



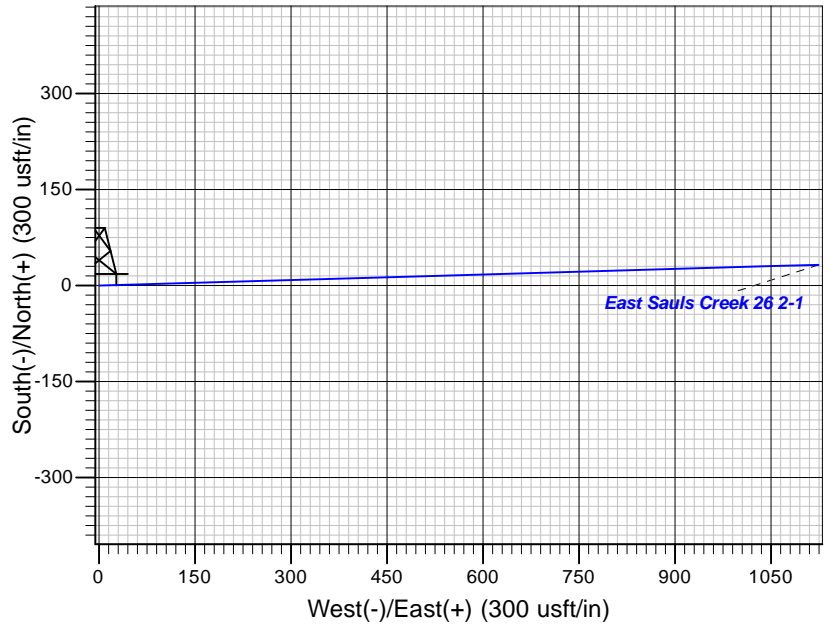
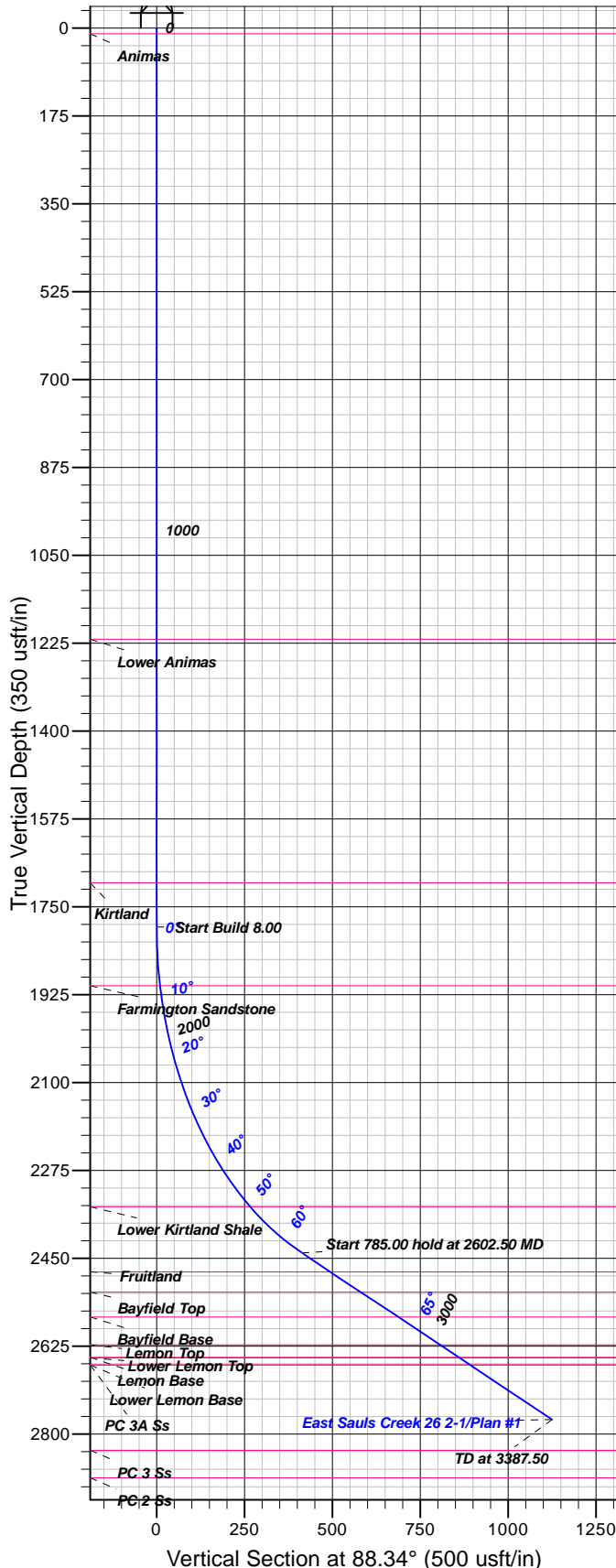
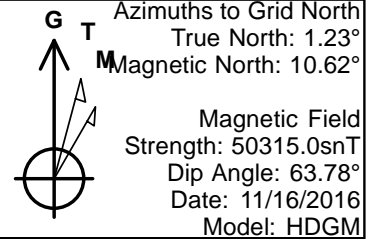
Company: B.P.
Project: La Plata County, CO NAD83
Site: East Sauls Creek Pad
Well: East Sauls Creek 26 2-1



