

Submit 1 Copy To Appropriate District

Office

District I - (575) 393-6161

1625 N. French Dr., Hobbs, NM 88240

District II - (575) 748-1283

811 S. First St., Artesia, NM 88210

District III - (505) 334-6178

1000 Rio Brazos Rd., Aztec, NM 87410

District IV - (505) 476-3460

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico

Energy, Minerals and Natural Resources

Form C-103

Revised July 18, 2013

HOBBS OGD

MAY 29 2018

RECEIVED

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

WELL API NO.

30-025-43859

5. Indicate Type of Lease

STATE ☒

FEE ☐

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name

Hearns 34 State Com

8. Well Number 709H

9. OGRID Number

7377

10. Pool name or Wildcat

*WC-025 G-09 S2433361; Upper Wolfcamp

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐

2. Name of Operator

EOG Resources, Inc.

3. Address of Operator

P.O. Box 2267 Midland, TX 79702

4. Well Location

Unit Letter O

275

feet from the South

line and 2397

feet from the East

line

Section

34

Township 24S

Range 33E

NMPM

County Lea

11. Elevation (Show whether DR, RKB, RT, GR, etc.)

3467' GR

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐

PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐

CHANGE PLANS ☒

PULL OR ALTER CASING ☐

MULTIPLE COMPL ☐

DOWNHOLE COMMINGLE ☐

CLOSED-LOOP SYSTEM ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐

ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐

P AND A ☐

CASING/CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

EOG Resources requests an amendment to our approved APD for this well to reflect changes in casing and BHL as attached.

Change BHL to: 230' FNL & 2382' FEL C-27-24S-33E

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE

Stan Wagner

TITLE

Regulatory Analyst

DATE

5/25/2018

Type or print name

Stan Wagner

E-mail address:

PHONE:

432-686-3689

For State Use Only

APPROVED BY:

Karen Sharp

TITLE

Staff Mgr

DATE

6-6-18

Conditions of Approval (if any):

Revised Permit Information 5/24/18:

Well Name: Hearn 34 State Com No. 709H

Location:

SL: 275' FSL & 2397' FEL, Section 34, T-24-S, R-33-E, Lea Co., N.M.

BHL: 230' FNL & 2382' 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'-22,570'	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
22,570'	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' - 22,570' Lateral	Oil Base	10.0-11.5	58-68	3 - 6

