

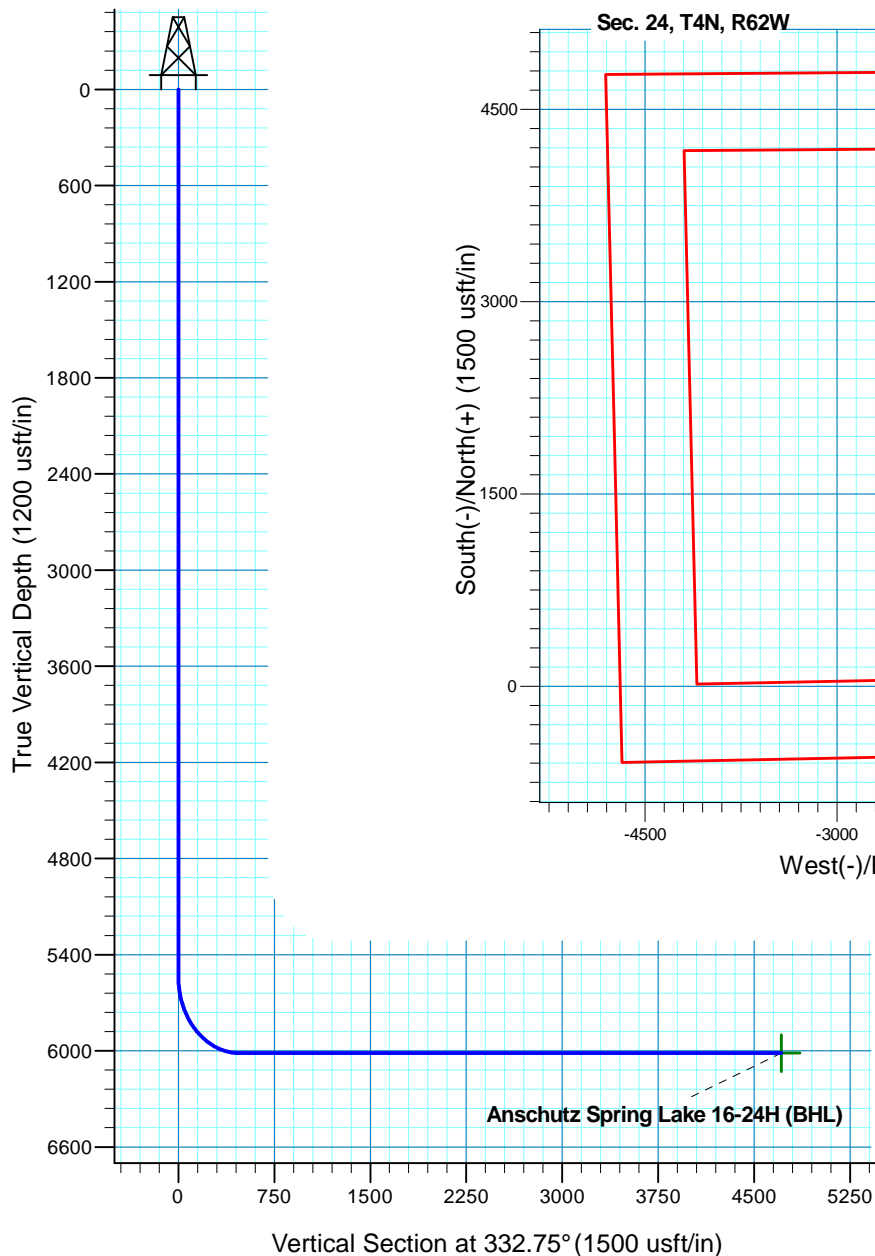
Anschutz Spring Lake 16-24H

Section 24 T4N R62W

Weld County, CO

Surface Location

NAD 1927 (NADCON CONUS) Colorado North 501
Ground Elevation: 4495.0 RIG @ 4517.0 usft
Northing 351709.32 Easting 2344479.16 Latitude 40° 17' 32.190 N Longitude 104° 15' 54.331 W



T M
Azimuths to True North
Magnetic North: 8.47°
Magnetic Field
Strength: 53095.7snT
Dip Angle: 67.04°
Date: 12/28/2011
Model: IGRF200510
Project: DJ - Hereford Ranch
Site: Anschutz Spring Lake
Well: Anschutz Spring Lake 16-24H
Plan: APD Directional Plan