Well Details: East Sauls Creek 26 2-1

GL 7466' & RKB 11' @ 7477.00usft (Aztec 507)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1225165.69	2414617.17	37.2677368	-107.5117557	



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
11.00	11.00	Animas
1217.00	1217.00	Lower Animas
1702.00	1702.00	Kirtland
1907.00	1907.53	Farmington Sandstone
2347.00	2428.15	Lower Kirtland Shale
2477.00	2692.19	Fruitland
2517.00	2786.84	Bayfield Top
2567.00	2905.15	Bayfield Base
2622.00	3035.29	Lemon Top
2647.00	3094.44	Lemon Base
2648.00	3096.81	Lower Lemon Top
2662.00	3129.94	Lower Lemon Base
2662.00	3129.94	PC 3A Ss

Plan: Plan #1

16:31, November 28 2016
Created By: Janie Collins

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

CASING DETAILS

No casing data is available

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1790.00	0.00	0.00	1790.00	0.00	0.00	0.00	0.00	0.00	
3	2602.50	65.00	88.34	2439.10	11.98	413.35	8.00	88.34	413.52	
4	3387.50	65.00	88.34	2770.85	32.59	1124.50	0.00	0.00	1124.97	

DESIGN TARGET DETAILS

No target data is available.



B.P.

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

Pilot

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:	Pilot		
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	Pilot				
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:	0.00
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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,790.00	0.00	0.00	1,790.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,602.50	65.00	88.34	2,439.10	11.98	413.35	8.00	8.00	0.00	88.34	
3,387.50	65.00	88.34	2,770.85	32.59	1,124.50	0.00	0.00	0.00	0.00	



