eog resources

Lea County, NM (NAD 83 NME)

Ruby 2 State Com #709H

Plan #0.1

PROJECT DETAILS: Lea County, NM (NAD 83 NME)	
Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	New Mexico Eastern Zone
System Datum:	Mean Sea Level

Azimuths to Grid North
True North: -0.48°
Magnetic North: 6.34°

Magnetic Field
Strength: 47812.3snT
Dip Angle: 59.94°
Date: 12/29/2017
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.34°
To convert a Magnetic Direction to a True Direction, Add 6.82°East
To convert a True Direction to a Grid Direction, Subtract 0.48°

WELL DETAILS: #709H

3297.0
KB = 25' @ 3322.0usft

Northing	Easting	Latitude	Longitude
393572.00	819954.00	32° 4' 43.737 N	103° 26' 1.614 W

SECTION DETAILS

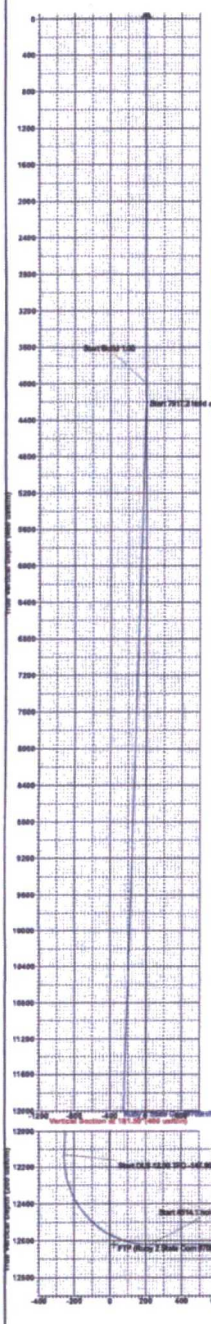
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	4000.0	0.00	0.00	4000.0	0.0	0.0	0.00	0.00	0.0	
3	4219.8	2.20	327.32	4219.8	3.5	-2.3	1.00	327.32	-3.5	
4	12137.0	2.20	327.32	12131.1	259.1	-166.2	0.00	0.00	-254.7	
5	12902.5	90.00	179.40	12624.0	-218.1	-171.3	12.00	-147.90	222.6	
6	17416.6	90.00	179.40	12624.0	-4732.0	-124.0	0.00	0.00	4733.6	PBHL (Ruby 2 State Com #709H)

