



+N/-S
0.0

+E/-W
0.0

Northing
1656383.60

Easting
2216143.50

Latitude
39° 36' 9.398 N
108° 16' 56.305 W

Slot
B1

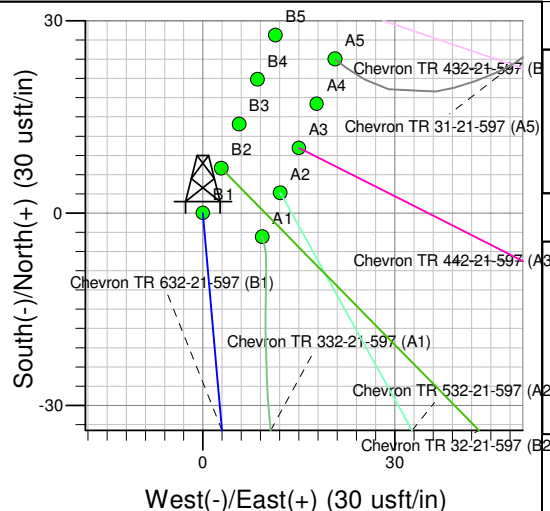
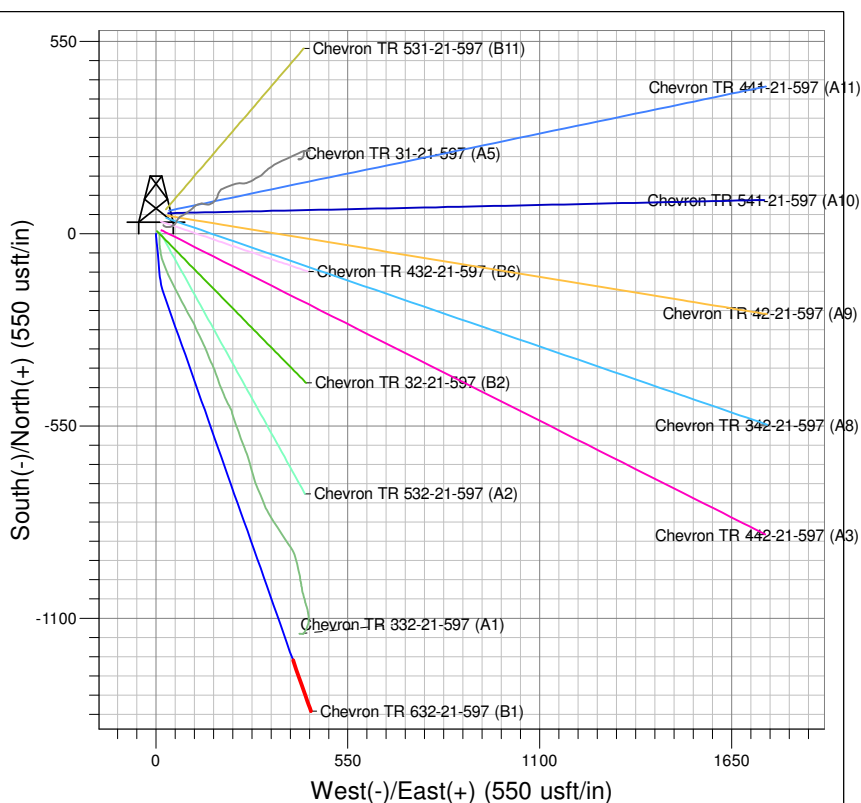
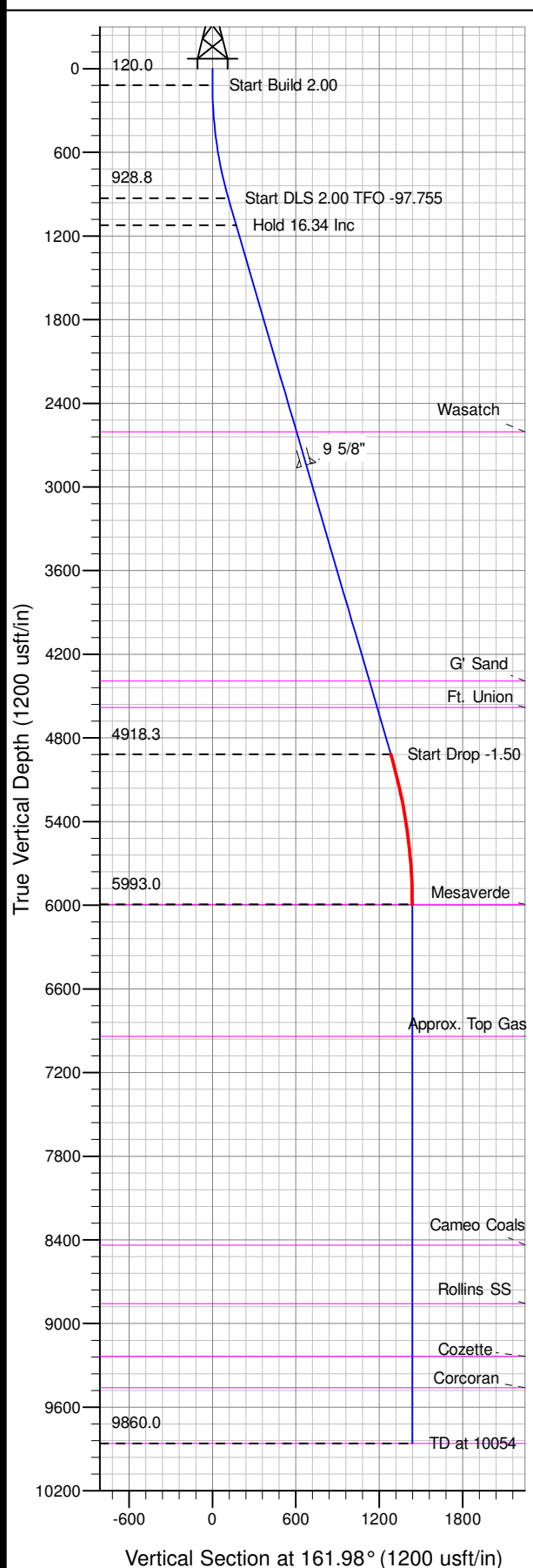
Well Name: Chevron TR 632-21-597

