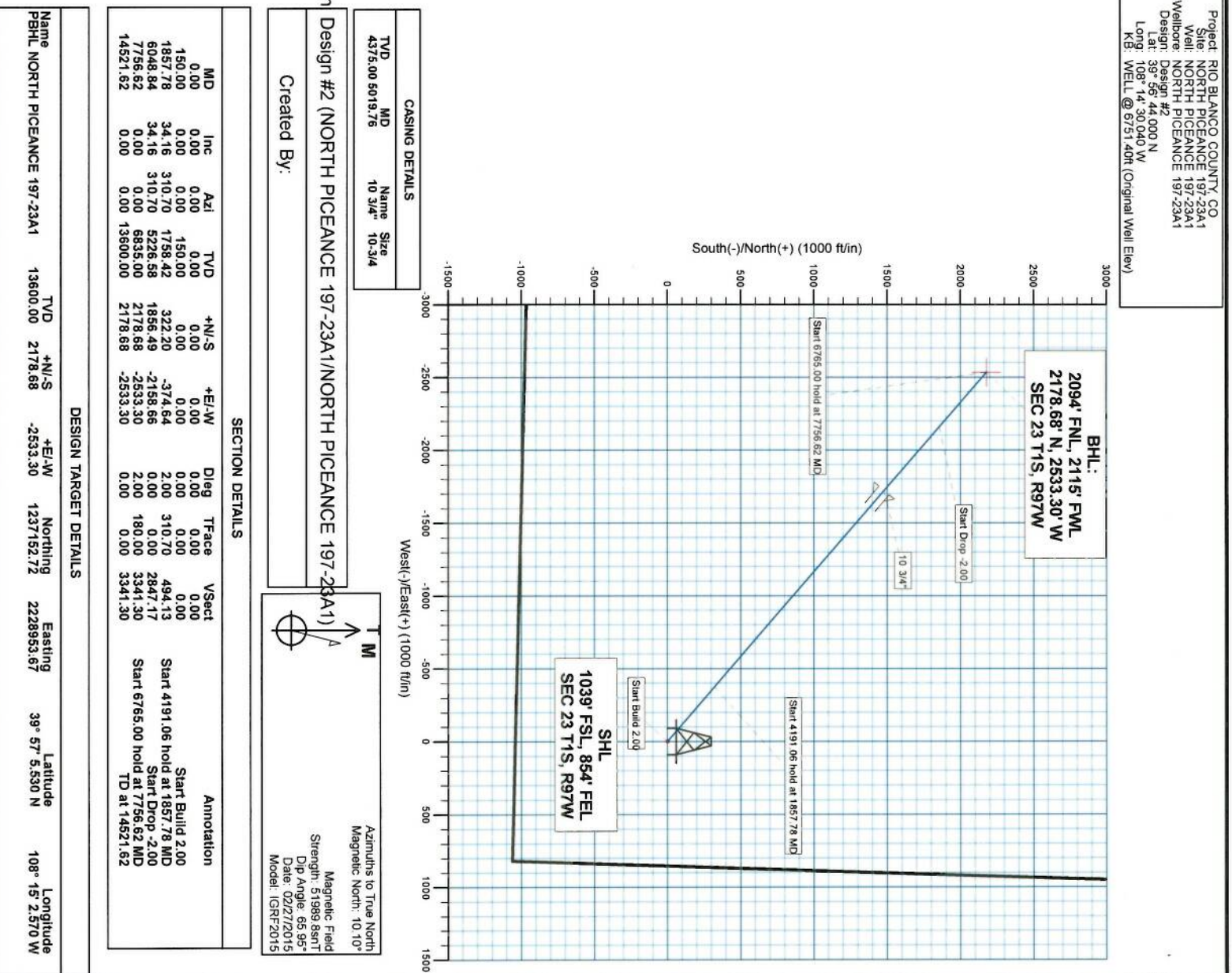
