

Revised Permit Information 5/24/18:

Well Name: Hearn 34 State Com No. 711H

Location:

SL: 300' FSL & 1238' FEL, Section 34, T-24-S, R-33-E, Lea Co., N.M.

BHL: 230' FNL & 1356' FEL, Section 27, T-24-S, R-33-E, Lea Co., N.M.

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
17.5"	0 – 1,240'	13.375"	54.5#	J55	STC	1.125	1.25	1.60
12.25"	0-4,000'	9.625"	40#	J55	LTC	1.125	1.25	1.60
12.25"	4,000' – 5,000'	9.625"	40#	HCK55	LTC	1.125	1.25	1.60
8.75"	0 – 11,400'	7.625"	29.7#	HCP110	FXL	1.125	1.25	1.60
6.75"	0'-22,572'	5.5"	17#	HCP-110	LTC	1.125	1.25	1.60

Cement Program:

Depth	No. Sacks	Wt. lb/gal	Yld Ft ³ /ft	Slurry Description
1,240'	697	13.5	1.74	Lead: Class 'C' + 4.00% Bentonite + 2.00% CaCl ₂ (TOC @ Surface)
	333	14.8	1.35	Tail: Class 'C' + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate + 2.0% KCl (1.06 lb/sk)
5,000'	692	12.7	2.22	Lead: Class C + 0.15% C-20 + 11.63 pps Salt + 0.1% C-51 + 0.75% C-41P (TOC @ Surface)
	303	14.8	1.32	Tail: Class C + 0.13% C-20
11,400'	375	10.8	3.67	Lead: Class C + 0.40% D013 + 0.20% D046 + 0.10% D065 + 0.20% D167 (TOC @ 4,500')
	400	14.8	2.38	Tail: Class H + 94.0 pps D909 + 0.25% D065 + 0.30% D167 + 0.02% D208 + 0.15% D800
22,572'	950	14.8	1.31	Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 10,900')

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,240'	Fresh - Gel	8.6-8.8	28-34	N/c
1,240' – 5,000'	Brine	10.0-10.2	28-34	N/c
5,000' – 11,400'	Oil Base	8.7-9.4	58-68	N/c - 6
11,400' – 22,572' Lateral	Oil Base	10.0-11.5	58-68	3 - 6