Hearns 34 State Com #709H
Lea County, New Mexico

HOBBS OCD

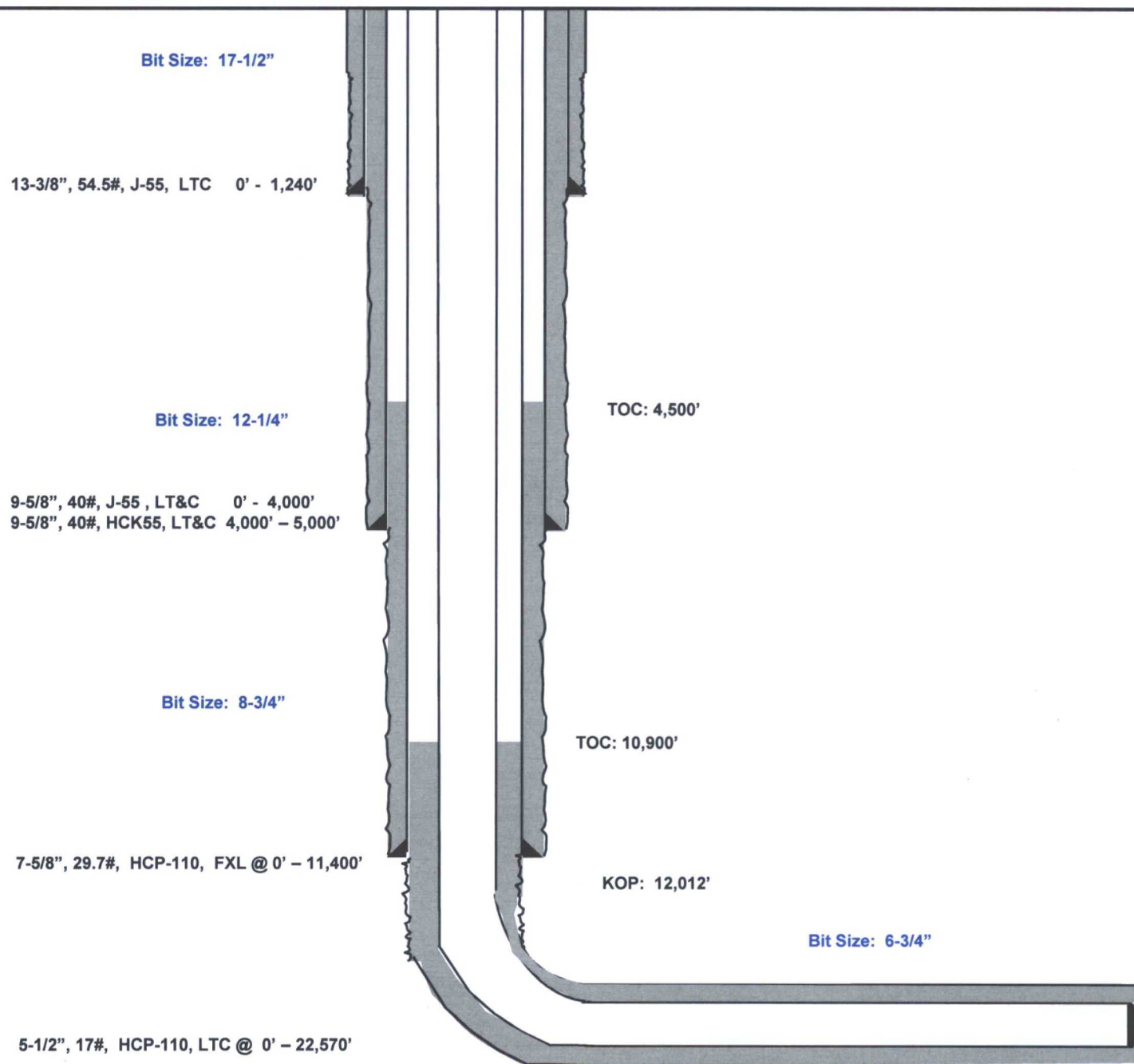
MAY 29 2018

RECEIVED

KB: 3,492'
GL: 3,467'

275' FSL
2397' FEL
Section 34
T-24-S, R-33-E

Proposed Wellbore
Revised 5/24/18
API: 30-025-43859



Lateral: 22,570' MD, 12,500' TVD

BH Location: 230' FNL & 2382' FEL
Section 27
T-24-S, R-33-E

HOBBS OCD

MAY 29 2018

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Lea County, NM (NAD 83 NME)

Hearns 34 State Com #709H

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: #709H

KB = 25' @ 3492.0usR 3467.0
Northing 628568.00 Easting 780815.00 Latitude 32° 10' 3.350 N Longitude 103° 33' 33.821 W

Azimuths to Grid North
True North: -0.41°
Magnetic North: 6.53°
Magnetic Field
Strength: 47906.4nT
Dip Angle: 60.01°
Date: 6/14/2017
Model: IGRF2015



To convert a Magnetic Direction to a Grid Direction, Add 6.53°
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

