

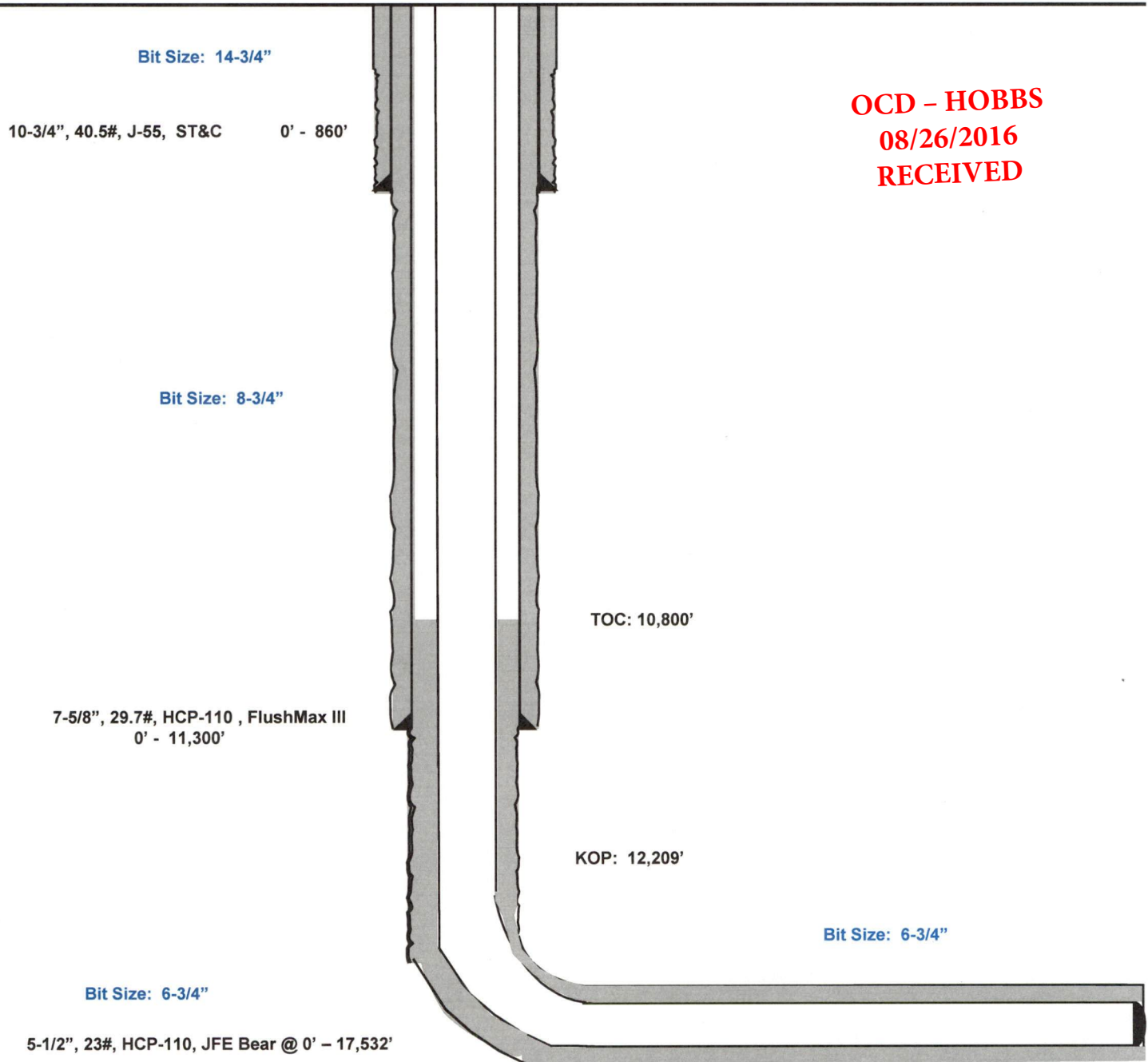
# Ophelia 27 #709H

Lea County, New Mexico  
Proposed Wellbore

1786' FNL  
450' FEL  
Section 27  
T-26-S, R-33-E

API: 30-025-\*\*\*\*\*

KB: 3,319'  
GL: 3,294'



