

Denver Division- Colorado

DJ - Hereford Ranch

Spring Lake 06-10H

Spring Lake 06-10H

Original Wellbore

Plan: APD Directional Plan

Standard Planning Report

30 June, 2011

EOG Resources Inc

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Site Spring Lake 06-10H
Company:	Denver Division- Colorado	TVD Reference:	RIG @ 4539.00ft (TBD)
Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 4539.00ft (TBD)
Site:	Spring Lake 06-10H	North Reference:	True
Well:	Spring Lake 06-10H	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		Spring Lake 06-10H			
Site Position: From:	Lat/Long	Northing:	362,028.95 ft	Latitude:	40° 19' 15.931 N
		Easting:	2,331,386.72 ft	Longitude:	104° 18' 41.490 W
	Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:

Well	Spring Lake 06-10H					
Well Position	+N-S	0.00 ft	Northing:	362,028.95 ft	Latitude:	40° 19' 15.931 N
	+E-W	0.00 ft	Easting:	2,331,386.72 ft	Longitude:	104° 18' 41.490 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,517.00 ft

Wellbore	Original Wellbore				
Magnetics	Model Name	Sample Date	Declination (deg)	Dip Angle (deg)	Field Strength (nT)
	IGRF200510	6/30/2011	8.56	67.07	53,157

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	156.25	

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	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,004.49	10.04	156.25	1,999.35	-80.39	35.37	1.00	1.00	0.00	156.25	
5,702.64	10.04	156.25	5,640.81	-670.79	295.15	0.00	0.00	0.00	0.00	
6,368.93	90.00	156.25	6,035.00	-1,101.12	484.50	12.00	12.00	0.00	0.00	Spring Lake 06-10H
10,779.78	90.00	156.26	6,035.00	-5,138.50	2,260.77	0.00	0.00	0.00	90.00	Spring Lake 06-10H