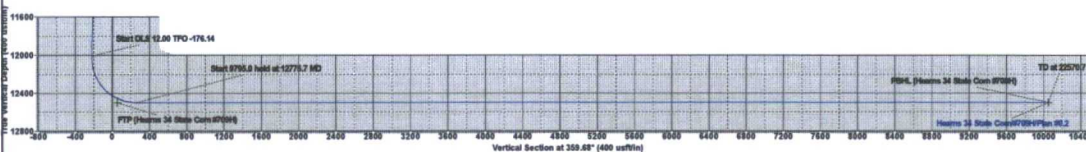
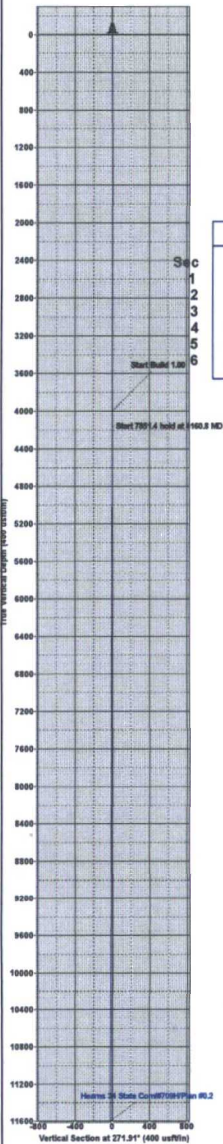
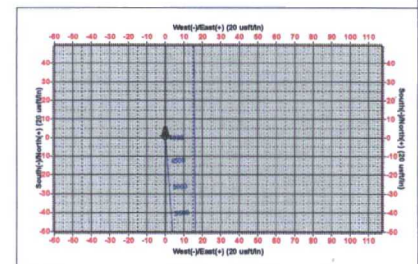
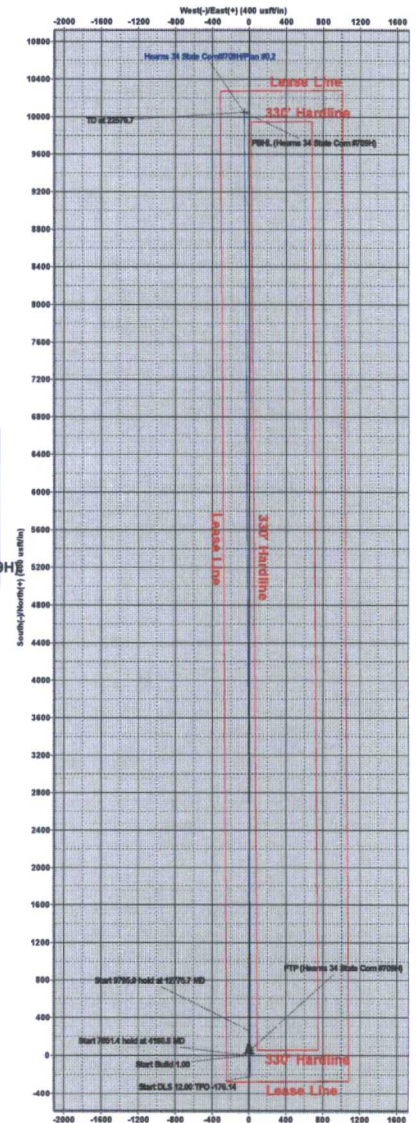
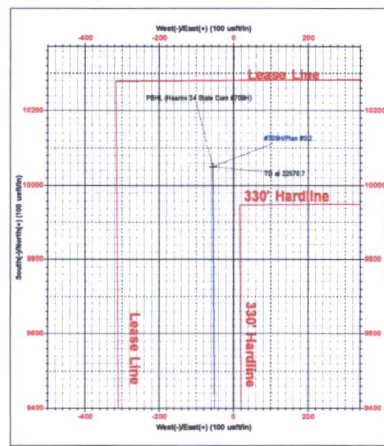
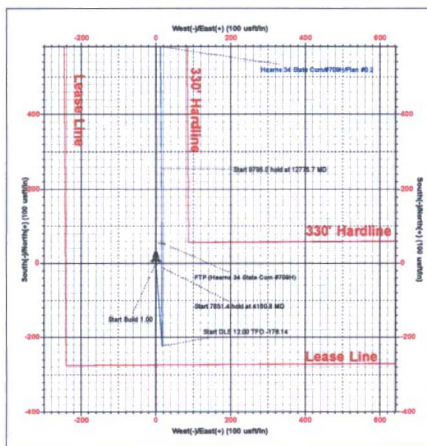
	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	4000.0	0.00	0.00	4000.0	0.0	0.0	0.00	0.00	0.0	
3	4160.8	1.61	175.73	4160.8	-2.3	0.2	1.00	175.73	-2.3	
4	12012.3	1.61	175.73	12009.2	-222.0	16.6	0.00	0.00	-222.1	
5	12775.7	90.00	359.59	12500.0	255.3	14.1	12.00	-176.14	255.2	
6	22570.7	90.00	359.59	12500.0	10050.0	-56.0	0.00	0.00	10050.2	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	55.0	15.0	425623.00	780830.00
PBHL (Hearns 34 State Com #709H)	12500.0	10050.0	-56.0	435618.00	780789.00



Lea County, NM (NAD 83 NME)
Hearns 34 State Com #709H
Plan #0.2
10-01-18-01-01



EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Hearns 34 State Com

#709H

OH

HOBBS OCD

MAY 29 2018

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Plan: Plan #0.2

Standard Planning Report

24 May, 2018

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #709H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25' @ 3492.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25' @ 3492.0usft
Site:	Hearns 34 State Com	North Reference:	Grid
Well:	#709H	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	#709H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	70.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	Ground Level:
			3,467.0 usft

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

Design	Plan #0.2		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			359.68

Plan Survey Tool Program	Date 5/24/2018		
Depth From	Depth To		
(usft)	(usft)	Survey (Wellbore)	Tool Name
1	0.0	22,570.7 Plan #0.2 (OH)	MWD
			OWSG MWD - Standard

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
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	
4,160.8	1.61	175.73	4,160.8	-2.3	0.2	1.00	1.00	0.00	175.73	
12,012.3	1.61	175.73	12,009.2	-222.0	16.6	0.00	0.00	0.00	0.00	
12,775.7	90.00	359.59	12,500.0	255.3	14.1	12.00	11.58	-23.07	-176.14	
22,570.7	90.00	359.59	12,500.0	10,050.0	-56.0	0.00	0.00	0.00	0.00	PBHL (Hearns 34 Sta