**OCD - HOBBS**  
**08/26/2016**  
**RECEIVED**

Lateral: 17,532' MD, 12,690' TVD

BH Location: 2410' FSL & 330' FEL  
Section 22  
T-26-S, R-33-E

OCD - HOBBS  
08/26/2016  
RECEIVED



Lea County, NM (NAD 27 NME)

Ophelia 27 #709H

Plan #0.1

PROJECT DETAILS: Lea County, NM (NAD 27 NME)

Geodetic System: US State Plane 1927 (Exact solution)  
Datum: NAD 1927 (NADCON CONUS)  
Ellipsoid: Clarke 1866  
Zone: New Mexico East 3001  
System Datum: Mean Sea Level

WELL DETAILS: #709H

Ground Level: 3294.0  
KB = 25' @ 3319.0usft  
Northing: 370661.00  
Easting: 741975.00  
Latitude: 32° 0' 59.970 N  
Longitude: 103° 33' 9.450 W

#### 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	4500.0	0.00	0.00	4500.0	0.0	0.0	0.00	0.00	0.0	
3	5271.2	7.71	154.04	5268.9	-46.6	22.7	1.00	154.04	-46.1	
4	6858.7	7.71	154.04	6842.0	-238.1	115.9	0.00	0.00	-235.6	
5	7208.3	6.00	180.00	7189.2	-277.5	126.2	1.00	131.39	-274.8	
6	12209.1	6.00	180.00	12162.6	-800.2	126.2	0.00	0.00	-797.4	
7	13009.1	90.00	359.58	12690.0	-325.4	122.3	12.00	179.58	-322.7	
8	17532.6	90.00	359.58	12690.0	4198.0	89.0	0.00	0.00	4198.9	PBHL (Ophelia 27 #709H)



Azimuths to Grid North  
True North: -0.41°  
Magnetic North: 6.61°  
Magnetic Field  
Strength: 47901.4anT  
Dip Angle: 59.89°  
Date: 8/23/2016  
Model: IGRF2015

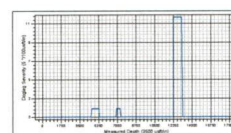
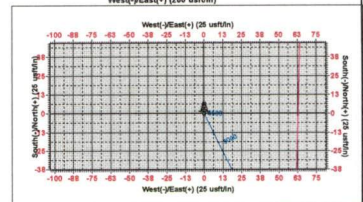
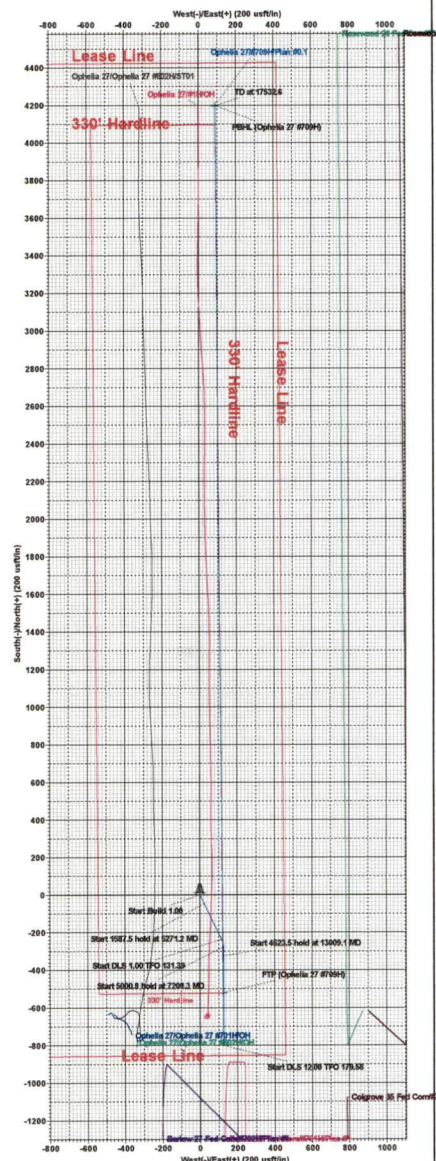
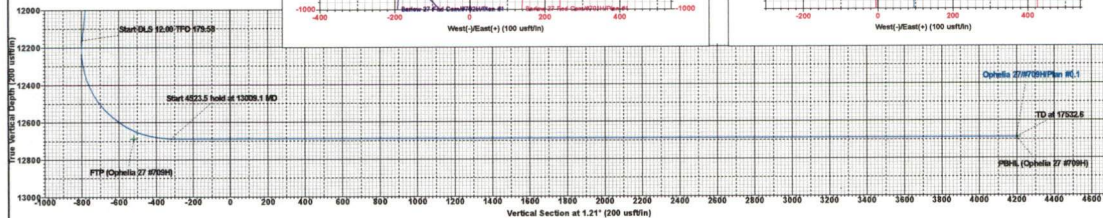
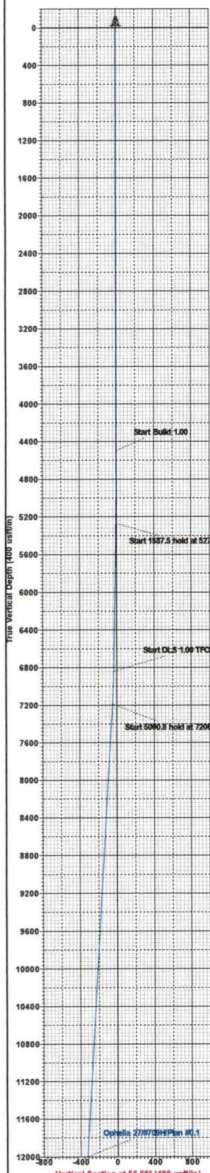
To convert a Magnetic Direction to a Grid Direction, Add 6.60°  
To convert a Magnetic Direction to a True Direction, Add 7.02° East  
To convert a True Direction to a Grid Direction, Subtract 0.41°

