



Lea County, NM (NAD 83 NME)

Hearns 34 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

WELL DETAILS: #709H

KB ~ 25' @ 3492.8usR 3467.0
Northing 428628.00 Easting 780815.00 Latitude 32° 10' 3.350 N Longitude 103° 33' 53.821 W

Azimuths to Grid North:
True North: -0.41°
Magnetic North: 6.53°

Magnetic Field
Strength: 47805.4nT
Dip Angle: 60.01°
Date: 6/14/2017
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction: Add 6.93°
To convert a Magnetic Direction to a True Direction: Add 6.94° East
To convert a True Direction to a Grid Direction: Subtract 0.41°

SECTION DETAILS

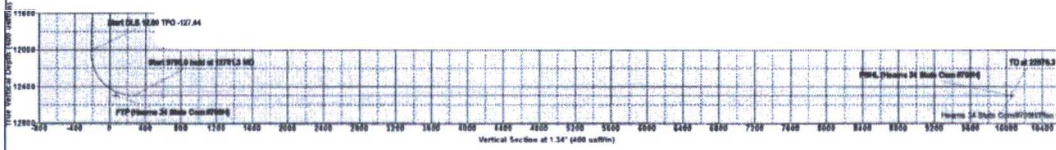
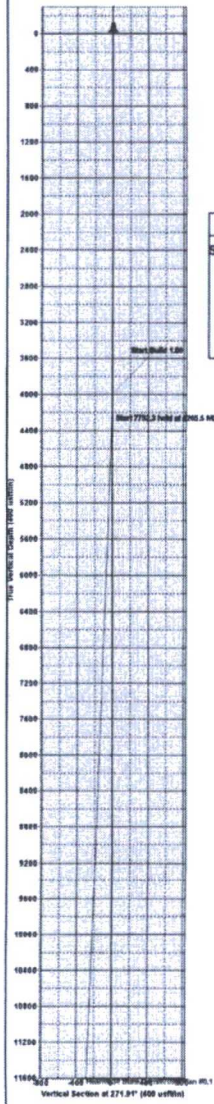
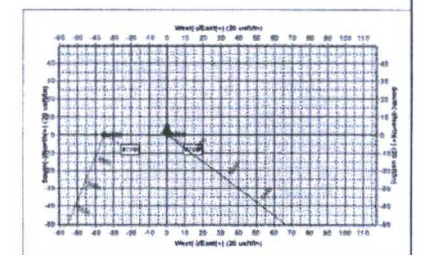
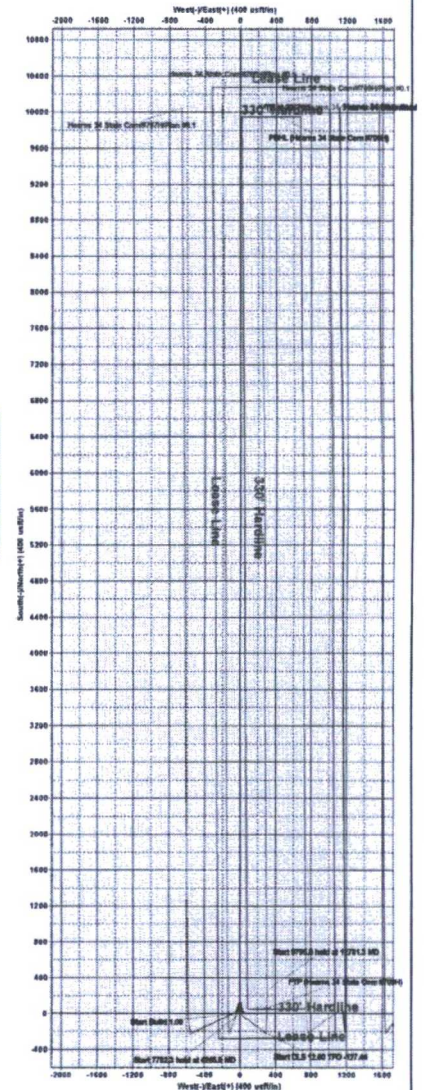
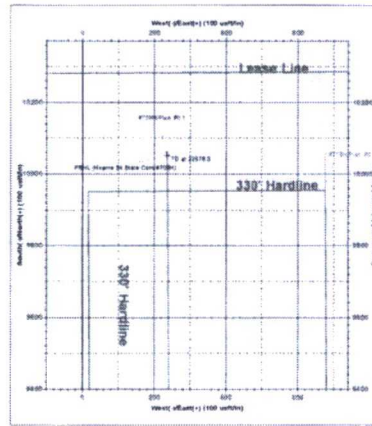
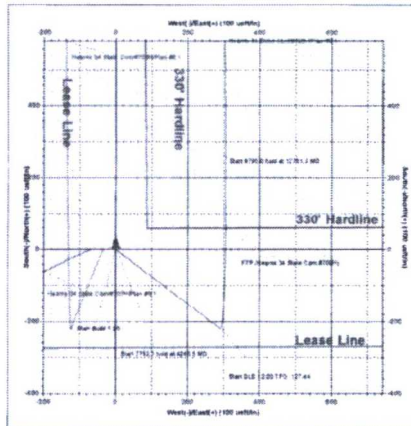
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSEct	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	4000.0	0.00	0.00	4000.0	0.0	0.0	0.00	0.00	0.0	
3	4265.5	2.65	127.06	4265.4	-3.7	4.9	1.00	127.06	-3.6	
4	12017.8	2.65	127.06	12009.4	-220.1	291.5	0.00	0.00	-213.2	
5	12781.3	90.00	359.59	12500.0	257.3	306.1	12.00	-127.44	264.4	
6	22576.3	90.00	359.59	12500.0	10052.0	236.0	0.00	0.00	10054.8	PBHL (Hearns 34 State Com #709H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
FTP (Hearns 34 State Com #709H)	12500.0	87.0	306.0	428628.00	781121.00
PBHL (Hearns 34 State Com #709H)	12500.0	10052.0	236.0	428628.00	781061.00





EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Hearns 34 State Com

#709H

OH

Plan: Plan #0.1

Standard Planning Report

15 June, 2017



EOG Resources, Inc.

Planning Report

Database: EDM 5000.14 Single User Db
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Hearn's 34 State Com
Well: #709H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference: Well #709H
TVD Reference: KB = 25' @ 3492.0usft
MD Reference: KB = 25' @ 3492.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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	Hearn's 34 State Com				
Site Position:		Northing:	425,568.00 usft	Latitude:	32° 10' 3.355 N
From:	Map	Easting:	780,745.00 usft	Longitude:	103° 33' 34.635 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.41 °

Well	#709H				
Well Position	+N/-S	0.0 usft	Northing:	425,568.00 usft	Latitude: 32° 10' 3.350 N
	+E/-W	70.0 usft	Easting:	780,815.00 usft	Longitude: 103° 33' 33.821 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level: 3,467.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	6/14/2017	6.94	60.01	47,906.43260827

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	1.34

Plan Survey Tool Program	Date 6/15/2017			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	22,576.3 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	
4,265.5	2.65	127.06	4,265.4	-3.7	4.9	1.00	1.00	0.00	127.06	
12,017.8	2.65	127.06	12,009.4	-220.1	291.5	0.00	0.00	0.00	0.00	
12,781.3	90.00	359.59	12,500.0	257.3	306.1	12.00	11.44	-16.70	-127.44	
22,576.3	90.00	359.59	12,500.0	10,052.0	236.0	0.00	0.00	0.00	0.00	PBHL (Hearn's 34 Sta



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Wellbore: OH
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MD Reference: KB = 25' @ 3492.0usft
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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	1.00	127.06	4,100.0	-0.5	0.7	-0.5	1.00	1.00	0.00
4,200.0	2.00	127.06	4,200.0	-2.1	2.8	-2.0	1.00	1.00	0.00
4,265.5	2.65	127.06	4,265.4	-3.7	4.9	-3.6	1.00	1.00	0.00
4,300.0	2.65	127.06	4,299.9	-4.7	6.2	-4.5	0.00	0.00	0.00
4,400.0	2.65	127.06	4,399.8	-7.5	9.9	-7.2	0.00	0.00	0.00
4,500.0	2.65	127.06	4,499.7	-10.3	13.6	-9.9	0.00	0.00	0.00
4,600.0	2.65	127.06	4,599.5	-13.0	17.3	-12.6	0.00	0.00	0.00
4,700.0	2.65	127.06	4,699.4	-15.8	21.0	-15.3	0.00	0.00	0.00
4,800.0	2.65	127.06	4,799.3	-18.6	24.7	-18.0	0.00	0.00	0.00
4,900.0	2.65	127.06	4,899.2	-21.4	28.4	-20.7	0.00	0.00	0.00
5,000.0	2.65	127.06	4,999.1	-24.2	32.1	-23.5	0.00	0.00	0.00
5,100.0	2.65	127.06	5,099.0	-27.0	35.8	-26.2	0.00	0.00	0.00
5,200.0	2.65	127.06	5,198.9	-29.8	39.4	-28.9	0.00	0.00	0.00



