

Denver Division- Colorado

**DJ - Hereford Ranch
Garden Creek 22-30H
Garden Creek 22-30H
Original Wellbore**

Plan: APD Directional Plan

Standard Planning Report

25 February, 2011

EOG Resources Inc

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Site Garden Creek 22-30H
Company:	Denver Division- Colorado	TVD Reference:	RIG @ 5194.00ft (TBD)
Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 5194.00ft (TBD)
Site:	Garden Creek 22-30H	North Reference:	True
Well:	Garden Creek 22-30H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

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	Garden Creek 22-30H		
Site Position:		Northing:	568,498.59 ft
From:	Lat/Long	Easting:	2,316,602.15 ft
Position Uncertainty:	0.00 ft	Slot Radius:	"
		Latitude:	40° 53' 17.941 N
		Longitude:	104° 21' 17.932 W
		Grid Convergence:	0.74 deg

Well	Garden Creek 22-30H		
Well Position	+N/-S	0.00 ft	Northing: 568,498.59 ft
	+E/-W	0.00 ft	Easting: 2,316,602.15 ft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	40° 53' 17.941 N
		Longitude:	104° 21' 17.932 W
		Ground Level:	5,172.00 ft

Wellbore	Original Wellbore				
Magnetics	Model Name	Sample Date	Declination (deg)	Dip Angle (deg)	Field Strength (nT)
	IGRF200510	2/25/2011	8.68	67.53	53,478

Design	APD Directional Plan			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (deg)
	0.00	0.00	0.00	352.50

Plan Sections										
Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (?/100ft)	Build Rate (?/100ft)	Turn Rate (?/100ft)	TFO (deg)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,375.00	0.00	0.00	1,375.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,387.28	0.25	346.00	1,387.28	0.03	-0.01	2.00	2.00	0.00	346.00	
6,637.63	0.25	346.00	6,637.58	21.87	-5.45	0.00	0.00	0.00	0.00	
7,385.58	90.00	346.00	7,113.00	485.15	-120.96	12.00	12.00	0.00	0.00	Garden Creek 22-3
8,218.02	90.00	354.32	7,113.00	1,304.62	-263.07	1.00	0.00	1.00	90.00	Garden Creek 22-3
11,070.72	90.00	354.32	7,113.00	4,143.33	-545.19	0.00	0.00	0.00	0.00	Garden Creek 22-3

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Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 5194.00ft (TBD)
Site:	Garden Creek 22-30H	North Reference:	True
Well:	Garden Creek 22-30H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Planned Survey

Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	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
1,175.00	0.00	0.00	1,175.00	0.00	0.00	0.00	0.00	0.00	0.00
9-5/8"									
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
1,375.00	0.00	0.00	1,375.00	0.00	0.00	0.00	0.00	0.00	0.00
1,387.28	0.25	346.00	1,387.28	0.03	-0.01	0.03	2.00	2.00	0.00
1,400.00	0.25	346.00	1,400.00	0.08	-0.02	0.08	0.00	0.00	0.00
1,500.00	0.25	346.00	1,500.00	0.49	-0.12	0.51	0.00	0.00	0.00
1,600.00	0.25	346.00	1,600.00	0.91	-0.23	0.93	0.00	0.00	0.00
1,700.00	0.25	346.00	1,700.00	1.33	-0.33	1.36	0.00	0.00	0.00
1,800.00	0.25	346.00	1,800.00	1.74	-0.43	1.78	0.00	0.00	0.00
1,900.00	0.25	346.00	1,900.00	2.16	-0.54	2.21	0.00	0.00	0.00
2,000.00	0.25	346.00	1,999.99	2.57	-0.64	2.64	0.00	0.00	0.00
2,100.00	0.25	346.00	2,099.99	2.99	-0.75	3.06	0.00	0.00	0.00
2,200.00	0.25	346.00	2,199.99	3.41	-0.85	3.49	0.00	0.00	0.00
2,300.00	0.25	346.00	2,299.99	3.82	-0.95	3.91	0.00	0.00	0.00
2,400.00	0.25	346.00	2,399.99	4.24	-1.06	4.34	0.00	0.00	0.00
2,500.00	0.25	346.00	2,499.99	4.65	-1.16	4.77	0.00	0.00	0.00
2,600.00	0.25	346.00	2,599.99	5.07	-1.26	5.19	0.00	0.00	0.00
2,700.00	0.25	346.00	2,699.99	5.49	-1.37	5.62	0.00	0.00	0.00
2,800.00	0.25	346.00	2,799.99	5.90	-1.47	6.04	0.00	0.00	0.00
2,900.00	0.25	346.00	2,899.99	6.32	-1.58	6.47	0.00	0.00	0.00
3,000.00	0.25	346.00	2,999.99	6.74	-1.68	6.90	0.00	0.00	0.00
3,100.00	0.25	346.00	3,099.98	7.15	-1.78	7.32	0.00	0.00	0.00
3,200.00	0.25	346.00	3,199.98	7.57	-1.89	7.75	0.00	0.00	0.00
3,300.00	0.25	346.00	3,299.98	7.98	-1.99	8.17	0.00	0.00	0.00
3,400.00	0.25	346.00	3,399.98	8.40	-2.09	8.60	0.00	0.00	0.00
3,500.00	0.25	346.00	3,499.98	8.82	-2.20	9.03	0.00	0.00	0.00
3,600.00	0.25	346.00	3,599.98	9.23	-2.30	9.45	0.00	0.00	0.00
3,700.00	0.25	346.00	3,699.98	9.65	-2.41	9.88	0.00	0.00	0.00
3,800.00	0.25	346.00	3,799.98	10.06	-2.51	10.30	0.00	0.00	0.00
3,900.00	0.25	346.00	3,899.98	10.48	-2.61	10.73	0.00	0.00	0.00
4,000.00	0.25	346.00	3,999.98	10.90	-2.72	11.16	0.00	0.00	0.00
4,100.00	0.25	346.00	4,099.98	11.31	-2.82	11.58	0.00	0.00	0.00
4,200.00	0.25	346.00	4,199.97	11.73	-2.92	12.01	0.00	0.00	0.00
4,300.00	0.25	346.00	4,299.97	12.14	-3.03	12.43	0.00	0.00	0.00
4,400.00	0.25	346.00	4,399.97	12.56	-3.13	12.86	0.00	0.00	0.00
4,500.00	0.25	346.00	4,499.97	12.98	-3.24	13.29	0.00	0.00	0.00
4,600.00	0.25	346.00	4,599.97	13.39	-3.34	13.71	0.00	0.00	0.00
4,700.00	0.25	346.00	4,699.97	13.81	-3.44	14.14	0.00	0.00	0.00
4,800.00	0.25	346.00	4,799.97	14.22	-3.55	14.56	0.00	0.00	0.00

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Site:	Garden Creek 22-30H	North Reference:	True
Well:	Garden Creek 22-30H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Planned Survey

Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (?/100ft)	Build Rate (?/100ft)	Turn Rate (?/100ft)
4,900.00	0.25	346.00	4,899.97	14.64	-3.65	14.99	0.00	0.00	0.00
5,000.00	0.25	346.00	4,999.97	15.06	-3.75	15.42	0.00	0.00	0.00
5,100.00	0.25	346.00	5,099.97	15.47	-3.86	15.84	0.00	0.00	0.00
5,200.00	0.25	346.00	5,199.96	15.89	-3.96	16.27	0.00	0.00	0.00
5,300.00	0.25	346.00	5,299.96	16.30	-4.07	16.70	0.00	0.00	0.00
5,400.00	0.25	346.00	5,399.96	16.72	-4.17	17.12	0.00	0.00	0.00
5,500.00	0.25	346.00	5,499.96	17.14	-4.27	17.55	0.00	0.00	0.00
5,600.00	0.25	346.00	5,599.96	17.55	-4.38	17.97	0.00	0.00	0.00
5,700.00	0.25	346.00	5,699.96	17.97	-4.48	18.40	0.00	0.00	0.00
5,800.00	0.25	346.00	5,799.96	18.38	-4.58	18.83	0.00	0.00	0.00
5,900.00	0.25	346.00	5,899.96	18.80	-4.69	19.25	0.00	0.00	0.00
6,000.00	0.25	346.00	5,999.96	19.22	-4.79	19.68	0.00	0.00	0.00
6,100.00	0.25	346.00	6,099.96	19.63	-4.89	20.10	0.00	0.00	0.00
6,200.00	0.25	346.00	6,199.96	20.05	-5.00	20.53	0.00	0.00	0.00
6,300.00	0.25	346.00	6,299.95	20.46	-5.10	20.96	0.00	0.00	0.00
6,400.00	0.25	346.00	6,399.95	20.88	-5.21	21.38	0.00	0.00	0.00
6,500.00	0.25	346.00	6,499.95	21.30	-5.31	21.81	0.00	0.00	0.00
6,600.00	0.25	346.00	6,599.95	21.71	-5.41	22.23	0.00	0.00	0.00
6,637.63	0.25	346.00	6,637.58	21.87	-5.45	22.39	0.00	0.00	0.00
6,700.00	7.73	346.00	6,699.76	26.07	-6.50	26.70	12.00	12.00	0.00
6,800.00	19.73	346.00	6,796.72	49.06	-12.23	50.24	12.00	12.00	0.00
6,900.00	31.73	346.00	6,886.64	91.11	-22.72	93.29	12.00	12.00	0.00
7,000.00	43.73	346.00	6,965.59	150.38	-37.49	153.98	12.00	12.00	0.00
7,100.00	55.73	346.00	7,030.11	224.28	-55.92	229.65	12.00	12.00	0.00
7,200.00	67.73	346.00	7,077.38	309.58	-77.19	317.00	12.00	12.00	0.00
7,300.00	79.73	346.00	7,105.35	402.55	-100.37	412.20	12.00	12.00	0.00
7,385.58	90.00	346.00	7,113.00	485.15	-120.96	496.78	12.00	12.00	0.00
7" - Garden Creek 22-30H (ICP)									
7,400.00	90.00	346.14	7,113.00	499.14	-124.43	511.11	1.00	0.00	1.00
7,500.00	90.00	347.14	7,113.00	596.43	-147.53	610.58	1.00	0.00	1.00
7,600.00	90.00	348.14	7,113.00	694.12	-168.93	710.22	1.00	0.00	1.00
7,700.00	90.00	349.14	7,113.00	792.16	-188.62	809.99	1.00	0.00	1.00
7,800.00	90.00	350.14	7,113.00	890.53	-206.59	909.87	1.00	0.00	1.00
7,900.00	90.00	351.14	7,113.00	989.20	-222.85	1,009.81	1.00	0.00	1.00
8,000.00	90.00	352.14	7,113.00	1,088.13	-237.38	1,109.80	1.00	0.00	1.00
8,100.00	90.00	353.14	7,113.00	1,187.31	-250.19	1,209.80	1.00	0.00	1.00
8,200.00	90.00	354.14	7,113.00	1,286.69	-261.26	1,309.78	1.00	0.00	1.00
8,218.02	90.00	354.32	7,113.00	1,304.62	-263.07	1,327.79	1.00	0.00	1.00
8,300.00	90.00	354.32	7,113.00	1,386.20	-271.17	1,409.73	0.00	0.00	0.00
8,400.00	90.00	354.32	7,113.00	1,485.71	-281.06	1,509.68	0.00	0.00	0.00
8,500.00	90.00	354.32	7,113.00	1,585.22	-290.95	1,609.63	0.00	0.00	0.00
8,600.00	90.00	354.32	7,113.00	1,684.73	-300.84	1,709.58	0.00	0.00	0.00
8,700.00	90.00	354.32	7,113.00	1,784.24	-310.73	1,809.53	0.00	0.00	0.00
8,800.00	90.00	354.32	7,113.00	1,883.75	-320.62	1,909.48	0.00	0.00	0.00
8,900.00	90.00	354.32	7,113.00	1,983.26	-330.51	2,009.43	0.00	0.00	0.00
9,000.00	90.00	354.32	7,113.00	2,082.77	-340.40	2,109.38	0.00	0.00	0.00
9,100.00	90.00	354.32	7,113.00	2,182.28	-350.29	2,209.33	0.00	0.00	0.00
9,200.00	90.00	354.32	7,113.00	2,281.79	-360.18	2,309.28	0.00	0.00	0.00
9,300.00	90.00	354.32	7,113.00	2,381.30	-370.07	2,409.23	0.00	0.00	0.00
9,400.00	90.00	354.32	7,113.00	2,480.81	-379.96	2,509.17	0.00	0.00	0.00
9,500.00	90.00	354.32	7,113.00	2,580.32	-389.85	2,609.12	0.00	0.00	0.00
9,600.00	90.00	354.32	7,113.00	2,679.83	-399.74	2,709.07	0.00	0.00	0.00
9,700.00	90.00	354.32	7,113.00	2,779.34	-409.63	2,809.02	0.00	0.00	0.00