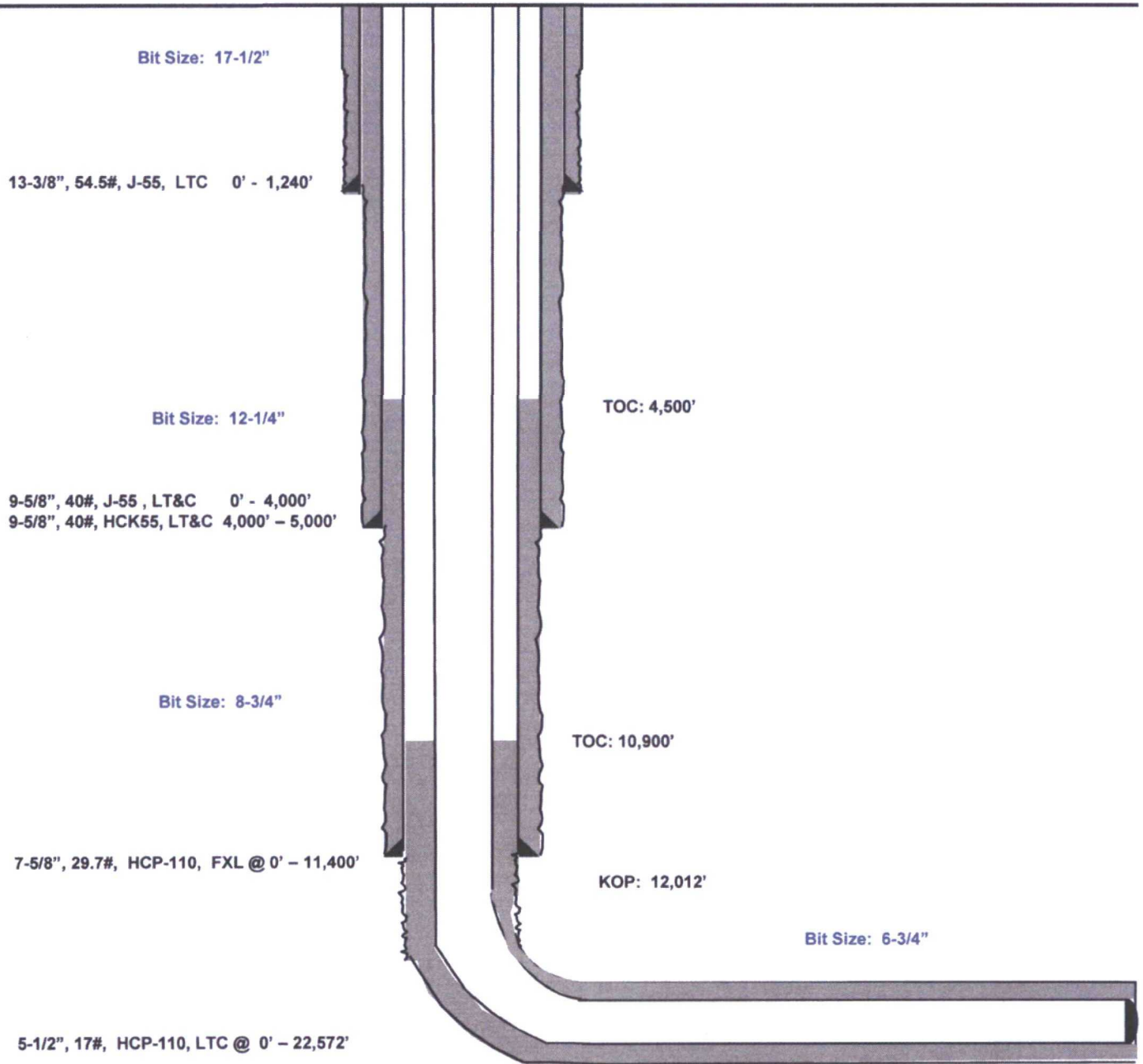
HO223 OCD
MAY 25 2018
RECEIVED

Hearns 34 State Com #711H
Lea County, New Mexico

300' FSL
1238' FEL
Section 34
T-24-S, R-33-E

Proposed Wellbore
Revised 5/24/18
API: 30-025-43861

KB: 3,508'
GL: 3,483'



Lateral: 22,572' MD, 12,500' TVD

BH Location: 230' FNL & 1356' FEL
Section 27
T-24-S, R-33-E



Lea County, NM (NAD 83 NME)

Hearns 34 State Com #711H

Plan #0.2

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: #711H

KB = 25' @ 3508.8uoft
Northing 628580.00 Easting 781874.00 Latitude 32° 10' 3.584 N Longitude 103° 33' 20.335 W

SECTION DETAILS

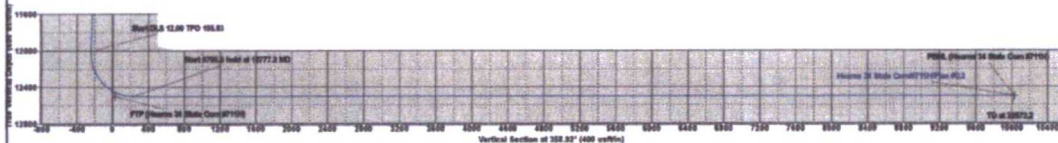