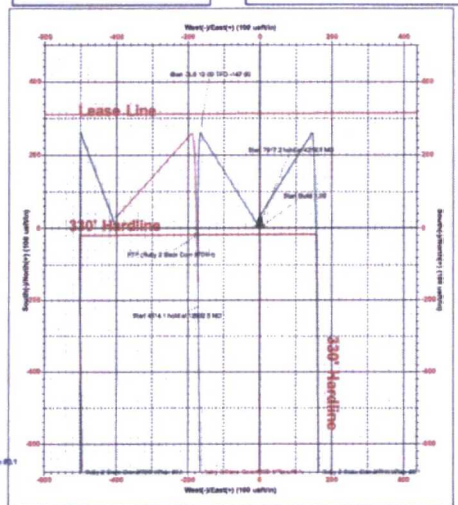
CASING DETAILS

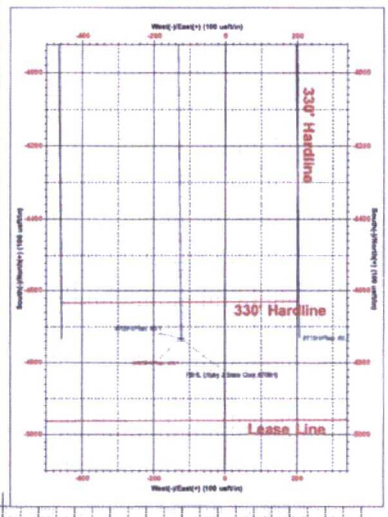
No casing data is available

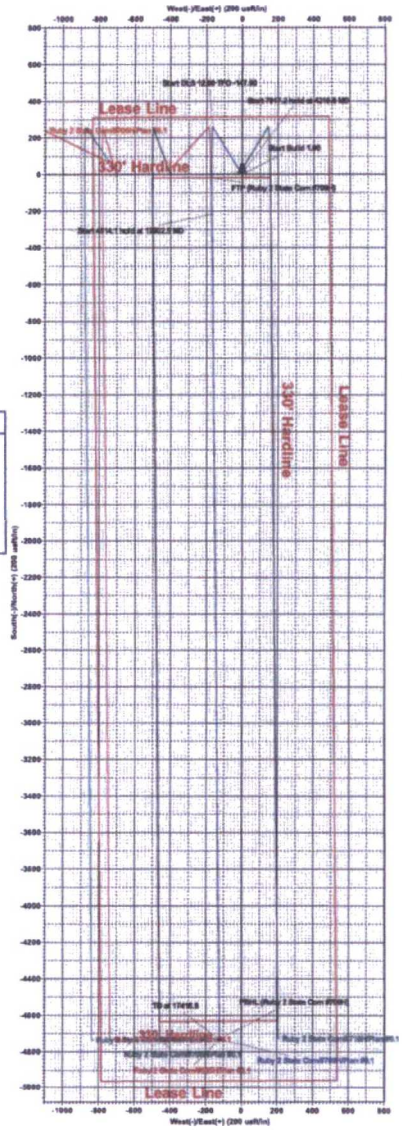
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

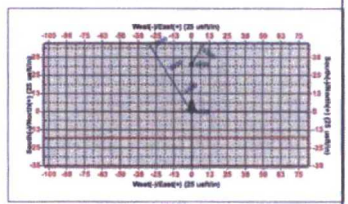
Name	TVD	+N/-S	+E/-W	Northing	Easting
PBHL (Ruby 2 State Com #709H)	12624.0	-4732.0	-124.0	388640.00	819830.00
FTP (Ruby 2 State Com #709H)	12624.0	-19.0	-173.0	393553.00	819781.00

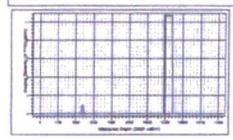


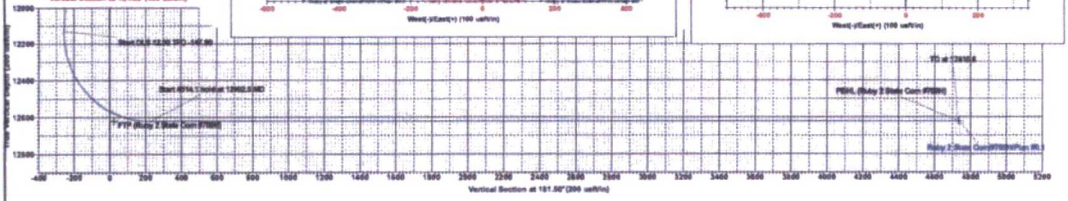












EOG Resources - Midland

Lea County, NM (NAD 83 NME)
Ruby 2 State Com
#709H

OH

Plan: Plan #0.1

Standard Planning Report

02 January, 2018

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #709H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25' @ 3322.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25' @ 3322.0usft
Site:	Ruby 2 State Com	**North Reference:**	Grid
Well:	#709H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Ruby 2 State Com				
Site Position:		**Northing:**	393,589.99 usft	**Latitude:**	32° 4' 47.315 N
From:	Map	**Easting:**	775,148.00 usft	**Longitude:**	103° 34' 42.355 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.40 °

Well	#709H					
Well Position	**+N/-S**	-18.0 usft	**Northing:**	393,572.00 usft	**Latitude:**	32° 4' 43.737 N
	+E/-W	44,806.0 usft	**Easting:**	819,954.00 usft	**Longitude:**	103° 26' 1.614 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,297.0 usft

Wellbore	OH				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2015	12/29/2017	6.82	59.94	47,812.27371989

Design	Plan #0.1				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.0	0.0	0.0	181.50	

Plan Survey Tool Program **Date** 1/2/2018

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	17,416.6	Plan #0.1 (OH)	MWD	
				MWD - Standard	

