

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0	
2080.0	0.00	0.00	2080.0	0.0	0.0	0.00	0.00	0.0	
3099.2	20.38	200.86	3077.8	-167.6	-63.9	2.00	200.86	179.4	
5920.0	20.38	200.86	5722.0	-1085.7	-413.8	0.00	0.00	1161.9	WEBER 155X29
6744.6	20.38	200.86	6495.0	-1354.1	-516.1	0.00	0.00	1449.1	PBHL-BH-155X29



Azimuths to Grid North
True North: 2.18°
Magnetic North: 13.18°
Magnetic Field
Strength: 52664.5snT
Dip Angle: 66.14°
Date: 2009/11/17
Model: IGRF200510

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
WEBER 155X29	5722.0	-1085.7	-413.8	1303376.02	2057526.98	40° 7' 1.141 N	108° 52' 14.599 W	Point
PBHL -S -155X29	6495.0	-1085.7	-413.8	1303376.01	2057527.00	40° 7' 1.141 N	108° 52' 14.599 W	Circle (Radius: 100.0)
PBHL-BH-155X29	6495.0	-1354.1	-516.1	1303107.62	2057424.68	40° 6' 58.452 N	108° 52' 15.784 W	Point

Rangely County Colorado

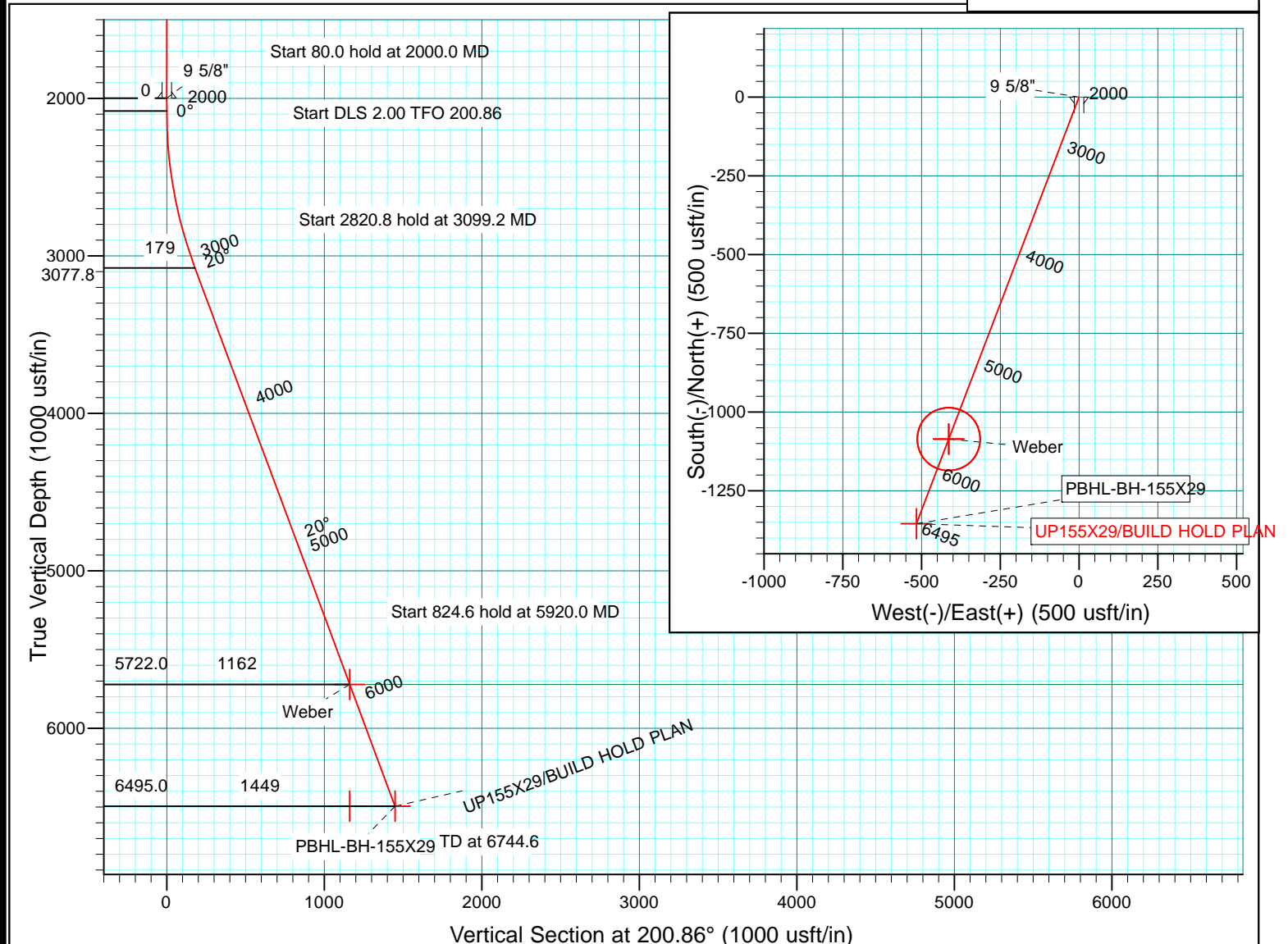
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
System Datum: Mean Sea Level

