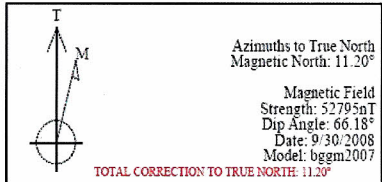




CHEVRON
UP150X16
RIO BLANCO COUNTY, COLORADO
SHL: LAT 40°8'28.320"N LON 108°51'26.424"W



FIELD DETAILS
Rio Blanco, Colorado
Colorado, Northern Zone
Geodetic System: US State Plane Coordinate System 1983
Ellipsoid: GRS 1980
Zone: Colorado, Northern Zone
Magnetic Model: bggm2007
System Datum: Mean Sea Level
Local North: True North

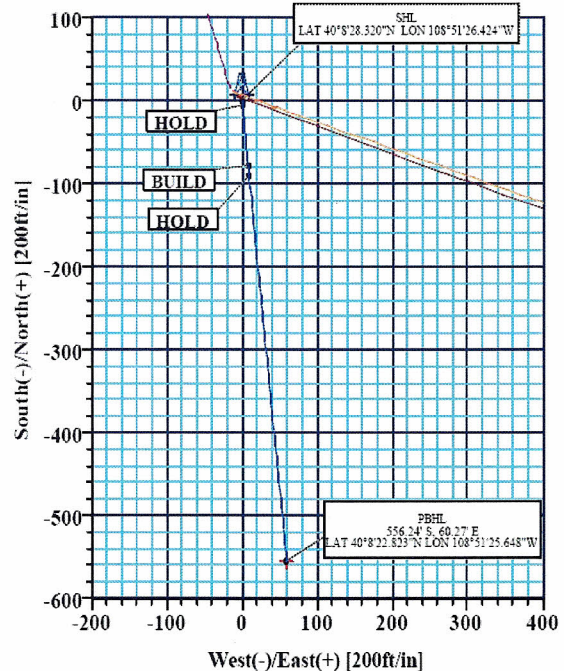
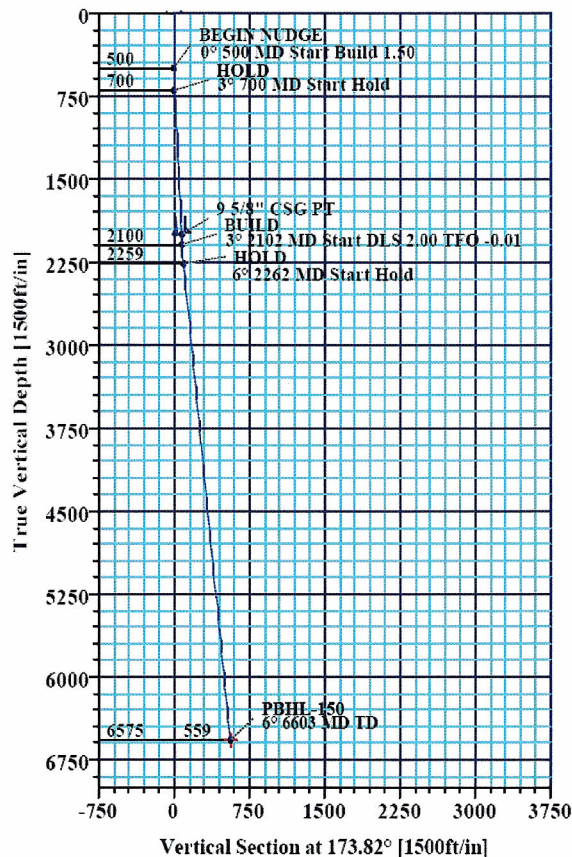
SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N/-S	-E/+W	DLeg	TFace	VSec Target
1	0.00	0.00	173.82	0.00	0.00	0.00	0.00	0.00	0.00
2	500.00	0.00	173.82	500.00	0.00	0.00	0.00	173.82	0.00
3	700.00	3.00	173.82	699.91	-5.20	0.56	1.50	173.82	5.23
4	2102.01	3.00	173.82	2100.00	-78.15	8.46	0.00	0.00	78.61
5	2261.51	6.19	173.82	2258.96	-90.86	9.84	2.00	-0.01	91.39
6	6602.86	6.19	173.82	6575.00	-556.24	60.27	0.00	0.00	559.49 PBHL-150

WELL DETAILS							
Name	+N/-S	-E/+W	Northing	Easting	Latitude	Longitude	Slor
UP150X16	0.00	0.00	1312051.93	2061604.93	40°08'28.320N	108°51'26.424W	N/A