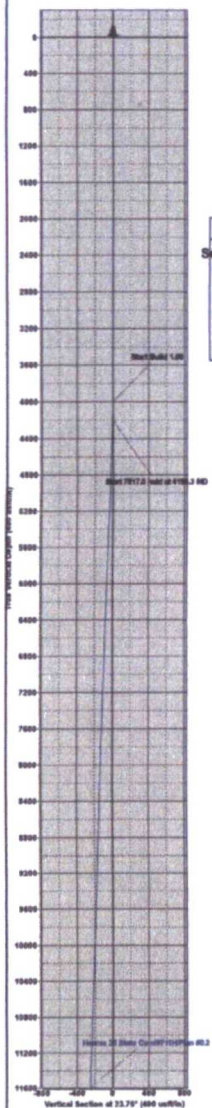
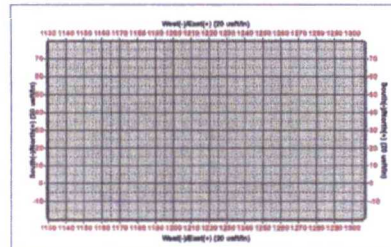
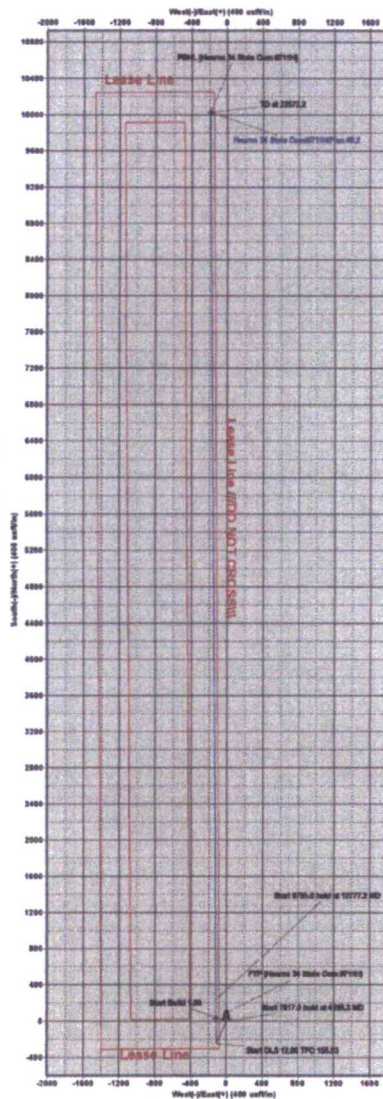
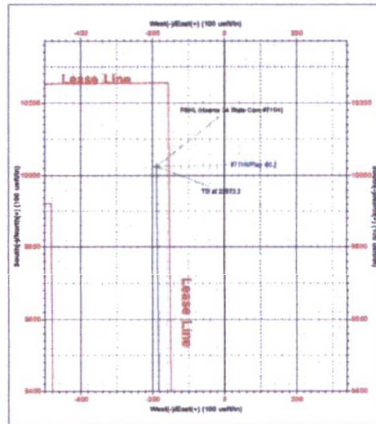
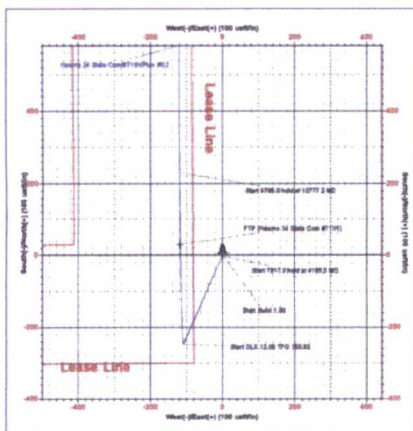
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Diep	TFace	VSeet	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	4000.0	0.00	0.00	4000.0	0.0	0.0	0.00	0.00	0.0	
3	4195.3	1.95	203.75	4195.3	-3.0	-1.3	1.00	203.75	-3.0	
4	12012.3	1.95	203.75	12007.7	-246.9	-108.6	0.00	0.00	-244.8	
5	12777.2	90.00	359.59	12500.0	230.3	-118.9	12.00	155.83	232.5	
6	22572.2	90.00	359.59	12500.0	10025.0	-189.0	0.00	0.00	10026.8	PBHL (Hearns 34 State Com #711H)