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #709H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25' @ 3492.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25' @ 3492.0usft
Site:	Hearns 34 State Com	North Reference:	Grid
Well:	#709H	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)
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	175.73	4,100.0	-0.9	0.1	-0.9	1.00	1.00	0.00
4,160.8	1.61	175.73	4,160.8	-2.3	0.2	-2.3	1.00	1.00	0.00
4,200.0	1.61	175.73	4,200.0	-3.3	0.2	-3.3	0.00	0.00	0.00
4,300.0	1.61	175.73	4,299.9	-6.1	0.5	-6.1	0.00	0.00	0.00
4,400.0	1.61	175.73	4,399.9	-8.9	0.7	-8.9	0.00	0.00	0.00
4,500.0	1.61	175.73	4,499.8	-11.7	0.9	-11.7	0.00	0.00	0.00
4,600.0	1.61	175.73	4,599.8	-14.5	1.1	-14.5	0.00	0.00	0.00
4,700.0	1.61	175.73	4,699.8	-17.3	1.3	-17.3	0.00	0.00	0.00
4,800.0	1.61	175.73	4,799.7	-20.1	1.5	-20.1	0.00	0.00	0.00
4,900.0	1.61	175.73	4,899.7	-22.9	1.7	-23.0	0.00	0.00	0.00
5,000.0	1.61	175.73	4,999.6	-25.7	1.9	-25.8	0.00	0.00	0.00
5,100.0	1.61	175.73	5,099.6	-28.5	2.1	-28.6	0.00	0.00	0.00
5,200.0	1.61	175.73	5,199.6	-31.3	2.3	-31.4	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #709H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25' @ 3492.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25' @ 3492.0usft
Site:	Hearns 34 State Com	North Reference:	Grid
Well:	#709H	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	1.61	175.73	5,299.5	-34.1	2.5	-34.2	0.00	0.00	0.00	
5,400.0	1.61	175.73	5,399.5	-36.9	2.8	-37.0	0.00	0.00	0.00	
5,500.0	1.61	175.73	5,499.5	-39.7	3.0	-39.8	0.00	0.00	0.00	
5,600.0	1.61	175.73	5,599.4	-42.5	3.2	-42.6	0.00	0.00	0.00	
5,700.0	1.61	175.73	5,699.4	-45.3	3.4	-45.4	0.00	0.00	0.00	
5,800.0	1.61	175.73	5,799.3	-48.1	3.6	-48.2	0.00	0.00	0.00	
5,900.0	1.61	175.73	5,899.3	-50.9	3.8	-51.0	0.00	0.00	0.00	
6,000.0	1.61	175.73	5,999.3	-53.7	4.0	-53.8	0.00	0.00	0.00	
6,100.0	1.61	175.73	6,099.2	-56.5	4.2	-56.6	0.00	0.00	0.00	
6,200.0	1.61	175.73	6,199.2	-59.3	4.4	-59.4	0.00	0.00	0.00	
6,300.0	1.61	175.73	6,299.1	-62.1	4.6	-62.2	0.00	0.00	0.00	
6,400.0	1.61	175.73	6,399.1	-64.9	4.8	-65.0	0.00	0.00	0.00	
6,500.0	1.61	175.73	6,499.1	-67.7	5.1	-67.8	0.00	0.00	0.00	
6,600.0	1.61	175.73	6,599.0	-70.5	5.3	-70.6	0.00	0.00	0.00	
6,700.0	1.61	175.73	6,699.0	-73.3	5.5	-73.4	0.00	0.00	0.00	
6,800.0	1.61	175.73	6,798.9	-76.1	5.7	-76.2	0.00	0.00	0.00	
