

Denver Division- Colorado

DJ - Hereford Ranch

Critter Creek 17-21H

Critter Creek 17-21H

Original Wellbore

Plan: APD Directional Plan

Standard Planning Report

10 March, 2010

EOG Resources Inc

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well Critter Creek 17-21H
Company:	Denver Division- Colorado	TVD Reference:	Rig @ 5254.00ft
Project:	DJ - Hereford Ranch	MD Reference:	Rig @ 5254.00ft
Site:	Critter Creek 17-21H	North Reference:	True
Well:	Critter Creek 17-21H	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	Critter Creek 17-21H		
Site Position:		Northing:	573,241.46ft
From:	Lat/Long	Easting:	2,295,878.87ft
Position Uncertainty:	0.00 ft	Slot Radius:	"
		Latitude:	40° 54' 7.358 N
		Longitude:	104° 25' 46.970 W
		Grid Convergence:	0.69 deg

Well	Critter Creek 17-21H					
Well Position	+N/-S	0.00 ft	Northing:	573,241.46 ft	Latitude:	40° 54' 7.358 N
	+E/-W	0.00 ft	Easting:	2,295,878.87 ft	Longitude:	104° 25' 46.970 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,229.00 ft

Wellbore	Original Wellbore				
Magnetics	Model Name	Sample Date	Declination (deg)	Dip Angle (deg)	Field Strength (nT)
	IGRF200510	12/31/2009	8.88	67.57	53,596

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	314.87	

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	
6,832.53	0.00	0.00	6,832.53	0.00	0.00	0.00	0.00	0.00	0.00	
7,582.54	90.00	314.87	7,310.00	336.87	-338.37	12.00	12.00	0.00	314.87	
12,995.78	90.00	314.87	7,310.00	4,156.09	-4,174.60	0.00	0.00	0.00	0.00	Critter Creek 17-21H

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Site:	Critter Creek 17-21H	North Reference:	True
Well:	Critter Creek 17-21H	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
1,200.00	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
1,360.00	0.00	0.00	1,360.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
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
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00

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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)
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,832.53	0.00	0.00	6,832.53	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	8.10	314.87	6,899.78	3.36	-3.37	4.76	12.00	12.00	0.00
7,000.00	20.10	314.87	6,996.59	20.51	-20.60	29.07	12.00	12.00	0.00
7,100.00	32.10	314.87	7,086.23	51.49	-51.72	72.98	12.00	12.00	0.00
7,200.00	44.10	314.87	7,164.78	94.94	-95.36	134.56	12.00	12.00	0.00
7,300.00	56.10	314.87	7,228.82	148.96	-149.62	211.13	12.00	12.00	0.00
7,400.00	68.10	314.87	7,275.53	211.20	-212.14	299.34	12.00	12.00	0.00
7,500.00	80.10	314.87	7,302.88	278.93	-280.17	395.34	12.00	12.00	0.00
7,582.54	90.00	314.87	7,310.00	336.87	-338.37	477.47	12.00	12.00	0.00
7"									
7,600.00	90.00	314.87	7,310.00	349.19	-350.75	494.93	0.00	0.00	0.00
7,700.00	90.00	314.87	7,310.00	419.74	-421.61	594.93	0.00	0.00	0.00
7,800.00	90.00	314.87	7,310.00	490.30	-492.48	694.93	0.00	0.00	0.00
7,900.00	90.00	314.87	7,310.00	560.85	-563.35	794.93	0.00	0.00	0.00
8,000.00	90.00	314.87	7,310.00	631.40	-634.22	894.93	0.00	0.00	0.00
8,100.00	90.00	314.87	7,310.00	701.96	-705.08	994.93	0.00	0.00	0.00
8,200.00	90.00	314.87	7,310.00	772.51	-775.95	1,094.93	0.00	0.00	0.00
8,300.00	90.00	314.87	7,310.00	843.06	-846.82	1,194.93	0.00	0.00	0.00
8,400.00	90.00	314.87	7,310.00	913.62	-917.69	1,294.93	0.00	0.00	0.00
8,500.00	90.00	314.87	7,310.00	984.17	-988.55	1,394.93	0.00	0.00	0.00
8,600.00	90.00	314.87	7,310.00	1,054.72	-1,059.42	1,494.93	0.00	0.00	0.00
8,700.00	90.00	314.87	7,310.00	1,125.28	-1,130.29	1,594.93	0.00	0.00	0.00
8,800.00	90.00	314.87	7,310.00	1,195.83	-1,201.16	1,694.93	0.00	0.00	0.00
8,900.00	90.00	314.87	7,310.00	1,266.38	-1,272.02	1,794.93	0.00	0.00	0.00
9,000.00	90.00	314.87	7,310.00	1,336.94	-1,342.89	1,894.93	0.00	0.00	0.00
9,100.00	90.00	314.87	7,310.00	1,407.49	-1,413.76	1,994.93	0.00	0.00	0.00
9,200.00	90.00	314.87	7,310.00	1,478.04	-1,484.63	2,094.93	0.00	0.00	0.00
9,300.00	90.00	314.87	7,310.00	1,548.60	-1,555.49	2,194.93	0.00	0.00	0.00
9,400.00	90.00	314.87	7,310.00	1,619.15	-1,626.36	2,294.93	0.00	0.00	0.00
9,500.00	90.00	314.87	7,310.00	1,689.70	-1,697.23	2,394.93	0.00	0.00	0.00
9,600.00	90.00	314.87	7,310.00	1,760.26	-1,768.10	2,494.93	0.00	0.00	0.00
9,700.00	90.00	314.87	7,310.00	1,830.81	-1,838.96	2,594.93	0.00	0.00	0.00
9,800.00	90.00	314.87	7,310.00	1,901.36	-1,909.83	2,694.93	0.00	0.00	0.00
9,900.00	90.00	314.87	7,310.00	1,971.92	-1,980.70	2,794.93	0.00	0.00	0.00
10,000.00	90.00	314.87	7,310.00	2,042.47	-2,051.57	2,894.93	0.00	0.00	0.00

