



Denver Division- Colorado

**DJ - Hereford Ranch
Randall Creek 02-29H
Randall Creek 2-29H**

Original Wellbore

Plan: APD

Standard Planning Report

22 January, 2010

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Site Randall Creek 02-29H
Company:	Denver Division- Colorado	TVD Reference:	RIG @ 5372.0ft (TBD)
Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 5372.0ft (TBD)
Site:	Randall Creek 02-29H	North Reference:	True
Well:	Randall Creek 2-29H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD		

Project	DJ - Hereford Ranch, Weld County		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Colorado North 501		

Site		Randall Creek 02-29H			
Site Position:		Northing:	600,063.78 ft	Latitude:	40° 58' 29.179 N
From:	Lat/Long	Easting:	2,321,418.20 ft	Longitude:	104° 20' 9.841 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.75 °

Well	Randall Creek 2-29H					
Well Position	+N/-S	0.0 ft	Northing:	600,063.78 ft	Latitude:	40° 58' 29.179 N
	+E/-W	0.0 ft	Easting:	2,321,418.20 ft	Longitude:	104° 20' 9.841 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,347.0 ft

Wellbore	Original Wellbore				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	1/21/2010	8.83	67.64	53,637

Design	APD			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	317.40

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	
6,782.5	0.00	0.00	6,782.5	0.0	0.0	0.00	0.00	0.00	0.00	
7,532.5	90.00	323.42	7,260.0	383.4	-284.5	12.00	12.00	0.00	323.42	
8,793.5	90.00	323.42	7,260.0	1,396.0	-1,036.1	0.00	0.00	0.00	0.00	Randall Creek 2-29H
9,254.4	90.00	314.20	7,260.0	1,742.5	-1,339.2	2.00	0.00	-2.00	-90.00	Randall Creek 2-29H(
12,731.0	90.00	314.20	7,260.0	4,166.4	-3,831.6	0.00	0.00	0.00	0.00	Randall Creek 2-29H(

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Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 5372.0ft (TBD)
Site:	Randall Creek 02-29H	North Reference:	True
Well:	Randall Creek 2-29H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD		

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
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
9 5/8"									
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

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Well:	Randall Creek 2-29H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD		

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
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,782.5	0.00	0.00	6,782.5	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	2.10	323.42	6,800.0	0.3	-0.2	0.3	12.00	12.00	0.00
6,900.0	14.10	323.42	6,898.8	11.5	-8.6	14.3	12.00	12.00	0.00
7,000.0	26.10	323.42	6,992.6	39.1	-29.0	48.4	12.00	12.00	0.00
7,100.0	38.10	323.42	7,077.1	81.7	-60.6	101.1	12.00	12.00	0.00
7,200.0	50.10	323.42	7,148.8	137.5	-102.0	170.2	12.00	12.00	0.00
7,300.0	62.10	323.42	7,204.5	204.0	-151.4	252.6	12.00	12.00	0.00
7,400.0	74.10	323.42	7,241.7	278.3	-206.6	344.7	12.00	12.00	0.00
7,500.0	86.10	323.42	7,258.9	357.3	-265.2	442.5	12.00	12.00	0.00
7,532.5	90.00	323.42	7,260.0	383.4	-284.5	474.8	12.00	12.00	0.00
7"									
7,600.0	90.00	323.42	7,260.0	437.6	-324.8	541.9	0.01	0.01	0.00
7,700.0	90.00	323.42	7,260.0	517.9	-384.3	641.4	0.00	0.00	0.00
7,800.0	90.00	323.42	7,260.0	598.2	-443.9	740.8	0.00	0.00	0.00
7,900.0	90.00	323.42	7,260.0	678.5	-503.5	840.3	0.00	0.00	0.00
8,000.0	90.00	323.42	7,260.0	758.8	-563.1	939.7	0.00	0.00	0.00
8,100.0	90.00	323.42	7,260.0	839.1	-622.7	1,039.2	0.00	0.00	0.00
8,200.0	90.00	323.42	7,260.0	919.4	-682.3	1,138.6	0.00	0.00	0.00
8,300.0	90.00	323.42	7,260.0	999.7	-741.9	1,238.1	0.00	0.00	0.00
8,400.0	90.00	323.42	7,260.0	1,080.0	-801.5	1,337.5	0.00	0.00	0.00
8,500.0	90.00	323.42	7,260.0	1,160.3	-861.1	1,437.0	0.00	0.00	0.00
8,600.0	90.00	323.42	7,260.0	1,240.6	-920.7	1,536.4	0.00	0.00	0.00
8,700.0	90.00	323.42	7,260.0	1,320.9	-980.3	1,635.9	0.00	0.00	0.00
8,793.5	90.00	323.42	7,260.0	1,396.0	-1,036.1	1,728.9	0.00	0.00	0.00
Randall Creek 2-29H (Target 1)									
8,800.0	90.00	323.29	7,260.0	1,401.2	-1,039.9	1,735.3	2.00	0.00	-2.00
8,900.0	90.00	321.29	7,260.0	1,480.3	-1,101.1	1,834.9	2.00	0.00	-2.00
9,000.0	90.00	319.29	7,260.0	1,557.2	-1,165.0	1,934.8	2.00	0.00	-2.00
9,100.0	90.00	317.29	7,260.0	1,631.9	-1,231.5	2,034.8	2.00	0.00	-2.00
9,200.0	90.00	315.29	7,260.0	1,704.2	-1,300.6	2,134.8	2.00	0.00	-2.00
9,254.4	90.00	314.20	7,260.0	1,742.5	-1,339.2	2,189.1	2.00	0.00	-2.00
9,300.0	90.00	314.20	7,260.0	1,774.3	-1,371.9	2,234.6	0.00	0.00	0.00
9,400.0	90.00	314.20	7,260.0	1,844.0	-1,443.6	2,334.5	0.00	0.00	0.00
9,500.0	90.00	314.20	7,260.0	1,913.7	-1,515.3	2,434.3	0.00	0.00	0.00
9,600.0	90.00	314.20	7,260.0	1,983.4	-1,587.0	2,534.2	0.00	0.00	0.00
9,700.0	90.00	314.20	7,260.0	2,053.1	-1,658.7	2,634.0	0.00	0.00	0.00
9,800.0	90.00	314.20	7,260.0	2,122.9	-1,730.4	2,733.9	0.00	0.00	0.00
9,900.0	90.00	314.20	7,260.0	2,192.6	-1,802.0	2,833.7	0.00	0.00	0.00
10,000.0	90.00	314.20	7,260.0	2,262.3	-1,873.7	2,933.5	0.00	0.00	0.00