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	
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,219.8	2.20	327.32	4,219.8	3.5	-2.3	1.00	1.00	0.00	327.32	
12,137.0	2.20	327.32	12,131.1	259.1	-166.2	0.00	0.00	0.00	0.00	
12,902.5	90.00	179.40	12,624.0	-218.1	-171.3	12.00	11.47	-19.32	-147.90	
17,416.6	90.00	179.40	12,624.0	-4,732.0	-124.0	0.00	0.00	0.00	0.00	PBHL (Ruby 2 State C

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #709H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25' @ 3322.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25' @ 3322.0usft
Site:	Ruby 2 State Com	**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)
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	1.00	327.32	4,100.0	0.7	-0.5	-0.7	1.00	1.00	0.00
4,200.0	2.00	327.32	4,200.0	2.9	-1.9	-2.9	1.00	1.00	0.00
4,219.8	2.20	327.32	4,219.8	3.5	-2.3	-3.5	1.00	1.00	0.00
4,300.0	2.20	327.32	4,299.9	6.1	-3.9	-6.0	0.00	0.00	0.00
4,400.0	2.20	327.32	4,399.8	9.4	-6.0	-9.2	0.00	0.00	0.00
4,500.0	2.20	327.32	4,499.7	12.6	-8.1	-12.4	0.00	0.00	0.00
4,600.0	2.20	327.32	4,599.7	15.8	-10.1	-15.6	0.00	0.00	0.00
4,700.0	2.20	327.32	4,699.6	19.1	-12.2	-18.7	0.00	0.00	0.00
4,800.0	2.20	327.32	4,799.5	22.3	-14.3	-21.9	0.00	0.00	0.00
4,900.0	2.20	327.32	4,899.4	25.5	-16.4	-25.1	0.00	0.00	0.00
5,000.0	2.20	327.32	4,999.4	28.7	-18.4	-28.2	0.00	0.00	0.00
5,100.0	2.20	327.32	5,099.3	32.0	-20.5	-31.4	0.00	0.00	0.00
5,200.0	2.20	327.32	5,199.2	35.2	-22.6	-34.6	0.00	0.00	0.00

