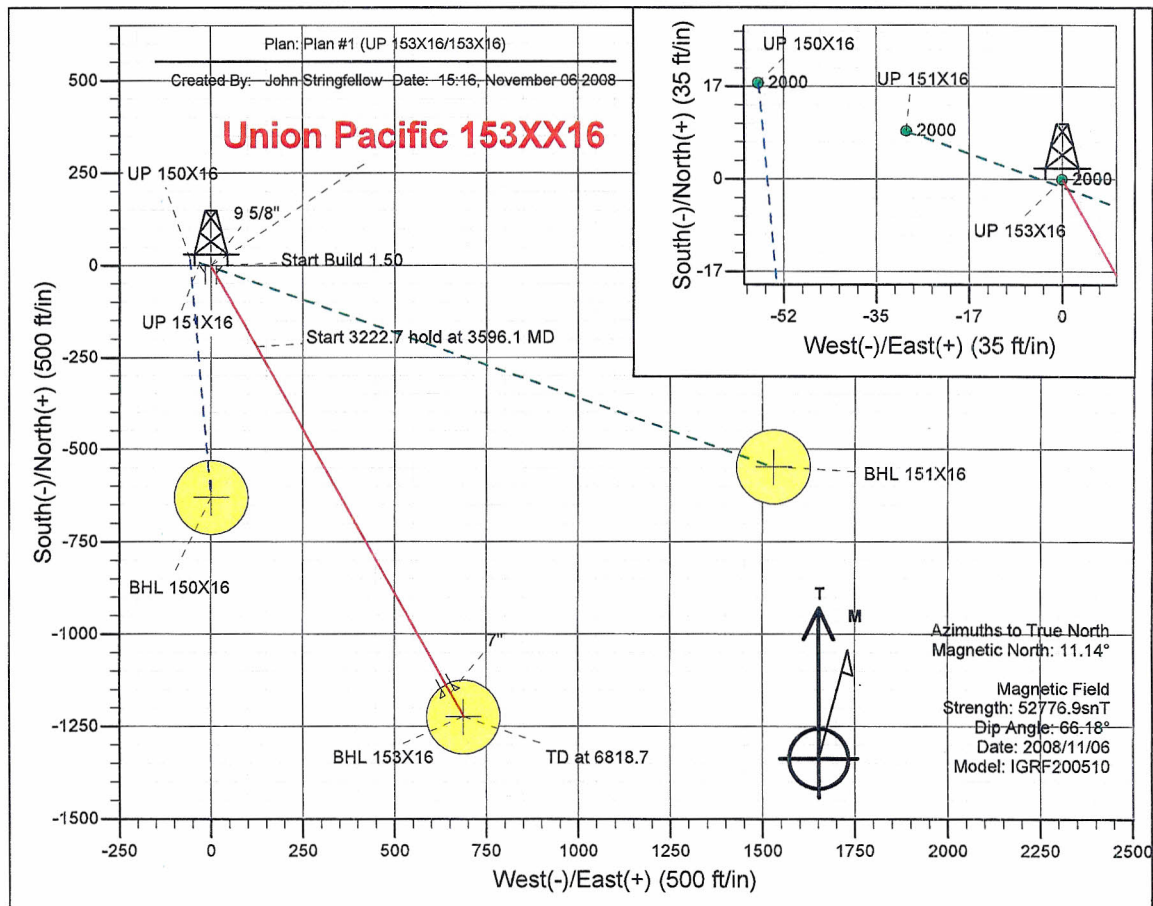


Chevron N.America Union Pacific Rio Blanco Co., Colorado UP 153X16											
Geodetic System: US State Plane 1983 Zone: Colorado Northern Zone WELL @ 5385.0ft (KB Elevation) Ground Level: 5363.0 Latitude: 40° 8' 29.249 N Longitude: 108° 51' 26.129 W Magnetic North is 11.14° East of True North (Magnetic Declination)											
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	0.00	0.0		
2	2200.0	0.00	0.00	2200.0	0.0	0.0	0.00	0.00	0.0		
3	3596.1	20.94	150.66	3565.2	-219.9	123.6	1.50	150.66	252.3		
4	6818.7	20.94	150.66	6575.0	-1224.0	688.1	0.00	0.00	1404.1	BHL 153X16	





ChevronTexaco

Rio Blanco Co., Colorado

Union Pacific

UP 153X16

153X16

Plan: Plan #1

Standard Planning Report

06 November, 2008





Crescent Directional Drilling Planning Report



Database: EDM 2003.16 Single User Db
Company: ChevronTexaco
Project: Rio Blanco Co., Colorado
Site: Union Pacific
Well: UP 153X16
Wellbore: 153X16
Design: Plan #1

Local Co-ordinate Reference: Well UP 153X16
TVD Reference: WELL @ 5385.0ft (KB Elevation)
MD Reference: WELL @ 5385.0ft (KB Elevation)
North Reference: True
Survey Calculation Method: Minimum Curvature