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Site:	Randall Creek 02-29H	North Reference:	True
Well:	Randall Creek 2-29H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD		

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)
10,100.0	90.00	314.20	7,260.0	2,332.0	-1,945.4	3,033.4	0.00	0.00	0.00
10,200.0	90.00	314.20	7,260.0	2,401.7	-2,017.1	3,133.2	0.00	0.00	0.00
10,300.0	90.00	314.20	7,260.0	2,471.4	-2,088.8	3,233.1	0.00	0.00	0.00
10,400.0	90.00	314.20	7,260.0	2,541.2	-2,160.5	3,332.9	0.00	0.00	0.00
10,500.0	90.00	314.20	7,260.0	2,610.9	-2,232.2	3,432.8	0.00	0.00	0.00
10,600.0	90.00	314.20	7,260.0	2,680.6	-2,303.9	3,532.6	0.00	0.00	0.00
10,700.0	90.00	314.20	7,260.0	2,750.3	-2,375.5	3,632.5	0.00	0.00	0.00
10,800.0	90.00	314.20	7,260.0	2,820.0	-2,447.2	3,732.3	0.00	0.00	0.00
10,900.0	90.00	314.20	7,260.0	2,889.8	-2,518.9	3,832.1	0.00	0.00	0.00
11,000.0	90.00	314.20	7,260.0	2,959.5	-2,590.6	3,932.0	0.00	0.00	0.00
11,100.0	90.00	314.20	7,260.0	3,029.2	-2,662.3	4,031.8	0.00	0.00	0.00
11,200.0	90.00	314.20	7,260.0	3,098.9	-2,734.0	4,131.7	0.00	0.00	0.00
11,300.0	90.00	314.20	7,260.0	3,168.6	-2,805.7	4,231.5	0.00	0.00	0.00
11,400.0	90.00	314.20	7,260.0	3,238.4	-2,877.4	4,331.4	0.00	0.00	0.00
11,500.0	90.00	314.20	7,260.0	3,308.1	-2,949.1	4,431.2	0.00	0.00	0.00
11,600.0	90.00	314.20	7,260.0	3,377.8	-3,020.7	4,531.1	0.00	0.00	0.00
11,700.0	90.00	314.20	7,260.0	3,447.5	-3,092.4	4,630.9	0.00	0.00	0.00
11,800.0	90.00	314.20	7,260.0	3,517.2	-3,164.1	4,730.7	0.00	0.00	0.00
11,900.0	90.00	314.20	7,260.0	3,587.0	-3,235.8	4,830.6	0.00	0.00	0.00
12,000.0	90.00	314.20	7,260.0	3,656.7	-3,307.5	4,930.4	0.00	0.00	0.00
12,100.0	90.00	314.20	7,260.0	3,726.4	-3,379.2	5,030.3	0.00	0.00	0.00
12,200.0	90.00	314.20	7,260.0	3,796.1	-3,450.9	5,130.1	0.00	0.00	0.00
12,300.0	90.00	314.20	7,260.0	3,865.8	-3,522.6	5,230.0	0.00	0.00	0.00
12,400.0	90.00	314.20	7,260.0	3,935.6	-3,594.3	5,329.8	0.00	0.00	0.00
12,500.0	90.00	314.20	7,260.0	4,005.3	-3,665.9	5,429.7	0.00	0.00	0.00
12,600.0	90.00	314.20	7,260.0	4,075.0	-3,737.6	5,529.5	0.00	0.00	0.00
12,700.0	90.00	314.20	7,260.0	4,144.7	-3,809.3	5,629.3	0.00	0.00	0.00
12,731.0	90.00	314.20	7,260.0	4,166.3	-3,831.5	5,660.3	0.00	0.00	0.00
4 1/2" - Randall Creek 2-29H(BHL)									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
1,400.0	1,400.0	9 5/8"	9-5/8	12-1/4	
7,532.5	7,260.0	7"	7	8-3/4	
12,731.0	7,260.0	4 1/2"	4-1/2	6-1/4	