#### CASING DETAILS

No casing data is available

#### WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name: PBHL (Ophelia 27 #709H)  
TVD: 12690.0  
+N/-S: 4198.0  
+E/-W: 89.0  
Northing: 370139.00  
Easting: 742094.00  
FTP (Ophelia 27 #709H)



Lea County, NM (NAD 27 NME)  
Plan #0.1  
10/26/2016



## **EOG Resources - Midland**

Lea County, NM (NAD 27 NME)

Ophelia 27

#709H

OH

Plan: Plan #0.1

## **Standard Planning Report**

23 August, 2016





**EOG Resources, Inc.**  
Planning Report

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well #709H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	KB = 25' @ 3319.0usft
<b>Project:</b>	Lea County, NM (NAD 27 NME)	<b>MD Reference:</b>	KB = 25' @ 3319.0usft
<b>Site:</b>	Ophelia 27	<b>North Reference:</b>	Grid
<b>Well:</b>	#709H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1		

<b>Project</b>	Lea County, NM (NAD 27 NME)		
<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>	New Mexico East 3001		

Site		Ophelia 27			
Site Position:		Northing:	370,025.00 usft	Latitude:	32° 0' 53.711 N
From:	Map	Easting:	741,483.00 usft	Longitude:	103° 33' 15.217 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.41 °

Well	#709H					
Well Position	+N/-S	636.0 usft	Northing:	370,661.00 usft	Latitude:	32° 0' 59.970 N
	+E/-W	492.0 usft	Easting:	741,975.00 usft	Longitude:	103° 33' 9.450 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	3,294.0 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	8/23/2016	7.02	59.89	47,901

<b>Design</b>	Plan #0.1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	1.21

<b>Plan Sections</b>										
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	
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,271.2	7.71	154.04	5,268.9	-46.6	22.7	1.00	1.00	0.00	154.04	
6,858.7	7.71	154.04	6,842.0	-238.1	115.9	0.00	0.00	0.00	0.00	
7,208.3	6.00	180.00	7,189.2	-277.5	126.2	1.00	-0.49	7.42	131.39	
12,209.1	6.00	180.00	12,162.6	-800.2	126.2	0.00	0.00	0.00	0.00	
13,009.1	90.00	359.58	12,690.0	-325.4	122.3	12.00	10.50	22.45	179.58	
17,532.6	90.00	359.58	12,690.0	4,198.0	89.0	0.00	0.00	0.00	0.00	PBHL (Ophelia 27 #71)