Project Rio Blanco Co., Colorado

Map System: US State Plane 1983 System Datum: Mean Sea Level
Geo Datum: North American Datum 1983
Map Zone: Colorado Northern Zone

Site Union Pacific

Site Position: Northing: 1,312,142.36 ft Latitude: 40° 8' 29.249 N
From: Lat/Long Easting: 2,061,627.27 ft Longitude: 108° 51' 26.129 W
Position Uncertainty: 0.0 ft Slot Radius: " Grid Convergence: -2.17 °

Well UP 153X16

Well Position +N/-S 0.0 ft Northing: 1,312,121.99 ft Latitude: 40° 8' 29.069 N
+E/-W 0.0 ft Easting: 2,061,683.85 ft Longitude: 108° 51' 25.391 W
Position Uncertainty 0.0 ft Wellhead Elevation: ft Ground Level: 5,363.0 ft

Wellbore 153X16

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2008/11/06	11.14	66.19	52,777

Design Plan #1

Audit Notes:

Version: Phase: PROTOTYPE Tie On Depth: 0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	150.66

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,596.1	20.94	150.66	3,565.2	-219.9	123.6	1.50	1.50	0.00	150.66	
6,818.7	20.94	150.66	6,575.0	-1,224.0	688.1	0.00	0.00	0.00	0.00	BHL 153X16



Crescent Directional Drilling Planning Report



Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well UP 153X16
Company:	ChevronTexaco	TVD Reference:	WELL @ 5385.0ft (KB Elevation)
Project:	Rio Blanco Co., Colorado	MD Reference:	WELL @ 5385.0ft (KB Elevation)
Site:	Union Pacific	North Reference:	True
Well:	UP 153X16	Survey Calculation Method:	Minimum Curvature
Wellbore:	153X16		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
9 5/8"									
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP 1.5/100'									
2,500.0	4.50	150.66	2,499.7	-10.3	5.8	11.8	1.50	1.50	0.00
3,000.0	12.00	150.66	2,994.2	-72.8	40.9	83.5	1.50	1.50	0.00
3,500.0	19.50	150.66	3,475.0	-191.0	107.4	219.1	1.50	1.50	0.00
3,596.1	20.94	150.66	3,565.2	-219.9	123.6	252.3	1.50	1.50	0.00
Hold at 3596' MD									
3,951.3	20.94	150.66	3,897.0	-330.6	185.9	379.3	0.00	0.00	0.00
Morrison									
4,000.0	20.94	150.66	3,942.4	-345.8	194.4	396.7	0.00	0.00	0.00
4,500.0	20.94	150.66	4,409.4	-501.6	282.0	575.4	0.00	0.00	0.00
4,994.2	20.94	150.66	4,871.0	-655.5	368.5	752.0	0.00	0.00	0.00
Naavajo									
5,000.0	20.94	150.66	4,876.4	-657.3	369.5	754.1	0.00	0.00	0.00
5,500.0	20.94	150.66	5,343.4	-813.1	457.1	932.8	0.00	0.00	0.00
5,872.2	20.94	150.66	5,691.0	-929.1	522.3	1,065.8	0.00	0.00	0.00
Moenkopi									
6,000.0	20.94	150.66	5,810.3	-968.9	544.7	1,111.5	0.00	0.00	0.00
6,500.0	20.94	150.66	6,277.3	-1,124.7	632.2	1,290.2	0.00	0.00	0.00
6,613.2	20.94	150.66	6,383.0	-1,159.9	652.1	1,330.6	0.00	0.00	0.00
Weber - 7"									
6,818.7	20.94	150.66	6,575.0	-1,224.0	688.1	1,404.1	0.00	0.00	0.00
BHL 153X16									

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
BHL 153X16	0.00	0.00	6,575.0	-1,224.0	688.1	1,310,872.85	2,062,325.10	40° 8' 16.973 N	108° 51' 16.531 W
- plan hits target									
- Circle (radius 100.0)									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
2,000.0	2,000.0	9 5/8"	9-5/8	12-1/4
6,613.2	6,383.0	7"	7	8-3/4



Crescent Directional Drilling

Planning Report



Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well UP 153X16
Company:	ChevronTexaco	TVD Reference:	WELL @ 5385.0ft (KB Elevation)
Project:	Rio Blanco Co., Colorado	MD Reference:	WELL @ 5385.0ft (KB Elevation)
Site:	Union Pacific	North Reference:	True
Well:	UP 153X16	Survey Calculation Method:	Minimum Curvature
Wellbore:	153X16		
Design:	Plan #1		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
5,872.2	5,691.0	Moenkopi		0.00	
3,951.3	3,897.0	Morrison		0.00	
4,994.2	4,871.0	Naavajo		0.00	
6,613.2	6,383.0	Weber		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,200.0	2,200.0	0.0	0.0	KOP 1.5/100'
3,596.1	3,565.2	-219.9	123.6	Hold at 3596' MD
6,818.7	6,575.0	-1,224.0	688.1	TD at 6818' MD