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 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)
5,300.0	2.65	127.06	5,298.8	-32.6	43.1	-31.6	0.00	0.00	0.00
5,400.0	2.65	127.06	5,398.7	-35.4	46.8	-34.3	0.00	0.00	0.00
5,500.0	2.65	127.06	5,498.6	-38.2	50.5	-37.0	0.00	0.00	0.00
5,600.0	2.65	127.06	5,598.5	-41.0	54.2	-39.7	0.00	0.00	0.00
5,700.0	2.65	127.06	5,698.4	-43.8	57.9	-42.4	0.00	0.00	0.00
5,800.0	2.65	127.06	5,798.3	-46.5	61.6	-45.1	0.00	0.00	0.00
5,900.0	2.65	127.06	5,898.2	-49.3	65.3	-47.8	0.00	0.00	0.00
6,000.0	2.65	127.06	5,998.0	-52.1	69.0	-50.5	0.00	0.00	0.00
6,100.0	2.65	127.06	6,097.9	-54.9	72.7	-53.2	0.00	0.00	0.00
6,200.0	2.65	127.06	6,197.8	-57.7	76.4	-55.9	0.00	0.00	0.00
6,300.0	2.65	127.06	6,297.7	-60.5	80.1	-58.6	0.00	0.00	0.00
6,400.0	2.65	127.06	6,397.6	-63.3	83.8	-61.3	0.00	0.00	0.00
6,500.0	2.65	127.06	6,497.5	-66.1	87.5	-64.0	0.00	0.00	0.00
6,600.0	2.65	127.06	6,597.4	-68.9	91.2	-66.7	0.00	0.00	0.00
6,700.0	2.65	127.06	6,697.3	-71.7	94.9	-69.4	0.00	0.00	0.00
6,800.0	2.65	127.06	6,797.2	-74.5	98.6	-72.1	0.00	0.00	0.00
6,900.0	2.65	127.06	6,897.1	-77.3	102.3	-74.8	0.00	0.00	0.00
7,000.0	2.65	127.06	6,997.0	-80.1	106.0	-77.5	0.00	0.00	0.00
7,100.0	2.65	127.06	7,096.9	-82.8	109.7	-80.2	0.00	0.00	0.00
7,200.0	2.65	127.06	7,196.8	-85.6	113.4	-82.9	0.00	0.00	0.00
7,300.0	2.65	127.06	7,296.6	-88.4	117.1	-85.7	0.00	0.00	0.00
7,400.0	2.65	127.06	7,396.5	-91.2	120.8	-88.4	0.00	0.00	0.00
7,500.0	2.65	127.06	7,496.4	-94.0	124.5	-91.1	0.00	0.00	0.00
7,600.0	2.65	127.06	7,596.3	-96.8	128.2	-93.8	0.00	0.00	0.00
7,700.0	2.65	127.06	7,696.2	-99.6	131.9	-96.5	0.00	0.00	0.00
7,800.0	2.65	127.06	7,796.1	-102.4	135.6	-99.2	0.00	0.00	0.00
7,900.0	2.65	127.06	7,896.0	-105.2	139.2	-101.9	0.00	0.00	0.00