Surface Location: TR 32-21-597 Pad

North American Datum 1983 , US State Plane 1983 , Colorado Central Zone

Ground Elevation: 8576.0

KELLY BUSHING @ 8604.0usft (Frontier 10 (28' RKB) jib)



Project: TR 21-05S-097W
Site: TR 32-21-597 Pad
Well: Chevron TR 632-21-597
Plan #1 26Oct09 kjs

Azimuths to True North
Magnetic North: 10.68°
Magnetic Field
Strength: 52441.9snT
Dip Angle: 65.83°
Date: 10/26/2009
Model: IGRF2005-10

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.000	0.0	
2	120.0	0.00	0.00	120.0	0.0	0.0	0.00	0.000	0.0	
3	940.0	16.40	175.00	928.8	-116.1	10.2	2.00	175.000	113.6	
4	1143.4	16.34	160.54	1124.1	-171.7	22.2	2.00	-97.755	170.2	
5	5097.3	16.34	160.54	4918.3	-1220.6	392.9	0.00	0.000	1282.3	
6	6186.8	0.00	0.00	5993.0	-1366.1	444.3	1.50	180.000	1436.6	Mesaverde (25' Radius) Chevron TR 632-21-597
7	10053.8	0.00	0.00	9860.0	-1366.1	444.3	0.00	0.000	1436.6	

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
120.0	120.0	0.00	0.00	0.0	0.0	0.0	0.0	Start Build 2.00
928.8	940.0	16.40	175.00	-116.1	10.2	113.6	116.6	Start DLS 2.00 TFO -97.755
1124.1	1143.4	16.34	160.54	-171.7	22.2	170.2	173.9	Hold 16.34 Inc
4918.3	5097.3	16.34	160.54	-1220.6	392.9	1282.3	1286.4	Start Drop -1.50
5993.0	6186.8	0.00	0.00	-1366.1	444.3	1436.6	1440.7	Vertical
9860.0	10053.8	0.00	0.00	-1366.1	444.3	1436.6	1440.7	TD at 10054

PICEANCE HL NAD 83

TR 21-05S-097W

TR 32-21-597 Pad

Chevron TR 632-21-597 - Slot B1

Wellbore #1

Plan: Plan #1 26Oct09 kjs

Standard Planning Report - Geographic

26 August, 2010

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well Chevron TR 632-21-597 (B1) - Slot B1
Company:	PICEANCE HL NAD 83	TVD Reference:	KELLY BUSHING @ 8604.0usft (Frontier 10 (28' RKB) jib)
Project:	TR 21-05S-097W	MD Reference:	KELLY BUSHING @ 8604.0usft (Frontier 10 (28' RKB) jib)
Site:	TR 32-21-597 Pad	North Reference:	True
Well:	Chevron TR 632-21-597	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 26Oct09 kjs		

Project	TR 21-05S-097W, Garfield County, CO, TR 21-05S-097W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	TR 32-21-597 Pad		
Site Position:		Northing:	1,656,390.50 usft
From:	Map	Easting:	2,216,146.60 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in
		Latitude:	39° 36' 9.467 N
		Longitude:	108° 16' 56.268 W
		Grid Convergence:	-1.755 °