# EOG Resources, Inc.

## Planning Report

Database: EDM 5000.1 Single User Db  
 Company: EOG Resources - Midland  
 Project: Lea County, NM (NAD 27 NME)  
 Site: Ophelia 27  
 Well: #709H  
 Wellbore: OH  
 Design: Plan #0.1

Local Co-ordinate Reference: Well #709H  
 TVD Reference: KB = 25' @ 3319.0usft  
 MD Reference: KB = 25' @ 3319.0usft  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature

### 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	1.00	154.04	4,600.0	-0.8	0.4	-0.8	1.00	1.00	0.00
4,700.0	2.00	154.04	4,700.0	-3.1	1.5	-3.1	1.00	1.00	0.00
4,800.0	3.00	154.04	4,799.9	-7.1	3.4	-7.0	1.00	1.00	0.00
4,900.0	4.00	154.04	4,899.7	-12.5	6.1	-12.4	1.00	1.00	0.00
5,000.0	5.00	154.04	4,999.4	-19.6	9.5	-19.4	1.00	1.00	0.00
5,100.0	6.00	154.04	5,098.9	-28.2	13.7	-27.9	1.00	1.00	0.00
5,200.0	7.00	154.04	5,198.3	-38.4	18.7	-38.0	1.00	1.00	0.00
5,271.2	7.71	154.04	5,268.9	-46.6	22.7	-46.1	1.00	1.00	0.00





**EOG Resources, Inc.**  
Planning Report

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well #709H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	KB = 25' @ 3319.0usft
<b>Project:</b>	Lea County, NM (NAD 27 NME)	<b>MD Reference:</b>	KB = 25' @ 3319.0usft
<b>Site:</b>	Ophelia 27	<b>North Reference:</b>	Grid
<b>Well:</b>	#709H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1		

