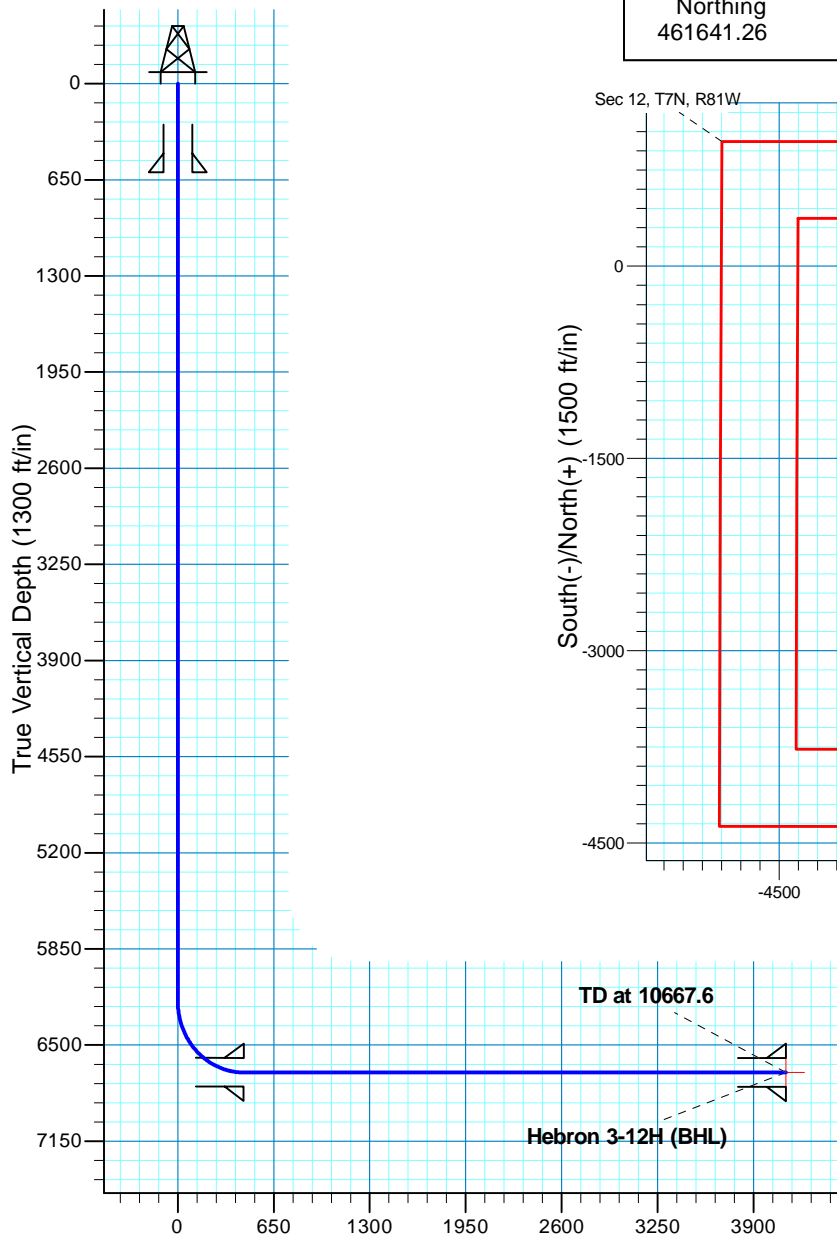


# Hebron 3-12H

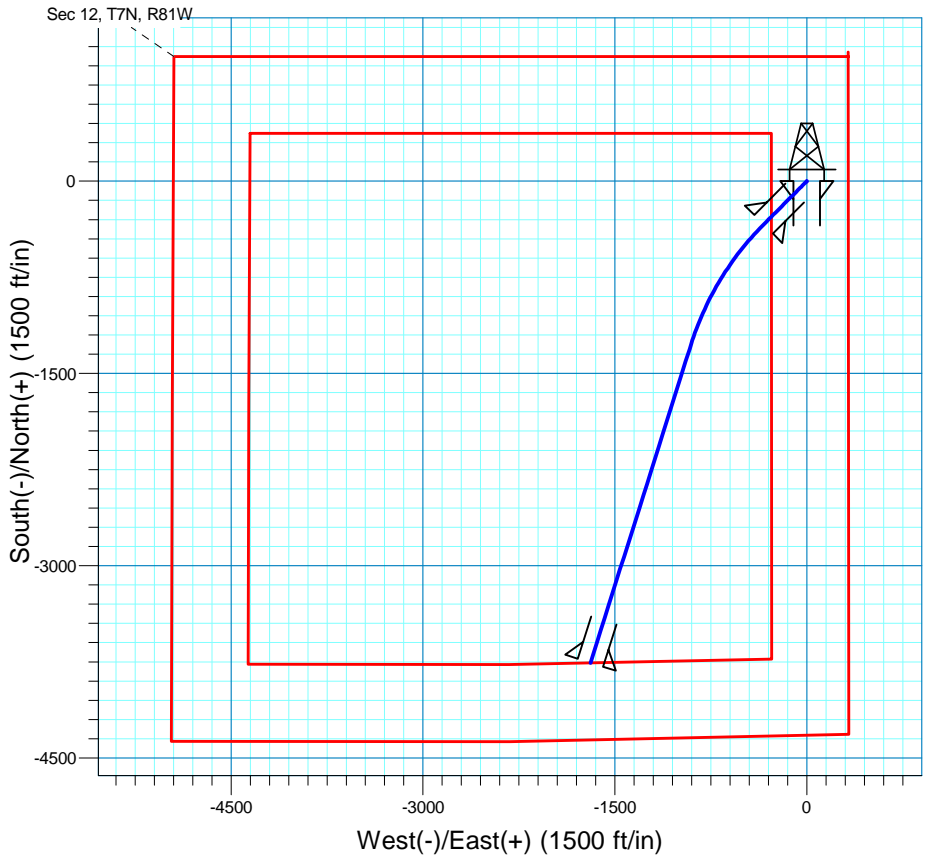
Section 12 T7N R81W

Jackson, County

Surface Location			
NAD 1927 (NADCON CONUS)		Colorado North 501	
Ground Elevation: 8131.0		RIG @ 8152.0ft (TBD)	
Northing	Easting	Latitude	Longitude
461641.26	1742909.77	40°35' 48.991 N	106°25' 32.779 W



Vertical Section at 204.22° (1300 ft/in)



Azimuths to True North  
Magnetic North: 10.02°  
Magnetic Field  
Strength: 53275.8snT  
Dip Angle: 67.00°  
Date: 3/3/2009  
Model: IGRF200510

Project: Northpark  
Site: Hebron  
Well: 3-12H  
Plan: APD\_Revised 2010-12-20

## 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	6207.5	0.00	0.00	6207.5	0.0	0.0	0.00	0.00	0.0	
3	6957.5	90.00	225.00	6685.0	-337.6	-337.6	12.00	225.00	446.4	
4	8055.0	90.00	197.56	6685.0	-1266.6	-902.1	2.50	-90.00	1525.2	Hebron 3-12H (BHL)
5	10667.6	90.00	197.56	6685.0	-3757.4	-1690.4	0.00	0.00	4120.1	Hebron 3-12H (BHL)

## TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Hebron 3-12H (BHL)	6685.0	-3757.4	-1690.4	457901.71	1741180.25	40°35' 11.861 N	106°25' 54.689 W	Point



## **Denver Division- Colorado**

**Northpark**

**Hebron**

**3-12H**

**Original Wellbore**

**Plan: APD\_Revised 2010-12-20**

## **Standard Planning Report**

**21 December, 2010**

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well 3-12H
<b>Company:</b>	Denver Division- Colorado	<b>TVD Reference:</b>	RIG @ 8152.0ft (TBD)
<b>Project:</b>	Northpark	<b>MD Reference:</b>	RIG @ 8152.0ft (TBD)
<b>Site:</b>	Hebron	<b>North Reference:</b>	True
<b>Well:</b>	3-12H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Wellbore		
<b>Design:</b>	APD_Revised 2010-12-20		

<b>Project</b>	Northpark, Jackson County		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Colorado North 501		

Site	Hebron				
Site Position:		Northing:	456,960.35 ft	Latitude:	40° 35' 3.041 N
From:	Lat/Long	Easting:	1,745,862.29 ft	Longitude:	106° 24' 53.881 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	-0.59 °