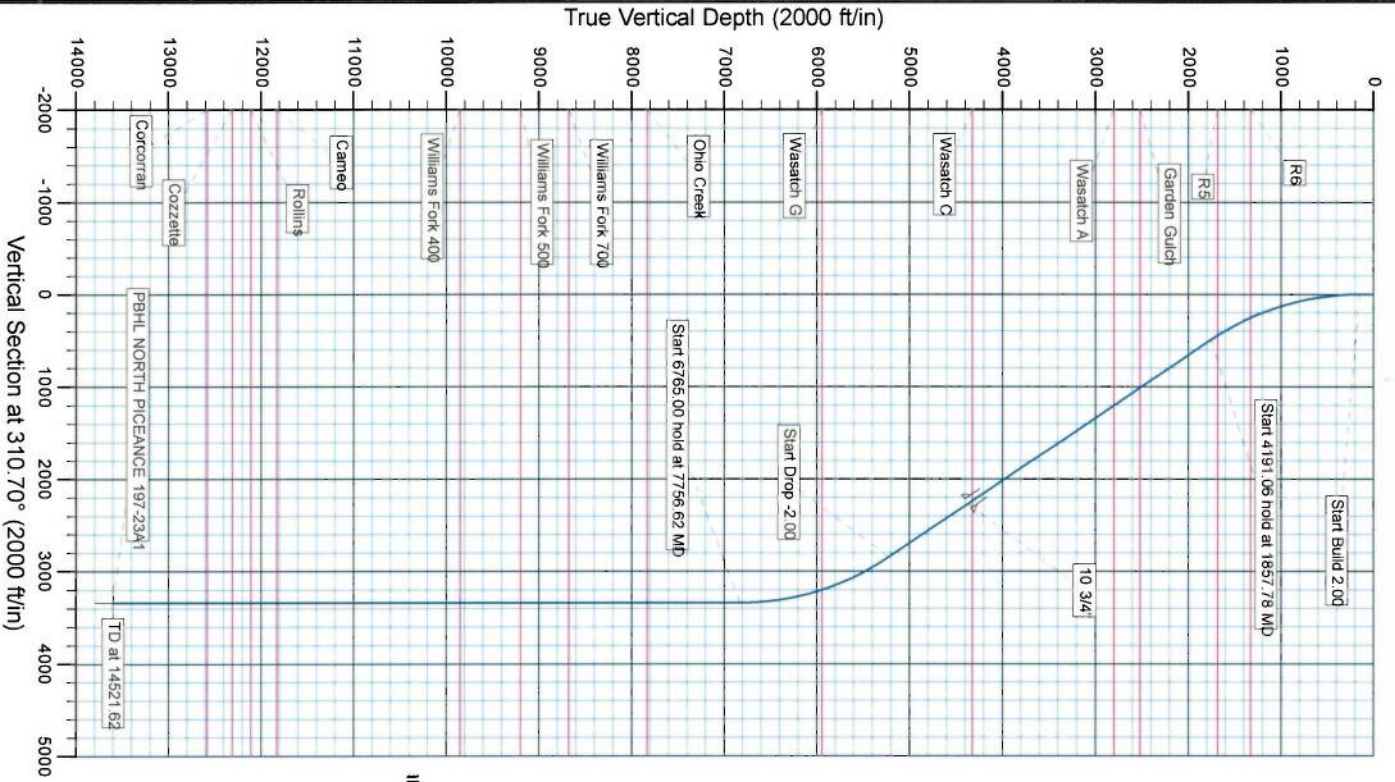