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 #711H)	12500.0	29.0	-119.0	429625.00	781895.00
PBHL (Hearns 34 State Com #711H)	12500.0	10025.0	-189.0	435625.00	781785.00





EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Hearns 34 State Com

#711H

OH

Plan: Plan #0.2

Standard Planning Report

24 May, 2018



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #711H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25' @ 3508.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25' @ 3508.0usft
Site:	Hearns 34 State Com	North Reference:	Grid
Well:	#711H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

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

Well	#711H		
Well Position	+N/-S	32.0 usft	Northing:
	+E/-W	1,229.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	
		Latitude:	32° 10' 3.584 N
		Longitude:	103° 33' 20.335 W
		Ground Level:	3,483.0 usft

Wellbore	OH		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	6/14/2017	6.94	60.01	47,906.74928973

Design	Plan #0.2		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.0	0.0	0.0
			Direction (°)
			358.92

Plan Survey Tool Program	Date	5/24/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	22,572.2 Plan #0.2 (OH)	MWD	
			OWSG 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	
4,195.3	1.95	203.75	4,195.3	-3.0	-1.3	1.00	1.00	0.00	203.75	
12,012.3	1.95	203.75	12,007.7	-246.9	-108.6	0.00	0.00	0.00	0.00	
12,777.2	90.00	359.59	12,500.0	230.3	-118.9	12.00	11.51	20.38	155.83	
22,572.2	90.00	359.59	12,500.0	10,025.0	-189.0	0.00	0.00	0.00	0.00	PBHL (Hearns 34 Sta



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Hearn 34 State Com
 Well: #711H
 Wellbore: OH
 Design: Plan #0.2

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:

Well #711H
 KB = 25' @ 3508.0usft
 KB = 25' @ 3508.0usft
 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)
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	203.75	4,100.0	-0.8	-0.4	-0.8	1.00	1.00	0.00
4,195.3	1.95	203.75	4,195.3	-3.0	-1.3	-3.0	1.00	1.00	0.00
4,200.0	1.95	203.75	4,200.0	-3.2	-1.4	-3.2	0.00	0.00	0.00
4,300.0	1.95	203.75	4,299.9	-6.3	-2.8	-6.3	0.00	0.00	0.00
4,400.0	1.95	203.75	4,399.8	-9.4	-4.1	-9.4	0.00	0.00	0.00
4,500.0	1.95	203.75	4,499.8	-12.6	-5.5	-12.4	0.00	0.00	0.00
4,600.0	1.95	203.75	4,599.7	-15.7	-6.9	-15.5	0.00	0.00	0.00
4,700.0	1.95	203.75	4,699.7	-18.8	-8.3	-18.6	0.00	0.00	0.00
4,800.0	1.95	203.75	4,799.6	-21.9	-9.6	-21.7	0.00	0.00	0.00
4,900.0	1.95	203.75	4,899.6	-25.0	-11.0	-24.8	0.00	0.00	0.00
5,000.0	1.95	203.75	4,999.5	-28.2	-12.4	-27.9	0.00	0.00	0.00
5,100.0	1.95	203.75	5,099.4	-31.3	-13.8	-31.0	0.00	0.00	0.00
5,200.0	1.95	203.75	5,199.4	-34.4	-15.1	-34.1	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #711H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25' @ 3508.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25' @ 3508.0usft
Site:	Hearns 34 State Com	North Reference:	Grid
Well:	#711H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

