	3,170.13	1,976.67	-2,068.41	2,861.04	0.00	0.00	0.00
5,500.00	91.27	313.70	3,167.92	2,045.74	-2,140.68	2,961.01	0.00	0.00	0.00
5,600.00	91.27	313.70	3,165.71	2,114.82	-2,212.96	3,060.99	0.00	0.00	0.00
5,700.00	91.27	313.70	3,163.50	2,183.89	-2,285.24	3,160.97	0.00	0.00	0.00
5,800.00	91.27	313.70	3,161.29	2,252.96	-2,357.52	3,260.94	0.00	0.00	0.00
5,900.00	91.27	313.70	3,159.08	2,322.03	-2,429.80	3,360.92	0.00	0.00	0.00
6,000.00	91.27	313.70	3,156.86	2,391.11	-2,502.08	3,460.89	0.00	0.00	0.00
6,100.00	91.27	313.70	3,154.65	2,460.18	-2,574.35	3,560.87	0.00	0.00	0.00
6,200.00	91.27	313.70	3,152.44	2,529.25	-2,646.63	3,660.84	0.00	0.00	0.00
6,300.00	91.27	313.70	3,150.23	2,598.32	-2,718.91	3,760.82	0.00	0.00	0.00
6,400.00	91.27	313.70	3,148.02	2,667.40	-2,791.19	3,860.79	0.00	0.00	0.00
6,500.00	91.27	313.70	3,145.81	2,736.47	-2,863.47	3,960.77	0.00	0.00	0.00
6,600.00	91.27	313.70	3,143.59	2,805.54	-2,935.74	4,060.74	0.00	0.00	0.00
6,700.00	91.27	313.70	3,141.38	2,874.61	-3,008.02	4,160.72	0.00	0.00	0.00
6,800.00	91.27	313.70	3,139.17	2,943.69	-3,080.30	4,260.70	0.00	0.00	0.00
6,900.00	91.27	313.70	3,136.96	3,012.76	-3,152.58	4,360.67	0.00	0.00	0.00
7,000.00	91.27	313.70	3,134.75	3,081.83	-3,224.86	4,460.65	0.00	0.00	0.00
7,100.00	91.27	313.70	3,132.54	3,150.90	-3,297.13	4,560.62	0.00	0.00	0.00
7,200.00	91.27	313.70	3,130.33	3,219.98	-3,369.41	4,660.60	0.00	0.00	0.00
7,300.00	91.27	313.70	3,128.11	3,289.05	-3,441.69	4,760.57	0.00	0.00	0.00
7,400.00	91.27	313.70	3,125.90	3,358.12	-3,513.97	4,860.55	0.00	0.00	0.00
7,500.00	91.27	313.70	3,123.69	3,427.19	-3,586.25	4,960.52	0.00	0.00	0.00
7,600.00	91.27	313.70	3,121.48	3,496.26	-3,658.52	5,060.50	0.00	0.00	0.00
7,700.00	91.27	313.70	3,119.27	3,565.34	-3,730.80	5,160.48	0.00	0.00	0.00



Database:	Grand Junction District	Local Co-ordinate Reference:	Well Tiffany 2-2 - Slot Tiffany 2-2
Company:	B.P.	TVD Reference:	GL 6669.66' & RKB 11' @ 6680.66usft (Aztec 507)
Project:	La Plata County, CO NAD83	MD Reference:	GL 6669.66' & RKB 11' @ 6680.66usft (Aztec 507)
Site:	Tiffany Pad 2	North Reference:	Grid
Well:	Tiffany 2-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral 2		
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)
7,800.00	91.27	313.70	3,117.06	3,634.41	-3,803.08	5,260.45	0.00	0.00	0.00
7,900.00	91.27	313.70	3,114.84	3,703.48	-3,875.36	5,360.43	0.00	0.00	0.00
8,000.00	91.27	313.70	3,112.63	3,772.55	-3,947.64	5,460.40	0.00	0.00	0.00
8,100.00	91.27	313.70	3,110.42	3,841.63	-4,019.91	5,560.38	0.00	0.00	0.00
8,200.00	91.27	313.70	3,108.21	3,910.70	-4,092.19	5,660.35	0.00	0.00	0.00
8,300.00	91.27	313.70	3,106.00	3,979.77	-4,164.47	5,760.33	0.00	0.00	0.00
8,400.00	91.27	313.70	3,103.79	4,048.84	-4,236.75	5,860.30	0.00	0.00	0.00
8,500.00	91.27	313.70	3,101.58	4,117.92	-4,309.03	5,960.28	0.00	0.00	0.00
8,600.00	91.27	313.70	3,099.36	4,186.99	-4,381.30	6,060.26	0.00	0.00	0.00
8,700.00	91.27	313.70	3,097.15	4,256.06	-4,453.58	6,160.23	0.00	0.00	0.00
8,800.00	91.27	313.70	3,094.94	4,325.13	-4,525.86	6,260.21	0.00	0.00	0.00
8,887.77	91.27	313.70	3,093.00	4,385.76	-4,589.30	6,347.96	0.00	0.00	0.00
Tiffany 2-2 Lat 2 PBHL									

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
Tiffany 2-2 Lat 2 PBHL - plan hits target center - Point	0.00	360.00	3,093.00	4,385.76	-4,589.30	1,167,669.98	2,404,027.79	37.1092369	-107.5438135

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
450.00	450.00	Surface Casing	8.62	12.25