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Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 4539.00ft (TBD)
Site:	Spring Lake 06-10H	North Reference:	True
Well:	Spring Lake 06-10H	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
9-5/8"									
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	1.00	156.25	1,099.99	-0.80	0.35	0.87	1.00	1.00	0.00
1,200.00	2.00	156.25	1,199.96	-3.19	1.41	3.49	1.00	1.00	0.00
1,300.00	3.00	156.25	1,299.86	-7.19	3.16	7.85	1.00	1.00	0.00
1,400.00	4.00	156.25	1,399.68	-12.77	5.62	13.96	1.00	1.00	0.00
1,500.00	5.00	156.25	1,499.37	-19.96	8.78	21.80	1.00	1.00	0.00
1,600.00	6.00	156.25	1,598.90	-28.73	12.64	31.39	1.00	1.00	0.00
1,700.00	7.00	156.25	1,698.26	-39.09	17.20	42.71	1.00	1.00	0.00
1,800.00	8.00	156.25	1,797.40	-51.04	22.46	55.76	1.00	1.00	0.00
1,900.00	9.00	156.25	1,896.30	-64.57	28.41	70.54	1.00	1.00	0.00
2,000.00	10.00	156.25	1,994.93	-79.67	35.06	87.04	1.00	1.00	0.00
2,004.49	10.04	156.25	1,999.35	-80.39	35.37	87.83	1.00	1.00	0.00
2,100.00	10.04	156.25	2,093.40	-95.64	42.08	104.49	0.00	0.00	0.00
2,200.00	10.04	156.25	2,191.87	-111.60	49.11	121.93	0.00	0.00	0.00
2,300.00	10.04	156.25	2,290.33	-127.57	56.13	139.37	0.00	0.00	0.00
2,400.00	10.04	156.25	2,388.80	-143.53	63.16	156.81	0.00	0.00	0.00
2,500.00	10.04	156.25	2,487.27	-159.50	70.18	174.25	0.00	0.00	0.00
2,600.00	10.04	156.25	2,585.73	-175.46	77.20	191.69	0.00	0.00	0.00
2,700.00	10.04	156.25	2,684.20	-191.42	84.23	209.14	0.00	0.00	0.00
2,800.00	10.04	156.25	2,782.67	-207.39	91.25	226.58	0.00	0.00	0.00
2,900.00	10.04	156.25	2,881.14	-223.35	98.28	244.02	0.00	0.00	0.00
3,000.00	10.04	156.25	2,979.60	-239.32	105.30	261.46	0.00	0.00	0.00
3,100.00	10.04	156.25	3,078.07	-255.28	112.33	278.90	0.00	0.00	0.00
3,200.00	10.04	156.25	3,176.54	-271.25	119.35	296.35	0.00	0.00	0.00
3,300.00	10.04	156.25	3,275.00	-287.21	126.38	313.79	0.00	0.00	0.00
3,400.00	10.04	156.25	3,373.47	-303.18	133.40	331.23	0.00	0.00	0.00
3,500.00	10.04	156.25	3,471.94	-319.14	140.43	348.67	0.00	0.00	0.00
3,600.00	10.04	156.25	3,570.41	-335.11	147.45	366.11	0.00	0.00	0.00
3,700.00	10.04	156.25	3,668.87	-351.07	154.48	383.56	0.00	0.00	0.00
3,800.00	10.04	156.25	3,767.34	-367.04	161.50	401.00	0.00	0.00	0.00
3,900.00	10.04	156.25	3,865.81	-383.00	168.52	418.44	0.00	0.00	0.00
4,000.00	10.04	156.25	3,964.27	-398.97	175.55	435.88	0.00	0.00	0.00
4,100.00	10.04	156.25	4,062.74	-414.93	182.57	453.32	0.00	0.00	0.00
4,200.00	10.04	156.25	4,161.21	-430.90	189.60	470.76	0.00	0.00	0.00
4,300.00	10.04	156.25	4,259.68	-446.86	196.62	488.21	0.00	0.00	0.00
4,400.00	10.04	156.25	4,358.14	-462.83	203.65	505.65	0.00	0.00	0.00
4,500.00	10.04	156.25	4,456.61	-478.79	210.67	523.09	0.00	0.00	0.00
4,600.00	10.04	156.25	4,555.08	-494.76	217.70	540.53	0.00	0.00	0.00
4,700.00	10.04	156.25	4,653.54	-510.72	224.72	557.97	0.00	0.00	0.00
4,800.00	10.04	156.25	4,752.01	-526.68	231.75	575.42	0.00	0.00	0.00
4,900.00	10.04	156.25	4,850.48	-542.65	238.77	592.86	0.00	0.00	0.00
5,000.00	10.04	156.25	4,948.95	-558.61	245.80	610.30	0.00	0.00	0.00
5,100.00	10.04	156.25	5,047.41	-574.58	252.82	627.74	0.00	0.00	0.00