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)	
5,300.0	7.71	154.04	5,297.4	-50.1	24.4	-49.5	0.00	0.00	0.00	
5,400.0	7.71	154.04	5,396.5	-62.1	30.2	-61.5	0.00	0.00	0.00	
5,500.0	7.71	154.04	5,495.6	-74.2	36.1	-73.4	0.00	0.00	0.00	
5,600.0	7.71	154.04	5,594.7	-86.3	42.0	-85.4	0.00	0.00	0.00	
5,700.0	7.71	154.04	5,693.8	-98.3	47.9	-97.3	0.00	0.00	0.00	
5,800.0	7.71	154.04	5,792.9	-110.4	53.7	-109.2	0.00	0.00	0.00	
5,900.0	7.71	154.04	5,892.0	-122.5	59.6	-121.2	0.00	0.00	0.00	
6,000.0	7.71	154.04	5,991.1	-134.5	65.5	-133.1	0.00	0.00	0.00	
6,100.0	7.71	154.04	6,090.2	-146.6	71.4	-145.0	0.00	0.00	0.00	
6,200.0	7.71	154.04	6,189.3	-158.7	77.2	-157.0	0.00	0.00	0.00	
6,300.0	7.71	154.04	6,288.4	-170.7	83.1	-168.9	0.00	0.00	0.00	
6,400.0	7.71	154.04	6,387.5	-182.8	89.0	-180.9	0.00	0.00	0.00	
6,500.0	7.71	154.04	6,486.6	-194.9	94.9	-192.8	0.00	0.00	0.00	
6,600.0	7.71	154.04	6,585.7	-206.9	100.7	-204.7	0.00	0.00	0.00	
6,700.0	7.71	154.04	6,684.8	-219.0	106.6	-216.7	0.00	0.00	0.00	
6,800.0	7.71	154.04	6,783.8	-231.0	112.5	-228.6	0.00	0.00	0.00	
6,858.7	7.71	154.04	6,842.0	-238.1	115.9	-235.6	0.00	0.00	0.00	
6,900.0	7.44	156.44	6,883.0	-243.1	118.2	-240.5	1.00	-0.65	5.79	
7,000.0	6.86	162.95	6,982.2	-254.7	122.6	-252.1	1.00	-0.59	6.52	
7,100.0	6.38	170.57	7,081.5	-265.9	125.2	-263.2	1.00	-0.48	7.61	
7,208.3	6.00	180.00	7,189.2	-277.5	126.2	-274.8	1.00	-0.35	8.71	
7,300.0	6.00	180.00	7,280.4	-287.1	126.2	-284.3	0.00	0.00	0.00	
7,400.0	6.00	180.00	7,379.8	-297.5	126.2	-294.8	0.00	0.00	0.00	
7,500.0	6.00	180.00	7,479.3	-308.0	126.2	-305.2	0.00	0.00	0.00	
7,600.0	6.00	180.00	7,578.7	-318.4	126.2	-315.7	0.00	0.00	0.00	
7,700.0	6.00	180.00	7,678.2	-328.9	126.2	-326.2	0.00	0.00	0.00	
7,800.0	6.00	180.00	7,777.6	-339.4	126.2	-336.6	0.00	0.00	0.00	
7,900.0	6.00	180.00	7,877.1	-349.8	126.2	-347.1	0.00	0.00	0.00	
8,000.0	6.00	180.00	7,976.5	-360.3	126.2	-357.5	0.00	0.00	0.00	
8,100.0	6.00	180.00	8,076.0	-370.7	126.2	-368.0	0.00	0.00	0.00	