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	1.95	203.75	5,299.3	-37.5	-16.5	-37.2	0.00	0.00	0.00	
5,400.0	1.95	203.75	5,399.3	-40.6	-17.9	-40.3	0.00	0.00	0.00	
5,500.0	1.95	203.75	5,499.2	-43.8	-19.2	-43.4	0.00	0.00	0.00	
5,600.0	1.95	203.75	5,599.1	-46.9	-20.6	-46.5	0.00	0.00	0.00	
5,700.0	1.95	203.75	5,699.1	-50.0	-22.0	-49.6	0.00	0.00	0.00	
5,800.0	1.95	203.75	5,799.0	-53.1	-23.4	-52.7	0.00	0.00	0.00	
5,900.0	1.95	203.75	5,899.0	-56.2	-24.7	-55.8	0.00	0.00	0.00	
6,000.0	1.95	203.75	5,998.9	-59.3	-26.1	-58.8	0.00	0.00	0.00	
6,100.0	1.95	203.75	6,098.9	-62.5	-27.5	-61.9	0.00	0.00	0.00	
6,200.0	1.95	203.75	6,198.8	-65.6	-28.9	-65.0	0.00	0.00	0.00	
6,300.0	1.95	203.75	6,298.7	-68.7	-30.2	-68.1	0.00	0.00	0.00	
6,400.0	1.95	203.75	6,398.7	-71.8	-31.6	-71.2	0.00	0.00	0.00	
6,500.0	1.95	203.75	6,498.6	-74.9	-33.0	-74.3	0.00	0.00	0.00	
6,600.0	1.95	203.75	6,598.6	-78.1	-34.3	-77.4	0.00	0.00	0.00	
6,700.0	1.95	203.75	6,698.5	-81.2	-35.7	-80.5	0.00	0.00	0.00	
6,800.0	1.95	203.75	6,798.4	-84.3	-37.1	-83.6	0.00	0.00	0.00	
6,900.0	1.95	203.75	6,898.4	-87.4	-38.5	-86.7	0.00	0.00	0.00	
7,000.0	1.95	203.75	6,998.3	-90.5	-39.8	-89.8	0.00	0.00	0.00	
7,100.0	1.95	203.75	7,098.3	-93.7	-41.2	-92.9	0.00	0.00	0.00	
7,200.0	1.95	203.75	7,198.2	-96.8	-42.6	-96.0	0.00	0.00	0.00	
7,300.0	1.95	203.75	7,298.2	-99.9	-44.0	-99.1	0.00	0.00	0.00	
7,400.0	1.95	203.75	7,398.1	-103.0	-45.3	-102.2	0.00	0.00	0.00	
7,500.0	1.95	203.75	7,498.0	-106.1	-46.7	-105.2	0.00	0.00	0.00	
7,600.0	1.95	203.75	7,598.0	-109.3	-48.1	-108.3	0.00	0.00	0.00	
7,700.0	1.95	203.75	7,697.9	-112.4	-49.4	-111.4	0.00	0.00	0.00	
7,706.7	1.95	203.75	7,704.7	-112.6	-49.5	-111.6	0.00	0.00	0.00	
KOP (Hearns 34 State Com #711H)										
7,800.0	1.95	203.75	7,797.9	-115.5	-50.8	-114.5	0.00	0.00	0.00	
7,900.0	1.95	203.75	7,897.8	-118.6	-52.2	-117.6	0.00	0.00	0.00	
8,000.0	1.95	203.75	7,997.8	-121.7	-53.6	-120.7	0.00	0.00	0.00	
8,100.0	1.95	203.75	8,097.7	-124.9	-54.9	-123.8	0.00	0.00	0.00	
8,200.0	1.95	203.75	8,197.6	-128.0	-56.3	-126.9	0.00	0.00	0.00	
8,300.0	1.95	203.75	8,297.6	-131.1	-57.7	-130.0	0.00	0.00	0.00	
8,400.0	1.95	203.75	8,397.5	-134.2	-59.0	-133.1	0.00	0.00	0.00	
8,500.0	1.95	203.75	8,497.5	-137.3	-60.4	-136.2	0.00	0.00	0.00	
8,600.0	1.95	203.75	8,597.4	-140.5	-61.8	-139.3	0.00	0.00	0.00	
8,700.0	1.95	203.75	8,697.3	-143.6	-63.2	-142.4	0.00	0.00	0.00	
8,800.0	1.95	203.75	8,797.3	-146.7	-64.5	-145.5	0.00	0.00	0.00	
8,900.0	1.95	203.75	8,897.2	-149.8	-65.9	-148.6	0.00	0.00	0.00	
9,000.0	1.95	203.75	8,997.2	-152.9	-67.3	-151.6	0.00	0.00	0.00	
9,100.0	1.95	203.75	9,097.1	-156.1	-68.7	-154.7	0.00	0.00	0.00	
9,200.0	1.95	203.75	9,197.1	-159.2	-70.0	-157.8	0.00	0.00	0.00	
9,300.0	1.95	203.75	9,297.0	-162.3	-71.4	-160.9	0.00	0.00	0.00	
9,400.0	1.95	203.75	9,396.9	-165.4	-72.8	-164.0	0.00	0.00	0.00	
9,500.0	1.95	203.75	9,496.9	-168.5	-74.1	-167.1	0.00	0.00	0.00	
9,600.0	1.95	203.75	9,596.8	-171.7	-75.5	-170.2	0.00	0.00	0.00	
9,700.0	1.95	203.75	9,696.8	-174.8	-76.9	-173.3	0.00	0.00	0.00	
9,800.0	1.95	203.75	9,796.7	-177.9	-78.3	-176.4	0.00	0.00	0.00	
9,900.0	1.95	203.75	9,896.6	-181.0	-79.6	-179.5	0.00	0.00	0.00	
10,000.0	1.95	203.75	9,996.6	-184.1	-81.0	-182.6	0.00	0.00	0.00	
10,100.0	1.95	203.75	10,096.5	-187.3	-82.4	-185.7	0.00	0.00	0.00	
10,200.0	1.95	203.75	10,196.5	-190.4	-83.8	-188.8	0.00	0.00	0.00	
10,300.0	1.95	203.75	10,296.4	-193.5	-85.1	-191.9	0.00	0.00	0.00	