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Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 4539.00ft (TBD)
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Well:	Spring Lake 06-10H	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)
5,200.00	10.04	156.25	5,145.88	-590.54	259.85	645.18	0.00	0.00	0.00
5,300.00	10.04	156.25	5,244.35	-606.51	266.87	662.63	0.00	0.00	0.00
5,400.00	10.04	156.25	5,342.81	-622.47	273.89	680.07	0.00	0.00	0.00
5,500.00	10.04	156.25	5,441.28	-638.44	280.92	697.51	0.00	0.00	0.00
5,600.00	10.04	156.25	5,539.75	-654.40	287.94	714.95	0.00	0.00	0.00
5,700.00	10.04	156.25	5,638.22	-670.37	294.97	732.39	0.00	0.00	0.00
5,702.64	10.04	156.25	5,640.81	-670.79	295.15	732.85	0.00	0.00	0.00
5,800.00	21.73	156.25	5,734.29	-695.14	305.87	759.46	12.00	12.00	0.00
5,900.00	33.73	156.25	5,822.65	-737.65	324.57	805.90	12.00	12.00	0.00
6,000.00	45.73	156.25	5,899.42	-796.05	350.27	869.70	12.00	12.00	0.00
6,100.00	57.73	156.25	5,961.24	-867.77	381.83	948.06	12.00	12.00	0.00
6,200.00	69.73	156.25	6,005.43	-949.70	417.88	1,037.57	12.00	12.00	0.00
6,300.00	81.73	156.25	6,030.03	-1,038.24	456.84	1,134.31	12.00	12.00	0.00
6,368.93	90.00	156.25	6,035.00	-1,101.12	484.50	1,203.00	12.00	12.00	0.00
7" - Spring Lake 06-10H (ICP)									
6,400.00	90.00	156.25	6,035.00	-1,129.56	497.02	1,234.07	0.00	0.00	0.00
6,500.00	90.00	156.25	6,035.00	-1,221.09	537.29	1,334.07	0.00	0.00	0.00
6,600.00	90.00	156.25	6,035.00	-1,312.62	577.57	1,434.07	0.00	0.00	0.00
6,700.00	90.00	156.25	6,035.00	-1,404.15	617.84	1,534.07	0.00	0.00	0.00
6,800.00	90.00	156.25	6,035.00	-1,495.68	658.11	1,634.07	0.00	0.00	0.00
6,900.00	90.00	156.25	6,035.00	-1,587.21	698.39	1,734.07	0.00	0.00	0.00
7,000.00	90.00	156.25	6,035.00	-1,678.75	738.66	1,834.07	0.00	0.00	0.00
7,100.00	90.00	156.25	6,035.00	-1,770.28	778.93	1,934.07	0.00	0.00	0.00
7,200.00	90.00	156.25	6,035.00	-1,861.81	819.21	2,034.07	0.00	0.00	0.00
7,300.00	90.00	156.25	6,035.00	-1,953.34	859.48	2,134.07	0.00	0.00	0.00
7,400.00	90.00	156.25	6,035.00	-2,044.87	899.75	2,234.07	0.00	0.00	0.00
7,500.00	90.00	156.25	6,035.00	-2,136.40	940.03	2,334.07	0.00	0.00	0.00
7,600.00	90.00	156.25	6,035.00	-2,227.94	980.30	2,434.07	0.00	0.00	0.00
7,700.00	90.00	156.25	6,035.00	-2,319.47	1,020.57	2,534.07	0.00	0.00	0.00
7,800.00	90.00	156.25	6,035.00	-2,411.00	1,060.84	2,634.07	0.00	0.00	0.00
7,900.00	90.00	156.25	6,035.00	-2,502.53	1,101.11	2,734.07	0.00	0.00	0.00
8,000.00	90.00	156.25	6,035.00	-2,594.07	1,141.39	2,834.07	0.00	0.00	0.00
8,100.00	90.00	156.25	6,035.00	-2,685.60	1,181.66	2,934.07	0.00	0.00	0.00
8,200.00	90.00	156.25	6,035.00	-2,777.13	1,221.93	3,034.07	0.00	0.00	0.00
8,300.00	90.00	156.25	6,035.00	-2,868.66	1,262.20	3,134.07	0.00	0.00	0.00
8,400.00	90.00	156.25	6,035.00	-2,960.20	1,302.47	3,234.07	0.00	0.00	0.00
8,500.00	90.00	156.25	6,035.00	-3,051.73	1,342.74	3,334.07	0.00	0.00	0.00
8,600.00	90.00	156.25	6,035.00	-3,143.26	1,383.01	3,434.07	0.00	0.00	0.00
8,700.00	90.00	156.25	6,035.00	-3,234.80	1,423.28	3,534.07	0.00	0.00	0.00
8,800.00	90.00	156.25	6,035.00	-3,326.33	1,463.55	3,634.07	0.00	0.00	0.00
8,900.00	90.00	156.25	6,035.00	-3,417.86	1,503.82	3,734.07	0.00	0.00	0.00
9,000.00	90.00	156.25	6,035.00	-3,509.40	1,544.09	3,834.07	0.00	0.00	0.00
9,100.00	90.00	156.25	6,035.00	-3,600.93	1,584.36	3,934.07	0.00	0.00	0.00
9,200.00	90.00	156.25	6,035.00	-3,692.46	1,624.63	4,034.07	0.00	0.00	0.00
9,300.00	90.00	156.25	6,035.00	-3,784.00	1,664.90	4,134.07	0.00	0.00	0.00
9,400.00	90.00	156.25	6,035.00	-3,875.53	1,705.17	4,234.07	0.00	0.00	0.00
9,500.00	90.00	156.25	6,035.00	-3,967.06	1,745.44	4,334.07	0.00	0.00	0.00
9,600.00	90.00	156.25	6,035.00	-4,058.60	1,785.70	4,434.07	0.00	0.00	0.00
9,700.00	90.00	156.25	6,035.00	-4,150.13	1,825.97	4,534.07	0.00	0.00	0.00
9,800.00	90.00	156.25	6,035.00	-4,241.67	1,866.24	4,634.07	0.00	0.00	0.00
9,900.00	90.00	156.25	6,035.00	-4,333.20	1,906.51	4,734.07	0.00	0.00	0.00
10,000.00	90.00	156.25	6,035.00	-4,424.73	1,946.78	4,834.07	0.00	0.00	0.00
10,100.00	90.00	156.25	6,035.00	-4,516.27	1,987.04	4,934.07	0.00	0.00	0.00

