



Denver Division- Colorado

DJ - Hereford Ranch

Fox Creek 06-33H

Fox Creek 6-33H

Original Wellbore

Plan: APD

Standard Planning Report

22 February, 2010

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well Fox Creek 6-33H
Company:	Denver Division- Colorado	TVD Reference:	RIG @ 5497.0ft (TBD)
Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 5497.0ft (TBD)
Site:	Fox Creek 06-33H	North Reference:	True
Well:	Fox Creek 6-33H	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	Fox Creek 06-33H				
Site Position:		Northing:	598,764.56 ft	Latitude:	40° 58' 19.999 N
From:	Lat/Long	Easting:	2,291,869.06 ft	Longitude:	104° 26' 35.221 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.68 °

Well	Fox Creek 6-33H					
Well Position	+N/-S	0.0 ft	Northing:	598,764.56 ft	Latitude:	40° 58' 19.999 N
	+E/-W	0.0 ft	Easting:	2,291,869.06 ft	Longitude:	104° 26' 35.221 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,472.0 ft

Wellbore	Original Wellbore				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	1/26/2010	8.89	67.62	53,622

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	136.78

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	
7,103.5	0.00	0.00	7,103.5	0.0	0.0	0.00	0.00	0.00	0.00	
7,853.5	90.00	126.77	7,581.0	-285.8	382.5	12.00	12.00	0.00	126.77	
7,944.1	90.00	126.77	7,581.0	-340.0	455.0	0.00	0.00	0.00	0.00	Fox Creek 6-33H (Tar
8,672.5	90.00	144.98	7,581.0	-860.7	960.0	2.50	0.00	2.50	90.00	Fox Creek 6-33H (Tar
9,319.0	90.00	144.98	7,581.0	-1,390.2	1,331.0	0.00	0.00	0.00	0.00	Fox Creek 6-33H (Tar
9,651.2	90.00	136.68	7,581.0	-1,647.4	1,540.6	2.50	0.00	-2.50	-90.00	Fox Creek 6-33H (BH
12,582.4	90.00	136.68	7,581.0	-3,779.9	3,551.8	0.00	0.00	0.00	0.00	Fox Creek 6-33H (BH

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well Fox Creek 6-33H
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Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 5497.0ft (TBD)
Site:	Fox Creek 06-33H	North Reference:	True
Well:	Fox Creek 6-33H	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
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
1,620.0	0.00	0.00	1,620.0	0.0	0.0	0.0	0.00	0.00	0.00
9 5/8"									
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

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Planned Survey									
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5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
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
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,103.5	0.00	0.00	7,103.5	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	11.58	126.77	7,199.3	-5.8	7.8	9.6	12.00	12.00	0.00
7,300.0	23.58	126.77	7,294.5	-23.9	31.9	39.2	12.00	12.00	0.00
7,400.0	35.58	126.77	7,381.3	-53.3	71.4	87.8	12.00	12.00	0.00
7,500.0	47.58	126.77	7,456.0	-93.0	124.5	153.0	12.00	12.00	0.00
7,600.0	59.58	126.77	7,515.3	-141.1	188.8	232.1	12.00	12.00	0.00
7,700.0	71.58	126.77	7,556.5	-195.5	261.6	321.6	12.00	12.00	0.00
7,800.0	83.58	126.77	7,578.0	-253.8	339.7	417.6	12.00	12.00	0.00
7,853.5	90.00	126.77	7,581.0	-285.8	382.4	470.2	12.00	12.00	0.00
7"									
7,900.0	90.00	126.77	7,581.0	-313.6	419.7	516.0	0.01	0.01	0.00
7,944.1	90.00	126.77	7,581.0	-340.0	455.0	559.3	0.00	0.00	0.00
Fox Creek 6-33H (Target 1)									
8,000.0	90.00	128.17	7,581.0	-374.0	499.4	614.5	2.50	0.00	2.50
8,100.0	90.00	130.67	7,581.0	-437.5	576.6	713.7	2.50	0.00	2.50
8,200.0	90.00	133.17	7,581.0	-504.3	651.0	813.3	2.50	0.00	2.50
8,300.0	90.00	135.67	7,581.0	-574.3	722.5	913.2	2.50	0.00	2.50
8,400.0	90.00	138.17	7,581.0	-647.3	790.8	1,013.2	2.50	0.00	2.50
8,500.0	90.00	140.67	7,581.0	-723.3	855.8	1,113.1	2.50	0.00	2.50
8,600.0	90.00	143.17	7,581.0	-802.0	917.5	1,212.7	2.50	0.00	2.50
8,672.5	90.00	144.98	7,581.0	-860.7	960.0	1,284.6	2.50	0.00	2.50
8,700.0	90.00	144.98	7,581.0	-883.2	975.8	1,311.8	0.00	0.00	0.00
8,800.0	90.00	144.98	7,581.0	-965.1	1,033.2	1,410.8	0.00	0.00	0.00
8,900.0	90.00	144.98	7,581.0	-1,047.0	1,090.6	1,509.8	0.00	0.00	0.00
9,000.0	90.00	144.98	7,581.0	-1,128.9	1,148.0	1,608.8	0.00	0.00	0.00
9,100.0	90.00	144.98	7,581.0	-1,210.8	1,205.3	1,707.8	0.00	0.00	0.00
9,200.0	90.00	144.98	7,581.0	-1,292.7	1,262.7	1,806.7	0.00	0.00	0.00
9,300.0	90.00	144.98	7,581.0	-1,374.6	1,320.1	1,905.7	0.00	0.00	0.00
9,319.0	90.00	144.98	7,581.0	-1,390.2	1,331.0	1,924.6	0.00	0.00	0.00
Fox Creek 6-33H (Target 2)									
9,400.0	90.00	142.96	7,581.0	-1,455.6	1,378.7	2,004.9	2.50	0.00	-2.50
9,500.0	90.00	140.46	7,581.0	-1,534.1	1,440.6	2,104.5	2.50	0.00	-2.50
9,600.0	90.00	137.96	7,581.0	-1,609.8	1,505.9	2,204.4	2.50	0.00	-2.50

