



Scientific Drilling
Rocky Mountain Operations

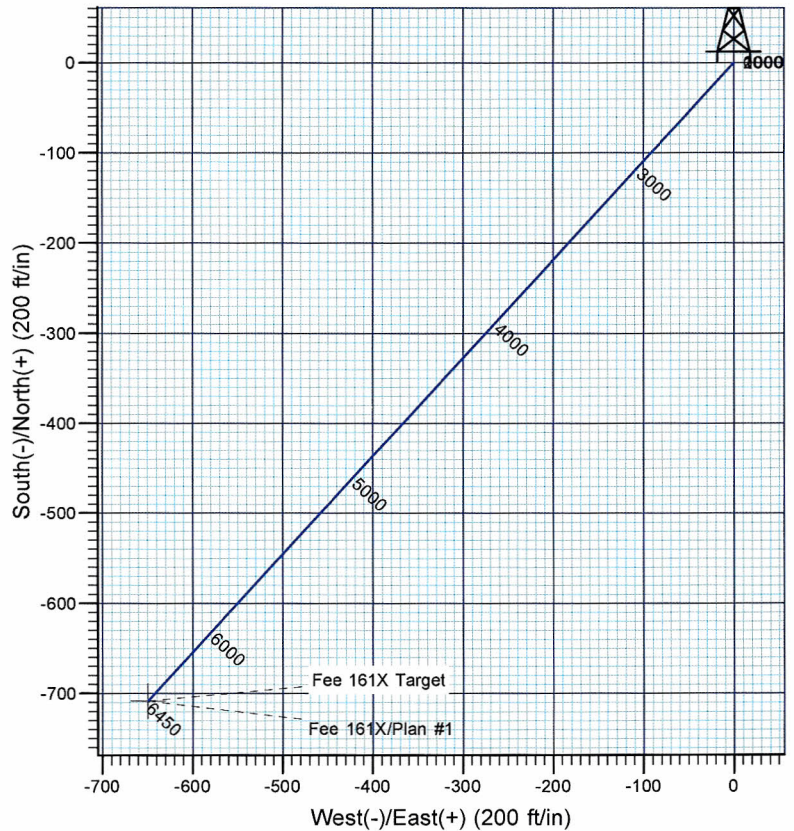
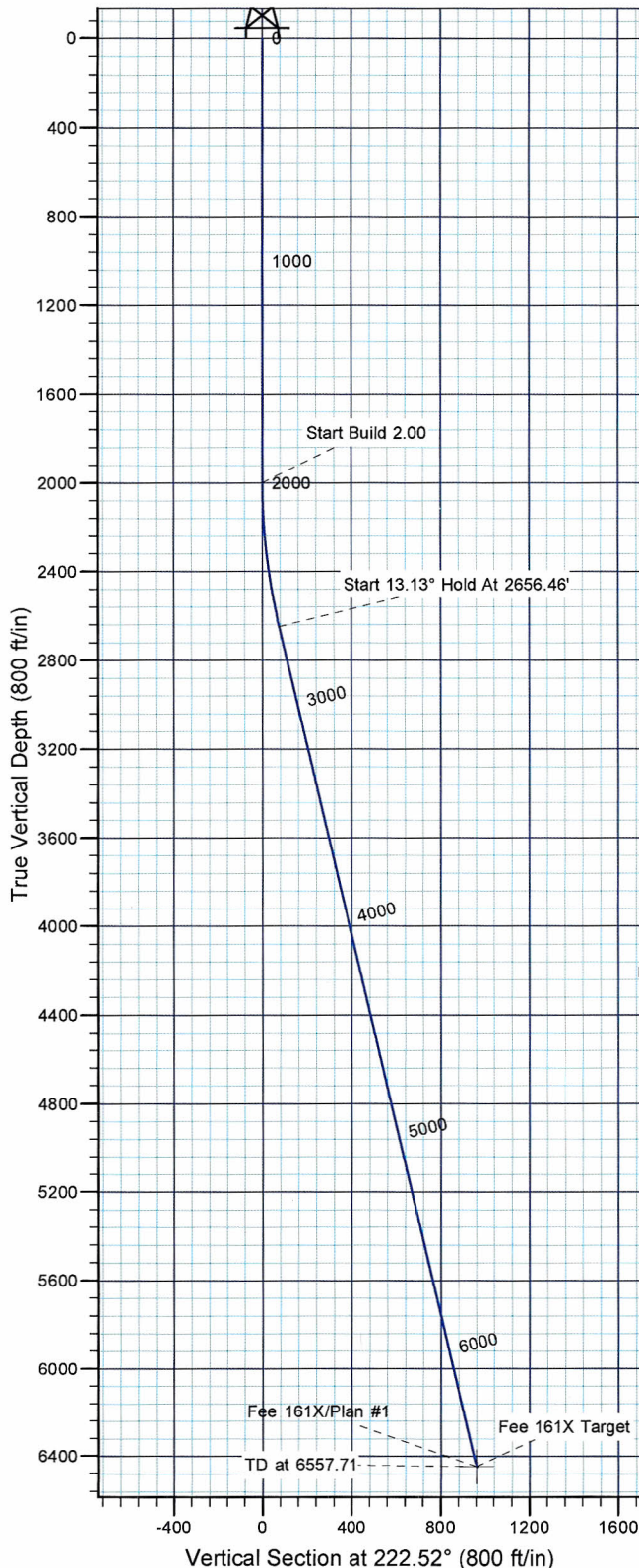
Company: Chevron
Project: Rio Blanco County, CO (NAD 83)
Site: Fee 160X/161X