6,900.0	1.61	175.73	6,898.9	-78.9	5.9	-79.0	0.00	0.00	0.00	
7,000.0	1.61	175.73	6,998.9	-81.7	6.1	-81.8	0.00	0.00	0.00	
7,100.0	1.61	175.73	7,098.8	-84.5	6.3	-84.6	0.00	0.00	0.00	
7,200.0	1.61	175.73	7,198.8	-87.3	6.5	-87.4	0.00	0.00	0.00	
7,300.0	1.61	175.73	7,298.7	-90.1	6.7	-90.2	0.00	0.00	0.00	
7,400.0	1.61	175.73	7,398.7	-92.9	6.9	-93.0	0.00	0.00	0.00	
7,500.0	1.61	175.73	7,498.7	-95.7	7.1	-95.8	0.00	0.00	0.00	
7,600.0	1.61	175.73	7,598.6	-98.5	7.4	-98.6	0.00	0.00	0.00	
7,700.0	1.61	175.73	7,698.6	-101.3	7.6	-101.4	0.00	0.00	0.00	
7,800.0	1.61	175.73	7,798.5	-104.1	7.8	-104.2	0.00	0.00	0.00	
7,900.0	1.61	175.73	7,898.5	-106.9	8.0	-107.0	0.00	0.00	0.00	
8,000.0	1.61	175.73	7,998.5	-109.7	8.2	-109.8	0.00	0.00	0.00	
8,100.0	1.61	175.73	8,098.4	-112.5	8.4	-112.6	0.00	0.00	0.00	
8,200.0	1.61	175.73	8,198.4	-115.3	8.6	-115.4	0.00	0.00	0.00	
8,300.0	1.61	175.73	8,298.3	-118.1	8.8	-118.2	0.00	0.00	0.00	
8,400.0	1.61	175.73	8,398.3	-120.9	9.0	-121.0	0.00	0.00	0.00	
8,500.0	1.61	175.73	8,498.3	-123.7	9.2	-123.8	0.00	0.00	0.00	
8,600.0	1.61	175.73	8,598.2	-126.5	9.4	-126.6	0.00	0.00	0.00	
8,700.0	1.61	175.73	8,698.2	-129.3	9.7	-129.4	0.00	0.00	0.00	
8,800.0	1.61	175.73	8,798.2	-132.1	9.9	-132.2	0.00	0.00	0.00	
8,900.0	1.61	175.73	8,898.1	-134.9	10.1	-135.0	0.00	0.00	0.00	
9,000.0	1.61	175.73	8,998.1	-137.7	10.3	-137.8	0.00	0.00	0.00	
9,100.0	1.61	175.73	9,098.0	-140.5	10.5	-140.6	0.00	0.00	0.00	
9,200.0	1.61	175.73	9,198.0	-143.3	10.7	-143.4	0.00	0.00	0.00	
9,300.0	1.61	175.73	9,298.0	-146.1	10.9	-146.2	0.00	0.00	0.00	
9,400.0	1.61	175.73	9,397.9	-148.9	11.1	-149.0	0.00	0.00	0.00	
9,500.0	1.61	175.73	9,497.9	-151.7	11.3	-151.8	0.00	0.00	0.00	
9,600.0	1.61	175.73	9,597.8	-154.5	11.5	-154.6	0.00	0.00	0.00	
9,700.0	1.61	175.73	9,697.8	-157.3	11.7	-157.4	0.00	0.00	0.00	
9,800.0	1.61	175.73	9,797.8	-160.1	12.0	-160.2	0.00	0.00	0.00	
9,900.0	1.61	175.73	9,897.7	-162.9	12.2	-163.0	0.00	0.00	0.00	
10,000.0	1.61	175.73	9,997.7	-165.7	12.4	-165.8	0.00	0.00	0.00	
10,100.0	1.61	175.73	10,097.6	-168.5	12.6	-168.6	0.00	0.00	0.00	
10,200.0	1.61	175.73	10,197.6	-171.3	12.8	-171.4	0.00	0.00	0.00	
10,300.0	1.61	175.73	10,297.6	-174.1	13.0	-174.2	0.00	0.00	0.00	
10,400.0	1.61	175.73	10,397.5	-176.9	13.2	-177.0	0.00	0.00	0.00	
10,500.0	1.61	175.73	10,497.5	-179.7	13.4	-179.8	0.00	0.00	0.00	
10,600.0	1.61	175.73	10,597.4	-182.5	13.6	-182.6	0.00	0.00	0.00	