WELL DETAILS: UP155X29

Northing: 1304461.72
Ground Level: 5323.0
Easting: 2057940.78
Latitude: 40° 7' 12.018 N
Longitude: 108° 52' 9.808 W

FORMATION TOP DETAILS

TVDPath: 5722.0
MDPath: 5920.0
Formation: Weber



Chevron

**Rangely County Colorado
SEC 29-T2N-R102W Rio Blanco
UP155X29**

Wellbore #1

Plan: BUILD HOLD PLAN

Standard Planning Report

19 November, 2009

Scientific Drilling International

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well UP155X29
Company:	Chevron	TVD Reference:	WELL @ 5345.0usft (Original Well Elev)
Project:	Rangely County Colorado	MD Reference:	WELL @ 5345.0usft (Original Well Elev)
Site:	SEC 29-T2N-R102W Rio Blanco	North Reference:	Grid
Well:	UP155X29	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BUILD HOLD PLAN		

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

Site	SEC 29-T2N-R102W Rio Blanco			
Site Position:		Northing:	1,304,457.19 usft	Latitude: 40° 7' 11.980 N
From:	Lat/Long	Easting:	2,057,960.10 usft	Longitude: 108° 52' 9.557 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence: -2.18 °

Well	UP155X29			
Well Position	+N/-S	4.5 usft	Northing:	1,304,461.72 usft
	+E/-W	-19.3 usft	Easting:	2,057,940.78 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	5,345.0 usft	Ground Level: 5,323.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2009/11/17	11.01	66.14	52,664

Design	BUILD HOLD PLAN			
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	200.86

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	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	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,080.0	0.00	0.00	2,080.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,099.2	20.38	200.86	3,077.8	-167.6	-63.9	2.00	2.00	-15.61	200.86	
5,920.0	20.38	200.86	5,722.0	-1,085.7	-413.8	0.00	0.00	0.00	0.00	WEBER 155X29
6,744.6	20.38	200.86	6,495.0	-1,354.1	-516.1	0.00	0.00	0.00	0.00	PBHL-BH-155X29