TARGET DETAILS						
Name	TVD	+N/-S	-E/+W	Latitude	Longitude	Shape
PBHL-150	6575.00	-556.24	60.27	40°08'22.823N	108°51'25.648W	Point

SITE DETAILS
UP150X16 PAD
Site Centre Latitude: 40°08'28.320N
Longitude: 108°51'26.424W
Ground Level: 5385.00
Positional Uncertainty: 0.00
Convergence: -2.17

LEGEND
UP151X16 (1)
UP152X16 (1)
UP153X16 (1)
Plan #1



Plan: Plan #1 (UP150X16/1)
Created By: L. Winchell
Date: 9/30/2008



ChevronTexaco

Rio Blanco Co., Colorado

Union Pacific

UP 151X16

151X16

Plan #1

Anticollision Report

06 November, 2008





Crescent Directional Drilling

Anticollision Report



Company:	ChevronTexaco	Local Co-ordinate Reference:	Well UP 151X16
Project:	Rio Blanco Co., Colorado	TVD Reference:	WELL @ 5385.0ft (KB Elevation)
Reference Site:	Union Pacific	MD Reference:	WELL @ 5385.0ft (KB Elevation)
Site Error:	0.0ft	North Reference:	True
Reference Well:	UP 151X16	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	151X16	Database:	EDM 2003.16 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 200.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program Date 2008/11/06

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	6,917.3	Plan #1 (151X16)	MWD	MWD

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Separation Factor	Warning
Union Pacific						
UP 150X16 - 150X16 - Plan #1	0.0	0.0	29.4			
UP 150X16 - 150X16 - Plan #1	2,200.0	2,200.0	29.4	29.4	10,000.000	CC, ES
UP 153X16 - 153X16 - Plan #1	0.0	0.0	30.7			
UP 153X16 - 153X16 - Plan #1	2,566.5	2,563.9	28.2	28.2	10,000.000	CC, ES

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation



Crescent Directional Drilling Anticollision Report



Company: ChevronTexaco
Project: Rio Blanco Co., Colorado
Reference Site: Union Pacific
Site Error: 0.0ft
Reference Well: UP 151X16
Well Error: 0.0ft
Reference Wellbore: 151X16
Reference Design: Plan #1

Local Co-ordinate Reference: Well UP 151X16
TVD Reference: WELL @ 5385.0ft (KB Elevation)
MD Reference: WELL @ 5385.0ft (KB Elevation)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 2003.16 Single User Db
Offset TVD Reference: Offset Datum