8,000.0	2.65	127.06	7,995.9	-108.0	142.9	-104.6	0.00	0.00	0.00
8,100.0	2.65	127.06	8,095.8	-110.8	146.6	-107.3	0.00	0.00	0.00
8,200.0	2.65	127.06	8,195.7	-113.6	150.3	-110.0	0.00	0.00	0.00
8,300.0	2.65	127.06	8,295.6	-116.3	154.0	-112.7	0.00	0.00	0.00
8,400.0	2.65	127.06	8,395.5	-119.1	157.7	-115.4	0.00	0.00	0.00
8,500.0	2.65	127.06	8,495.4	-121.9	161.4	-118.1	0.00	0.00	0.00
8,600.0	2.65	127.06	8,595.3	-124.7	165.1	-120.8	0.00	0.00	0.00
8,700.0	2.65	127.06	8,695.1	-127.5	168.8	-123.5	0.00	0.00	0.00
8,800.0	2.65	127.06	8,795.0	-130.3	172.5	-126.2	0.00	0.00	0.00
8,900.0	2.65	127.06	8,894.9	-133.1	176.2	-128.9	0.00	0.00	0.00
9,000.0	2.65	127.06	8,994.8	-135.9	179.9	-131.6	0.00	0.00	0.00
9,100.0	2.65	127.06	9,094.7	-138.7	183.6	-134.3	0.00	0.00	0.00
9,200.0	2.65	127.06	9,194.6	-141.5	187.3	-137.0	0.00	0.00	0.00
9,300.0	2.65	127.06	9,294.5	-144.3	191.0	-139.7	0.00	0.00	0.00
9,400.0	2.65	127.06	9,394.4	-147.1	194.7	-142.4	0.00	0.00	0.00
9,500.0	2.65	127.06	9,494.3	-149.8	198.4	-145.1	0.00	0.00	0.00
9,600.0	2.65	127.06	9,594.2	-152.6	202.1	-147.9	0.00	0.00	0.00
9,700.0	2.65	127.06	9,694.1	-155.4	205.8	-150.6	0.00	0.00	0.00
9,800.0	2.65	127.06	9,794.0	-158.2	209.5	-153.3	0.00	0.00	0.00
9,900.0	2.65	127.06	9,893.9	-161.0	213.2	-156.0	0.00	0.00	0.00
10,000.0	2.65	127.06	9,993.7	-163.8	216.9	-158.7	0.00	0.00	0.00
10,100.0	2.65	127.06	10,093.6	-166.6	220.6	-161.4	0.00	0.00	0.00
10,200.0	2.65	127.06	10,193.5	-169.4	224.3	-164.1	0.00	0.00	0.00
10,300.0	2.65	127.06	10,293.4	-172.2	228.0	-166.8	0.00	0.00	0.00
10,400.0	2.65	127.06	10,393.3	-175.0	231.7	-169.5	0.00	0.00	0.00
10,500.0	2.65	127.06	10,493.2	-177.8	235.3	-172.2	0.00	0.00	0.00
10,600.0	2.65	127.06	10,593.1	-180.6	239.0	-174.9	0.00	0.00	0.00