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Site:	Fox Creek 06-33H	North Reference:	True
Well:	Fox Creek 6-33H	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)	
9,651.2	90.00	136.68	7,581.0	-1,647.4	1,540.6	2,255.6	2.50	0.00	-2.50	
9,700.0	90.00	136.68	7,581.0	-1,683.0	1,574.1	2,304.4	0.00	0.00	0.00	
9,800.0	90.00	136.68	7,581.0	-1,755.7	1,642.8	2,404.4	0.00	0.00	0.00	
9,900.0	90.00	136.68	7,581.0	-1,828.5	1,711.4	2,504.4	0.00	0.00	0.00	
10,000.0	90.00	136.68	7,581.0	-1,901.2	1,780.0	2,604.4	0.00	0.00	0.00	
10,100.0	90.00	136.68	7,581.0	-1,974.0	1,848.6	2,704.4	0.00	0.00	0.00	
10,200.0	90.00	136.68	7,581.0	-2,046.7	1,917.2	2,804.4	0.00	0.00	0.00	
10,300.0	90.00	136.68	7,581.0	-2,119.5	1,985.8	2,904.4	0.00	0.00	0.00	
10,400.0	90.00	136.68	7,581.0	-2,192.2	2,054.4	3,004.4	0.00	0.00	0.00	
10,500.0	90.00	136.68	7,581.0	-2,265.0	2,123.0	3,104.4	0.00	0.00	0.00	
10,600.0	90.00	136.68	7,581.0	-2,337.7	2,191.6	3,204.4	0.00	0.00	0.00	
10,700.0	90.00	136.68	7,581.0	-2,410.5	2,260.2	3,304.4	0.00	0.00	0.00	
10,800.0	90.00	136.68	7,581.0	-2,483.2	2,328.9	3,404.4	0.00	0.00	0.00	
10,900.0	90.00	136.68	7,581.0	-2,556.0	2,397.5	3,504.4	0.00	0.00	0.00	
11,000.0	90.00	136.68	7,581.0	-2,628.7	2,466.1	3,604.4	0.00	0.00	0.00	
11,100.0	90.00	136.68	7,581.0	-2,701.5	2,534.7	3,704.4	0.00	0.00	0.00	
11,200.0	90.00	136.68	7,581.0	-2,774.2	2,603.3	3,804.4	0.00	0.00	0.00	
11,300.0	90.00	136.68	7,581.0	-2,847.0	2,671.9	3,904.4	0.00	0.00	0.00	
11,400.0	90.00	136.68	7,581.0	-2,919.7	2,740.5	4,004.4	0.00	0.00	0.00	
11,500.0	90.00	136.68	7,581.0	-2,992.5	2,809.1	4,104.4	0.00	0.00	0.00	
11,600.0	90.00	136.68	7,581.0	-3,065.2	2,877.7	4,204.4	0.00	0.00	0.00	
11,700.0	90.00	136.68	7,581.0	-3,138.0	2,946.4	4,304.4	0.00	0.00	0.00	
11,800.0	90.00	136.68	7,581.0	-3,210.7	3,015.0	4,404.4	0.00	0.00	0.00	
11,900.0	90.00	136.68	7,581.0	-3,283.5	3,083.6	4,504.4	0.00	0.00	0.00	
12,000.0	90.00	136.68	7,581.0	-3,356.2	3,152.2	4,604.4	0.00	0.00	0.00	
12,100.0	90.00	136.68	7,581.0	-3,429.0	3,220.8	4,704.4	0.00	0.00	0.00	
12,200.0	90.00	136.68	7,581.0	-3,501.7	3,289.4	4,804.4	0.00	0.00	0.00	
12,300.0	90.00	136.68	7,581.0	-3,574.5	3,358.0	4,904.4	0.00	0.00	0.00	
12,400.0	90.00	136.68	7,581.0	-3,647.2	3,426.6	5,004.4	0.00	0.00	0.00	
12,500.0	90.00	136.68	7,581.0	-3,720.0	3,495.2	5,104.4	0.00	0.00	0.00	
12,582.4	90.00	136.68	7,581.0	-3,779.9	3,551.8	5,186.8	0.00	0.00	0.00	
4 1/2" - Fox Creek 6-33H (BHL)										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
1,620.0	1,620.0	9 5/8"	9-5/8	12-1/4	
7,853.5	7,581.0	7"	7	8-3/4	
12,582.4	7,581.0	4 1/2"	4-1/2	6-1/4	