Scientific Drilling International

Planning Report

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Company:	Chevron	TVD Reference:	WELL @ 5345.0usft (Original Well Elev)
Project:	Rangely County Colorado	MD Reference:	WELL @ 5345.0usft (Original Well Elev)
Site:	SEC 29-T2N-R102W Rio Blanco	North Reference:	Grid
Well:	UP155X29	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BUILD HOLD PLAN		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	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
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	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
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	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
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	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
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	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
Start 80.0 hold at 2000.0 MD - 9 5/8"									
2,080.0	0.00	0.00	2,080.0	0.0	0.0	0.0	0.00	0.00	0.00
Start DLS 2.00 TFO 200.86									
2,100.0	0.40	200.86	2,100.0	-0.1	0.0	0.1	2.00	2.00	0.00
2,200.0	2.40	200.86	2,200.0	-2.3	-0.9	2.5	2.00	2.00	0.00
2,300.0	4.40	200.86	2,299.8	-7.9	-3.0	8.4	2.00	2.00	0.00
2,400.0	6.40	200.86	2,399.3	-16.7	-6.4	17.9	2.00	2.00	0.00
2,500.0	8.40	200.86	2,498.5	-28.7	-10.9	30.7	2.00	2.00	0.00
2,600.0	10.40	200.86	2,597.1	-44.0	-16.8	47.1	2.00	2.00	0.00
2,700.0	12.40	200.86	2,695.2	-62.4	-23.8	66.8	2.00	2.00	0.00
2,800.0	14.40	200.86	2,792.4	-84.1	-32.1	90.0	2.00	2.00	0.00
2,900.0	16.40	200.86	2,888.8	-108.9	-41.5	116.6	2.00	2.00	0.00
3,000.0	18.40	200.86	2,984.3	-136.9	-52.2	146.5	2.00	2.00	0.00
3,099.2	20.38	200.86	3,077.8	-167.6	-63.9	179.4	2.00	2.00	0.00
Start 2820.8 hold at 3099.2 MD									
3,100.0	20.38	200.86	3,078.6	-167.9	-64.0	179.7	0.00	0.00	0.00
3,200.0	20.38	200.86	3,172.3	-200.4	-76.4	214.5	0.00	0.00	0.00
3,300.0	20.38	200.86	3,266.1	-233.0	-88.8	249.3	0.00	0.00	0.00
3,400.0	20.38	200.86	3,359.8	-265.5	-101.2	284.2	0.00	0.00	0.00
3,500.0	20.38	200.86	3,453.5	-298.1	-113.6	319.0	0.00	0.00	0.00
3,600.0	20.38	200.86	3,547.3	-330.6	-126.0	353.8	0.00	0.00	0.00
3,700.0	20.38	200.86	3,641.0	-363.2	-138.4	388.7	0.00	0.00	0.00
3,800.0	20.38	200.86	3,734.8	-395.7	-150.8	423.5	0.00	0.00	0.00
3,900.0	20.38	200.86	3,828.5	-428.3	-163.2	458.3	0.00	0.00	0.00
4,000.0	20.38	200.86	3,922.2	-460.8	-175.6	493.1	0.00	0.00	0.00
4,100.0	20.38	200.86	4,016.0	-493.4	-188.0	528.0	0.00	0.00	0.00
4,200.0	20.38	200.86	4,109.7	-525.9	-200.4	562.8	0.00	0.00	0.00
4,300.0	20.38	200.86	4,203.4	-558.4	-212.8	597.6	0.00	0.00	0.00
4,400.0	20.38	200.86	4,297.2	-591.0	-225.3	632.5	0.00	0.00	0.00
4,500.0	20.38	200.86	4,390.9	-623.5	-237.7	667.3	0.00	0.00	0.00
4,600.0	20.38	200.86	4,484.7	-656.1	-250.1	702.1	0.00	0.00	0.00
4,700.0	20.38	200.86	4,578.4	-688.6	-262.5	737.0	0.00	0.00	0.00