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Site:	Spring Lake 06-10H	North Reference:	True
Well:	Spring Lake 06-10H	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)
10,200.00	90.00	156.25	6,035.00	-4,607.80	2,027.31	5,034.07	0.00	0.00	0.00
10,300.00	90.00	156.25	6,035.00	-4,699.34	2,067.58	5,134.07	0.00	0.00	0.00
10,400.00	90.00	156.25	6,035.00	-4,790.87	2,107.84	5,234.07	0.00	0.00	0.00
10,500.00	90.00	156.26	6,035.00	-4,882.41	2,148.11	5,334.07	0.00	0.00	0.00
10,600.00	90.00	156.26	6,035.00	-4,973.94	2,188.38	5,434.07	0.00	0.00	0.00
10,700.00	90.00	156.26	6,035.00	-5,065.48	2,228.64	5,534.07	0.00	0.00	0.00
10,779.78	90.00	156.26	6,035.00	-5,138.50	2,260.77	5,613.84	0.00	0.00	0.00
Spring Lake 06-10H (BHL)									

Design 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									
Spring Lake 06-10H (I	0.00	0.00	6,035.00	-5,138.50	2,260.77	356,921.22	2,333,716.14	40° 18' 25.150 N	104° 18' 12.308 W
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
800.00	800.00	9-5/8"	9-5/8	13-1/2	
6,368.93	6,035.00	7"	7	8-3/4	
10,779.78	6,035.00	4 1/2"	4-1/2	6	