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	5536.5	0.00	0.00	5536.5	0.0	0.0	0.00	0.00	0.0	
3	6286.5	90.00	332.75	6014.0	424.5	-218.6	12.00	332.75	477.5	
4	10522.8	90.00	332.75	6014.0	4190.4	-2158.5	0.00	0.00	4713.7	Anschutz Spring Lake 16-24H (BHL)

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Anschutz Spring Lake 16-24H (BHL)	6014.0	4190.4	-2158.5	355869.29	2342262.51	40° 18' 13.60 1 N	104° 16' 22.192 W	Point

Denver Division- Colorado

DJ - Hereford Ranch

Anschutz Spring Lake

Anschutz Spring Lake 16-24H

Original Wellbore

Plan: APD Directional Plan

Standard Planning Report

28 December, 2011

EOG Resources, Inc.

Planning Report

Database:	edm	Local Co-ordinate Reference:	Site Anschutz Spring Lake
Company:	Denver Division- Colorado	TVD Reference:	RIG @ 4517.0usft
Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 4517.0usft
Site:	Anschutz Spring Lake	North Reference:	True
Well:	Anschutz Spring Lake 16-24H	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		Anschutz Spring Lake			
Site Position:		Northing:	351,709.32 usft	Latitude:	40° 17' 32.190 N
From:	Lat/Long	Easting:	2,344,479.16 usft	Longitude:	104° 15' 54.331 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.80 °

Well	Anschutz Spring Lake 16-24H					
Well Position	+N/-S	0.0 usft	Northing:	351,709.32 usft	Latitude:	40° 17' 32.190 N
	+E/-W	0.0 usft	Easting:	2,344,479.16 usft	Longitude:	104° 15' 54.331 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	4,495.0 usft

Wellbore	Original Wellbore				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/28/2011	8.47	67.04	53,096

Design	APD Directional Plan			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	332.75

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,536.5	0.00	0.00	5,536.5	0.0	0.0	0.00	0.00	0.00	0.00	
6,286.5	90.00	332.75	6,014.0	424.5	-218.6	12.00	12.00	0.00	332.75	
10,522.8	90.00	332.75	6,014.0	4,190.4	-2,158.5	0.00	0.00	0.00	0.00	Anschutz Spring Lake

EOG Resources, Inc.

Planning Report

Database:	edm	Local Co-ordinate Reference:	Site Anschutz Spring Lake
Company:	Denver Division- Colorado	TVD Reference:	RIG @ 4517.0usft
Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 4517.0usft
Site:	Anschutz Spring Lake	North Reference:	True
Well:	Anschutz Spring Lake 16-24H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
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
1,700.0	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
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

EOG Resources, Inc.