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Hearn 34 State Com
Well: #711H
Wellbore: OH
Design: Plan #0.2

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well #711H
KB = 25' @ 3508.0usft
KB = 25' @ 3508.0usft
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)
10,400.0	1.95	203.75	10,396.4	-196.6	-86.5	-195.0	0.00	0.00	0.00
10,500.0	1.95	203.75	10,496.3	-199.7	-87.9	-198.0	0.00	0.00	0.00
10,600.0	1.95	203.75	10,596.2	-202.9	-89.2	-201.1	0.00	0.00	0.00
10,700.0	1.95	203.75	10,696.2	-206.0	-90.6	-204.2	0.00	0.00	0.00
10,800.0	1.95	203.75	10,796.1	-209.1	-92.0	-207.3	0.00	0.00	0.00
10,900.0	1.95	203.75	10,896.1	-212.2	-93.4	-210.4	0.00	0.00	0.00
11,000.0	1.95	203.75	10,996.0	-215.3	-94.7	-213.5	0.00	0.00	0.00
11,100.0	1.95	203.75	11,096.0	-218.5	-96.1	-216.6	0.00	0.00	0.00
11,200.0	1.95	203.75	11,195.9	-221.6	-97.5	-219.7	0.00	0.00	0.00
11,300.0	1.95	203.75	11,295.8	-224.7	-98.8	-222.8	0.00	0.00	0.00
11,400.0	1.95	203.75	11,395.8	-227.8	-100.2	-225.9	0.00	0.00	0.00
11,500.0	1.95	203.75	11,495.7	-230.9	-101.6	-229.0	0.00	0.00	0.00
11,600.0	1.95	203.75	11,595.7	-234.1	-103.0	-232.1	0.00	0.00	0.00
11,700.0	1.95	203.75	11,695.6	-237.2	-104.3	-235.2	0.00	0.00	0.00
11,800.0	1.95	203.75	11,795.5	-240.3	-105.7	-238.3	0.00	0.00	0.00
11,900.0	1.95	203.75	11,895.5	-243.4	-107.1	-241.4	0.00	0.00	0.00
12,000.0	1.95	203.75	11,995.4	-246.5	-108.5	-244.4	0.00	0.00	0.00
12,012.3	1.95	203.75	12,007.7	-246.9	-108.6	-244.8	0.00	0.00	0.00
12,025.0	0.84	251.59	12,020.4	-247.1	-108.8	-245.1	12.00	-8.77	377.13
12,050.0	2.85	343.34	12,045.4	-246.6	-109.2	-244.5	12.00	8.05	366.99
12,075.0	5.80	351.69	12,070.3	-244.8	-109.5	-242.7	12.00	11.76	33.40
12,100.0	8.78	354.40	12,095.1	-241.6	-109.9	-239.5	12.00	11.92	10.87
12,125.0	11.77	355.75	12,119.7	-237.2	-110.3	-235.1	12.00	11.96	5.38
12,150.0	14.76	356.55	12,144.1	-231.5	-110.6	-229.3	12.00	11.98	3.22
12,175.0	17.76	357.09	12,168.1	-224.5	-111.0	-222.3	12.00	11.98	2.15
12,200.0	20.75	357.48	12,191.7	-216.2	-111.4	-214.1	12.00	11.99	1.55
12,225.0	23.75	357.77	12,214.8	-206.8	-111.8	-204.6	12.00	11.99	1.17
12,250.0	26.75	358.00	12,237.4	-196.1	-112.2	-194.0	12.00	11.99	0.92
12,275.0	29.75	358.19	12,259.4	-184.3	-112.6	-182.1	12.00	11.99	0.75
12,300.0	32.75	358.35	12,280.8	-171.3	-113.0	-169.2	12.00	12.00	0.62
12,325.0	35.75	358.48	12,301.4	-157.3	-113.4	-155.1	12.00	12.00	0.53
12,350.0	38.75	358.59	12,321.3	-142.1	-113.8	-140.0	12.00	12.00	0.46
12,375.0	41.75	358.69	12,340.4	-126.0	-114.1	-123.8	12.00	12.00	0.40
12,400.0	44.75	358.78	12,358.6	-108.9	-114.5	-106.7	12.00	12.00	0.36
12,425.0	47.75	358.86	12,375.9	-90.8	-114.9	-88.6	12.00	12.00	0.32
12,450.0	50.74	358.94	12,392.2	-71.9	-115.2	-69.7	12.00	12.00	0.29
12,475.0	53.74	359.00	12,407.5	-52.1	-115.6	-49.9	12.00	12.00	0.27
12,500.0	56.74	359.07	12,421.8	-31.6	-115.9	-29.4	12.00	12.00	0.25
12,525.0	59.74	359.12	12,435.0	-10.3	-116.3	-8.1	12.00	12.00	0.23
12,550.0	62.74	359.18	12,447.0	11.6	-116.6	13.8	12.00	12.00	0.22
12,575.0	65.74	359.23	12,457.8	34.1	-116.9	36.3	12.00	12.00	0.21
12,586.6	67.14	359.25	12,462.5	44.8	-117.1	47.0	12.00	12.00	0.20
FTP (Hearn 34 State Com #711H)									
12,600.0	68.74	359.28	12,467.5	57.1	-117.2	59.3	12.00	12.00	0.19
12,625.0	71.74	359.33	12,476.0	80.7	-117.5	82.9	12.00	12.00	0.19
12,650.0	74.74	359.37	12,483.2	104.6	-117.8	106.8	12.00	12.00	0.18
12,675.0	77.74	359.42	12,489.1	128.9	-118.0	131.1	12.00	12.00	0.18
12,700.0	80.74	359.46	12,493.8	153.4	-118.3	155.6	12.00	12.00	0.17
12,725.0	83.74	359.50	12,497.2	178.2	-118.5	180.4	12.00	12.00	0.17
12,750.0	86.74	359.54	12,499.2	203.1	-118.7	205.3	12.00	12.00	0.17
12,777.2	90.00	359.59	12,500.0	230.3	-118.9	232.5	12.00	12.00	0.17
12,800.0	90.00	359.59	12,500.0	253.1	-119.1	255.3	0.00	0.00	0.00
12,900.0	90.00	359.59	12,500.0	353.1	-119.8	355.3	0.00	0.00	0.00
13,000.0	90.00	359.59	12,500.0	453.1	-120.5	455.3	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Hearn 34 State Com
Well: #711H
Wellbore: OH
Design: Plan #0.2