Project: RIO BLANCO COUNTY CO
Site: NORTH PICEANCE 197-23A1
Well: NORTH PICEANCE 197-23A1
Wellbore: NORTH PICEANCE 197-23A1
Design: Design #2
Lat: 39° 56' 44.000 N
Long: 108° 14' 30.040 W
KB: WELL @ 6751.40ft (Original Well Elev)



DESIGN TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Eastng	Latitude	Longitude		
PBHL NORTH PICEANCE 197-23A1	13600.00	2178.68	-2533.30	1237152.72	2228953.67	39° 57' 5.530 N	108° 15' 2.570 W		

SECTION TARGET DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dieg	TFace	Vsect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
150.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	Start 4191.06 hold at 1857.78 MD
1857.78	34.16	310.70	1758.42	322.20	-374.64	2.00	310.70	494.13	Start Drop -2.00
6048.84	34.16	310.70	5226.58	1856.48	-2158.66	0.00	0.00	2847.17	Start 6765.00 hold at 7756.62 MD
7756.62	0.00	0.00	6833.00	2178.68	-2533.30	2.00	180.00	3341.30	TD at 14521.62
14521.62	0.00	0.00	13600.00	2178.68	-2533.30	0.00	0.00	3341.30	

CASING DETAILS			
TVD	MD	Name	Size
4375.00	5019.76	10 3/4"	10-3/4

Design #2 (NORTH PICEANCE 197-23A1/NORTH PICEANCE 197-23A1)

Created By:

T

M

A

Azimuths to True North
Magnetic North: 10.10°
Magnetic Field
Strength: 51889.85nT
Dip Angle: 65.95°
Date: 02/27/2015
Model: IGRF2015



Planning Report

Database: EDM 5000.1 Single User Db
Company: XTO ENERGY
Project: RIO BLANCO COUNTY, CO
Site: NORTH PICEANCE 197-23A1
Well: NORTH PICEANCE 197-23A1
Wellbore: NORTH PICEANCE 197-23A1
Design: Design #2

Local Co-ordinate Reference: Well NORTH PICEANCE 197-23A1
TVD Reference: WELL @ 6751.40ft (Original Well Elev)
MD Reference: WELL @ 6751.40ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Project	RIO BLANCO COUNTY, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	NORTH PICEANCE 197-23A1				
Site Position:		Northing:	1,234,896.77 usft	Latitude:	39° 56' 44.000 N
From:	Lat/Long	Easting:	2,231,418.40 usft	Longitude:	108° 14' 30.040 W
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16"	Grid Convergence:	-1.77 °

Well	NORTH PICEANCE 197-23A1				
Well Position	+N/-S	0.00 ft	Northing:	1,234,896.77 usft	Latitude: 39° 56' 44.000 N
	+E/-W	0.00 ft	Easting:	2,231,418.40 usft	Longitude: 108° 14' 30.040 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level: 6,726.40 ft

Wellbore	NORTH PICEANCE 197-23A1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	02/27/15	10.10	65.95	51,990

Design	Design #2				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	310.70	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	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	
150.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,857.78	34.16	310.70	1,758.42	322.20	-374.64	2.00	2.00	0.00	310.70	
6,048.84	34.16	310.70	5,226.58	1,856.49	-2,158.66	0.00	0.00	0.00	0.00	
7,756.62	0.00	0.00	6,835.00	2,178.68	-2,533.30	2.00	-2.00	0.00	180.00	
14,521.62	0.00	0.00	13,600.00	2,178.68	-2,533.30	0.00	0.00	0.00	0.00	PBHL NORTH PICEA



Planning Report

Database: EDM 5000.1 Single User Db
 Company: XTO ENERGY
 Project: RIO BLANCO COUNTY, CO
 Site: NORTH PICEANCE 197-23A1
 Well: NORTH PICEANCE 197-23A1
 Wellbore: NORTH PICEANCE 197-23A1
 Design: Design #2

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:

Well NORTH PICEANCE 197-23A1
 WELL @ 6751.40ft (Original Well Elev)
 WELL @ 6751.40ft (Original Well Elev)
 True
 Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	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
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
150.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	1.00	310.70	200.00	0.28	-0.33	0.44	2.00	2.00	0.00
300.00	3.00	310.70	299.93	2.56	-2.98	3.93	2.00	2.00	0.00
400.00	5.00	310.70	399.68	7.11	-8.27	10.90	2.00	2.00	0.00
500.00	7.00	310.70	499.13	13.92	-16.19	21.35	2.00	2.00	0.00
600.00	9.00	310.70	598.15	23.00	-26.74	35.27	2.00	2.00	0.00
700.00	11.00	310.70	696.63	34.32	-39.91	52.63	2.00	2.00	0.00
800.00	13.00	310.70	794.44	47.88	-55.67	73.42	2.00	2.00	0.00
900.00	15.00	310.70	891.46	63.65	-74.01	97.62	2.00	2.00	0.00
1,000.00	17.00	310.70	987.58	81.62	-94.91	125.18	2.00	2.00	0.00
1,100.00	19.00	310.70	1,082.68	101.77	-118.33	156.08	2.00	2.00	0.00
1,200.00	21.00	310.70	1,176.65	124.07	-144.26	190.28	2.00	2.00	0.00
1,300.00	23.00	310.70	1,269.36	148.49	-172.66	227.74	2.00	2.00	0.00
R6									
1,366.20	24.32	310.70	1,330.00	165.82	-192.81	254.31	2.00	2.00	0.00
1,400.00	25.00	310.70	1,360.71	175.01	-203.50	268.41	2.00	2.00	0.00
1,500.00	27.00	310.70	1,450.59	203.60	-236.74	312.24	2.00	2.00	0.00
1,600.00	29.00	310.70	1,538.88	234.21	-272.33	359.19	2.00	2.00	0.00
1,700.00	31.00	310.70	1,625.48	266.81	-310.24	409.18	2.00	2.00	0.00
R5									
1,769.96	32.40	310.70	1,685.00	290.78	-338.11	445.95	2.00	2.00	0.00
1,800.00	33.00	310.70	1,710.28	301.36	-350.41	462.17	2.00	2.00	0.00
Start 4191.06 hold at 1857.78 MD									
1,857.78	34.16	310.70	1,758.42	322.20	-374.64	494.13	2.00	2.00	0.00
1,900.00	34.16	310.70	1,793.35	337.65	-392.61	517.83	0.00	0.00	0.00
2,000.00	34.16	310.70	1,876.10	374.26	-435.18	573.98	0.00	0.00	0.00
2,100.00	34.16	310.70	1,958.85	410.87	-477.75	630.12	0.00	0.00	0.00
2,200.00	34.16	310.70	2,041.61	447.48	-520.31	686.27	0.00	0.00	0.00
2,300.00	34.16	310.70	2,124.36	484.09	-562.88	742.41	0.00	0.00	0.00
2,400.00	34.16	310.70	2,207.11	520.70	-605.45	798.55	0.00	0.00	0.00
2,500.00	34.16	310.70	2,289.86	557.30	-648.01	854.70	0.00	0.00	0.00
2,600.00	34.16	310.70	2,372.61	593.91	-690.58	910.84	0.00	0.00	0.00
2,700.00	34.16	310.70	2,455.36	630.52	-733.15	966.99	0.00	0.00	0.00
Garden Gulch									
2,778.11	34.16	310.70	2,520.00	659.12	-766.40	1,010.84	0.00	0.00	0.00
2,800.00	34.16	310.70	2,538.12	667.13	-775.72	1,023.13	0.00	0.00	0.00
2,900.00	34.16	310.70	2,620.87	703.74	-818.28	1,079.28	0.00	0.00	0.00
3,000.00	34.16	310.70	2,703.62	740.35	-860.85	1,135.42	0.00	0.00	0.00
3,100.00	34.16	310.70	2,786.37	776.96	-903.42	1,191.56	0.00	0.00	0.00
Wasatch A									
3,116.47	34.16	310.70	2,800.00	782.99	-910.43	1,200.81	0.00	0.00	0.00
3,200.00	34.16	310.70	2,869.12	813.56	-945.99	1,247.71	0.00	0.00	0.00
3,300.00	34.16	310.70	2,951.87	850.17	-988.55	1,303.85	0.00	0.00	0.00
3,400.00	34.16	310.70	3,034.63	886.78	-1,031.12	1,360.00	0.00	0.00	0.00
3,500.00	34.16	310.70	3,117.38	923.39	-1,073.69	1,416.14	0.00	0.00	0.00
3,600.00	34.16	310.70	3,200.13	960.00	-1,116.26	1,472.29	0.00	0.00	0.00
3,700.00	34.16	310.70	3,282.88	996.61	-1,158.82	1,528.43	0.00	0.00	0.00
3,800.00	34.16	310.70	3,365.63	1,033.22	-1,201.39	1,584.57	0.00	0.00	0.00
3,900.00	34.16	310.70	3,448.38	1,069.82	-1,243.96	1,640.72	0.00	0.00	0.00
4,000.00	34.16	310.70	3,531.14	1,106.43	-1,286.53	1,696.86	0.00	0.00	0.00



Planning Report

Database: EDM 5000.1 Single User Db
Company: XTO ENERGY
Project: RIO BLANCO COUNTY, CO
Site: NORTH PICEANCE 197-23A1
Well: NORTH PICEANCE 197-23A1
Wellbore: NORTH PICEANCE 197-23A1
Design: Design #2