Well	3-12H, Shares pad with Marr 4-12H					
Well Position	+N/-S	4,649.8 ft	Northing:	461,641.26 ft	Latitude:	40° 35' 48.991 N
	+E/-W	-3,001.2 ft	Easting:	1,742,909.77 ft	Longitude:	106° 25' 32.779 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	8,131.0 ft

<b>Wellbore</b>	Original Wellbore				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	3/3/2009	10.02	67.00	53,276

<b>Design</b>	APD_Revised 2010-12-20			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	204.22

<b>Plan Sections</b>										
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	
6,207.5	0.00	0.00	6,207.5	0.0	0.0	0.00	0.00	0.00	0.00	
6,957.5	90.00	225.00	6,685.0	-337.6	-337.6	12.00	12.00	0.00	225.00	
8,055.0	90.00	197.56	6,685.0	-1,266.6	-902.1	2.50	0.00	-2.50	-90.00	Hebron 3-12H (BHL)
10,667.6	90.00	197.56	6,685.0	-3,757.4	-1,690.4	0.00	0.00	0.00	0.00	Hebron 3-12H (BHL)

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well 3-12H
<b>Company:</b>	Denver Division- Colorado	<b>TVD Reference:</b>	RIG @ 8152.0ft (TBD)
<b>Project:</b>	Northpark	<b>MD Reference:</b>	RIG @ 8152.0ft (TBD)
<b>Site:</b>	Hebron	<b>North Reference:</b>	True
<b>Well:</b>	3-12H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Wellbore		
<b>Design:</b>	APD_Revised 2010-12-20		

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
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
9 5/8"									
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
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well 3-12H
<b>Company:</b>	Denver Division- Colorado	<b>TVD Reference:</b>	RIG @ 8152.0ft (TBD)
<b>Project:</b>	Northpark	<b>MD Reference:</b>	RIG @ 8152.0ft (TBD)
<b>Site:</b>	Hebron	<b>North Reference:</b>	True
<b>Well:</b>	3-12H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Wellbore		
<b>Design:</b>	APD_Revised 2010-12-20		