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Site:	East Sauls Creek Pad	North Reference:	Grid
Well:	East Sauls Creek 26 2-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Pilot		
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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11.00	0.00	0.00	11.00	0.00	0.00	0.00	0.00	0.00	0.00
Animas									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,217.00	0.00	0.00	1,217.00	0.00	0.00	0.00	0.00	0.00	0.00
Lower Animas									
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,702.00	0.00	0.00	1,702.00	0.00	0.00	0.00	0.00	0.00	0.00
Kirtland									
1,790.00	0.00	0.00	1,790.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.80	88.34	1,800.00	0.00	0.07	0.07	8.00	8.00	0.00
1,900.00	8.80	88.34	1,899.57	0.24	8.43	8.43	8.00	8.00	0.00
1,907.53	9.40	88.34	1,907.00	0.28	9.62	9.62	8.00	8.00	0.00
Farmington Sandstone									
2,000.00	16.80	88.34	1,997.00	0.89	30.55	30.57	8.00	8.00	0.00
2,100.00	24.80	88.34	2,090.41	1.91	66.02	66.05	8.00	8.00	0.00
2,200.00	32.80	88.34	2,177.97	3.31	114.14	114.19	8.00	8.00	0.00
2,300.00	40.80	88.34	2,257.98	5.04	173.97	174.04	8.00	8.00	0.00
2,400.00	48.80	88.34	2,328.88	7.08	244.34	244.45	8.00	8.00	0.00
2,428.15	51.05	88.34	2,347.00	7.71	265.88	265.99	8.00	8.00	0.00
Lower Kirtland Shale									
2,500.00	56.80	88.34	2,389.29	9.39	323.90	324.03	8.00	8.00	0.00
2,600.00	64.80	88.34	2,438.03	11.91	411.08	411.26	8.00	8.00	0.00
2,602.50	65.00	88.34	2,439.10	11.98	413.35	413.52	8.00	8.00	0.00
2,692.19	65.00	88.34	2,477.00	14.33	494.60	494.81	0.00	0.00	0.00
Fruitland									
2,700.00	65.00	88.34	2,480.30	14.54	501.67	501.88	0.00	0.00	0.00
2,786.84	65.00	88.34	2,517.00	16.82	580.34	580.59	0.00	0.00	0.00
Bayfield Top									
2,800.00	65.00	88.34	2,522.56	17.16	592.27	592.52	0.00	0.00	0.00
2,900.00	65.00	88.34	2,564.82	19.79	682.86	683.15	0.00	0.00	0.00
2,905.15	65.00	88.34	2,567.00	19.92	687.52	687.81	0.00	0.00	0.00
Bayfield Base									
3,000.00	65.00	88.34	2,607.09	22.42	773.45	773.78	0.00	0.00	0.00
3,035.29	65.00	88.34	2,622.00	23.34	805.42	805.76	0.00	0.00	0.00
Lemon Top									



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Well:	East Sauls Creek 26 2-1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Pilot		
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)
3,094.44	65.00	88.34	2,647.00	24.89	859.01	859.37	0.00	0.00	0.00
Lemon Base									
3,096.81	65.00	88.34	2,648.00	24.96	861.16	861.52	0.00	0.00	0.00
Lower Lemon Top									
3,100.00	65.00	88.34	2,649.35	25.04	864.04	864.41	0.00	0.00	0.00
3,129.94	65.00	88.34	2,662.00	25.83	891.17	891.54	0.00	0.00	0.00
Lower Lemon Base - PC 3A Ss									
3,200.00	65.00	88.34	2,691.61	27.67	954.64	955.04	0.00	0.00	0.00
3,300.00	65.00	88.34	2,733.87	30.29	1,045.23	1,045.67	0.00	0.00	0.00
3,387.50	65.00	88.34	2,770.85	32.59	1,124.50	1,124.97	0.00	0.00	0.00

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
11.00	-129.00	Animas		0.00	360.00
1,217.00	1,077.00	Lower Animas		0.00	360.00
1,702.00	1,562.00	Kirtland		0.00	360.00
1,907.53	1,767.00	Farmington Sandstone		0.00	360.00
2,428.15	2,207.00	Lower Kirtland Shale		0.00	360.00
2,692.19	2,337.00	Fruitland		0.00	360.00
2,786.84	2,377.00	Bayfield Top		0.00	360.00
2,905.15	2,427.00	Bayfield Base		0.00	360.00
3,035.29	2,482.00	Lemon Top		0.00	360.00
3,094.44	2,507.00	Lemon Base		0.00	360.00
3,096.81	2,508.00	Lower Lemon Top		0.00	360.00
3,129.94	2,522.00	Lower Lemon Base		0.00	360.00
3,129.94	2,522.00	PC 3A Ss		0.00	360.00