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10,700.0	2.65	127.06	10,693.0	-183.3	242.7	-177.6	0.00	0.00	0.00
10,800.0	2.65	127.06	10,792.9	-186.1	246.4	-180.3	0.00	0.00	0.00
10,900.0	2.65	127.06	10,892.8	-188.9	250.1	-183.0	0.00	0.00	0.00
11,000.0	2.65	127.06	10,992.7	-191.7	253.8	-185.7	0.00	0.00	0.00
11,100.0	2.65	127.06	11,092.6	-194.5	257.5	-188.4	0.00	0.00	0.00
11,200.0	2.65	127.06	11,192.5	-197.3	261.2	-191.1	0.00	0.00	0.00
11,300.0	2.65	127.06	11,292.4	-200.1	264.9	-193.8	0.00	0.00	0.00
11,400.0	2.65	127.06	11,392.2	-202.9	268.6	-196.5	0.00	0.00	0.00
11,500.0	2.65	127.06	11,492.1	-205.7	272.3	-199.2	0.00	0.00	0.00
11,600.0	2.65	127.06	11,592.0	-208.5	276.0	-201.9	0.00	0.00	0.00
11,700.0	2.65	127.06	11,691.9	-211.3	279.7	-204.6	0.00	0.00	0.00
11,800.0	2.65	127.06	11,791.8	-214.1	283.4	-207.3	0.00	0.00	0.00
11,900.0	2.65	127.06	11,891.7	-216.9	287.1	-210.1	0.00	0.00	0.00
12,000.0	2.65	127.06	11,991.6	-219.6	290.8	-212.8	0.00	0.00	0.00
12,017.8	2.65	127.06	12,009.4	-220.1	291.5	-213.2	0.00	0.00	0.00
12,025.0	2.24	109.29	12,016.6	-220.3	291.7	-213.4	12.00	-5.81	-247.87
12,050.0	3.08	42.75	12,041.6	-220.0	292.6	-213.0	12.00	3.36	-266.14
12,075.0	5.65	21.42	12,066.5	-218.3	293.5	-211.4	12.00	10.29	-85.33
12,100.0	8.51	13.83	12,091.3	-215.4	294.4	-208.4	12.00	11.43	-30.36
12,125.0	11.44	10.07	12,115.9	-211.1	295.3	-204.1	12.00	11.72	-15.04
12,150.0	14.40	7.83	12,140.3	-205.6	296.2	-198.6	12.00	11.83	-8.95
12,175.0	17.37	6.35	12,164.3	-198.8	297.0	-191.8	12.00	11.89	-5.94
12,200.0	20.35	5.28	12,188.0	-190.8	297.8	-183.7	12.00	11.92	-4.25
12,225.0	23.34	4.48	12,211.2	-181.5	298.6	-174.5	12.00	11.94	-3.20
12,250.0	26.32	3.86	12,233.9	-171.0	299.4	-164.0	12.00	11.95	-2.51
12,275.0	29.31	3.35	12,256.0	-159.4	300.1	-152.3	12.00	11.96	-2.03
12,300.0	32.31	2.93	12,277.4	-146.6	300.8	-139.5	12.00	11.97	-1.69
12,325.0	35.30	2.57	12,298.2	-132.7	301.5	-125.6	12.00	11.97	-1.43
12,350.0	38.29	2.26	12,318.2	-117.8	302.1	-110.6	12.00	11.98	-1.23
12,375.0	41.29	1.99	12,337.4	-101.8	302.7	-94.7	12.00	11.98	-1.08
12,400.0	44.29	1.75	12,355.8	-84.8	303.2	-77.7	12.00	11.98	-0.96
12,425.0	47.28	1.54	12,373.2	-66.9	303.7	-59.8	12.00	11.98	-0.86
12,450.0	50.28	1.34	12,389.7	-48.1	304.2	-41.0	12.00	11.99	-0.78
12,475.0	53.27	1.16	12,405.1	-28.5	304.6	-21.3	12.00	11.99	-0.72
12,500.0	56.27	1.00	12,419.6	-8.1	305.0	-0.9	12.00	11.99	-0.66
12,525.0	59.27	0.84	12,432.9	13.1	305.4	20.2	12.00	11.99	-0.62
12,550.0	62.27	0.70	12,445.1	34.9	305.7	42.1	12.00	11.99	-0.58
12,575.0	65.26	0.56	12,456.2	57.3	305.9	64.5	12.00	11.99	-0.55
12,592.0	67.30	0.47	12,463.0	72.9	306.0	80.1	12.00	11.99	-0.53
FTP (Hearn 34 State Com #709H)									
12,600.0	68.26	0.43	12,466.0	80.3	306.1	87.4	12.00	11.99	-0.51
12,625.0	71.26	0.31	12,474.7	103.7	306.3	110.9	12.00	11.99	-0.50
12,650.0	74.26	0.18	12,482.1	127.6	306.4	134.8	12.00	11.99	-0.48
12,675.0	77.25	0.07	12,488.2	151.8	306.4	159.0	12.00	11.99	-0.47
12,700.0	80.25	359.95	12,493.1	176.4	306.4	183.5	12.00	11.99	-0.46
12,725.0	83.25	359.84	12,496.7	201.1	306.4	208.2	12.00	11.99	-0.45
12,750.0	86.25	359.73	12,499.0	226.0	306.3	233.1	12.00	11.99	-0.45
12,775.0	89.25	359.62	12,500.0	251.0	306.1	258.1	12.00	11.99	-0.44
12,781.3	90.00	359.59	12,500.0	257.3	306.1	264.4	12.00	11.99	-0.44
12,800.0	90.00	359.59	12,500.0	276.0	306.0	283.1	0.00	0.00	0.00
12,900.0	90.00	359.59	12,500.0	376.0	305.2	383.0	0.00	0.00	0.00
13,000.0	90.00	359.59	12,500.0	476.0	304.5	483.0	0.00	0.00	0.00
13,100.0	90.00	359.59	12,500.0	576.0	303.8	582.9	0.00	0.00	0.00