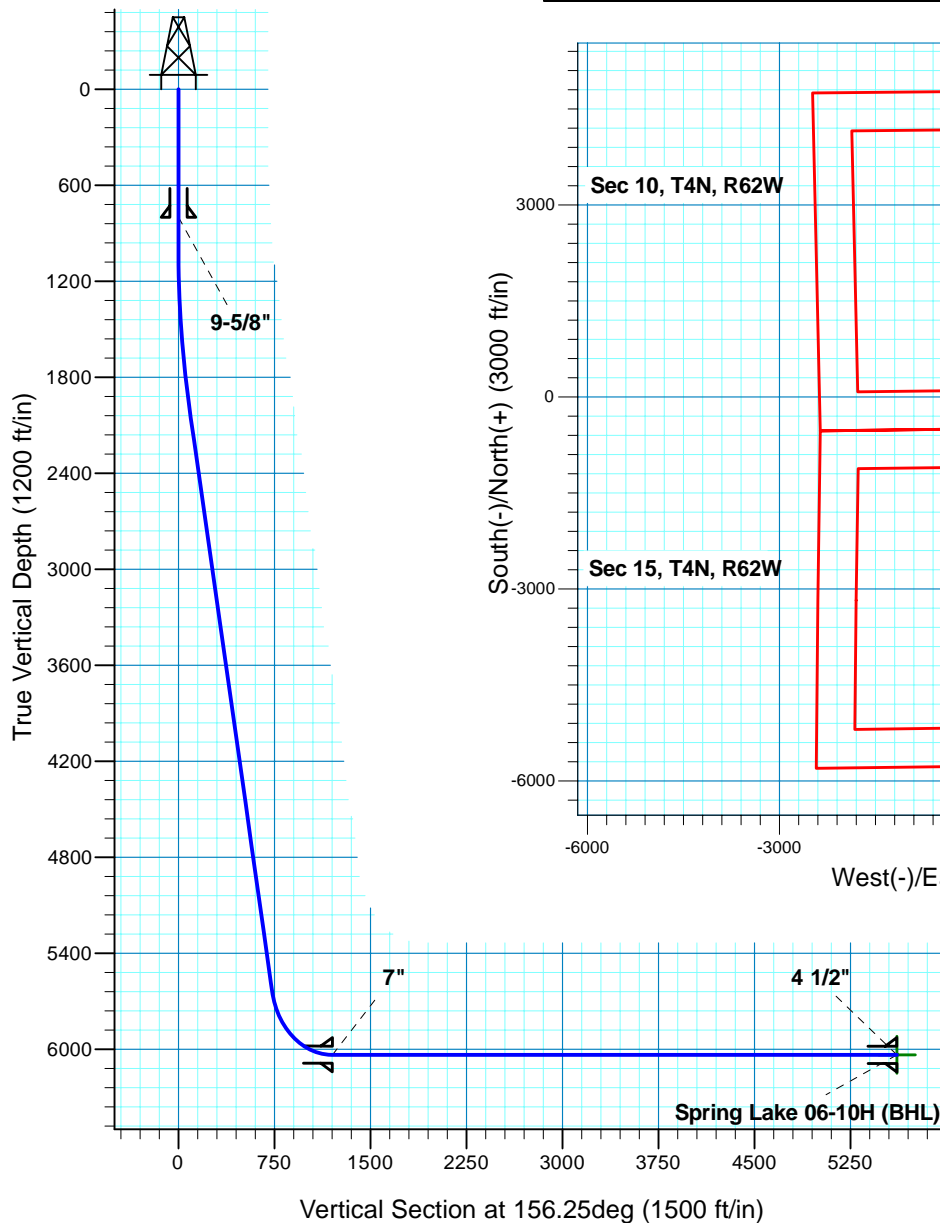
Spring Lake 06-10H

Section 10 T4N R62W

Weld County, CO

Surface Location

NAD 1927 (NADCON CONUS) Colorado North 501
Ground Elevation: 4517.00 RIG @ 4539.00ft (TBD)
Northing Easting Latitude Longitude
362028.95 2331386.72 40° 19' 15.931 N 104° 18' 41.490 W



T M
Azimuths to True North
Magnetic North: 8.56°
Magnetic Field
Strength: 53157.5nT
Dip Angle: 67.07°
Date: 6/30/2011
Model: IGRF200510

Project: DJ - Hereford Ranch
Site: Spring Lake 06-10H
Well: Spring Lake 06-10H
Plan: APD Directional Plan

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	
3	2004.49	10.04	156.25	1999.35	-80.39	35.37	1.00	156.25	87.83	
4	5702.64	10.04	156.25	5640.81	-670.79	295.15	0.00	0.00	732.85	
5	6368.93	90.00	156.25	6035.00	-1101.12	484.50	12.00	0.00	1203.00	Spring Lake 06-10H (ICP)
6	10779.78	90.00	156.26	6035.00	-5138.50	2260.77	0.00	90.00	5613.84	Spring Lake 06-10H (BHL)

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Spring Lake 06-10H (BHL)	6035.00	-5138.50	2260.77	356921.22	2333716.14	40° 18' 25.150 N	104° 18' 12.308 W	Point