8,200.0	6.00	180.00	8,175.5	-381.2	126.2	-378.4	0.00	0.00	0.00	
8,300.0	6.00	180.00	8,274.9	-391.6	126.2	-388.9	0.00	0.00	0.00	
8,400.0	6.00	180.00	8,374.4	-402.1	126.2	-399.3	0.00	0.00	0.00	
8,500.0	6.00	180.00	8,473.8	-412.5	126.2	-409.8	0.00	0.00	0.00	
8,600.0	6.00	180.00	8,573.3	-423.0	126.2	-420.2	0.00	0.00	0.00	
8,700.0	6.00	180.00	8,672.7	-433.4	126.2	-430.7	0.00	0.00	0.00	
8,800.0	6.00	180.00	8,772.2	-443.9	126.2	-441.1	0.00	0.00	0.00	
8,900.0	6.00	180.00	8,871.6	-454.3	126.2	-451.6	0.00	0.00	0.00	
9,000.0	6.00	180.00	8,971.1	-464.8	126.2	-462.0	0.00	0.00	0.00	
9,100.0	6.00	180.00	9,070.5	-475.2	126.2	-472.5	0.00	0.00	0.00	
9,200.0	6.00	180.00	9,170.0	-485.7	126.2	-482.9	0.00	0.00	0.00	
9,300.0	6.00	180.00	9,269.4	-496.1	126.2	-493.4	0.00	0.00	0.00	
9,400.0	6.00	180.00	9,368.9	-506.6	126.2	-503.8	0.00	0.00	0.00	
9,500.0	6.00	180.00	9,468.3	-517.1	126.2	-514.3	0.00	0.00	0.00	
9,600.0	6.00	180.00	9,567.8	-527.5	126.2	-524.7	0.00	0.00	0.00	
9,700.0	6.00	180.00	9,667.2	-538.0	126.2	-535.2	0.00	0.00	0.00	
9,800.0	6.00	180.00	9,766.7	-548.4	126.2	-545.6	0.00	0.00	0.00	
9,900.0	6.00	180.00	9,866.1	-558.9	126.2	-556.1	0.00	0.00	0.00	
10,000.0	6.00	180.00	9,965.6	-569.3	126.2	-566.5	0.00	0.00	0.00	
10,100.0	6.00	180.00	10,065.0	-579.8	126.2	-577.0	0.00	0.00	0.00	
10,200.0	6.00	180.00	10,164.5	-590.2	126.2	-587.4	0.00	0.00	0.00	
10,300.0	6.00	180.00	10,263.9	-600.7	126.2	-597.9	0.00	0.00	0.00	
10,400.0	6.00	180.00	10,363.4	-611.1	126.2	-608.3	0.00	0.00	0.00	
10,500.0	6.00	180.00	10,462.9	-621.6	126.2	-618.8	0.00	0.00	0.00	



# EOG Resources, Inc.

## Planning Report

Database: EDM 5000.1 Single User Db  
Company: EOG Resources - Midland  
Project: Lea County, NM (NAD 27 NME)  
Site: Ophelia 27  
Well: #709H  
Wellbore: OH  
Design: Plan #0.1

Local Co-ordinate Reference: Well #709H  
TVD Reference: KB = 25' @ 3319.0usft  
MD Reference: KB = 25' @ 3319.0usft  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature

### 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)
10,600.0	6.00	180.00	10,562.3	-632.0	126.2	-629.2	0.00	0.00	0.00
10,700.0	6.00	180.00	10,661.8	-642.5	126.2	-639.7	0.00	0.00	0.00
10,800.0	6.00	180.00	10,761.2	-652.9	126.2	-650.1	0.00	0.00	0.00
10,900.0	6.00	180.00	10,860.7	-663.4	126.2	-660.6	0.00	0.00	0.00
11,000.0	6.00	180.00	10,960.1	-673.8	126.2	-671.0	0.00	0.00	0.00
11,100.0	6.00	180.00	11,059.6	-684.3	126.2	-681.5	0.00	0.00	0.00
11,200.0	6.00	180.00	11,159.0	-694.7	126.2	-691.9	0.00	0.00	0.00
11,300.0	6.00	180.00	11,258.5	-705.2	126.2	-702.4	0.00	0.00	0.00
11,400.0	6.00	180.00	11,357.9	-715.7	126.2	-712.8	0.00	0.00	0.00
11,500.0	6.00	180.00	11,457.4	-726.1	126.2	-723.3	0.00	0.00	0.00
11,600.0	6.00	180.00	11,556.8	-736.6	126.2	-733.7	0.00	0.00	0.00
11,700.0	6.00	180.00	11,656.3	-747.0	126.2	-744.2	0.00	0.00	0.00
11,800.0	6.00	180.00	11,755.7	-757.5	126.2	-754.6	0.00	0.00	0.00
11,900.0	6.00	180.00	11,855.2	-767.9	126.2	-765.1	0.00	0.00	0.00
12,000.0	6.00	180.00	11,954.6	-778.4	126.2	-775.5	0.00	0.00	0.00
12,100.0	6.00	180.00	12,054.1	-788.8	126.2	-786.0	0.00	0.00	0.00
12,209.1	6.00	180.00	12,162.6	-800.2	126.2	-797.4	0.00	0.00	0.00
12,225.0	4.09	180.20	12,178.4	-801.6	126.2	-798.8	12.00	-12.00	1.24
12,250.0	1.09	181.90	12,203.4	-802.8	126.2	-799.9	12.00	-12.00	6.81
12,275.0	1.91	358.25	12,228.4	-802.6	126.2	-799.7	12.00	3.25	705.39
12,300.0	4.91	359.06	12,253.3	-801.1	126.1	-798.2	12.00	12.00	3.26
12,325.0	7.91	359.26	12,278.2	-798.3	126.1	-795.5	12.00	12.00	0.79
12,350.0	10.91	359.35	12,302.9	-794.2	126.0	-791.4	12.00	12.00	0.36
12,375.0	13.91	359.40	12,327.3	-788.9	126.0	-786.0	12.00	12.00	0.20
12,400.0	16.91	359.43	12,351.4	-782.2	125.9	-779.4	12.00	12.00	0.13
12,425.0	19.91	359.46	12,375.1	-774.3	125.8	-771.5	12.00	12.00	0.09
12,450.0	22.91	359.47	12,398.4	-765.2	125.8	-762.4	12.00	12.00	0.07
12,475.0	25.91	359.49	12,421.1	-754.9	125.7	-752.0	12.00	12.00	0.05
12,500.0	28.91	359.50	12,443.3	-743.4	125.6	-740.5	12.00	12.00	0.04
12,525.0	31.91	359.51	12,464.9	-730.7	125.5	-727.9	12.00	12.00	0.04
12,550.0	34.91	359.51	12,485.7	-716.9	125.3	-714.1	12.00	12.00	0.03
12,575.0	37.91	359.52	12,505.9	-702.1	125.2	-699.3	12.00	12.00	0.03
12,600.0	40.91	359.53	12,525.2	-686.2	125.1	-683.4	12.00	12.00	0.02
12,625.0	43.91	359.53	12,543.6	-669.4	124.9	-666.6	12.00	12.00	0.02
12,650.0	46.91	359.54	12,561.2	-651.6	124.8	-648.8	12.00	12.00	0.02
12,675.0	49.91	359.54	12,577.8	-632.9	124.6	-630.1	12.00	12.00	0.02
12,700.0	52.91	359.54	12,593.4	-613.4	124.5	-610.6	12.00	12.00	0.02
12,725.0	55.91	359.55	12,607.9	-593.0	124.3	-590.3	12.00	12.00	0.01
12,750.0	58.91	359.55	12,621.4	-572.0	124.2	-569.2	12.00	12.00	0.01
12,775.0	61.91	359.55	12,633.7	-550.2	124.0	-547.5	12.00	12.00	0.01
12,800.0	64.91	359.56	12,644.9	-527.9	123.8	-525.1	12.00	12.00	0.01
12,823.4	67.72	359.56	12,654.3	-506.4	123.7	-503.7	12.00	12.00	0.01
FTP (Ophelia 27 #709H)									
12,825.0	67.91	359.56	12,654.9	-505.0	123.6	-502.2	12.00	12.00	0.01
12,850.0	70.91	359.56	12,663.7	-481.6	123.5	-478.8	12.00	12.00	0.01
12,875.0	73.91	359.57	12,671.3	-457.7	123.3	-455.0	12.00	12.00	0.01
12,900.0	76.91	359.57	12,677.6	-433.6	123.1	-430.8	12.00	12.00	0.01
12,925.0	79.91	359.57	12,682.6	-409.1	122.9	-406.4	12.00	12.00	0.01
12,950.0	82.91	359.57	12,686.3	-384.4	122.7	-381.7	12.00	12.00	0.01
12,975.0	85.91	359.58	12,688.8	-359.5	122.5	-356.8	12.00	12.00	0.01
13,000.0	88.91	359.58	12,689.9	-334.5	122.4	-331.8	12.00	12.00	0.01
13,009.1	90.00	359.58	12,690.0	-325.4	122.3	-322.7	12.00	12.00	0.01
13,100.0	90.00	359.58	12,690.0	-234.5	121.6	-231.9	0.00	0.00	0.00