Local Co-ordinate Reference: Well NORTH PICEANCE 197-23A1
TVD Reference: WELL @ 6751.40ft (Original Well Elev)
MD Reference: WELL @ 6751.40ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,100.00	34.16	310.70	3,613.89	1,143.04	-1,329.09	1,753.01	0.00	0.00	0.00
4,200.00	34.16	310.70	3,696.64	1,179.65	-1,371.66	1,809.15	0.00	0.00	0.00
4,300.00	34.16	310.70	3,779.39	1,216.26	-1,414.23	1,865.30	0.00	0.00	0.00
4,400.00	34.16	310.70	3,862.14	1,252.87	-1,456.79	1,921.44	0.00	0.00	0.00
4,500.00	34.16	310.70	3,944.89	1,289.48	-1,499.36	1,977.58	0.00	0.00	0.00
4,600.00	34.16	310.70	4,027.64	1,326.09	-1,541.93	2,033.73	0.00	0.00	0.00
4,700.00	34.16	310.70	4,110.40	1,362.69	-1,584.50	2,089.87	0.00	0.00	0.00
4,800.00	34.16	310.70	4,193.15	1,399.30	-1,627.06	2,146.02	0.00	0.00	0.00
4,900.00	34.16	310.70	4,275.90	1,435.91	-1,669.63	2,202.16	0.00	0.00	0.00
Wasatch C									
4,959.34	34.16	310.70	4,325.00	1,457.63	-1,694.89	2,235.47	0.00	0.00	0.00
5,000.00	34.16	310.70	4,358.65	1,472.52	-1,712.20	2,258.31	0.00	0.00	0.00
10 3/4"									
5,019.76	34.16	310.70	4,375.00	1,479.75	-1,720.61	2,269.40	0.00	0.00	0.00
5,100.00	34.16	310.70	4,441.40	1,509.13	-1,754.77	2,314.45	0.00	0.00	0.00
5,200.00	34.16	310.70	4,524.15	1,545.74	-1,797.33	2,370.59	0.00	0.00	0.00
5,300.00	34.16	310.70	4,606.91	1,582.35	-1,839.90	2,426.74	0.00	0.00	0.00
5,400.00	34.16	310.70	4,689.66	1,618.95	-1,882.47	2,482.88	0.00	0.00	0.00
5,500.00	34.16	310.70	4,772.41	1,655.56	-1,925.04	2,539.03	0.00	0.00	0.00
5,600.00	34.16	310.70	4,855.16	1,692.17	-1,967.60	2,595.17	0.00	0.00	0.00
5,700.00	34.16	310.70	4,937.91	1,728.78	-2,010.17	2,651.31	0.00	0.00	0.00
5,800.00	34.16	310.70	5,020.66	1,765.39	-2,052.74	2,707.46	0.00	0.00	0.00
5,900.00	34.16	310.70	5,103.42	1,802.00	-2,095.31	2,763.60	0.00	0.00	0.00
6,000.00	34.16	310.70	5,186.17	1,838.61	-2,137.87	2,819.75	0.00	0.00	0.00
Start Drop -2.00									
6,048.84	34.16	310.70	5,226.58	1,856.49	-2,158.66	2,847.17	0.00	0.00	0.00
6,100.00	33.13	310.70	5,269.17	1,874.97	-2,180.15	2,875.51	2.00	-2.00	0.00
6,200.00	31.13	310.70	5,353.85	1,909.65	-2,220.48	2,928.70	2.00	-2.00	0.00
6,300.00	29.13	310.70	5,440.33	1,942.38	-2,258.53	2,978.89	2.00	-2.00	0.00
6,400.00	27.13	310.70	5,528.51	1,973.12	-2,294.28	3,026.04	2.00	-2.00	0.00
6,500.00	25.13	310.70	5,618.29	2,001.84	-2,327.67	3,070.09	2.00	-2.00	0.00
6,600.00	23.13	310.70	5,709.54	2,028.50	-2,358.67	3,110.97	2.00	-2.00	0.00
6,700.00	21.13	310.70	5,802.17	2,053.06	-2,387.23	3,148.64	2.00	-2.00	0.00
6,800.00	19.13	310.70	5,896.06	2,075.50	-2,413.33	3,183.06	2.00	-2.00	0.00
Wasatch G									
6,851.65	18.10	310.70	5,945.00	2,086.25	-2,425.83	3,199.55	2.00	-2.00	0.00
6,900.00	17.13	310.70	5,991.08	2,095.79	-2,436.92	3,214.18	2.00	-2.00	0.00
7,000.00	15.13	310.70	6,087.14	2,113.91	-2,457.99	3,241.96	2.00	-2.00	0.00
7,100.00	13.13	310.70	6,184.11	2,129.83	-2,476.50	3,266.38	2.00	-2.00	0.00
7,200.00	11.13	310.70	6,281.87	2,143.53	-2,492.43	3,287.39	2.00	-2.00	0.00
7,300.00	9.13	310.70	6,380.31	2,155.01	-2,505.77	3,304.99	2.00	-2.00	0.00
7,400.00	7.13	310.70	6,479.30	2,164.23	-2,516.50	3,319.13	2.00	-2.00	0.00
7,500.00	5.13	310.70	6,578.72	2,171.19	-2,524.59	3,329.81	2.00	-2.00	0.00
7,600.00	3.13	310.70	6,678.45	2,175.89	-2,530.06	3,337.02	2.00	-2.00	0.00
7,700.00	1.13	310.70	6,778.38	2,178.32	-2,532.88	3,340.74	2.00	-2.00	0.00
Start 6765.00 hold at 7756.62 MD									
7,756.62	0.00	0.00	6,835.00	2,178.68	-2,533.30	3,341.30	2.00	-2.00	87.07
7,800.00	0.00	0.00	6,878.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
7,900.00	0.00	0.00	6,978.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
8,000.00	0.00	0.00	7,078.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
8,100.00	0.00	0.00	7,178.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
8,200.00	0.00	0.00	7,278.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
8,300.00	0.00	0.00	7,378.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00