Offset Design Union Pacific - UP 150X16 - 150X16 - Plan #1														Offset Site Error:	0.0ft
Survey Program: 0-MWD														Offset Well Error:	0.0ft
Measured Depth (ft)	Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Offset (ft)	Azimuth from North (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	-71.94	9.1	-28.0	29.4						
100.0	100.0	100.0	100.0	0.0	0.0	-71.94	9.1	-28.0	29.4	29.4	0.00	N/A			
200.0	200.0	200.0	200.0	0.0	0.0	-71.94	9.1	-28.0	29.4	29.4	0.00	N/A			
300.0	300.0	300.0	300.0	0.0	0.0	-71.94	9.1	-28.0	29.4	29.4	0.00	N/A			
400.0	400.0	400.0	400.0	0.0	0.0	-71.94	9.1	-28.0	29.4	29.4	0.00	N/A			
500.0	500.0	500.0	500.0	0.0	0.0	-71.94	9.1	-28.0	29.4	29.4	0.00	N/A			
600.0	600.0	600.0	600.0	0.0	0.0	-71.94	9.1	-28.0	29.4	29.4	0.00	N/A			
700.0	700.0	700.0	700.0	0.0	0.0	-71.94	9.1	-28.0	29.4	29.4	0.00	N/A			
800.0	800.0	800.0	800.0	0.0	0.0	-71.94	9.1	-28.0	29.4	29.4	0.00	N/A			
900.0	900.0	900.0	900.0	0.0	0.0	-71.94	9.1	-28.0	29.4	29.4	0.00	N/A			
1,000.0	1,000.0	1,000.0	1,000.0	0.0	0.0	-71.94	9.1	-28.0	29.4	29.4	0.00	N/A			
1,100.0	1,100.0	1,100.0	1,100.0	0.0	0.0	-71.94	9.1	-28.0	29.4	29.4	0.00	N/A			
1,200.0	1,200.0	1,200.0	1,200.0	0.0	0.0	-71.94	9.1	-28.0	29.4	29.4	0.00	N/A			
1,300.0	1,300.0	1,300.0	1,300.0	0.0	0.0	-71.94	9.1	-28.0	29.4	29.4	0.00	N/A			
1,400.0	1,400.0	1,400.0	1,400.0	0.0	0.0	-71.94	9.1	-28.0	29.4	29.4	0.00	N/A			
1,500.0	1,500.0	1,500.0	1,500.0	0.0	0.0	-71.94	9.1	-28.0	29.4	29.4	0.00	N/A			
1,600.0	1,600.0	1,600.0	1,600.0	0.0	0.0	-71.94	9.1	-28.0	29.4	29.4	0.00	N/A			
1,700.0	1,700.0	1,700.0	1,700.0	0.0	0.0	-71.94	9.1	-28.0	29.4	29.4	0.00	N/A			
1,800.0	1,800.0	1,800.0	1,800.0	0.0	0.0	-71.94	9.1	-28.0	29.4	29.4	0.00	N/A			
1,900.0	1,900.0	1,900.0	1,900.0	0.0	0.0	-71.94	9.1	-28.0	29.4	29.4	0.00	N/A			
2,000.0	2,000.0	2,000.0	2,000.0	0.0	0.0	-71.94	9.1	-28.0	29.4	29.4	0.00	N/A			
2,100.0	2,100.0	2,100.0	2,100.0	0.0	0.0	-71.94	9.1	-28.0	29.4	29.4	0.00	N/A			
2,200.0	2,200.0	2,200.0	2,200.0	0.0	0.0	-71.94	9.1	-28.0	29.4	29.4	0.00	N/A	CC, ES		
2,300.0	2,300.0	2,300.3	2,300.3	0.0	0.0	-74.17	7.8	-27.8	30.2	30.2	0.00	N/A			
2,400.0	2,399.9	2,400.4	2,400.4	0.0	0.0	-80.14	3.9	-27.5	32.9	32.9	0.00	N/A			
2,500.0	2,499.7	2,500.4	2,500.1	0.0	0.0	-88.02	-2.6	-26.9	38.0	38.0	0.00	N/A			
2,600.0	2,599.3	2,599.9	2,599.2	0.0	0.0	-95.85	-11.7	-26.1	46.0						
2,700.0	2,698.6	2,699.0	2,697.6	0.0	0.0	-102.46	-23.3	-25.0	57.2						
2,800.0	2,797.5	2,797.5	2,795.1	0.0	0.0	-107.57	-37.3	-23.8	71.4						
2,900.0	2,896.1	2,896.0	2,892.3	0.0	0.0	-110.75	-52.8	-22.4	88.4						
3,000.0	2,994.2	2,994.1	2,989.2	0.0	0.0	-111.96	-68.2	-21.0	107.5						
3,100.0	3,091.7	3,091.9	3,085.8	0.0	0.0	-112.01	-83.6	-19.6	128.5						
3,200.0	3,188.6	3,189.2	3,181.9	0.0	0.0	-111.38	-98.9	-18.2	151.4						
3,300.0	3,284.9	3,286.0	3,277.5	0.0	0.0	-110.36	-114.1	-16.8	176.2						

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Crescent Directional Drilling Anticollision Report



Company: ChevronTexaco
Project: Rio Blanco Co., Colorado
Reference Site: Union Pacific
Site Error: 0.0ft
Reference Well: UP 151X16
Well Error: 0.0ft
Reference Wellbore: 151X16
Reference Design: Plan #1

Local Co-ordinate Reference: Well UP 151X16
TVD Reference: WELL @ 5385.0ft (KB Elevation)
MD Reference: WELL @ 5385.0ft (KB Elevation)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 2003.16 Single User Db
Offset TVD Reference: Offset Datum