Planning Report

Database:	edm	Local Co-ordinate Reference:	Site Anschutz Spring Lake
Company:	Denver Division- Colorado	TVD Reference:	RIG @ 4517.0usft
Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 4517.0usft
Site:	Anschutz Spring Lake	North Reference:	True
Well:	Anschutz Spring Lake 16-24H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
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
5,536.5	0.00	0.00	5,536.5	0.0	0.0	0.0	0.00	0.00	0.00
5,550.0	1.62	332.75	5,550.0	0.2	-0.1	0.2	12.00	12.00	0.00
5,575.0	4.62	332.75	5,575.0	1.4	-0.7	1.5	12.00	12.00	0.00
5,600.0	7.62	332.75	5,599.8	3.7	-1.9	4.2	12.00	12.00	0.00
5,625.0	10.62	332.75	5,624.5	7.3	-3.7	8.2	12.00	12.00	0.00
5,650.0	13.62	332.75	5,648.9	11.9	-6.1	13.4	12.00	12.00	0.00
5,675.0	16.62	332.75	5,673.1	17.7	-9.1	19.9	12.00	12.00	0.00
5,700.0	19.62	332.75	5,696.8	24.6	-12.7	27.7	12.00	12.00	0.00
5,725.0	22.62	332.75	5,720.1	32.6	-16.8	36.7	12.00	12.00	0.00
5,750.0	25.62	332.75	5,743.0	41.7	-21.5	46.9	12.00	12.00	0.00
5,775.0	28.62	332.75	5,765.2	51.8	-26.7	58.3	12.00	12.00	0.00
5,800.0	31.62	332.75	5,786.8	63.0	-32.5	70.9	12.00	12.00	0.00
5,825.0	34.62	332.75	5,807.8	75.1	-38.7	84.5	12.00	12.00	0.00
5,850.0	37.62	332.75	5,828.0	88.2	-45.5	99.3	12.00	12.00	0.00
5,875.0	40.62	332.75	5,847.4	102.3	-52.7	115.0	12.00	12.00	0.00
5,900.0	43.62	332.75	5,865.9	117.2	-60.3	131.8	12.00	12.00	0.00
5,925.0	46.62	332.75	5,883.5	132.9	-68.5	149.5	12.00	12.00	0.00
5,950.0	49.62	332.75	5,900.2	149.4	-77.0	168.1	12.00	12.00	0.00
5,975.0	52.62	332.75	5,915.9	166.7	-85.9	187.6	12.00	12.00	0.00
6,000.0	55.62	332.75	5,930.6	184.8	-95.2	207.8	12.00	12.00	0.00
6,025.0	58.62	332.75	5,944.1	203.4	-104.8	228.8	12.00	12.00	0.00
6,050.0	61.62	332.75	5,956.6	222.7	-114.7	250.5	12.00	12.00	0.00
6,075.0	64.62	332.75	5,967.9	242.5	-124.9	272.8	12.00	12.00	0.00
6,100.0	67.62	332.75	5,978.0	262.8	-135.4	295.6	12.00	12.00	0.00
6,125.0	70.62	332.75	5,986.9	283.6	-146.1	319.0	12.00	12.00	0.00
6,150.0	73.62	332.75	5,994.6	304.7	-157.0	342.8	12.00	12.00	0.00
6,175.0	76.62	332.75	6,001.0	326.2	-168.0	366.9	12.00	12.00	0.00
6,200.0	79.62	332.75	6,006.2	348.0	-179.2	391.4	12.00	12.00	0.00
6,225.0	82.62	332.75	6,010.0	369.9	-190.5	416.1	12.00	12.00	0.00
6,250.0	85.62	332.75	6,012.6	392.0	-201.9	441.0	12.00	12.00	0.00
6,275.0	88.62	332.75	6,013.9	414.2	-213.4	465.9	12.00	12.00	0.00
6,286.5	90.00	332.75	6,014.0	424.5	-218.6	477.5	12.00	12.00	0.00
6,300.0	90.00	332.75	6,014.0	436.4	-224.8	490.9	0.00	0.00	0.00
6,400.0	90.00	332.75	6,014.0	525.3	-270.6	590.9	0.00	0.00	0.00
6,500.0	90.00	332.75	6,014.0	614.2	-316.4	690.9	0.00	0.00	0.00
6,600.0	90.00	332.75	6,014.0	703.1	-362.2	790.9	0.00	0.00	0.00
6,700.0	90.00	332.75	6,014.0	792.0	-408.0	890.9	0.00	0.00	0.00
6,800.0	90.00	332.75	6,014.0	880.9	-453.8	990.9	0.00	0.00	0.00
6,900.0	90.00	332.75	6,014.0	969.8	-499.6	1,090.9	0.00	0.00	0.00
7,000.0	90.00	332.75	6,014.0	1,058.7	-545.4	1,190.9	0.00	0.00	0.00
7,100.0	90.00	332.75	6,014.0	1,147.6	-591.1	1,290.9	0.00	0.00	0.00
7,200.0	90.00	332.75	6,014.0	1,236.5	-636.9	1,390.9	0.00	0.00	0.00
7,300.0	90.00	332.75	6,014.0	1,325.4	-682.7	1,490.9	0.00	0.00	0.00
7,400.0	90.00	332.75	6,014.0	1,414.3	-728.5	1,590.9	0.00	0.00	0.00
7,500.0	90.00	332.75	6,014.0	1,503.2	-774.3	1,690.9	0.00	0.00	0.00
7,600.0	90.00	332.75	6,014.0	1,592.1	-820.1	1,790.9	0.00	0.00	0.00
7,700.0	90.00	332.75	6,014.0	1,681.0	-865.9	1,890.9	0.00	0.00	0.00
7,800.0	90.00	332.75	6,014.0	1,769.9	-911.7	1,990.9	0.00	0.00	0.00
7,900.0	90.00	332.75	6,014.0	1,858.8	-957.5	2,090.9	0.00	0.00	0.00
8,000.0	90.00	332.75	6,014.0	1,947.7	-1,003.3	2,190.9	0.00	0.00	0.00
8,100.0	90.00	332.75	6,014.0	2,036.6	-1,049.1	2,290.9	0.00	0.00	0.00
8,200.0	90.00	332.75	6,014.0	2,125.5	-1,094.9	2,390.9	0.00	0.00	0.00

EOG Resources, Inc.