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #709H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25' @ 3492.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25' @ 3492.0usft
Site:	Hearns 34 State Com	North Reference:	Grid
Well:	#709H	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)
10,700.0	1.61	175.73	10,697.4	-185.3	13.8	-185.4	0.00	0.00	0.00
10,800.0	1.61	175.73	10,797.4	-188.1	14.0	-188.2	0.00	0.00	0.00
10,900.0	1.61	175.73	10,897.3	-190.9	14.3	-191.0	0.00	0.00	0.00
11,000.0	1.61	175.73	10,997.3	-193.7	14.5	-193.8	0.00	0.00	0.00
11,100.0	1.61	175.73	11,097.2	-196.5	14.7	-196.6	0.00	0.00	0.00
11,200.0	1.61	175.73	11,197.2	-199.3	14.9	-199.4	0.00	0.00	0.00
11,300.0	1.61	175.73	11,297.2	-202.1	15.1	-202.2	0.00	0.00	0.00
11,400.0	1.61	175.73	11,397.1	-204.9	15.3	-205.0	0.00	0.00	0.00
11,500.0	1.61	175.73	11,497.1	-207.7	15.5	-207.8	0.00	0.00	0.00
11,600.0	1.61	175.73	11,597.0	-210.5	15.7	-210.6	0.00	0.00	0.00
11,700.0	1.61	175.73	11,697.0	-213.3	15.9	-213.4	0.00	0.00	0.00
11,800.0	1.61	175.73	11,797.0	-216.1	16.1	-216.2	0.00	0.00	0.00
11,900.0	1.61	175.73	11,896.9	-218.9	16.3	-219.0	0.00	0.00	0.00
12,000.0	1.61	175.73	11,996.9	-221.7	16.6	-221.8	0.00	0.00	0.00
12,012.3	1.61	175.73	12,009.2	-222.0	16.6	-222.1	0.00	0.00	0.00
12,025.0	0.13	125.45	12,021.9	-222.2	16.6	-222.3	12.00	-11.59	-395.24
12,050.0	2.92	1.71	12,046.9	-221.6	16.6	-221.7	12.00	11.16	-494.96
12,075.0	5.92	0.63	12,071.8	-219.7	16.7	-219.7	12.00	12.00	-4.31
12,100.0	8.92	0.28	12,096.6	-216.4	16.7	-216.5	12.00	12.00	-1.42
12,125.0	11.92	0.10	12,121.2	-211.9	16.7	-212.0	12.00	12.00	-0.71
12,150.0	14.92	360.00	12,145.5	-206.1	16.7	-206.2	12.00	12.00	-0.43
12,175.0	17.92	359.92	12,169.5	-199.0	16.7	-199.1	12.00	12.00	-0.29
12,200.0	20.92	359.87	12,193.0	-190.7	16.7	-190.8	12.00	12.00	-0.21
12,225.0	23.92	359.83	12,216.1	-181.2	16.7	-181.3	12.00	12.00	-0.16
12,250.0	26.92	359.80	12,238.7	-170.5	16.6	-170.6	12.00	12.00	-0.12
12,275.0	29.92	359.78	12,260.7	-158.6	16.6	-158.7	12.00	12.00	-0.10
12,300.0	32.92	359.76	12,282.0	-145.5	16.5	-145.6	12.00	12.00	-0.08
12,325.0	35.92	359.74	12,302.7	-131.4	16.5	-131.5	12.00	12.00	-0.07
12,350.0	38.92	359.72	12,322.5	-116.2	16.4	-116.3	12.00	12.00	-0.06
12,375.0	41.92	359.71	12,341.5	-100.0	16.3	-100.1	12.00	12.00	-0.05
12,400.0	44.92	359.70	12,359.7	-82.8	16.2	-82.9	12.00	12.00	-0.05
12,425.0	47.92	359.69	12,376.9	-64.7	16.1	-64.8	12.00	12.00	-0.04
12,450.0	50.92	359.68	12,393.2	-45.7	16.0	-45.8	12.00	12.00	-0.04
12,475.0	53.92	359.67	12,408.4	-25.9	15.9	-26.0	12.00	12.00	-0.04
12,500.0	56.92	359.66	12,422.6	-5.3	15.8	-5.4	12.00	12.00	-0.03
12,525.0	59.92	359.65	12,435.7	16.0	15.7	15.9	12.00	12.00	-0.03
12,550.0	62.92	359.65	12,447.7	37.9	15.5	37.8	12.00	12.00	-0.03
12,575.0	65.92	359.64	12,458.5	60.5	15.4	60.4	12.00	12.00	-0.03
12,585.9	67.23	359.64	12,462.8	70.5	15.3	70.4	12.00	12.00	-0.03
FTP (Hearns 34 State Com #709H)									
12,600.0	68.92	359.63	12,468.1	83.5	15.3	83.5	12.00	12.00	-0.03
12,625.0	71.92	359.63	12,476.4	107.1	15.1	107.0	12.00	12.00	-0.03
12,650.0	74.92	359.62	12,483.6	131.0	14.9	131.0	12.00	12.00	-0.02
12,675.0	77.92	359.61	12,489.4	155.3	14.8	155.3	12.00	12.00	-0.02
12,700.0	80.92	359.61	12,494.0	179.9	14.6	179.8	12.00	12.00	-0.02
12,725.0	83.92	359.60	12,497.3	204.7	14.4	204.6	12.00	12.00	-0.02
12,750.0	86.92	359.60	12,499.3	229.6	14.3	229.5	12.00	12.00	-0.02
12,775.7	90.00	359.59	12,500.0	255.3	14.1	255.2	12.00	12.00	-0.02
12,800.0	90.00	359.59	12,500.0	279.6	13.9	279.5	0.00	0.00	0.00
12,900.0	90.00	359.59	12,500.0	379.6	13.2	379.5	0.00	0.00	0.00
13,000.0	90.00	359.59	12,500.0	479.6	12.5	479.5	0.00	0.00	0.00
13,100.0	90.00	359.59	12,500.0	579.6	11.8	579.5	0.00	0.00	0.00
13,200.0	90.00	359.59	12,500.0	679.6	11.1	679.5	0.00	0.00	0.00