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)
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,207.5	0.00	0.00	6,207.5	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	11.10	225.00	6,299.4	-6.3	-6.3	8.4	12.00	12.00	0.00
6,400.0	23.10	225.00	6,394.8	-27.1	-27.1	35.8	12.00	12.00	0.00
6,500.0	35.10	225.00	6,482.0	-61.4	-61.4	81.2	12.00	12.00	0.00
6,600.0	47.10	225.00	6,557.3	-107.8	-107.8	142.5	12.00	12.00	0.00
6,700.0	59.10	225.00	6,617.2	-164.2	-164.2	217.2	12.00	12.00	0.00
6,800.0	71.10	225.00	6,659.2	-228.3	-228.3	301.8	12.00	12.00	0.00
6,900.0	83.10	225.00	6,681.5	-297.1	-297.1	392.8	12.00	12.00	0.00
6,957.5	90.00	225.00	6,685.0	-337.6	-337.6	446.4	12.00	12.00	0.00
7"									
7,000.0	90.00	223.94	6,685.0	-367.9	-367.4	486.3	2.50	0.00	-2.50
7,100.0	90.00	221.44	6,685.0	-441.4	-435.2	581.1	2.50	0.00	-2.50
7,200.0	90.00	218.94	6,685.0	-517.8	-499.7	677.3	2.50	0.00	-2.50
7,300.0	90.00	216.44	6,685.0	-597.0	-560.8	774.5	2.50	0.00	-2.50
7,400.0	90.00	213.94	6,685.0	-678.7	-618.5	872.7	2.50	0.00	-2.50
7,500.0	90.00	211.44	6,685.0	-762.8	-672.5	971.6	2.50	0.00	-2.50
7,600.0	90.00	208.94	6,685.0	-849.3	-722.7	1,071.0	2.50	0.00	-2.50
7,700.0	90.00	206.44	6,685.0	-937.8	-769.2	1,170.8	2.50	0.00	-2.50
7,800.0	90.00	203.94	6,685.0	-1,028.3	-811.8	1,270.8	2.50	0.00	-2.50
7,900.0	90.00	201.44	6,685.0	-1,120.6	-850.3	1,370.8	2.50	0.00	-2.50
8,000.0	90.00	198.94	6,685.0	-1,214.4	-884.8	1,470.5	2.50	0.00	-2.50
8,055.0	90.00	197.56	6,685.0	-1,266.6	-902.1	1,525.2	2.50	0.00	-2.50
8,100.0	90.00	197.56	6,685.0	-1,309.5	-915.6	1,569.9	0.00	0.00	0.00
8,200.0	90.00	197.56	6,685.0	-1,404.9	-945.8	1,669.2	0.00	0.00	0.00
8,300.0	90.00	197.56	6,685.0	-1,500.2	-976.0	1,768.6	0.00	0.00	0.00
8,400.0	90.00	197.56	6,685.0	-1,595.6	-1,006.2	1,867.9	0.00	0.00	0.00
8,500.0	90.00	197.56	6,685.0	-1,690.9	-1,036.3	1,967.2	0.00	0.00	0.00
8,600.0	90.00	197.56	6,685.0	-1,786.2	-1,066.5	2,066.5	0.00	0.00	0.00
8,700.0	90.00	197.56	6,685.0	-1,881.6	-1,096.7	2,165.9	0.00	0.00	0.00
8,800.0	90.00	197.56	6,685.0	-1,976.9	-1,126.9	2,265.2	0.00	0.00	0.00
8,900.0	90.00	197.56	6,685.0	-2,072.2	-1,157.0	2,364.5	0.00	0.00	0.00
9,000.0	90.00	197.56	6,685.0	-2,167.6	-1,187.2	2,463.8	0.00	0.00	0.00
9,100.0	90.00	197.56	6,685.0	-2,262.9	-1,217.4	2,563.2	0.00	0.00	0.00
9,200.0	90.00	197.56	6,685.0	-2,358.3	-1,247.6	2,662.5	0.00	0.00	0.00
9,300.0	90.00	197.56	6,685.0	-2,453.6	-1,277.7	2,761.8	0.00	0.00	0.00
9,400.0	90.00	197.56	6,685.0	-2,548.9	-1,307.9	2,861.1	0.00	0.00	0.00
9,500.0	90.00	197.56	6,685.0	-2,644.3	-1,338.1	2,960.5	0.00	0.00	0.00
9,600.0	90.00	197.56	6,685.0	-2,739.6	-1,368.3	3,059.8	0.00	0.00	0.00
9,700.0	90.00	197.56	6,685.0	-2,835.0	-1,398.4	3,159.1	0.00	0.00	0.00
9,800.0	90.00	197.56	6,685.0	-2,930.3	-1,428.6	3,258.4	0.00	0.00	0.00
9,900.0	90.00	197.56	6,685.0	-3,025.6	-1,458.8	3,357.8	0.00	0.00	0.00
10,000.0	90.00	197.56	6,685.0	-3,121.0	-1,489.0	3,457.1	0.00	0.00	0.00
10,100.0	90.00	197.56	6,685.0	-3,216.3	-1,519.1	3,556.4	0.00	0.00	0.00



# EOG Resources

## Planning Report

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well 3-12H
<b>Company:</b>	Denver Division- Colorado	<b>TVD Reference:</b>	RIG @ 8152.0ft (TBD)
<b>Project:</b>	Northpark	<b>MD Reference:</b>	RIG @ 8152.0ft (TBD)
<b>Site:</b>	Hebron	<b>North Reference:</b>	True
<b>Well:</b>	3-12H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Wellbore		
<b>Design:</b>	APD_Revised 2010-12-20		

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)
10,200.0	90.00	197.56	6,685.0	-3,311.7	-1,549.3	3,655.7	0.00	0.00	0.00
10,300.0	90.00	197.56	6,685.0	-3,407.0	-1,579.5	3,755.1	0.00	0.00	0.00
10,400.0	90.00	197.56	6,685.0	-3,502.3	-1,609.7	3,854.4	0.00	0.00	0.00
10,500.0	90.00	197.56	6,685.0	-3,597.7	-1,639.8	3,953.7	0.00	0.00	0.00
10,600.0	90.00	197.56	6,685.0	-3,693.0	-1,670.0	4,053.0	0.00	0.00	0.00
10,667.6	90.00	197.56	6,685.0	-3,757.4	-1,690.4	4,120.1	0.00	0.00	0.00

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
6,957.5	6,685.0	7"	7	8-3/4	
600.0	600.0	9 5/8"	9-5/8	12-1/4	
10,667.6	6,685.0	4 1/2"	4-1/2	6	