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #709H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25' @ 3322.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25' @ 3322.0usft
Site:	Ruby 2 State Com	**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)
5,300.0	2.20	327.32	5,299.2	38.4	-24.6	-37.8	0.00	0.00	0.00
5,400.0	2.20	327.32	5,399.1	41.6	-26.7	-40.9	0.00	0.00	0.00
5,500.0	2.20	327.32	5,499.0	44.9	-28.8	-44.1	0.00	0.00	0.00
5,600.0	2.20	327.32	5,598.9	48.1	-30.9	-47.3	0.00	0.00	0.00
5,700.0	2.20	327.32	5,698.9	51.3	-32.9	-50.5	0.00	0.00	0.00
5,800.0	2.20	327.32	5,798.8	54.6	-35.0	-53.6	0.00	0.00	0.00
5,900.0	2.20	327.32	5,898.7	57.8	-37.1	-56.8	0.00	0.00	0.00
6,000.0	2.20	327.32	5,998.6	61.0	-39.1	-60.0	0.00	0.00	0.00
6,100.0	2.20	327.32	6,098.6	64.2	-41.2	-63.1	0.00	0.00	0.00
6,200.0	2.20	327.32	6,198.5	67.5	-43.3	-66.3	0.00	0.00	0.00
6,300.0	2.20	327.32	6,298.4	70.7	-45.4	-69.5	0.00	0.00	0.00
6,400.0	2.20	327.32	6,398.3	73.9	-47.4	-72.7	0.00	0.00	0.00
6,500.0	2.20	327.32	6,498.3	77.2	-49.5	-75.8	0.00	0.00	0.00
6,600.0	2.20	327.32	6,598.2	80.4	-51.6	-79.0	0.00	0.00	0.00
6,700.0	2.20	327.32	6,698.1	83.6	-53.6	-82.2	0.00	0.00	0.00
6,800.0	2.20	327.32	6,798.0	86.8	-55.7	-85.4	0.00	0.00	0.00
6,900.0	2.20	327.32	6,898.0	90.1	-57.8	-88.5	0.00	0.00	0.00
7,000.0	2.20	327.32	6,997.9	93.3	-59.8	-91.7	0.00	0.00	0.00
7,100.0	2.20	327.32	7,097.8	96.5	-61.9	-94.9	0.00	0.00	0.00
7,200.0	2.20	327.32	7,197.8	99.8	-64.0	-98.0	0.00	0.00	0.00
7,300.0	2.20	327.32	7,297.7	103.0	-66.1	-101.2	0.00	0.00	0.00
7,400.0	2.20	327.32	7,397.6	106.2	-68.1	-104.4	0.00	0.00	0.00
7,500.0	2.20	327.32	7,497.5	109.4	-70.2	-107.6	0.00	0.00	0.00
7,600.0	2.20	327.32	7,597.5	112.7	-72.3	-110.7	0.00	0.00	0.00
7,700.0	2.20	327.32	7,697.4	115.9	-74.3	-113.9	0.00	0.00	0.00
7,800.0	2.20	327.32	7,797.3	119.1	-76.4	-117.1	0.00	0.00	0.00
7,900.0	2.20	327.32	7,897.2	122.4	-78.5	-120.3	0.00	0.00	0.00
8,000.0	2.20	327.32	7,997.2	125.6	-80.6	-123.4	0.00	0.00	0.00
8,100.0	2.20	327.32	8,097.1	128.8	-82.6	-126.6	0.00	0.00	0.00
8,200.0	2.20	327.32	8,197.0	132.0	-84.7	-129.8	0.00	0.00	0.00
8,300.0	2.20	327.32	8,296.9	135.3	-86.8	-133.0	0.00	0.00	0.00
8,400.0	2.20	327.32	8,396.9	138.5	-88.8	-136.1	0.00	0.00	0.00
8,500.0	2.20	327.32	8,496.8	141.7	-90.9	-139.3	0.00	0.00	0.00
8,600.0	2.20	327.32	8,596.7	145.0	-93.0	-142.5	0.00	0.00	0.00
8,700.0	2.20	327.32	8,696.6	148.2	-95.1	-145.6	0.00	0.00	0.00
8,800.0	2.20	327.32	8,796.6	151.4	-97.1	-148.8	0.00	0.00	0.00
8,900.0	2.20	327.32	8,896.5	154.6	-99.2	-152.0	0.00	0.00	0.00
9,000.0	2.20	327.32	8,996.4	157.9	-101.3	-155.2	0.00	0.00	0.00
9,100.0	2.20	327.32	9,096.4	161.1	-103.3	-158.3	0.00	0.00	0.00
9,200.0	2.20	327.32	9,196.3	164.3	-105.4	-161.5	0.00	0.00	0.00
9,300.0	2.20	327.32	9,296.2	167.6	-107.5	-164.7	0.00	0.00	0.00
9,400.0	2.20	327.32	9,396.1	170.8	-109.5	-167.9	0.00	0.00	0.00
9,500.0	2.20	327.32	9,496.1	174.0	-111.6	-171.0	0.00	0.00	0.00
9,600.0	2.20	327.32	9,596.0	177.2	-113.7	-174.2	0.00	0.00	0.00
9,700.0	2.20	327.32	9,695.9	180.5	-115.8	-177.4	0.00	0.00	0.00
9,800.0	2.20	327.32	9,795.8	183.7	-117.8	-180.5	0.00	0.00	0.00
9,900.0	2.20	327.32	9,895.8	186.9	-119.9	-183.7	0.00	0.00	0.00
10,000.0	2.20	327.32	9,995.7	190.2	-122.0	-186.9	0.00	0.00	0.00
10,100.0	2.20	327.32	10,095.6	193.4	-124.0	-190.1	0.00	0.00	0.00
10,200.0	2.20	327.32	10,195.5	196.6	-126.1	-193.2	0.00	0.00	0.00
10,300.0	2.20	327.32	10,295.5	199.8	-128.2	-196.4	0.00	0.00	0.00
10,400.0	2.20	327.32	10,395.4	203.1	-130.3	-199.6	0.00	0.00	0.00
10,500.0	2.20	327.32	10,495.3	206.3	-132.3	-202.8	0.00	0.00	0.00
10,600.0	2.20	327.32	10,595.3	209.5	-134.4	-205.9	0.00	0.00	0.00