Planning Report

Database: EDM 5000.1 Single User Db
Company: XTO ENERGY
Project: RIO BLANCO COUNTY, CO
Site: NORTH PICEANCE 197-23A1
Well: NORTH PICEANCE 197-23A1
Wellbore: NORTH PICEANCE 197-23A1
Design: Design #2

Local Co-ordinate Reference: Well NORTH PICEANCE 197-23A1
TVD Reference: WELL @ 6751.40ft (Original Well Elev)
MD Reference: WELL @ 6751.40ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,400.00	0.00	0.00	7,478.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
8,500.00	0.00	0.00	7,578.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
8,600.00	0.00	0.00	7,678.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
8,700.00	0.00	0.00	7,778.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
Ohio Creek									
8,756.62	0.00	0.00	7,835.00	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
8,800.00	0.00	0.00	7,878.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
8,900.00	0.00	0.00	7,978.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
9,000.00	0.00	0.00	8,078.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
9,100.00	0.00	0.00	8,178.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
9,200.00	0.00	0.00	8,278.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
9,300.00	0.00	0.00	8,378.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
9,400.00	0.00	0.00	8,478.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
9,500.00	0.00	0.00	8,578.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
9,600.00	0.00	0.00	8,678.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
Williams Fork 700									
9,601.62	0.00	0.00	8,680.00	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
9,700.00	0.00	0.00	8,778.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
9,800.00	0.00	0.00	8,878.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
9,900.00	0.00	0.00	8,978.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
10,000.00	0.00	0.00	9,078.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
10,100.00	0.00	0.00	9,178.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
Williams Fork 500									
10,121.62	0.00	0.00	9,200.00	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
10,200.00	0.00	0.00	9,278.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
10,300.00	0.00	0.00	9,378.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
10,400.00	0.00	0.00	9,478.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
10,500.00	0.00	0.00	9,578.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
10,600.00	0.00	0.00	9,678.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
10,700.00	0.00	0.00	9,778.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
Williams Fork 400									
10,771.62	0.00	0.00	9,850.00	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
10,800.00	0.00	0.00	9,878.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
10,900.00	0.00	0.00	9,978.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
11,000.00	0.00	0.00	10,078.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
11,100.00	0.00	0.00	10,178.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
11,200.00	0.00	0.00	10,278.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
11,300.00	0.00	0.00	10,378.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
11,400.00	0.00	0.00	10,478.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
11,500.00	0.00	0.00	10,578.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
11,600.00	0.00	0.00	10,678.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
11,700.00	0.00	0.00	10,778.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
11,800.00	0.00	0.00	10,878.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
11,900.00	0.00	0.00	10,978.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
12,000.00	0.00	0.00	11,078.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
12,100.00	0.00	0.00	11,178.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
12,200.00	0.00	0.00	11,278.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
12,300.00	0.00	0.00	11,378.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
12,400.00	0.00	0.00	11,478.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
12,500.00	0.00	0.00	11,578.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
12,600.00	0.00	0.00	11,678.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
12,700.00	0.00	0.00	11,778.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
Cameo									
12,751.62	0.00	0.00	11,830.00	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00