# EOG Resources, Inc.

## Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #709H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25' @ 3319.0usft
Project:	Lea County, NM (NAD 27 NME)	MD Reference:	KB = 25' @ 3319.0usft
Site:	Ophelia 27	North Reference:	Grid
Well:	#709H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

### 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)
13,200.0	90.00	359.58	12,690.0	-134.5	120.9	-131.9	0.00	0.00	0.00
13,300.0	90.00	359.58	12,690.0	-34.5	120.2	-32.0	0.00	0.00	0.00
13,400.0	90.00	359.58	12,690.0	65.5	119.4	68.0	0.00	0.00	0.00
13,500.0	90.00	359.58	12,690.0	165.5	118.7	168.0	0.00	0.00	0.00
13,600.0	90.00	359.58	12,690.0	265.5	117.9	267.9	0.00	0.00	0.00
13,700.0	90.00	359.58	12,690.0	365.5	117.2	367.9	0.00	0.00	0.00
13,800.0	90.00	359.58	12,690.0	465.5	116.5	467.8	0.00	0.00	0.00
13,900.0	90.00	359.58	12,690.0	565.5	115.7	567.8	0.00	0.00	0.00
14,000.0	90.00	359.58	12,690.0	665.5	115.0	667.8	0.00	0.00	0.00
14,100.0	90.00	359.58	12,690.0	765.5	114.3	767.7	0.00	0.00	0.00
14,200.0	90.00	359.58	12,690.0	865.5	113.5	867.7	0.00	0.00	0.00
14,300.0	90.00	359.58	12,690.0	965.5	112.8	967.6	0.00	0.00	0.00
14,400.0	90.00	359.58	12,690.0	1,065.5	112.1	1,067.6	0.00	0.00	0.00
14,500.0	90.00	359.58	12,690.0	1,165.5	111.3	1,167.6	0.00	0.00	0.00
14,600.0	90.00	359.58	12,690.0	1,265.5	110.6	1,267.5	0.00	0.00	0.00
14,700.0	90.00	359.58	12,690.0	1,365.4	109.9	1,367.5	0.00	0.00	0.00
14,800.0	90.00	359.58	12,690.0	1,465.4	109.1	1,467.4	0.00	0.00	0.00
14,900.0	90.00	359.58	12,690.0	1,565.4	108.4	1,567.4	0.00	0.00	0.00
15,000.0	90.00	359.58	12,690.0	1,665.4	107.6	1,667.3	0.00	0.00	0.00
15,100.0	90.00	359.58	12,690.0	1,765.4	106.9	1,767.3	0.00	0.00	0.00
15,200.0	90.00	359.58	12,690.0	1,865.4	106.2	1,867.3	0.00	0.00	0.00
15,300.0	90.00	359.58	12,690.0	1,965.4	105.4	1,967.2	0.00	0.00	0.00
15,400.0	90.00	359.58	12,690.0	2,065.4	104.7	2,067.2	0.00	0.00	0.00
15,500.0	90.00	359.58	12,690.0	2,165.4	104.0	2,167.1	0.00	0.00	0.00
15,600.0	90.00	359.58	12,690.0	2,265.4	103.2	2,267.1	0.00	0.00	0.00
15,700.0	90.00	359.58	12,690.0	2,365.4	102.5	2,367.1	0.00	0.00	0.00
15,800.0	90.00	359.58	12,690.0	2,465.4	101.8	2,467.0	0.00	0.00	0.00
15,900.0	90.00	359.58	12,690.0	2,565.4	101.0	2,567.0	0.00	0.00	0.00
16,000.0	90.00	359.58	12,690.0	2,665.4	100.3	2,666.9	0.00	0.00	0.00
16,100.0	90.00	359.58	12,690.0	2,765.4	99.5	2,766.9	0.00	0.00	0.00
16,200.0	90.00	359.58	12,690.0	2,865.4	98.8	2,866.9	0.00	0.00	0.00
16,300.0	90.00	359.58	12,690.0	2,965.4	98.1	2,966.8	0.00	0.00	0.00
16,400.0	90.00	359.58	12,690.0	3,065.4	97.3	3,066.8	0.00	0.00	0.00
16,500.0	90.00	359.58	12,690.0	3,165.4	96.6	3,166.7	0.00	0.00	0.00
16,600.0	90.00	359.58	12,690.0	3,265.4	95.9	3,266.7	0.00	0.00	0.00
16,700.0	90.00	359.58	12,690.0	3,365.4	95.1	3,366.7	0.00	0.00	0.00
16,800.0	90.00	359.58	12,690.0	3,465.4	94.4	3,466.6	0.00	0.00	0.00
16,900.0	90.00	359.58	12,690.0	3,565.4	93.7	3,566.6	0.00	0.00	0.00
17,000.0	90.00	359.58	12,690.0	3,665.4	92.9	3,666.5	0.00	0.00	0.00
17,100.0	90.00	359.58	12,690.0	3,765.4	92.2	3,766.5	0.00	0.00	0.00
17,200.0	90.00	359.58	12,690.0	3,865.4	91.4	3,866.5	0.00	0.00	0.00
17,300.0	90.00	359.58	12,690.0	3,965.4	90.7	3,966.4	0.00	0.00	0.00
17,400.0	90.00	359.58	12,690.0	4,065.4	90.0	4,066.4	0.00	0.00	0.00
17,500.0	90.00	359.58	12,690.0	4,165.4	89.2	4,166.3	0.00	0.00	0.00
17,532.6	90.00	359.58	12,690.0	4,198.0	89.0	4,198.9	0.00	0.00	0.00

PBHL (Ophelia 27 #709H)





EOG Resources, Inc.  
Planning Report

Database: EDM 5000.1 Single User Db  
Company: EOG Resources - Midland  
Project: Lea County, NM (NAD 27 NME)  
Site: Ophelia 27  
Well: #709H  
Wellbore: OH  
Design: Plan #0.1

Local Co-ordinate Reference: Well #709H  
TVD Reference: KB = 25' @ 3319.0usft  
MD Reference: KB = 25' @ 3319.0usft  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature

Design Targets

Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
PBHL (Ophelia 27 #709H)	0.00	0.00	12,690.0	4,198.0	89.0	374,859.00	742,064.00	32° 1' 41.506 N	103° 33' 8.064 W
- plan hits target center									
- Point									
FTP (Ophelia 27 #709H)	0.00	0.00	12,690.0	-522.0	124.0	370,139.00	742,099.00	32° 0' 54.796 N	103° 33' 8.053 W
- plan misses target center by 38.9usft at 12823.4usft MD (12654.3 TVD, -506.4 N, 123.7 E)									
- Point									