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #709H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25' @ 3322.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25' @ 3322.0usft
Site:	Ruby 2 State Com	**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)
10,700.0	2.20	327.32	10,695.2	212.8	-136.5	-209.1	0.00	0.00	0.00
10,800.0	2.20	327.32	10,795.1	216.0	-138.5	-212.3	0.00	0.00	0.00
10,900.0	2.20	327.32	10,895.0	219.2	-140.6	-215.5	0.00	0.00	0.00
11,000.0	2.20	327.32	10,995.0	222.4	-142.7	-218.6	0.00	0.00	0.00
11,100.0	2.20	327.32	11,094.9	225.7	-144.7	-221.8	0.00	0.00	0.00
11,200.0	2.20	327.32	11,194.8	228.9	-146.8	-225.0	0.00	0.00	0.00
11,300.0	2.20	327.32	11,294.7	232.1	-148.9	-228.1	0.00	0.00	0.00
11,400.0	2.20	327.32	11,394.7	235.4	-151.0	-231.3	0.00	0.00	0.00
11,500.0	2.20	327.32	11,494.6	238.6	-153.0	-234.5	0.00	0.00	0.00
11,600.0	2.20	327.32	11,594.5	241.8	-155.1	-237.7	0.00	0.00	0.00
11,700.0	2.20	327.32	11,694.4	245.0	-157.2	-240.8	0.00	0.00	0.00
11,800.0	2.20	327.32	11,794.4	248.3	-159.2	-244.0	0.00	0.00	0.00
11,900.0	2.20	327.32	11,894.3	251.5	-161.3	-247.2	0.00	0.00	0.00
12,000.0	2.20	327.32	11,994.2	254.7	-163.4	-250.4	0.00	0.00	0.00
12,100.0	2.20	327.32	12,094.1	257.9	-165.5	-253.5	0.00	0.00	0.00
12,137.0	2.20	327.32	12,131.1	259.1	-166.2	-254.7	0.00	0.00	0.00
12,150.0	1.21	283.92	12,144.1	259.4	-166.5	-254.9	12.00	-7.63	-333.88
12,175.0	2.94	202.79	12,169.1	258.9	-167.0	-254.4	12.00	6.93	-324.51
12,200.0	5.82	190.94	12,194.0	257.0	-167.5	-252.5	12.00	11.51	-47.38
12,225.0	8.78	186.99	12,218.8	253.9	-168.0	-249.4	12.00	11.84	-15.83
12,250.0	11.75	185.02	12,243.4	249.5	-168.4	-245.0	12.00	11.92	-7.87
12,275.0	14.74	183.84	12,267.8	243.7	-168.8	-239.2	12.00	11.95	-4.72
12,300.0	17.73	183.05	12,291.8	236.8	-169.3	-232.3	12.00	11.97	-3.15
12,325.0	20.73	182.49	12,315.4	228.5	-169.7	-224.0	12.00	11.98	-2.27
12,350.0	23.72	182.06	12,338.5	219.1	-170.0	-214.6	12.00	11.98	-1.72
