

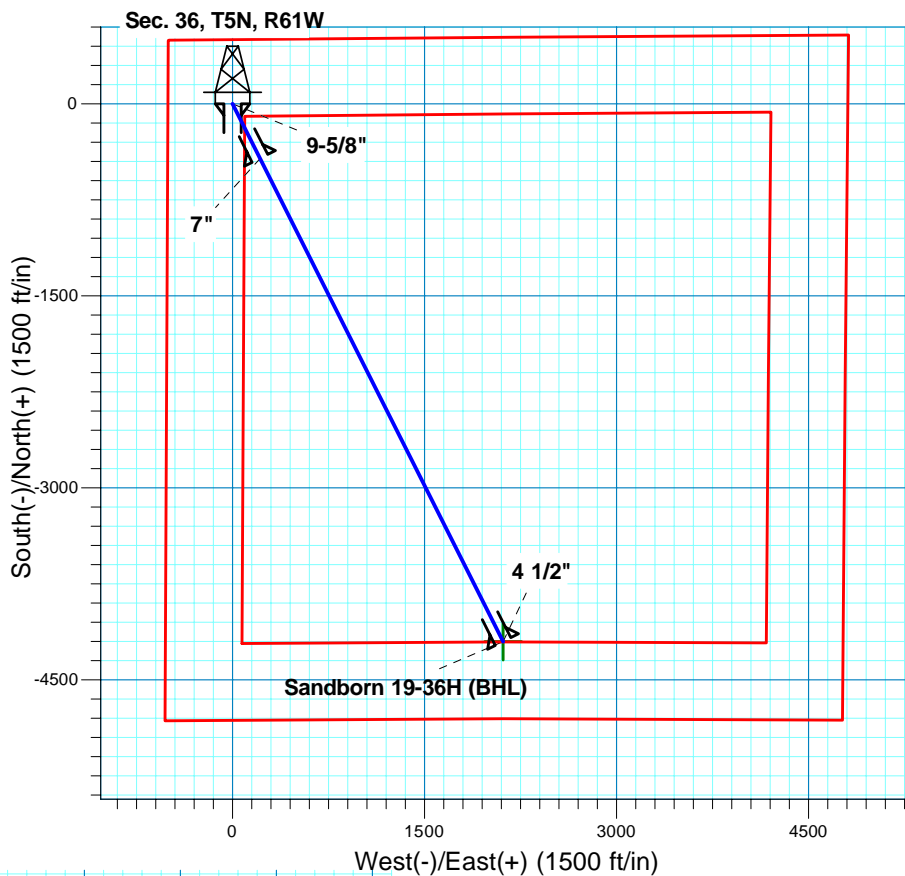
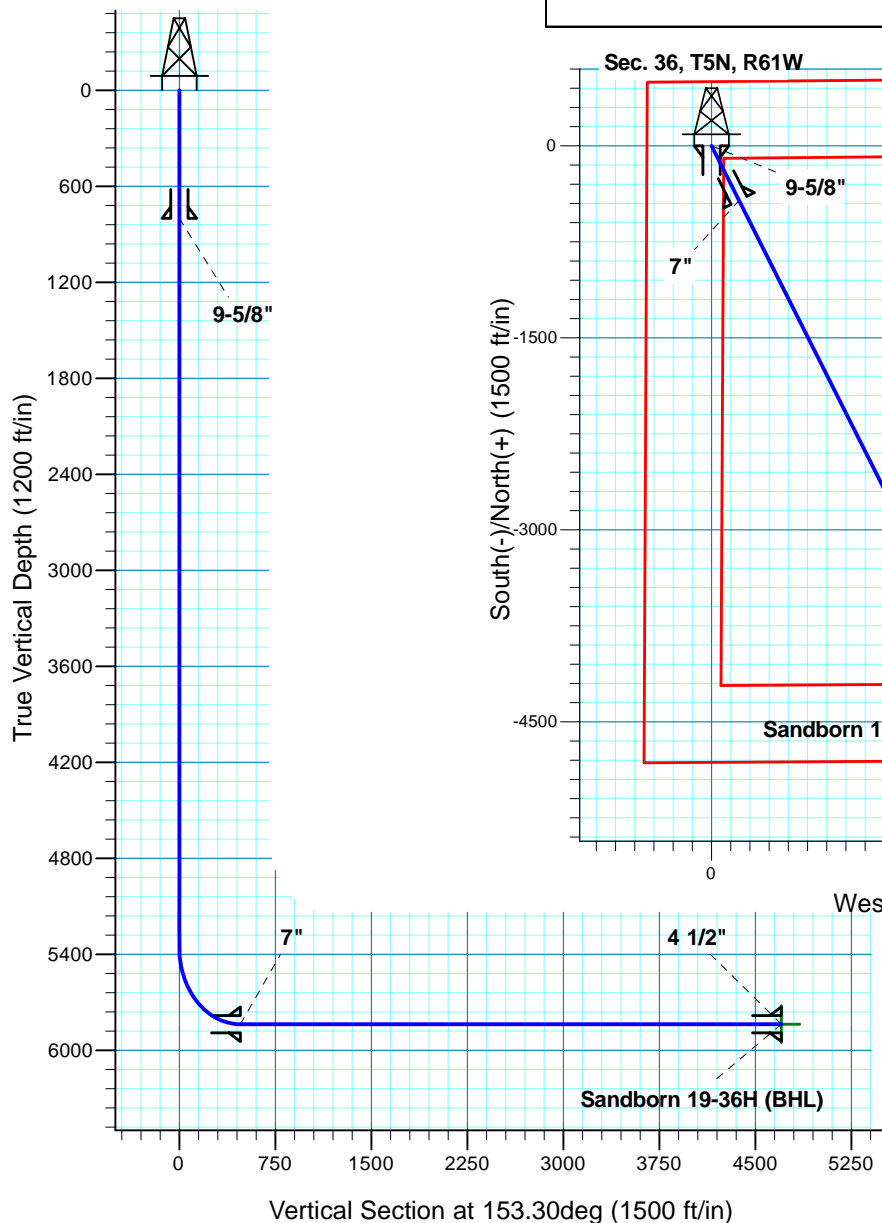
# Sandborn 19-36H