EOG Resources, Inc.

Planning Report

Database: EDM 5000.14 Single User Db
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Hearn 34 State Corn
Well: #709H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference: Well #709H
TVD Reference: KB = 25' @ 3492.0usft
MD Reference: KB = 25' @ 3492.0usft
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)
13,200.0	90.00	359.59	12,500.0	676.0	303.1	682.9	0.00	0.00	0.00
13,300.0	90.00	359.59	12,500.0	776.0	302.4	782.8	0.00	0.00	0.00
13,400.0	90.00	359.59	12,500.0	875.9	301.7	882.8	0.00	0.00	0.00
13,500.0	90.00	359.59	12,500.0	975.9	300.9	982.7	0.00	0.00	0.00
13,600.0	90.00	359.59	12,500.0	1,075.9	300.2	1,082.7	0.00	0.00	0.00
13,700.0	90.00	359.59	12,500.0	1,175.9	299.5	1,182.6	0.00	0.00	0.00
13,800.0	90.00	359.59	12,500.0	1,275.9	298.8	1,282.6	0.00	0.00	0.00
13,900.0	90.00	359.59	12,500.0	1,375.9	298.1	1,382.6	0.00	0.00	0.00
14,000.0	90.00	359.59	12,500.0	1,475.9	297.4	1,482.5	0.00	0.00	0.00
14,100.0	90.00	359.59	12,500.0	1,575.9	296.7	1,582.5	0.00	0.00	0.00
14,200.0	90.00	359.59	12,500.0	1,675.9	295.9	1,682.4	0.00	0.00	0.00
14,300.0	90.00	359.59	12,500.0	1,775.9	295.2	1,782.4	0.00	0.00	0.00
14,400.0	90.00	359.59	12,500.0	1,875.9	294.5	1,882.3	0.00	0.00	0.00
14,500.0	90.00	359.59	12,500.0	1,975.9	293.8	1,982.3	0.00	0.00	0.00
14,600.0	90.00	359.59	12,500.0	2,075.9	293.1	2,082.2	0.00	0.00	0.00
14,700.0	90.00	359.59	12,500.0	2,175.9	292.4	2,182.2	0.00	0.00	0.00
14,800.0	90.00	359.59	12,500.0	2,275.9	291.6	2,282.1	0.00	0.00	0.00
14,900.0	90.00	359.59	12,500.0	2,375.9	290.9	2,382.1	0.00	0.00	0.00
15,000.0	90.00	359.59	12,500.0	2,475.9	290.2	2,482.0	0.00	0.00	0.00
15,100.0	90.00	359.59	12,500.0	2,575.9	289.5	2,582.0	0.00	0.00	0.00
15,200.0	90.00	359.59	12,500.0	2,675.9	288.8	2,681.9	0.00	0.00	0.00
15,300.0	90.00	359.59	12,500.0	2,775.9	288.1	2,781.9	0.00	0.00	0.00
15,400.0	90.00	359.59	12,500.0	2,875.9	287.4	2,881.9	0.00	0.00	0.00
15,500.0	90.00	359.59	12,500.0	2,975.9	286.6	2,981.8	0.00	0.00	0.00