Planning Report

Database: EDM 5000.1 Single User Db
Company: XTO ENERGY
Project: RIO BLANCO COUNTY, CO
Site: NORTH PICEANCE 197-23A1
Well: NORTH PICEANCE 197-23A1
Wellbore: NORTH PICEANCE 197-23A1
Design: Design #2

Local Co-ordinate Reference: Well NORTH PICEANCE 197-23A1
TVD Reference: WELL @ 6751.40ft (Original Well Elev)
MD Reference: WELL @ 6751.40ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,800.00	0.00	0.00	11,878.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
12,900.00	0.00	0.00	11,978.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
13,000.00	0.00	0.00	12,078.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
Rollins									
13,031.62	0.00	0.00	12,110.00	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
13,100.00	0.00	0.00	12,178.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
13,200.00	0.00	0.00	12,278.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
Cozzette									
13,231.62	0.00	0.00	12,310.00	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
13,300.00	0.00	0.00	12,378.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
13,400.00	0.00	0.00	12,478.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
13,500.00	0.00	0.00	12,578.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
Corcorran									
13,501.62	0.00	0.00	12,580.00	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
13,600.00	0.00	0.00	12,678.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
13,700.00	0.00	0.00	12,778.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
13,800.00	0.00	0.00	12,878.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
13,900.00	0.00	0.00	12,978.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
14,000.00	0.00	0.00	13,078.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
14,100.00	0.00	0.00	13,178.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
14,200.00	0.00	0.00	13,278.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
14,300.00	0.00	0.00	13,378.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
14,400.00	0.00	0.00	13,478.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
14,500.00	0.00	0.00	13,578.38	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00
TD at 14521.62									
14,521.62	0.00	0.00	13,600.00	2,178.68	-2,533.30	3,341.30	0.00	0.00	0.00

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL NORTH PICEANC	0.00	0.00	13,600.00	2,178.68	-2,533.30	1,237,152.72	2,228,953.67	39° 57' 5.530 N	108° 15' 2.570 W
- plan hits target center									
- Point									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
5,019.76	4,375.00	10 3/4"	10-3/4	12-1/4



Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well NORTH PICEANCE 197-23A1
Company:	XTO ENERGY	TVD Reference:	WELL @ 6751.40ft (Original Well Elev)
Project:	RIO BLANCO COUNTY, CO	MD Reference:	WELL @ 6751.40ft (Original Well Elev)
Site:	NORTH PICEANCE 197-23A1	North Reference:	True
Well:	NORTH PICEANCE 197-23A1	Survey Calculation Method:	Minimum Curvature
Wellbore:	NORTH PICEANCE 197-23A1		
Design:	Design #2		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,366.20	1,330.00	R6		0.00	
1,769.96	1,685.00	R5		0.00	
2,778.11	2,520.00	Garden Gulch		0.00	
3,116.47	2,800.00	Wasatch A		0.00	
4,959.34	4,325.00	Wasatch C		0.00	
6,851.65	5,945.00	Wasatch G		0.00	
8,756.62	7,835.00	Ohio Creek		0.00	
9,601.62	8,680.00	Williams Fork 700		0.00	
10,121.62	9,200.00	Williams Fork 500		0.00	
10,771.62	9,850.00	Williams Fork 400		0.00	
12,751.62	11,830.00	Cameo		0.00	
13,031.62	12,110.00	Rollins		0.00	
13,231.62	12,310.00	Cozzette		0.00	
13,501.62	12,580.00	Corcorran		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
150.00	150.00	0.00	0.00	Start Build 2.00
1,857.78	1,758.42	322.20	-374.64	Start 4191.06 hold at 1857.78 MD
6,048.84	5,226.58	1,856.49	-2,158.66	Start Drop -2.00
7,756.62	6,835.00	2,178.68	-2,533.30	Start 6765.00 hold at 7756.62 MD
14,521.62	13,600.00	2,178.68	-2,533.30	TD at 14521.62