## Section 36 T5N R61W

### Weld County, CO

#### Surface Location

NAD 1927 (NADCON CONUS) Colorado North 501  
Ground Elevation: 4502.00 RIG @ 4524.00ft (TBD)  
Northing Easting Latitude Longitude  
378036.42 2372249.82 40° 21' 48.359 N 104° 9' 50.872 W



**T M**  
Azimuths to True North  
Magnetic North: 8.49°  
Magnetic Field  
Strength: 53198.7nT  
Dip Angle: 67.13°  
Date: 6/16/2011  
Model: IGRF200510

Project: DJ - Hereford Ranch  
Site: Sandborn 19-36H  
Well: Sandborn 19-36H  
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	5359.53	0.00	0.00	5359.53	0.00	0.00	0.00	0.00	0.00	
3	6109.54	90.00	153.30	5837.00	-426.56	214.53	12.00	153.30	477.47	
4	10334.73	90.00	153.30	5837.00	-4201.24	2112.95	0.00	0.00	4702.66	Sandborn 19-36H (BHL)

#### TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape Point
Sandborn 19-36H (BHL)	5837.00	-4201.24	2112.95	373867.49	2374425.81	40° 21' 6.840 N	104° 9' 23.580 W	

# **Denver Division- Colorado**

**DJ - Hereford Ranch**

**Sandborn 19-36H**

**Sandborn 19-36H**

**Original Wellbore**

**Plan: APD Directional Plan**

## **Standard Planning Report**

**16 June, 2011**

# EOG Resources Inc

## Planning Report

<b>Database:</b>	EDM	<b>Local Co-ordinate Reference:</b>	Site Sandborn 19-36H
<b>Company:</b>	Denver Division- Colorado	<b>TVD Reference:</b>	RIG @ 4524.00ft (TBD)
<b>Project:</b>	DJ - Hereford Ranch	<b>MD Reference:</b>	RIG @ 4524.00ft (TBD)
<b>Site:</b>	Sandborn 19-36H	<b>North Reference:</b>	True
<b>Well:</b>	Sandborn 19-36H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Wellbore		
<b>Design:</b>	APD Directional Plan		

<b>Project</b>	DJ - Hereford Ranch, Weld County		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Colorado North 501		

Site		Sandborn 19-36H			
Site Position: From:		Northing:	378,036.42 ft	Latitude:	40° 21' 48.359 N
	Lat/Long	Easting:	2,372,249.82ft	Longitude:	104° 9' 50.872 W
	Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:

Well	Sandborn 19-36H					
Well Position	+N-S	0.00 ft	Northing:	378,036.42 ft	Latitude:	40° 21' 48.359 N
	+E-W	0.00 ft	Easting:	2,372,249.82 ft	Longitude:	104° 9' 50.872 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,502.00 ft

<b>Wellbore</b>	Original Wellbore				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (deg)</b>	<b>Dip Angle (deg)</b>	<b>Field Strength (nT)</b>
	IGRF200510	6/16/2011	8.49	67.13	53,199