Well Details: Fee 161X

TVD Reference: GL 5277' @ 5277.00ft (Ground Level) Ground Level: 5277.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1300074.01 2065893.48 40° 6' 31.660 N 108° 50' 25.380 W

T M Azimuths to True North
Magnetic North: 10.84°
Magnetic Field
Strength: 52550.2snT
Dip Angle: 66.11°
Date: 2011/01/17
Model: IGRF200510



FORMATION TOP DETAILS

No formation data is available

Plan: Plan #1

12:02, January 17 2011

Created By: Rex Hall

PROJECT DETAILS: Rio Blanco County, CO (NAD 83)

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

System Datum: Mean Sea Level

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	
3	2656.46	13.13	222.52	2650.73	-55.19	-50.61	2.00	222.52	74.89	
4	6557.71	13.13	222.52	6450.00	-708.30	-649.56	0.00	0.00	961.05	Fee 161X Target

Chevron

Rio Blanco County, CO (NAD 83)

Fee 160X/161X

Fee 161X

OH

Plan: Plan #1

Standard Planning Report

17 January, 2011

Scientific Drilling International

Planning Report

Database:	Rockies-R5000.1	Local Co-ordinate Reference:	Well Fee 161X
Company:	Chevron	TVD Reference:	GL 5277' @ 5277.00ft (Ground Level)
Project:	Rio Blanco County, CO (NAD 83)	MD Reference:	GL 5277' @ 5277.00ft (Ground Level)
Site:	Fee 160X/161X	North Reference:	True
Well:	Fee 161X	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project	Rio Blanco County, CO (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		Fee 160X/161X, Sec 28 T2N R102W			
Site Position:		Northing:	1,300,099.92 usft	Latitude:	40° 6' 31.910 N
From:	Lat/Long	Easting:	2,065,878.13 usft	Longitude:	108° 50' 25.590 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	-2.16 °

Well	Fee 161X, 740' FSL & 426' FEL					
Well Position	+N/-S	-25.31 ft	Northing:	1,300,074.01 usft	Latitude:	40° 6' 31.660 N
	+E/-W	16.32 ft	Easting:	2,065,893.48 usft	Longitude:	108° 50' 25.380 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,277.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2011/01/17	10.84	66.11	52,550

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	222.52

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,656.46	13.13	222.52	2,650.73	-55.19	-50.61	2.00	2.00	0.00	222.52	
6,557.71	13.13	222.52	6,450.00	-708.30	-649.56	0.00	0.00	0.00	0.00	Fee 161X Target