15,600.0	90.00	359.59	12,500.0	3,075.9	285.9	3,081.8	0.00	0.00	0.00
15,700.0	90.00	359.59	12,500.0	3,175.9	285.2	3,181.7	0.00	0.00	0.00
15,800.0	90.00	359.59	12,500.0	3,275.9	284.5	3,281.7	0.00	0.00	0.00
15,900.0	90.00	359.59	12,500.0	3,375.9	283.8	3,381.6	0.00	0.00	0.00
16,000.0	90.00	359.59	12,500.0	3,475.9	283.1	3,481.6	0.00	0.00	0.00
16,100.0	90.00	359.59	12,500.0	3,575.9	282.3	3,581.5	0.00	0.00	0.00
16,200.0	90.00	359.59	12,500.0	3,675.9	281.6	3,681.5	0.00	0.00	0.00
16,300.0	90.00	359.59	12,500.0	3,775.9	280.9	3,781.4	0.00	0.00	0.00
16,400.0	90.00	359.59	12,500.0	3,875.9	280.2	3,881.4	0.00	0.00	0.00
16,500.0	90.00	359.59	12,500.0	3,975.9	279.5	3,981.3	0.00	0.00	0.00
16,600.0	90.00	359.59	12,500.0	4,075.9	278.8	4,081.3	0.00	0.00	0.00
16,700.0	90.00	359.59	12,500.0	4,175.9	278.0	4,181.2	0.00	0.00	0.00
16,800.0	90.00	359.59	12,500.0	4,275.9	277.3	4,281.2	0.00	0.00	0.00
16,900.0	90.00	359.59	12,500.0	4,375.9	276.6	4,381.1	0.00	0.00	0.00
17,000.0	90.00	359.59	12,500.0	4,475.9	275.9	4,481.1	0.00	0.00	0.00
17,100.0	90.00	359.59	12,500.0	4,575.9	275.2	4,581.1	0.00	0.00	0.00
17,200.0	90.00	359.59	12,500.0	4,675.9	274.5	4,681.0	0.00	0.00	0.00
17,300.0	90.00	359.59	12,500.0	4,775.8	273.8	4,781.0	0.00	0.00	0.00
17,400.0	90.00	359.59	12,500.0	4,875.8	273.0	4,880.9	0.00	0.00	0.00
17,500.0	90.00	359.59	12,500.0	4,975.8	272.3	4,980.9	0.00	0.00	0.00
17,600.0	90.00	359.59	12,500.0	5,075.8	271.6	5,080.8	0.00	0.00	0.00
17,700.0	90.00	359.59	12,500.0	5,175.8	270.9	5,180.8	0.00	0.00	0.00
17,800.0	90.00	359.59	12,500.0	5,275.8	270.2	5,280.7	0.00	0.00	0.00
17,900.0	90.00	359.59	12,500.0	5,375.8	269.5	5,380.7	0.00	0.00	0.00
18,000.0	90.00	359.59	12,500.0	5,475.8	268.7	5,480.6	0.00	0.00	0.00
18,100.0	90.00	359.59	12,500.0	5,575.8	268.0	5,580.6	0.00	0.00	0.00
18,200.0	90.00	359.59	12,500.0	5,675.8	267.3	5,680.5	0.00	0.00	0.00
18,300.0	90.00	359.59	12,500.0	5,775.8	266.6	5,780.5	0.00	0.00	0.00
18,400.0	90.00	359.59	12,500.0	5,875.8	265.9	5,880.4	0.00	0.00	0.00
18,500.0	90.00	359.59	12,500.0	5,975.8	265.2	5,980.4	0.00	0.00	0.00