12,375.0	26.72	181.72	12,361.1	208.4	-170.4	-203.9	12.00	11.99	-1.35
12,400.0	29.72	181.45	12,383.1	196.6	-170.7	-192.1	12.00	11.99	-1.10
12,425.0	32.72	181.22	12,404.5	183.7	-171.0	-179.1	12.00	11.99	-0.91
12,450.0	35.71	181.02	12,425.2	169.6	-171.3	-165.1	12.00	11.99	-0.77
12,475.0	38.71	180.86	12,445.1	154.5	-171.5	-150.0	12.00	11.99	-0.67
12,500.0	41.71	180.71	12,464.2	138.4	-171.7	-133.8	12.00	11.99	-0.59
12,525.0	44.71	180.58	12,482.4	121.3	-171.9	-116.7	12.00	11.99	-0.52
12,550.0	47.71	180.46	12,499.7	103.2	-172.1	-98.7	12.00	12.00	-0.47
12,575.0	50.71	180.36	12,516.0	84.3	-172.2	-79.8	12.00	12.00	-0.43
12,600.0	53.71	180.26	12,531.3	64.5	-172.3	-60.0	12.00	12.00	-0.39
12,625.0	56.71	180.17	12,545.6	44.0	-172.4	-39.5	12.00	12.00	-0.36
12,650.0	59.70	180.08	12,558.8	22.8	-172.5	-18.2	12.00	12.00	-0.34
12,675.0	62.70	180.00	12,570.8	0.9	-172.5	3.7	12.00	12.00	-0.32
12,700.0	65.70	179.93	12,581.7	-21.6	-172.5	26.2	12.00	12.00	-0.30
12,725.0	68.70	179.86	12,591.4	-44.7	-172.4	49.2	12.00	12.00	-0.29
12,750.0	71.70	179.79	12,599.9	-68.2	-172.3	72.7	12.00	12.00	-0.28
12,775.0	74.70	179.72	12,607.1	-92.1	-172.2	96.6	12.00	12.00	-0.27
12,800.0	77.70	179.65	12,613.0	-116.4	-172.1	120.9	12.00	12.00	-0.26
12,825.0	80.70	179.59	12,617.7	-141.0	-172.0	145.4	12.00	12.00	-0.25
12,850.0	83.70	179.53	12,621.1	-165.7	-171.8	170.2	12.00	12.00	-0.25
12,875.0	86.70	179.47	12,623.2	-190.6	-171.5	195.1	12.00	12.00	-0.25
12,900.0	89.70	179.41	12,624.0	-215.6	-171.3	220.0	12.00	12.00	-0.24
12,902.5	90.00	179.40	12,624.0	-218.1	-171.3	222.6	12.00	12.00	-0.24
13,000.0	90.00	179.40	12,624.0	-315.6	-170.2	320.0	0.00	0.00	0.00
13,100.0	90.00	179.40	12,624.0	-415.6	-169.2	419.9	0.00	0.00	0.00
13,200.0	90.00	179.40	12,624.0	-515.6	-168.2	519.8	0.00	0.00	0.00
13,300.0	90.00	179.40	12,624.0	-615.6	-167.1	619.8	0.00	0.00	0.00
13,400.0	90.00	179.40	12,624.0	-715.6	-166.1	719.7	0.00	0.00	0.00
13,500.0	90.00	179.40	12,624.0	-815.6	-165.0	819.6	0.00	0.00	0.00