Scientific Drilling International

Planning Report

Database:	Rockies-R5000.1	Local Co-ordinate Reference:	Well Fee 161X
Company:	Chevron	TVD Reference:	GL 5277' @ 5277.00ft (Ground Level)
Project:	Rio Blanco County, CO (NAD 83)	MD Reference:	GL 5277' @ 5277.00ft (Ground Level)
Site:	Fee 160X/161X	North Reference:	True
Well:	Fee 161X	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
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)
0.00	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
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
2,100.00	2.00	222.52	2,099.98	-1.29	-1.18	1.75	2.00	2.00	0.00
2,200.00	4.00	222.52	2,199.84	-5.14	-4.72	6.98	2.00	2.00	0.00
2,300.00	6.00	222.52	2,299.45	-11.57	-10.61	15.69	2.00	2.00	0.00
2,400.00	8.00	222.52	2,398.70	-20.55	-18.84	27.88	2.00	2.00	0.00
2,500.00	10.00	222.52	2,497.47	-32.08	-29.42	43.52	2.00	2.00	0.00
2,600.00	12.00	222.52	2,595.62	-46.14	-42.31	62.60	2.00	2.00	0.00
2,656.46	13.13	222.52	2,650.73	-55.19	-50.61	74.89	2.00	2.00	0.00
Start 13.13° Hold At 2656.46'									
2,700.00	13.13	222.52	2,693.13	-62.48	-57.30	84.77	0.00	0.00	0.00
2,800.00	13.13	222.52	2,790.52	-79.22	-72.65	107.49	0.00	0.00	0.00
2,900.00	13.13	222.52	2,887.90	-95.96	-88.00	130.20	0.00	0.00	0.00
3,000.00	13.13	222.52	2,985.29	-112.70	-103.36	152.92	0.00	0.00	0.00
3,100.00	13.13	222.52	3,082.68	-129.44	-118.71	175.63	0.00	0.00	0.00
3,200.00	13.13	222.52	3,180.06	-146.18	-134.06	198.35	0.00	0.00	0.00
3,300.00	13.13	222.52	3,277.45	-162.93	-149.41	221.06	0.00	0.00	0.00
3,400.00	13.13	222.52	3,374.83	-179.67	-164.77	243.78	0.00	0.00	0.00
3,500.00	13.13	222.52	3,472.22	-196.41	-180.12	266.49	0.00	0.00	0.00
3,600.00	13.13	222.52	3,569.61	-213.15	-195.47	289.21	0.00	0.00	0.00
3,700.00	13.13	222.52	3,666.99	-229.89	-210.83	311.92	0.00	0.00	0.00
3,800.00	13.13	222.52	3,764.38	-246.63	-226.18	334.64	0.00	0.00	0.00
3,900.00	13.13	222.52	3,861.76	-263.37	-241.53	357.35	0.00	0.00	0.00
4,000.00	13.13	222.52	3,959.15	-280.11	-256.88	380.07	0.00	0.00	0.00
4,100.00	13.13	222.52	4,056.54	-296.85	-272.24	402.78	0.00	0.00	0.00
4,200.00	13.13	222.52	4,153.92	-313.59	-287.59	425.50	0.00	0.00	0.00
4,300.00	13.13	222.52	4,251.31	-330.34	-302.94	448.21	0.00	0.00	0.00
4,400.00	13.13	222.52	4,348.69	-347.08	-318.29	470.93	0.00	0.00	0.00
4,500.00	13.13	222.52	4,446.08	-363.82	-333.65	493.64	0.00	0.00	0.00
4,600.00	13.13	222.52	4,543.47	-380.56	-349.00	516.36	0.00	0.00	0.00
4,700.00	13.13	222.52	4,640.85	-397.30	-364.35	539.07	0.00	0.00	0.00
4,800.00	13.13	222.52	4,738.24	-414.04	-379.70	561.79	0.00	0.00	0.00
4,900.00	13.13	222.52	4,835.62	-430.78	-395.06	584.50	0.00	0.00	0.00
5,000.00	13.13	222.52	4,933.01	-447.52	-410.41	607.22	0.00	0.00	0.00

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Site:	Fee 160X/161X	North Reference:	True
Well:	Fee 161X	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
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)
5,100.00	13.13	222.52	5,030.40	-464.26	-425.76	629.93	0.00	0.00	0.00
5,200.00	13.13	222.52	5,127.78	-481.01	-441.12	652.65	0.00	0.00	0.00
5,300.00	13.13	222.52	5,225.17	-497.75	-456.47	675.36	0.00	0.00	0.00
5,400.00	13.13	222.52	5,322.55	-514.49	-471.82	698.08	0.00	0.00	0.00
5,500.00	13.13	222.52	5,419.94	-531.23	-487.17	720.79	0.00	0.00	0.00
5,600.00	13.13	222.52	5,517.33	-547.97	-502.53	743.51	0.00	0.00	0.00
5,700.00	13.13	222.52	5,614.71	-564.71	-517.88	766.22	0.00	0.00	0.00
5,800.00	13.13	222.52	5,712.10	-581.45	-533.23	788.94	0.00	0.00	0.00
5,900.00	13.13	222.52	5,809.48	-598.19	-548.58	811.65	0.00	0.00	0.00
6,000.00	13.13	222.52	5,906.87	-614.93	-563.94	834.37	0.00	0.00	0.00
6,100.00	13.13	222.52	6,004.26	-631.67	-579.29	857.08	0.00	0.00	0.00
6,200.00	13.13	222.52	6,101.64	-648.42	-594.64	879.80	0.00	0.00	0.00
6,300.00	13.13	222.52	6,199.03	-665.16	-610.00	902.51	0.00	0.00	0.00
6,400.00	13.13	222.52	6,296.41	-681.90	-625.35	925.23	0.00	0.00	0.00
6,500.00	13.13	222.52	6,393.80	-698.64	-640.70	947.94	0.00	0.00	0.00
6,557.71	13.13	222.52	6,450.00	-708.30	-649.56	961.05	0.00	0.00	0.00
TD at 6557.71									

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									
Fee 161X Target	0.00	0.00	6,450.00	-708.30	-649.56	1,299,390.68	2,065,217.70	40° 6' 24.660 N	108° 50' 33.740 W
- plan hits target center									
- Point									

Plan Annotations

Vertical Depth (ft)

2,000.00

2,650.73

6,450.00

Hold At 2666.46

71