<b>Design</b>	APD Directional Plan			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (deg)</b>
	0.00	0.00	0.00	153.30

<b>Plan Sections</b>										
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	
5,359.53	0.00	0.00	5,359.53	0.00	0.00	0.00	0.00	0.00	0.00	
6,109.54	90.00	153.30	5,837.00	-426.56	214.53	12.00	12.00	0.00	153.30	
10,334.73	90.00	153.30	5,837.00	-4,201.24	2,112.95	0.00	0.00	0.00	0.00	Sandborn 19-36H (I

# EOG Resources Inc

## Planning Report

<b>Database:</b>	EDM	<b>Local Co-ordinate Reference:</b>	Site Sandborn 19-36H
<b>Company:</b>	Denver Division- Colorado	<b>TVD Reference:</b>	RIG @ 4524.00ft (TBD)
<b>Project:</b>	DJ - Hereford Ranch	<b>MD Reference:</b>	RIG @ 4524.00ft (TBD)
<b>Site:</b>	Sandborn 19-36H	<b>North Reference:</b>	True
<b>Well:</b>	Sandborn 19-36H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Wellbore		
<b>Design:</b>	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	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
1,400.00	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
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

# EOG Resources Inc

## Planning Report

<b>Database:</b>	EDM	<b>Local Co-ordinate Reference:</b>	Site Sandborn 19-36H
<b>Company:</b>	Denver Division- Colorado	<b>TVD Reference:</b>	RIG @ 4524.00ft (TBD)
<b>Project:</b>	DJ - Hereford Ranch	<b>MD Reference:</b>	RIG @ 4524.00ft (TBD)
<b>Site:</b>	Sandborn 19-36H	<b>North Reference:</b>	True
<b>Well:</b>	Sandborn 19-36H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Wellbore		
<b>Design:</b>	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)
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,359.53	0.00	0.00	5,359.53	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	4.86	153.30	5,399.95	-1.53	0.77	1.71	12.00	12.00	0.00
5,500.00	16.86	153.30	5,497.98	-18.33	9.22	20.51	12.00	12.00	0.00
5,600.00	28.86	153.30	5,589.96	-52.96	26.64	59.28	12.00	12.00	0.00
5,700.00	40.86	153.30	5,671.87	-103.93	52.27	116.33	12.00	12.00	0.00
5,800.00	52.86	153.30	5,740.13	-168.99	84.99	189.16	12.00	12.00	0.00
5,900.00	64.86	153.30	5,791.76	-245.31	123.38	274.59	12.00	12.00	0.00
6,000.00	76.86	153.30	5,824.49	-329.56	165.74	368.89	12.00	12.00	0.00
6,100.00	88.86	153.30	5,836.90	-418.04	210.25	467.93	12.00	12.00	0.00
6,109.54	90.00	153.30	5,837.00	-426.56	214.53	477.47	11.99	11.99	0.00
7"									
6,200.00	90.00	153.30	5,837.00	-507.38	255.18	567.93	0.00	0.00	0.00
6,300.00	90.00	153.30	5,837.00	-596.71	300.11	667.93	0.00	0.00	0.00
6,400.00	90.00	153.30	5,837.00	-686.05	345.04	767.93	0.00	0.00	0.00
6,500.00	90.00	153.30	5,837.00	-775.39	389.97	867.93	0.00	0.00	0.00
6,600.00	90.00	153.30	5,837.00	-864.73	434.90	967.93	0.00	0.00	0.00
6,700.00	90.00	153.30	5,837.00	-954.06	479.83	1,067.93	0.00	0.00	0.00
6,800.00	90.00	153.30	5,837.00	-1,043.40	524.76	1,167.93	0.00	0.00	0.00
6,900.00	90.00	153.30	5,837.00	-1,132.74	569.69	1,267.93	0.00	0.00	0.00
7,000.00	90.00	153.30	5,837.00	-1,222.08	614.62	1,367.93	0.00	0.00	0.00
7,100.00	90.00	153.30	5,837.00	-1,311.41	659.55	1,467.93	0.00	0.00	0.00
7,200.00	90.00	153.30	5,837.00	-1,400.75	704.48	1,567.93	0.00	0.00	0.00
7,300.00	90.00	153.30	5,837.00	-1,490.09	749.42	1,667.93	0.00	0.00	0.00