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Hearn 34 State Com
 Well: #709H
 Wellbore: OH
 Design: Plan #0.2

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)
13,300.0	90.00	359.59	12,500.0	779.6	10.3	779.5	0.00	0.00	0.00
13,400.0	90.00	359.59	12,500.0	879.6	9.6	879.5	0.00	0.00	0.00
13,500.0	90.00	359.59	12,500.0	979.6	8.9	979.5	0.00	0.00	0.00
13,600.0	90.00	359.59	12,500.0	1,079.6	8.2	1,079.5	0.00	0.00	0.00
13,700.0	90.00	359.59	12,500.0	1,179.6	7.5	1,179.5	0.00	0.00	0.00
13,800.0	90.00	359.59	12,500.0	1,279.6	6.8	1,279.5	0.00	0.00	0.00
13,900.0	90.00	359.59	12,500.0	1,379.6	6.0	1,379.5	0.00	0.00	0.00
14,000.0	90.00	359.59	12,500.0	1,479.6	5.3	1,479.5	0.00	0.00	0.00
14,100.0	90.00	359.59	12,500.0	1,579.6	4.6	1,579.5	0.00	0.00	0.00
14,200.0	90.00	359.59	12,500.0	1,679.6	3.9	1,679.5	0.00	0.00	0.00
14,300.0	90.00	359.59	12,500.0	1,779.6	3.2	1,779.5	0.00	0.00	0.00
14,400.0	90.00	359.59	12,500.0	1,879.6	2.5	1,879.5	0.00	0.00	0.00
14,500.0	90.00	359.59	12,500.0	1,979.6	1.8	1,979.5	0.00	0.00	0.00
14,600.0	90.00	359.59	12,500.0	2,079.6	1.0	2,079.5	0.00	0.00	0.00
14,700.0	90.00	359.59	12,500.0	2,179.5	0.3	2,179.5	0.00	0.00	0.00
14,800.0	90.00	359.59	12,500.0	2,279.5	-0.4	2,279.5	0.00	0.00	0.00
14,900.0	90.00	359.59	12,500.0	2,379.5	-1.1	2,379.5	0.00	0.00	0.00
15,000.0	90.00	359.59	12,500.0	2,479.5	-1.8	2,479.5	0.00	0.00	0.00
15,100.0	90.00	359.59	12,500.0	2,579.5	-2.5	2,579.5	0.00	0.00	0.00
15,200.0	90.00	359.59	12,500.0	2,679.5	-3.3	2,679.5	0.00	0.00	0.00
15,300.0	90.00	359.59	12,500.0	2,779.5	-4.0	2,779.5	0.00	0.00	0.00
15,400.0	90.00	359.59	12,500.0	2,879.5	-4.7	2,879.5	0.00	0.00	0.00
15,500.0	90.00	359.59	12,500.0	2,979.5	-5.4	2,979.5	0.00	0.00	0.00
15,600.0	90.00	359.59	12,500.0	3,079.5	-6.1	3,079.5	0.00	0.00	0.00
15,700.0	90.00	359.59	12,500.0	3,179.5	-6.8	3,179.5	0.00	0.00	0.00
15,800.0	90.00	359.59	12,500.0	3,279.5	-7.6	3,279.5	0.00	0.00	0.00
15,900.0	90.00	359.59	12,500.0	3,379.5	-8.3	3,379.5	0.00	0.00	0.00
16,000.0	90.00	359.59	12,500.0	3,479.5	-9.0	3,479.5	0.00	0.00	0.00
16,100.0	90.00	359.59	12,500.0	3,579.5	-9.7	3,579.5	0.00	0.00	0.00
16,200.0	90.00	359.59	12,500.0	3,679.5	-10.4	3,679.5	0.00	0.00	0.00
16,300.0	90.00	359.59	12,500.0	3,779.5	-11.1	3,779.5	0.00	0.00	0.00
16,400.0	90.00	359.59	12,500.0	3,879.5	-11.8	3,879.5	0.00	0.00	0.00
16,500.0	90.00	359.59	12,500.0	3,979.5	-12.6	3,979.5	0.00	0.00	0.00
16,600.0	90.00	359.59	12,500.0	4,079.5	-13.3	4,079.5	0.00	0.00	0.00
16,700.0	90.00	359.59	12,500.0	4,179.5	-14.0	4,179.5	0.00	0.00	0.00
16,800.0	90.00	359.59	12,500.0	4,279.5	-14.7	4,279.5	0.00	0.00	0.00
16,900.0	90.00	359.59	12,500.0	4,379.5	-15.4	4,379.5	0.00	0.00	0.00
17,000.0	90.00	359.59	12,500.0	4,479.5	-16.1	4,479.5	0.00	0.00	0.00
17,100.0	90.00	359.59	12,500.0	4,579.5	-16.9	4,579.5	0.00	0.00	0.00
17,200.0	90.00	359.59	12,500.0	4,679.5	-17.6	4,679.5	0.00	0.00	0.00
17,300.0	90.00	359.59	12,500.0	4,779.5	-18.3	4,779.5	0.00	0.00	0.00
17,400.0	90.00	359.59	12,500.0	4,879.5	-19.0	4,879.5	0.00	0.00	0.00
17,500.0	90.00	359.59	12,500.0	4,979.5	-19.7	4,979.5	0.00	0.00	0.00
17,600.0	90.00	359.59	12,500.0	5,079.5	-20.4	5,079.5	0.00	0.00	0.00
17,700.0	90.00	359.59	12,500.0	5,179.5	-21.1	5,179.5	0.00	0.00	0.00
17,800.0	90.00	359.59	12,500.0	5,279.5	-21.9	5,279.5	0.00	0.00	0.00