Scientific Drilling International

Planning Report

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Project:	Rangely County Colorado	MD Reference:	WELL @ 5345.0usft (Original Well Elev)
Site:	SEC 29-T2N-R102W Rio Blanco	North Reference:	Grid
Well:	UP155X29	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BUILD HOLD PLAN		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,800.0	20.38	200.86	4,672.1	-721.2	-274.9	771.8	0.00	0.00	0.00
4,900.0	20.38	200.86	4,765.9	-753.7	-287.3	806.6	0.00	0.00	0.00
5,000.0	20.38	200.86	4,859.6	-786.3	-299.7	841.4	0.00	0.00	0.00
5,100.0	20.38	200.86	4,953.4	-818.8	-312.1	876.3	0.00	0.00	0.00
5,200.0	20.38	200.86	5,047.1	-851.4	-324.5	911.1	0.00	0.00	0.00
5,300.0	20.38	200.86	5,140.8	-883.9	-336.9	945.9	0.00	0.00	0.00
5,400.0	20.38	200.86	5,234.6	-916.5	-349.3	980.8	0.00	0.00	0.00
5,500.0	20.38	200.86	5,328.3	-949.0	-361.7	1,015.6	0.00	0.00	0.00
5,600.0	20.38	200.86	5,422.0	-981.6	-374.1	1,050.4	0.00	0.00	0.00
5,700.0	20.38	200.86	5,515.8	-1,014.1	-386.5	1,085.3	0.00	0.00	0.00
5,800.0	20.38	200.86	5,609.5	-1,046.6	-398.9	1,120.1	0.00	0.00	0.00
5,900.0	20.38	200.86	5,703.3	-1,079.2	-411.3	1,154.9	0.00	0.00	0.00
5,920.0	20.38	200.86	5,722.0	-1,085.7	-413.8	1,161.9	0.00	0.00	0.00
Start 824.6 hold at 5920.0 MD - Weber - WEBER 155X29									
6,000.0	20.38	200.86	5,797.0	-1,111.7	-423.7	1,189.7	0.00	0.00	0.00
6,100.0	20.38	200.86	5,890.7	-1,144.3	-436.1	1,224.6	0.00	0.00	0.00
6,200.0	20.38	200.86	5,984.5	-1,176.8	-448.5	1,259.4	0.00	0.00	0.00
6,300.0	20.38	200.86	6,078.2	-1,209.4	-460.9	1,294.2	0.00	0.00	0.00
6,400.0	20.38	200.86	6,171.9	-1,241.9	-473.3	1,329.1	0.00	0.00	0.00
6,500.0	20.38	200.86	6,265.7	-1,274.5	-485.7	1,363.9	0.00	0.00	0.00
6,600.0	20.38	200.86	6,359.4	-1,307.0	-498.2	1,398.7	0.00	0.00	0.00
6,644.6	20.38	200.86	6,401.2	-1,321.5	-503.7	1,414.3	0.00	0.00	0.00
PBHL -S -155X29									
6,700.0	20.38	200.86	6,453.2	-1,339.6	-510.6	1,433.6	0.00	0.00	0.00
6,744.6	20.38	200.86	6,495.0	-1,354.1	-516.1	1,449.1	0.00	0.00	0.00
TD at 6744.6 - PBHL-BH-155X29									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
WEBER 155X29	0.00	360.00	5,722.0	-1,085.7	-413.8	1,303,376.02	2,057,526.98	40° 7' 1.141 N	108° 52' 14.599 W
- plan hits target center									
- Point									
PBHL-BH-155X29	0.00	360.00	6,495.0	-1,354.1	-516.1	1,303,107.62	2,057,424.68	40° 6' 58.452 N	108° 52' 15.784 W
- plan hits target center									
- Point									
PBHL -S -155X29	0.00	360.00	6,495.0	-1,085.7	-413.8	1,303,376.01	2,057,526.99	40° 7' 1.141 N	108° 52' 14.599 W
- plan misses target center by 269.2usft at 6644.6usft MD (6401.2 TVD, -1321.5 N, -503.7 E)									
- Circle (radius 100.0)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
2,000.0	2,000.0	9 5/8"	9-5/8	12-1/4	

Scientific Drilling International

Planning Report

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Project:	Rangely County Colorado	MD Reference:	WELL @ 5345.0usft (Original Well Elev)
Site:	SEC 29-T2N-R102W Rio Blanco	North Reference:	Grid
Well:	UP155X29	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BUILD HOLD PLAN		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
5,920.0	5,722.0	Weber		0.00	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
2,000.0	2,000.0	0.0	0.0	Start 80.0 hold at 2000.0 MD	
2,080.0	2,080.0	0.0	0.0	Start DLS 2.00 TFO 200.86	
3,099.2	3,077.8	-167.6	-63.9	Start 2820.8 hold at 3099.2 MD	
5,920.0	5,722.0	-1,085.7	-413.8	Start 824.6 hold at 5920.0 MD	
6,744.6	6,495.0	-1,354.1	-516.1	TD at 6744.6	