Planning Report

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Company:	Denver Division- Colorado	TVD Reference:	RIG @ 4517.0usft
Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 4517.0usft
Site:	Anschutz Spring Lake	North Reference:	True
Well:	Anschutz Spring Lake 16-24H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
8,300.0	90.00	332.75	6,014.0	2,214.4	-1,140.7	2,490.9	0.00	0.00	0.00	
8,400.0	90.00	332.75	6,014.0	2,303.3	-1,186.4	2,590.9	0.00	0.00	0.00	
8,500.0	90.00	332.75	6,014.0	2,392.2	-1,232.2	2,690.9	0.00	0.00	0.00	
8,600.0	90.00	332.75	6,014.0	2,481.1	-1,278.0	2,790.9	0.00	0.00	0.00	
8,700.0	90.00	332.75	6,014.0	2,570.0	-1,323.8	2,890.9	0.00	0.00	0.00	
8,800.0	90.00	332.75	6,014.0	2,658.9	-1,369.6	2,990.9	0.00	0.00	0.00	
8,900.0	90.00	332.75	6,014.0	2,747.8	-1,415.4	3,090.9	0.00	0.00	0.00	
9,000.0	90.00	332.75	6,014.0	2,836.7	-1,461.2	3,190.9	0.00	0.00	0.00	
9,100.0	90.00	332.75	6,014.0	2,925.6	-1,507.0	3,290.9	0.00	0.00	0.00	
9,200.0	90.00	332.75	6,014.0	3,014.5	-1,552.8	3,390.9	0.00	0.00	0.00	
9,300.0	90.00	332.75	6,014.0	3,103.4	-1,598.6	3,490.9	0.00	0.00	0.00	
9,400.0	90.00	332.75	6,014.0	3,192.3	-1,644.4	3,590.9	0.00	0.00	0.00	
9,500.0	90.00	332.75	6,014.0	3,281.2	-1,690.2	3,690.9	0.00	0.00	0.00	
9,600.0	90.00	332.75	6,014.0	3,370.1	-1,736.0	3,790.9	0.00	0.00	0.00	
9,700.0	90.00	332.75	6,014.0	3,459.0	-1,781.7	3,890.9	0.00	0.00	0.00	
9,800.0	90.00	332.75	6,014.0	3,547.9	-1,827.5	3,990.9	0.00	0.00	0.00	
9,900.0	90.00	332.75	6,014.0	3,636.8	-1,873.3	4,090.9	0.00	0.00	0.00	
10,000.0	90.00	332.75	6,014.0	3,725.7	-1,919.1	4,190.9	0.00	0.00	0.00	
10,100.0	90.00	332.75	6,014.0	3,814.6	-1,964.9	4,290.9	0.00	0.00	0.00	
10,200.0	90.00	332.75	6,014.0	3,903.5	-2,010.7	4,390.9	0.00	0.00	0.00	
10,300.0	90.00	332.75	6,014.0	3,992.4	-2,056.5	4,490.9	0.00	0.00	0.00	
10,400.0	90.00	332.75	6,014.0	4,081.3	-2,102.3	4,590.9	0.00	0.00	0.00	
10,500.0	90.00	332.75	6,014.0	4,170.2	-2,148.1	4,690.9	0.00	0.00	0.00	
10,522.8	90.00	332.75	6,014.0	4,190.4	-2,158.5	4,713.7	0.00	0.00	0.00	

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Anschutz Spring Lake 16-24H	0.00	0.00	6,014.0	4,190.4	-2,158.5	355,869.29	2,342,262.51	40° 18' 13.601 N	104° 16' 22.192 W
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
10,522.8	6,014.0	4 1/2"	4-1/2	6	
800.0	800.0	9-5/8"	9-5/8	13-1/2	
6,286.5	6,014.0	7"	7	7-1/2	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
5,852.6	5,830.0	Niobrara Top		0.00		

EOG Resources, Inc.

Planning Report

Database:	edm	Local Co-ordinate Reference:	Site Anschutz Spring Lake
Company:	Denver Division- Colorado	TVD Reference:	RIG @ 4517.0usft
Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 4517.0usft
Site:	Anschutz Spring Lake	North Reference:	True
Well:	Anschutz Spring Lake 16-24H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		