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Project:	DJ - Hereford Ranch	MD Reference:	Rig @ 5254.00ft
Site:	Critter Creek 17-21H	North Reference:	True
Well:	Critter Creek 17-21H	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)
10,100.00	90.00	314.87	7,310.00	2,113.02	-2,122.44	2,994.93	0.00	0.00	0.00
10,200.00	90.00	314.87	7,310.00	2,183.58	-2,193.30	3,094.93	0.00	0.00	0.00
10,300.00	90.00	314.87	7,310.00	2,254.13	-2,264.17	3,194.93	0.00	0.00	0.00
10,400.00	90.00	314.87	7,310.00	2,324.69	-2,335.04	3,294.93	0.00	0.00	0.00
10,500.00	90.00	314.87	7,310.00	2,395.24	-2,405.91	3,394.93	0.00	0.00	0.00
10,600.00	90.00	314.87	7,310.00	2,465.79	-2,476.77	3,494.93	0.00	0.00	0.00
10,700.00	90.00	314.87	7,310.00	2,536.35	-2,547.64	3,594.93	0.00	0.00	0.00
10,800.00	90.00	314.87	7,310.00	2,606.90	-2,618.51	3,694.93	0.00	0.00	0.00
10,900.00	90.00	314.87	7,310.00	2,677.45	-2,689.38	3,794.93	0.00	0.00	0.00
11,000.00	90.00	314.87	7,310.00	2,748.01	-2,760.24	3,894.93	0.00	0.00	0.00
11,100.00	90.00	314.87	7,310.00	2,818.56	-2,831.11	3,994.93	0.00	0.00	0.00
11,200.00	90.00	314.87	7,310.00	2,889.11	-2,901.98	4,094.93	0.00	0.00	0.00
11,300.00	90.00	314.87	7,310.00	2,959.67	-2,972.85	4,194.93	0.00	0.00	0.00
11,400.00	90.00	314.87	7,310.00	3,030.22	-3,043.71	4,294.93	0.00	0.00	0.00
11,500.00	90.00	314.87	7,310.00	3,100.77	-3,114.58	4,394.93	0.00	0.00	0.00
11,600.00	90.00	314.87	7,310.00	3,171.33	-3,185.45	4,494.93	0.00	0.00	0.00
11,700.00	90.00	314.87	7,310.00	3,241.88	-3,256.32	4,594.93	0.00	0.00	0.00
11,800.00	90.00	314.87	7,310.00	3,312.43	-3,327.18	4,694.93	0.00	0.00	0.00
11,900.00	90.00	314.87	7,310.00	3,382.99	-3,398.05	4,794.93	0.00	0.00	0.00
12,000.00	90.00	314.87	7,310.00	3,453.54	-3,468.92	4,894.93	0.00	0.00	0.00
12,100.00	90.00	314.87	7,310.00	3,524.09	-3,539.79	4,994.93	0.00	0.00	0.00
12,200.00	90.00	314.87	7,310.00	3,594.65	-3,610.66	5,094.93	0.00	0.00	0.00
12,300.00	90.00	314.87	7,310.00	3,665.20	-3,681.52	5,194.93	0.00	0.00	0.00
12,400.00	90.00	314.87	7,310.00	3,735.75	-3,752.39	5,294.93	0.00	0.00	0.00
12,500.00	90.00	314.87	7,310.00	3,806.31	-3,823.26	5,394.93	0.00	0.00	0.00
12,600.00	90.00	314.87	7,310.00	3,876.86	-3,894.13	5,494.93	0.00	0.00	0.00
12,700.00	90.00	314.87	7,310.00	3,947.41	-3,964.99	5,594.93	0.00	0.00	0.00
12,800.00	90.00	314.87	7,310.00	4,017.97	-4,035.86	5,694.93	0.00	0.00	0.00
12,900.00	90.00	314.87	7,310.00	4,088.52	-4,106.73	5,794.93	0.00	0.00	0.00
12,995.78	90.00	314.87	7,310.00	4,156.09	-4,174.60	5,890.71	0.00	0.00	0.00
Critter Creek 17-21H (BHL)									

Targets									
Target Name	- hit/miss target	Dip Angle (deg)	Dip Dir. (deg)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude Longitude
Critter Creek 17-21H (- plan hits target center	0.00	0.00	7,310.00	4,156.09	-4,174.60	577,346.86	2,291,654.41	40° 54' 48.420 N 104° 26' 41.341 W
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
1,360.00	1,360.00	9 5/8"	9-5/8	12-1/4	
7,582.54	7,310.00	7"	7	8-3/4	
12,995.78	7,310.00	4 1/2"	4-1/2	6-1/4	

EOG Resources Inc

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well Critter Creek 17-21H
Company:	Denver Division- Colorado	TVD Reference:	Rig @ 5254.00ft
Project:	DJ - Hereford Ranch	MD Reference:	Rig @ 5254.00ft
Site:	Critter Creek 17-21H	North Reference:	True
Well:	Critter Creek 17-21H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		