Local Co-ordinate Reference: Well #711H
TVD Reference: KB = 25' @ 3508.0usft
MD Reference: KB = 25' @ 3508.0usft
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)
13,100.0	90.00	359.59	12,500.0	553.1	-121.2	555.3	0.00	0.00	0.00
13,200.0	90.00	359.59	12,500.0	653.1	-121.9	655.3	0.00	0.00	0.00
13,300.0	90.00	359.59	12,500.0	753.1	-122.7	755.3	0.00	0.00	0.00
13,400.0	90.00	359.59	12,500.0	853.1	-123.4	855.2	0.00	0.00	0.00
13,500.0	90.00	359.59	12,500.0	953.1	-124.1	955.2	0.00	0.00	0.00
13,600.0	90.00	359.59	12,500.0	1,053.1	-124.8	1,055.2	0.00	0.00	0.00
13,700.0	90.00	359.59	12,500.0	1,153.1	-125.5	1,155.2	0.00	0.00	0.00
13,800.0	90.00	359.59	12,500.0	1,253.1	-126.2	1,255.2	0.00	0.00	0.00
13,900.0	90.00	359.59	12,500.0	1,353.1	-126.9	1,355.2	0.00	0.00	0.00
14,000.0	90.00	359.59	12,500.0	1,453.1	-127.7	1,455.2	0.00	0.00	0.00
14,100.0	90.00	359.59	12,500.0	1,553.1	-128.4	1,555.2	0.00	0.00	0.00
14,200.0	90.00	359.59	12,500.0	1,653.0	-129.1	1,655.2	0.00	0.00	0.00
14,300.0	90.00	359.59	12,500.0	1,753.0	-129.8	1,755.2	0.00	0.00	0.00
14,400.0	90.00	359.59	12,500.0	1,853.0	-130.5	1,855.2	0.00	0.00	0.00
14,500.0	90.00	359.59	12,500.0	1,953.0	-131.2	1,955.2	0.00	0.00	0.00
14,600.0	90.00	359.59	12,500.0	2,053.0	-132.0	2,055.2	0.00	0.00	0.00
14,700.0	90.00	359.59	12,500.0	2,153.0	-132.7	2,155.2	0.00	0.00	0.00
14,800.0	90.00	359.59	12,500.0	2,253.0	-133.4	2,255.1	0.00	0.00	0.00
14,900.0	90.00	359.59	12,500.0	2,353.0	-134.1	2,355.1	0.00	0.00	0.00
15,000.0	90.00	359.59	12,500.0	2,453.0	-134.8	2,455.1	0.00	0.00	0.00
15,100.0	90.00	359.59	12,500.0	2,553.0	-135.5	2,555.1	0.00	0.00	0.00
15,200.0	90.00	359.59	12,500.0	2,653.0	-136.2	2,655.1	0.00	0.00	0.00
15,300.0	90.00	359.59	12,500.0	2,753.0	-137.0	2,755.1	0.00	0.00	0.00
15,400.0	90.00	359.59	12,500.0	2,853.0	-137.7	2,855.1	0.00	0.00	0.00
15,500.0	90.00	359.59	12,500.0	2,953.0	-138.4	2,955.1	0.00	0.00	0.00
15,600.0	90.00	359.59	12,500.0	3,053.0	-139.1	3,055.1	0.00	0.00	0.00
15,700.0	90.00	359.59	12,500.0	3,153.0	-139.8	3,155.1	0.00	0.00	0.00
15,800.0	90.00	359.59	12,500.0	3,253.0	-140.5	3,255.1	0.00	0.00	0.00
15,900.0	90.00	359.59	12,500.0	3,353.0	-141.3	3,355.1	0.00	0.00	0.00
16,000.0	90.00	359.59	12,500.0	3,453.0	-142.0	3,455.1	0.00	0.00	0.00
16,100.0	90.00	359.59	12,500.0	3,553.0	-142.7	3,555.1	0.00	0.00	0.00
16,200.0	90.00	359.59	12,500.0	3,653.0	-143.4	3,655.1	0.00	0.00	0.00
16,300.0	90.00	359.59	12,500.0	3,753.0	-144.1	3,755.0	0.00	0.00	0.00
16,400.0	90.00	359.59	12,500.0	3,853.0	-144.8	3,855.0	0.00	0.00	0.00
16,500.0	90.00	359.59	12,500.0	3,953.0	-145.5	3,955.0	0.00	0.00	0.00
16,600.0	90.00	359.59	12,500.0	4,053.0	-146.3	4,055.0	0.00	0.00	0.00
16,700.0	90.00	359.59	12,500.0	4,153.0	-147.0	4,155.0	0.00	0.00	0.00
16,800.0	90.00	359.59	12,500.0	4,253.0	-147.7	4,255.0	0.00	0.00	0.00
16,900.0	90.00	359.59	12,500.0	4,353.0	-148.4	4,355.0	0.00	0.00	0.00
17,000.0	90.00	359.59	12,500.0	4,453.0	-149.1	4,455.0	0.00	0.00	0.00
17,100.0	90.00	359.59	12,500.0	4,553.0	-149.8	4,555.0	0.00	0.00	0.00
17,200.0	90.00	359.59	12,500.0	4,653.0	-150.6	4,655.0	0.00	0.00	0.00
17,300.0	90.00	359.59	12,500.0	4,753.0	-151.3	4,755.0	0.00	0.00	0.00
17,400.0	90.00	359.59	12,500.0	4,853.0	-152.0	4,855.0	0.00	0.00	0.00
17,500.0	90.00	359.59	12,500.0	4,953.0	-152.7	4,955.0	0.00	0.00	0.00
17,600.0	90.00	359.59	12,500.0	5,053.0	-153.4	5,055.0	0.00	0.00	0.00
17,700.0	90.00	359.59	12,500.0	5,153.0	-154.1	5,154.9	0.00	0.00	0.00
17,800.0	90.00	359.59	12,500.0	5,253.0	-154.9	5,254.9	0.00	0.00	0.00
17,900.0	90.00	359.59	12,500.0	5,353.0	-155.6	5,354.9	0.00	0.00	0.00
18,000.0	90.00	359.59	12,500.0	5,453.0	-156.3	5,454.9	0.00	0.00	0.00
18,100.0	90.00	359.59	12,500.0	5,552.9	-157.0	5,554.9	0.00	0.00	0.00
18,200.0	90.00	359.59	12,500.0	5,652.9	-157.7	5,654.9	0.00	0.00	0.00
18,300.0	90.00	359.59	12,500.0	5,752.9	-158.4	5,754.9	0.00	0.00	0.00
18,400.0	90.00	359.59	12,500.0	5,852.9	-159.1	5,854.9	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #711H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25' @ 3508.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25' @ 3508.0usft
Site:	Hearns 34 State Com	North Reference:	Grid
Well:	#711H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