Well	Chevron TR 632-21-597 - Slot B1					
Well Position	+N/-S	0.0 usft	Northing:	1,656,383.60 usft	Latitude:	39° 36' 9.398 N
	+E/-W	0.0 usft	Easting:	2,216,143.50 usft	Longitude:	108° 16' 56.305 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	8,576.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	10/26/2009	10.682	65.828	52,442

Design	Plan #1 26Oct09 kjs			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	161.98

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.000	
120.0	0.00	0.00	120.0	0.0	0.0	0.00	0.00	0.00	0.000	
940.0	16.40	175.00	928.8	-116.1	10.2	2.00	2.00	0.00	175.000	
1,143.4	16.34	160.54	1,124.1	-171.7	22.2	2.00	-0.03	-7.11	-97.755	
5,097.3	16.34	160.54	4,918.3	-1,220.6	392.9	0.00	0.00	0.00	0.000	
6,186.8	0.00	0.00	5,993.0	-1,366.1	444.3	1.50	-1.50	0.00	180.000	Mesaverde (25' Radiu
10,053.8	0.00	0.00	9,860.0	-1,366.1	444.3	0.00	0.00	0.00	0.000	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well Chevron TR 632-21-597 (B1) - Slot B1
Company:	PICEANCE HL NAD 83	TVD Reference:	KELLY BUSHING @ 8604.0usft (Frontier 10 (28' RKB) jib)
Project:	TR 21-05S-097W	MD Reference:	KELLY BUSHING @ 8604.0usft (Frontier 10 (28' RKB) jib)
Site:	TR 32-21-597 Pad	North Reference:	True
Well:	Chevron TR 632-21-597	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 26Oct09 kjs		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	1,656,383.60	2,216,143.50	39° 36' 9.398 N	108° 16' 56.305 W
120.0	0.00	0.00	120.0	0.0	0.0	1,656,383.60	2,216,143.50	39° 36' 9.398 N	108° 16' 56.305 W
940.0	16.40	175.00	928.8	-116.1	10.2	1,656,267.23	2,216,150.10	39° 36' 8.250 N	108° 16' 56.176 W
1,143.4	16.34	160.54	1,124.1	-171.7	22.2	1,656,211.28	2,216,160.43	39° 36' 7.701 N	108° 16' 56.022 W
5,097.3	16.34	160.54	4,918.3	-1,220.6	392.9	1,655,151.50	2,216,498.86	39° 35' 57.334 N	108° 16' 51.286 W
6,186.8	0.00	0.00	5,993.0	-1,366.1	444.3	1,655,004.50	2,216,545.80	39° 35' 55.896 N	108° 16' 50.629 W
10,053.8	0.00	0.00	9,860.0	-1,366.1	444.3	1,655,004.50	2,216,545.80	39° 35' 55.896 N	108° 16' 50.629 W

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
Mesaverde (25' Radius) - plan hits target center - Circle (radius 25.0)	0.00	0.00	5,993.0	-1,366.1	444.3	1,655,004.50	2,216,545.80	39° 35' 55.896 N	108° 16' 50.629 W
Mesaverde (50' Radius) - plan hits target center - Circle (radius 50.0)	0.00	0.00	5,993.0	-1,366.1	444.3	1,655,004.50	2,216,545.80	39° 35' 55.896 N	108° 16' 50.629 W

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,936.0	2,844.3	9 5/8"	9.625	14.750	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,685.6	2,604.0	Wasatch				
4,548.9	4,392.0	G' Sand				
4,746.9	4,582.0	Ft. Union				
6,186.8	5,993.0	Mesaverde				
7,133.8	6,940.0	Approx. Top Gas				
8,631.8	8,438.0	Cameo Coals				
9,051.8	8,858.0	Rollins SS				
9,429.8	9,236.0	Cozette		0.000		
9,653.8	9,460.0	Corcoran		0.000		
10,053.8	9,860.0	TD		0.000		

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well Chevron TR 632-21-597 (B1) - Slot B1
Company:	PICEANCE HL NAD 83	TVD Reference:	KELLY BUSHING @ 8604.0usft (Frontier 10 (28' RKB) jjb)
Project:	TR 21-05S-097W	MD Reference:	KELLY BUSHING @ 8604.0usft (Frontier 10 (28' RKB) jjb)
Site:	TR 32-21-597 Pad	North Reference:	True
Well:	Chevron TR 632-21-597	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 26Oct09 kjs		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
120.0	120.0	0.0	0.0	Start Build 2.00
940.0	928.8	-116.1	10.2	Start DLS 2.00 TFO -97.755
1,143.4	1,124.1	-171.7	22.2	Hold 16.34 Inc
5,097.3	4,918.3	-1,220.6	392.9	Start Drop -1.50
6,186.8	5,993.0	-1,366.1	444.3	Vertical
10,053.8	9,860.0	-1,366.1	444.3	TD at 10054