7,400.00	90.00	153.30	5,837.00	-1,579.43	794.35	1,767.93	0.00	0.00	0.00
7,500.00	90.00	153.30	5,837.00	-1,668.76	839.28	1,867.93	0.00	0.00	0.00
7,600.00	90.00	153.30	5,837.00	-1,758.10	884.21	1,967.93	0.00	0.00	0.00
7,700.00	90.00	153.30	5,837.00	-1,847.44	929.14	2,067.93	0.00	0.00	0.00
7,800.00	90.00	153.30	5,837.00	-1,936.78	974.07	2,167.93	0.00	0.00	0.00
7,900.00	90.00	153.30	5,837.00	-2,026.12	1,019.00	2,267.93	0.00	0.00	0.00
8,000.00	90.00	153.30	5,837.00	-2,115.45	1,063.93	2,367.93	0.00	0.00	0.00
8,100.00	90.00	153.30	5,837.00	-2,204.79	1,108.86	2,467.93	0.00	0.00	0.00
8,200.00	90.00	153.30	5,837.00	-2,294.13	1,153.79	2,567.93	0.00	0.00	0.00
8,300.00	90.00	153.30	5,837.00	-2,383.47	1,198.72	2,667.93	0.00	0.00	0.00
8,400.00	90.00	153.30	5,837.00	-2,472.80	1,243.66	2,767.93	0.00	0.00	0.00
8,500.00	90.00	153.30	5,837.00	-2,562.14	1,288.59	2,867.93	0.00	0.00	0.00
8,600.00	90.00	153.30	5,837.00	-2,651.48	1,333.52	2,967.93	0.00	0.00	0.00
8,700.00	90.00	153.30	5,837.00	-2,740.82	1,378.45	3,067.93	0.00	0.00	0.00
8,800.00	90.00	153.30	5,837.00	-2,830.15	1,423.38	3,167.93	0.00	0.00	0.00
8,900.00	90.00	153.30	5,837.00	-2,919.49	1,468.31	3,267.93	0.00	0.00	0.00
9,000.00	90.00	153.30	5,837.00	-3,008.83	1,513.24	3,367.93	0.00	0.00	0.00
9,100.00	90.00	153.30	5,837.00	-3,098.17	1,558.17	3,467.93	0.00	0.00	0.00
9,200.00	90.00	153.30	5,837.00	-3,187.51	1,603.10	3,567.93	0.00	0.00	0.00
9,300.00	90.00	153.30	5,837.00	-3,276.84	1,648.03	3,667.93	0.00	0.00	0.00
9,400.00	90.00	153.30	5,837.00	-3,366.18	1,692.96	3,767.93	0.00	0.00	0.00
9,500.00	90.00	153.30	5,837.00	-3,455.52	1,737.89	3,867.93	0.00	0.00	0.00
9,600.00	90.00	153.30	5,837.00	-3,544.86	1,782.83	3,967.93	0.00	0.00	0.00
9,700.00	90.00	153.30	5,837.00	-3,634.19	1,827.76	4,067.93	0.00	0.00	0.00
9,800.00	90.00	153.30	5,837.00	-3,723.53	1,872.69	4,167.93	0.00	0.00	0.00
9,900.00	90.00	153.30	5,837.00	-3,812.87	1,917.62	4,267.93	0.00	0.00	0.00
10,000.00	90.00	153.30	5,837.00	-3,902.21	1,962.55	4,367.93	0.00	0.00	0.00
10,100.00	90.00	153.30	5,837.00	-3,991.54	2,007.48	4,467.93	0.00	0.00	0.00
10,200.00	90.00	153.30	5,837.00	-4,080.88	2,052.41	4,567.93	0.00	0.00	0.00

# EOG Resources Inc

## Planning Report

<b>Database:</b>	EDM	<b>Local Co-ordinate Reference:</b>	Site Sandborn 19-36H
<b>Company:</b>	Denver Division- Colorado	<b>TVD Reference:</b>	RIG @ 4524.00ft (TBD)
<b>Project:</b>	DJ - Hereford Ranch	<b>MD Reference:</b>	RIG @ 4524.00ft (TBD)
<b>Site:</b>	Sandborn 19-36H	<b>North Reference:</b>	True
<b>Well:</b>	Sandborn 19-36H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Wellbore		
<b>Design:</b>	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)
10,300.00	90.00	153.30	5,837.00	-4,170.22	2,097.34	4,667.93	0.00	0.00	0.00
10,334.73	90.00	153.30	5,837.00	-4,201.24	2,112.95	4,702.66	0.00	0.00	0.00
Sandborn 19-36H (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									
Sandborn 19-36H (BH- - plan hits target center - Point	0.00	0.00	5,837.00	-4,201.24	2,112.95	373,867.49	2,374,425.81	40° 21' 6.840 N	104° 9' 23.580 W

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	
6,109.54	5,837.00	7"	7	8-3/4	
10,334.73	5,837.00	4 1/2"	4-1/2	6	