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #709H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25' @ 3322.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25' @ 3322.0usft
Site:	Ruby 2 State Com	**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)
13,600.0	90.00	179.40	12,624.0	-915.6	-164.0	919.6	0.00	0.00	0.00
13,700.0	90.00	179.40	12,624.0	-1,015.6	-162.9	1,019.5	0.00	0.00	0.00
13,800.0	90.00	179.40	12,624.0	-1,115.6	-161.9	1,119.4	0.00	0.00	0.00
13,900.0	90.00	179.40	12,624.0	-1,215.6	-160.8	1,219.4	0.00	0.00	0.00
14,000.0	90.00	179.40	12,624.0	-1,315.6	-159.8	1,319.3	0.00	0.00	0.00
14,100.0	90.00	179.40	12,624.0	-1,415.6	-158.7	1,419.2	0.00	0.00	0.00
14,200.0	90.00	179.40	12,624.0	-1,515.6	-157.7	1,519.2	0.00	0.00	0.00
14,300.0	90.00	179.40	12,624.0	-1,615.6	-156.6	1,619.1	0.00	0.00	0.00
14,400.0	90.00	179.40	12,624.0	-1,715.5	-155.6	1,719.0	0.00	0.00	0.00
14,500.0	90.00	179.40	12,624.0	-1,815.5	-154.5	1,819.0	0.00	0.00	0.00
14,600.0	90.00	179.40	12,624.0	-1,915.5	-153.5	1,918.9	0.00	0.00	0.00
14,700.0	90.00	179.40	12,624.0	-2,015.5	-152.4	2,018.8	0.00	0.00	0.00
14,800.0	90.00	179.40	12,624.0	-2,115.5	-151.4	2,118.8	0.00	0.00	0.00
14,900.0	90.00	179.40	12,624.0	-2,215.5	-150.4	2,218.7	0.00	0.00	0.00
15,000.0	90.00	179.40	12,624.0	-2,315.5	-149.3	2,318.6	0.00	0.00	0.00
15,100.0	90.00	179.40	12,624.0	-2,415.5	-148.3	2,418.6	0.00	0.00	0.00
15,200.0	90.00	179.40	12,624.0	-2,515.5	-147.2	2,518.5	0.00	0.00	0.00
15,300.0	90.00	179.40	12,624.0	-2,615.5	-146.2	2,618.4	0.00	0.00	0.00
15,400.0	90.00	179.40	12,624.0	-2,715.5	-145.1	2,718.4	0.00	0.00	0.00
15,500.0	90.00	179.40	12,624.0	-2,815.5	-144.1	2,818.3	0.00	0.00	0.00
15,600.0	90.00	179.40	12,624.0	-2,915.5	-143.0	2,918.2	0.00	0.00	0.00
15,700.0	90.00	179.40	12,624.0	-3,015.5	-142.0	3,018.2	0.00	0.00	0.00
15,800.0	90.00	179.40	12,624.0	-3,115.5	-140.9	3,118.1	0.00	0.00	0.00
15,900.0	90.00	179.40	12,624.0	-3,215.5	-139.9	3,218.0	0.00	0.00	0.00
16,000.0	90.00	179.40	12,624.0	-3,315.5	-138.8	3,318.0	0.00	0.00	0.00
16,100.0	90.00	179.40	12,624.0	-3,415.5	-137.8	3,417.9	0.00	0.00	0.00
16,200.0	90.00	179.40	12,624.0	-3,515.4	-136.7	3,517.8	0.00	0.00	0.00
16,300.0	90.00	179.40	12,624.0	-3,615.4	-135.7	3,617.8	0.00	0.00	0.00
16,400.0	90.00	179.40	12,624.0	-3,715.4	-134.6	3,717.7	0.00	0.00	0.00
16,500.0	90.00	179.40	12,624.0	-3,815.4	-133.6	3,817.6	0.00	0.00	0.00
16,600.0	90.00	179.40	12,624.0	-3,915.4	-132.6	3,917.6	0.00	0.00	0.00
16,700.0	90.00	179.40	12,624.0	-4,015.4	-131.5	4,017.5	0.00	0.00	0.00
16,800.0	90.00	179.40	12,624.0	-4,115.4	-130.5	4,117.4	0.00	0.00	0.00
16,900.0	90.00	179.40	12,624.0	-4,215.4	-129.4	4,217.4	0.00	0.00	0.00
17,000.0	90.00	179.40	12,624.0	-4,315.4	-128.4	4,317.3	0.00	0.00	0.00
17,100.0	90.00	179.40	12,624.0	-4,415.4	-127.3	4,417.2	0.00	0.00	0.00
17,200.0	90.00	179.40	12,624.0	-4,515.4	-126.3	4,517.2	0.00	0.00	0.00
17,300.0	90.00	179.40	12,624.0	-4,615.4	-125.2	4,617.1	0.00	0.00	0.00
17,400.0	90.00	179.40	12,624.0	-4,715.4	-124.2	4,717.0	0.00	0.00	0.00
17,416.6	90.00	179.40	12,624.0	-4,732.0	-124.0	4,733.6	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL (Ruby 2 State Cor - plan hits target center - Point	0.00	0.00	12,624.0	-4,732.0	-124.0	388,840.00	819,830.00	32° 3' 56.924 N	103° 26' 3.513 W
FTP (Ruby 2 State Com - plan misses target center by 39.9usft at 12714.0usft MD (12587.3 TVD, -34.4 N, -172.4 E) - Point	0.00	0.00	12,624.0	-19.0	-173.0	393,553.00	819,781.00	32° 4' 43.563 N	103° 26' 3.627 W

Database:	EDM 5000.14
Company:	EOG Resources - Midland
Project:	Lea County, NM (NAD 83 NME)
Site:	Ruby 2 State Com
Well:	#709H
Wellbore:	OH
Design:	Plan #0.1

Local Co-ordinate Reference:	Well #709H
TVD Reference:	KB = 25' @ 3322.0usft
MD Reference:	KB = 25' @ 3322.0usft
North Reference:	Grid
Survey Calculation Method:	Minimum Curvature