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)
18,500.0	90.00	359.59	12,500.0	5,952.9	-159.9	5,954.9	0.00	0.00	0.00
18,600.0	90.00	359.59	12,500.0	6,052.9	-160.6	6,054.9	0.00	0.00	0.00
18,700.0	90.00	359.59	12,500.0	6,152.9	-161.3	6,154.9	0.00	0.00	0.00
18,800.0	90.00	359.59	12,500.0	6,252.9	-162.0	6,254.9	0.00	0.00	0.00
18,900.0	90.00	359.59	12,500.0	6,352.9	-162.7	6,354.9	0.00	0.00	0.00
19,000.0	90.00	359.59	12,500.0	6,452.9	-163.4	6,454.9	0.00	0.00	0.00
19,100.0	90.00	359.59	12,500.0	6,552.9	-164.2	6,554.9	0.00	0.00	0.00
19,200.0	90.00	359.59	12,500.0	6,652.9	-164.9	6,654.8	0.00	0.00	0.00
19,300.0	90.00	359.59	12,500.0	6,752.9	-165.6	6,754.8	0.00	0.00	0.00
19,400.0	90.00	359.59	12,500.0	6,852.9	-166.3	6,854.8	0.00	0.00	0.00
19,500.0	90.00	359.59	12,500.0	6,952.9	-167.0	6,954.8	0.00	0.00	0.00
19,600.0	90.00	359.59	12,500.0	7,052.9	-167.7	7,054.8	0.00	0.00	0.00
19,700.0	90.00	359.59	12,500.0	7,152.9	-168.4	7,154.8	0.00	0.00	0.00
19,800.0	90.00	359.59	12,500.0	7,252.9	-169.2	7,254.8	0.00	0.00	0.00
19,900.0	90.00	359.59	12,500.0	7,352.9	-169.9	7,354.8	0.00	0.00	0.00
20,000.0	90.00	359.59	12,500.0	7,452.9	-170.6	7,454.8	0.00	0.00	0.00
20,100.0	90.00	359.59	12,500.0	7,552.9	-171.3	7,554.8	0.00	0.00	0.00
20,200.0	90.00	359.59	12,500.0	7,652.9	-172.0	7,654.8	0.00	0.00	0.00
20,300.0	90.00	359.59	12,500.0	7,752.9	-172.7	7,754.8	0.00	0.00	0.00
20,400.0	90.00	359.59	12,500.0	7,852.9	-173.5	7,854.8	0.00	0.00	0.00
20,500.0	90.00	359.59	12,500.0	7,952.9	-174.2	7,954.8	0.00	0.00	0.00
20,600.0	90.00	359.59	12,500.0	8,052.9	-174.9	8,054.8	0.00	0.00	0.00
20,700.0	90.00	359.59	12,500.0	8,152.9	-175.6	8,154.7	0.00	0.00	0.00
20,800.0	90.00	359.59	12,500.0	8,252.9	-176.3	8,254.7	0.00	0.00	0.00
20,900.0	90.00	359.59	12,500.0	8,352.9	-177.0	8,354.7	0.00	0.00	0.00
21,000.0	90.00	359.59	12,500.0	8,452.9	-177.7	8,454.7	0.00	0.00	0.00
21,100.0	90.00	359.59	12,500.0	8,552.9	-178.5	8,554.7	0.00	0.00	0.00
21,200.0	90.00	359.59	12,500.0	8,652.9	-179.2	8,654.7	0.00	0.00	0.00
21,300.0	90.00	359.59	12,500.0	8,752.9	-179.9	8,754.7	0.00	0.00	0.00
21,400.0	90.00	359.59	12,500.0	8,852.9	-180.6	8,854.7	0.00	0.00	0.00
21,500.0	90.00	359.59	12,500.0	8,952.9	-181.3	8,954.7	0.00	0.00	0.00
21,600.0	90.00	359.59	12,500.0	9,052.9	-182.0	9,054.7	0.00	0.00	0.00
21,700.0	90.00	359.59	12,500.0	9,152.9	-182.8	9,154.7	0.00	0.00	0.00
21,800.0	90.00	359.59	12,500.0	9,252.9	-183.5	9,254.7	0.00	0.00	0.00
21,900.0	90.00	359.59	12,500.0	9,352.9	-184.2	9,354.7	0.00	0.00	0.00
22,000.0	90.00	359.59	12,500.0	9,452.8	-184.9	9,454.7	0.00	0.00	0.00
22,100.0	90.00	359.59	12,500.0	9,552.8	-185.6	9,554.6	0.00	0.00	0.00
22,200.0	90.00	359.59	12,500.0	9,652.8	-186.3	9,654.6	0.00	0.00	0.00
22,300.0	90.00	359.59	12,500.0	9,752.8	-187.1	9,754.6	0.00	0.00	0.00
22,400.0	90.00	359.59	12,500.0	9,852.8	-187.8	9,854.6	0.00	0.00	0.00
22,500.0	90.00	359.59	12,500.0	9,952.8	-188.5	9,954.6	0.00	0.00	0.00
22,572.2	90.00	359.59	12,500.0	10,025.0	-189.0	10,026.8	0.00	0.00	0.00

PBHL (Hearns 34 State Com #711H)



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Hearn 34 State Com
Well: #711H
Wellbore: OH
Design: Plan #0.2

Local Co-ordinate Reference: Well #711H
TVD Reference: KB = 25' @ 3508.0usft
MD Reference: KB = 25' @ 3508.0usft
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									
FTP (Hearn 34 State C	0.00	0.00	12,500.0	29.0	-119.0	425,629.00	781,855.00	32° 10' 3.880 N	103° 33' 21.717 W
- plan misses target center by 40.7usft at 12586.6usft MD (12462.5 TVD, 44.8 N, -117.1 E)									
- Point									
PBHL (Hearn 34 State	0.00	0.00	12,500.0	10,025.0	-189.0	435,625.00	781,785.00	32° 11' 42.797 N	103° 33' 21.691 W
- plan hits target center									
- Point									