EOG Resources, Inc.

Planning Report

Database: EDM 5000.14 Single User Db
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Hearn 34 State Com
Well: #709H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well #709H
 KB = 25' @ 3492.0usft
 KB = 25' @ 3492.0usft
 Grid
 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)
18,600.0	90.00	359.59	12,500.0	6,075.8	264.5	6,080.3	0.00	0.00	0.00
18,700.0	90.00	359.59	12,500.0	6,175.8	263.7	6,180.3	0.00	0.00	0.00
18,800.0	90.00	359.59	12,500.0	6,275.8	263.0	6,280.3	0.00	0.00	0.00
18,900.0	90.00	359.59	12,500.0	6,375.8	262.3	6,380.2	0.00	0.00	0.00
19,000.0	90.00	359.59	12,500.0	6,475.8	261.6	6,480.2	0.00	0.00	0.00
19,100.0	90.00	359.59	12,500.0	6,575.8	260.9	6,580.1	0.00	0.00	0.00
19,200.0	90.00	359.59	12,500.0	6,675.8	260.2	6,680.1	0.00	0.00	0.00
19,300.0	90.00	359.59	12,500.0	6,775.8	259.4	6,780.0	0.00	0.00	0.00
19,400.0	90.00	359.59	12,500.0	6,875.8	258.7	6,880.0	0.00	0.00	0.00
19,500.0	90.00	359.59	12,500.0	6,975.8	258.0	6,979.9	0.00	0.00	0.00
19,600.0	90.00	359.59	12,500.0	7,075.8	257.3	7,079.9	0.00	0.00	0.00
19,700.0	90.00	359.59	12,500.0	7,175.8	256.6	7,179.8	0.00	0.00	0.00
19,800.0	90.00	359.59	12,500.0	7,275.8	255.9	7,279.8	0.00	0.00	0.00
19,900.0	90.00	359.59	12,500.0	7,375.8	255.2	7,379.7	0.00	0.00	0.00
20,000.0	90.00	359.59	12,500.0	7,475.8	254.4	7,479.7	0.00	0.00	0.00
20,100.0	90.00	359.59	12,500.0	7,575.8	253.7	7,579.6	0.00	0.00	0.00
20,200.0	90.00	359.59	12,500.0	7,675.8	253.0	7,679.6	0.00	0.00	0.00
20,300.0	90.00	359.59	12,500.0	7,775.8	252.3	7,779.6	0.00	0.00	0.00
20,400.0	90.00	359.59	12,500.0	7,875.8	251.6	7,879.5	0.00	0.00	0.00
20,500.0	90.00	359.59	12,500.0	7,975.8	250.9	7,979.5	0.00	0.00	0.00
20,600.0	90.00	359.59	12,500.0	8,075.8	250.1	8,079.4	0.00	0.00	0.00
20,700.0	90.00	359.59	12,500.0	8,175.8	249.4	8,179.4	0.00	0.00	0.00
20,800.0	90.00	359.59	12,500.0	8,275.8	248.7	8,279.3	0.00	0.00	0.00
20,900.0	90.00	359.59	12,500.0	8,375.8	248.0	8,379.3	0.00	0.00	0.00
21,000.0	90.00	359.59	12,500.0	8,475.8	247.3	8,479.2	0.00	0.00	0.00
21,100.0	90.00	359.59	12,500.0	8,575.8	246.6	8,579.2	0.00	0.00	0.00
21,200.0	90.00	359.59	12,500.0	8,675.7	245.8	8,679.1	0.00	0.00	0.00
21,300.0	90.00	359.59	12,500.0	8,775.7	245.1	8,779.1	0.00	0.00	0.00
21,400.0	90.00	359.59	12,500.0	8,875.7	244.4	8,879.0	0.00	0.00	0.00
21,500.0	90.00	359.59	12,500.0	8,975.7	243.7	8,979.0	0.00	0.00	0.00
21,600.0	90.00	359.59	12,500.0	9,075.7	243.0	9,078.9	0.00	0.00	0.00
21,700.0	90.00	359.59	12,500.0	9,175.7	242.3	9,178.9	0.00	0.00	0.00
21,800.0	90.00	359.59	12,500.0	9,275.7	241.6	9,278.8	0.00	0.00	0.00
21,900.0	90.00	359.59	12,500.0	9,375.7	240.8	9,378.8	0.00	0.00	0.00
22,000.0	90.00	359.59	12,500.0	9,475.7	240.1	9,478.8	0.00	0.00	0.00
22,100.0	90.00	359.59	12,500.0	9,575.7	239.4	9,578.7	0.00	0.00	0.00
22,200.0	90.00	359.59	12,500.0	9,675.7	238.7	9,678.7	0.00	0.00	0.00
22,300.0	90.00	359.59	12,500.0	9,775.7	238.0	9,778.6	0.00	0.00	0.00
22,400.0	90.00	359.59	12,500.0	9,875.7	237.3	9,878.6	0.00	0.00	0.00
22,500.0	90.00	359.59	12,500.0	9,975.7	236.5	9,978.5	0.00	0.00	0.00
22,576.3	90.00	359.59	12,500.0	10,052.0	236.0	10,054.8	0.00	0.00	0.00

PBHL (Hearn 34 State Com #709H)



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Local Co-ordinate Reference: Well #709H
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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									
FTP (Hearn's 34 State C	0.00	0.00	12,500.0	57.0	306.0	425,625.00	781,121.00	32° 10' 3.892 N	103° 33' 30.256 W
- plan misses target center by 40.3usft at 12592.0usft MD (12463.0 TVD, 72.9 N, 306.0 E)									
- Point									
PBHL (Hearn's 34 State	0.00	0.00	12,500.0	10,052.0	236.0	435,620.00	781,051.00	32° 11' 42.800 N	103° 33' 30.233 W
- plan hits target center									
- Point									