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Well:	Garden Creek 22-30H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Planned Survey										
Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (?/100ft)	Build Rate (?/100ft)	Turn Rate (?/100ft)	
9,800.00	90.00	354.32	7,113.00	2,878.85	-419.52	2,908.97	0.00	0.00	0.00	
9,900.00	90.00	354.32	7,113.00	2,978.36	-429.41	3,008.92	0.00	0.00	0.00	
10,000.00	90.00	354.32	7,113.00	3,077.87	-439.30	3,108.87	0.00	0.00	0.00	
10,100.00	90.00	354.32	7,113.00	3,177.38	-449.19	3,208.82	0.00	0.00	0.00	
10,200.00	90.00	354.32	7,113.00	3,276.89	-459.08	3,308.77	0.00	0.00	0.00	
10,300.00	90.00	354.32	7,113.00	3,376.40	-468.97	3,408.72	0.00	0.00	0.00	
10,400.00	90.00	354.32	7,113.00	3,475.91	-478.86	3,508.67	0.00	0.00	0.00	
10,500.00	90.00	354.32	7,113.00	3,575.41	-488.75	3,608.62	0.00	0.00	0.00	
10,600.00	90.00	354.32	7,113.00	3,674.92	-498.64	3,708.57	0.00	0.00	0.00	
10,700.00	90.00	354.32	7,113.00	3,774.43	-508.53	3,808.52	0.00	0.00	0.00	
10,800.00	90.00	354.32	7,113.00	3,873.94	-518.42	3,908.47	0.00	0.00	0.00	
10,900.00	90.00	354.32	7,113.00	3,973.45	-528.31	4,008.42	0.00	0.00	0.00	
11,000.00	90.00	354.32	7,113.00	4,072.96	-538.20	4,108.37	0.00	0.00	0.00	
11,070.72	90.00	354.32	7,113.00	4,143.33	-545.19	4,179.05	0.00	0.00	0.00	
Garden Creek 22-30H (BHL)										

Targets										
Target Name	Dip Angle (deg)	Dip Dir. (deg)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
- hit/miss target										
- Shape										
Garden Creek 22-30H	0.00	0.00	7,113.00	4,143.33	-545.19	572,634.54	2,316,003.51	40° 53' 58.880 N	104° 21' 25.031 W	
- plan hits target center										
- Point										

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")		
1,175.00	1,175.00	9-5/8"	9-5/8	13-1/2		
7,385.58	7,113.00	7"	7	8-3/4		
11,070.72	7,113.00	4 1/2"	4-1/2	6		