Offset Design Union Pacific - UP 153X16 - 153X16 - Plan #1													Offset Site Error: 0.0 ft
Survey Program: 0-MWD													Offset Well Error: 0.0 ft
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Azimuth from North (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation (ft)	Factor	
0.0	0.0	0.0	0.0	0.0	0.0	107.23	-9.1	29.4	30.7				
100.0	100.0	100.0	100.0	0.0	0.0	107.23	-9.1	29.4	30.7	30.7	0.00	N/A	
200.0	200.0	200.0	200.0	0.0	0.0	107.23	-9.1	29.4	30.7	30.7	0.00	N/A	
300.0	300.0	300.0	300.0	0.0	0.0	107.23	-9.1	29.4	30.7	30.7	0.00	N/A	
400.0	400.0	400.0	400.0	0.0	0.0	107.23	-9.1	29.4	30.7	30.7	0.00	N/A	
500.0	500.0	500.0	500.0	0.0	0.0	107.23	-9.1	29.4	30.7	30.7	0.00	N/A	
600.0	600.0	600.0	600.0	0.0	0.0	107.23	-9.1	29.4	30.7	30.7	0.00	N/A	
700.0	700.0	700.0	700.0	0.0	0.0	107.23	-9.1	29.4	30.7	30.7	0.00	N/A	
800.0	800.0	800.0	800.0	0.0	0.0	107.23	-9.1	29.4	30.7	30.7	0.00	N/A	
900.0	900.0	900.0	900.0	0.0	0.0	107.23	-9.1	29.4	30.7	30.7	0.00	N/A	
1,000.0	1,000.0	1,000.0	1,000.0	0.0	0.0	107.23	-9.1	29.4	30.7	30.7	0.00	N/A	
1,100.0	1,100.0	1,100.0	1,100.0	0.0	0.0	107.23	-9.1	29.4	30.7	30.7	0.00	N/A	
1,200.0	1,200.0	1,200.0	1,200.0	0.0	0.0	107.23	-9.1	29.4	30.7	30.7	0.00	N/A	
1,300.0	1,300.0	1,300.0	1,300.0	0.0	0.0	107.23	-9.1	29.4	30.7	30.7	0.00	N/A	
1,400.0	1,400.0	1,400.0	1,400.0	0.0	0.0	107.23	-9.1	29.4	30.7	30.7	0.00	N/A	
1,500.0	1,500.0	1,500.0	1,500.0	0.0	0.0	107.23	-9.1	29.4	30.7	30.7	0.00	N/A	
1,600.0	1,600.0	1,600.0	1,600.0	0.0	0.0	107.23	-9.1	29.4	30.7	30.7	0.00	N/A	
1,700.0	1,700.0	1,700.0	1,700.0	0.0	0.0	107.23	-9.1	29.4	30.7	30.7	0.00	N/A	
1,800.0	1,800.0	1,800.0	1,800.0	0.0	0.0	107.23	-9.1	29.4	30.7	30.7	0.00	N/A	
1,900.0	1,900.0	1,900.0	1,900.0	0.0	0.0	107.23	-9.1	29.4	30.7	30.7	0.00	N/A	
2,000.0	2,000.0	2,000.0	2,000.0	0.0	0.0	107.23	-9.1	29.4	30.7	30.7	0.00	N/A	
2,100.0	2,100.0	2,100.0	2,100.0	0.0	0.0	107.23	-9.1	29.4	30.7	30.7	0.00	N/A	
2,200.0	2,200.0	2,200.0	2,200.0	0.0	0.0	107.23	-9.1	29.4	30.7	30.7	0.00	N/A	
2,300.0	2,300.0	2,299.4	2,299.4	0.0	0.0	108.80	-10.2	30.0	30.4	30.4	0.00	N/A	
2,400.0	2,399.9	2,398.8	2,398.7	0.0	0.0	113.73	-13.6	31.9	29.5	29.5	0.00	N/A	
2,500.0	2,499.7	2,498.0	2,497.7	0.0	0.0	122.52	-19.2	35.0	28.5	28.5	0.00	N/A	
2,566.5	2,565.9	2,563.9	2,563.4	0.0	0.0	130.68	-24.2	37.8	28.2	28.2	0.00	N/A CC, ES	
2,600.0	2,599.3	2,597.2	2,596.4	0.0	0.0	135.43	-27.1	39.5	28.3	28.3	0.00	N/A	
2,700.0	2,698.6	2,696.1	2,694.7	0.0	0.0	151.28	-37.1	45.1	30.1	30.1	0.00	N/A	
2,800.0	2,797.5	2,794.7	2,792.3	0.0	0.0	167.08	-49.4	52.0	34.8	34.8	0.00	N/A	
2,900.0	2,896.1	2,893.1	2,889.3	0.0	0.0	-179.79	-63.8	60.1	42.8				
3,000.0	2,994.2	2,991.2	2,985.5	0.0	0.0	-169.95	-80.3	69.4	53.7				
3,100.0	3,091.7	3,088.9	3,080.9	0.0	0.0	-162.82	-98.9	79.8	67.2				
3,200.0	3,188.6	3,186.1	3,175.2	0.0	0.0	-157.61	-119.5	91.4	83.0				
3,300.0	3,284.9	3,282.9	3,268.5	0.0	0.0	-153.70	-142.0	104.1	100.8				
3,400.0	3,380.4	3,379.3	3,360.6	0.0	0.0	-150.69	-166.5	117.9	120.6				
3,500.0	3,475.0	3,475.1	3,451.5	0.0	0.0	-148.30	-192.9	132.7	142.2				
3,600.0	3,568.9	3,570.3	3,541.1	0.0	0.0	-146.34	-221.1	148.5	165.6				
3,700.0	3,661.7	3,666.5	3,631.0	0.0	0.0	-144.70	-251.0	165.3	190.4				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Crescent Directional Drilling

Anticollision Report



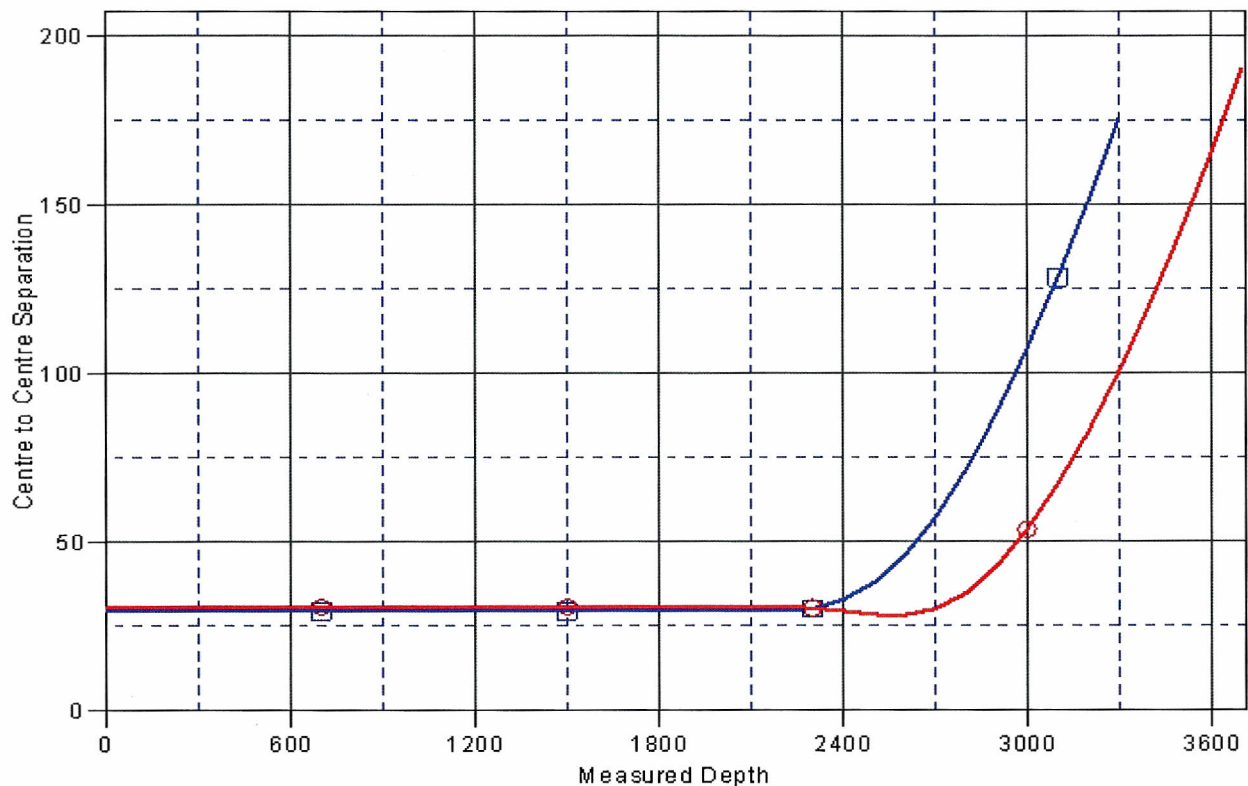
Company: ChevronTexaco
Project: Rio Blanco Co., Colorado
Reference Site: Union Pacific
Site Error: 0.0ft
Reference Well: UP 151X16
Well Error: 0.0ft
Reference Wellbore: 151X16
Reference Design: Plan #1

Local Co-ordinate Reference: Well UP 151X16
TVD Reference: WELL @ 5385.0ft (KB Elevation)
MD Reference: WELL @ 5385.0ft (KB Elevation)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 2003.16 Single User Db
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 5385.0ft (KB Elevation)
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W °

Coordinates are relative to: UP 151X16
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: -2.17°

Ladder Plot



LEGEND

UP 150X16, 150X16, Plan #1 V0 UP 153X16, 153X16, Plan #1 V0