17,900.0	90.00	359.59	12,500.0	5,379.5	-22.6	5,379.5	0.00	0.00	0.00
18,000.0	90.00	359.59	12,500.0	5,479.5	-23.3	5,479.5	0.00	0.00	0.00
18,100.0	90.00	359.59	12,500.0	5,579.5	-24.0	5,579.5	0.00	0.00	0.00
18,200.0	90.00	359.59	12,500.0	5,679.5	-24.7	5,679.5	0.00	0.00	0.00
18,300.0	90.00	359.59	12,500.0	5,779.5	-25.4	5,779.5	0.00	0.00	0.00
18,400.0	90.00	359.59	12,500.0	5,879.5	-26.2	5,879.5	0.00	0.00	0.00
18,500.0	90.00	359.59	12,500.0	5,979.5	-26.9	5,979.5	0.00	0.00	0.00
18,600.0	90.00	359.59	12,500.0	6,079.4	-27.6	6,079.5	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #709H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25' @ 3492.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25' @ 3492.0usft
Site:	Hearns 34 State Com	North Reference:	Grid
Well:	#709H	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)
18,700.0	90.00	359.59	12,500.0	6,179.4	-28.3	6,179.5	0.00	0.00	0.00
18,800.0	90.00	359.59	12,500.0	6,279.4	-29.0	6,279.5	0.00	0.00	0.00
18,900.0	90.00	359.59	12,500.0	6,379.4	-29.7	6,379.5	0.00	0.00	0.00
19,000.0	90.00	359.59	12,500.0	6,479.4	-30.4	6,479.5	0.00	0.00	0.00
19,100.0	90.00	359.59	12,500.0	6,579.4	-31.2	6,579.5	0.00	0.00	0.00
19,200.0	90.00	359.59	12,500.0	6,679.4	-31.9	6,679.5	0.00	0.00	0.00
19,300.0	90.00	359.59	12,500.0	6,779.4	-32.6	6,779.5	0.00	0.00	0.00
19,400.0	90.00	359.59	12,500.0	6,879.4	-33.3	6,879.5	0.00	0.00	0.00
19,500.0	90.00	359.59	12,500.0	6,979.4	-34.0	6,979.5	0.00	0.00	0.00
19,600.0	90.00	359.59	12,500.0	7,079.4	-34.7	7,079.5	0.00	0.00	0.00
19,700.0	90.00	359.59	12,500.0	7,179.4	-35.5	7,179.5	0.00	0.00	0.00
19,800.0	90.00	359.59	12,500.0	7,279.4	-36.2	7,279.5	0.00	0.00	0.00
19,900.0	90.00	359.59	12,500.0	7,379.4	-36.9	7,379.5	0.00	0.00	0.00
20,000.0	90.00	359.59	12,500.0	7,479.4	-37.6	7,479.5	0.00	0.00	0.00
20,100.0	90.00	359.59	12,500.0	7,579.4	-38.3	7,579.5	0.00	0.00	0.00
20,200.0	90.00	359.59	12,500.0	7,679.4	-39.0	7,679.5	0.00	0.00	0.00
20,300.0	90.00	359.59	12,500.0	7,779.4	-39.8	7,779.5	0.00	0.00	0.00
20,400.0	90.00	359.59	12,500.0	7,879.4	-40.5	7,879.5	0.00	0.00	0.00
20,500.0	90.00	359.59	12,500.0	7,979.4	-41.2	7,979.5	0.00	0.00	0.00
20,600.0	90.00	359.59	12,500.0	8,079.4	-41.9	8,079.5	0.00	0.00	0.00
20,700.0	90.00	359.59	12,500.0	8,179.4	-42.6	8,179.5	0.00	0.00	0.00
20,800.0	90.00	359.59	12,500.0	8,279.4	-43.3	8,279.5	0.00	0.00	0.00
20,900.0	90.00	359.59	12,500.0	8,379.4	-44.0	8,379.5	0.00	0.00	0.00
21,000.0	90.00	359.59	12,500.0	8,479.4	-44.8	8,479.5	0.00	0.00	0.00
21,100.0	90.00	359.59	12,500.0	8,579.4	-45.5	8,579.5	0.00	0.00	0.00
21,200.0	90.00	359.59	12,500.0	8,679.4	-46.2	8,679.5	0.00	0.00	0.00
21,300.0	90.00	359.59	12,500.0	8,779.4	-46.9	8,779.5	0.00	0.00	0.00
21,400.0	90.00	359.59	12,500.0	8,879.4	-47.6	8,879.5	0.00	0.00	0.00
21,500.0	90.00	359.59	12,500.0	8,979.4	-48.3	8,979.5	0.00	0.00	0.00
21,600.0	90.00	359.59	12,500.0	9,079.4	-49.1	9,079.5	0.00	0.00	0.00
21,700.0	90.00	359.59	12,500.0	9,179.4	-49.8	9,179.5	0.00	0.00	0.00
21,800.0	90.00	359.59	12,500.0	9,279.4	-50.5	9,279.5	0.00	0.00	0.00
21,900.0	90.00	359.59	12,500.0	9,379.4	-51.2	9,379.5	0.00	0.00	0.00
22,000.0	90.00	359.59	12,500.0	9,479.4	-51.9	9,479.5	0.00	0.00	0.00
22,100.0	90.00	359.59	12,500.0	9,579.4	-52.6	9,579.5	0.00	0.00	0.00
22,200.0	90.00	359.59	12,500.0	9,679.4	-53.3	9,679.5	0.00	0.00	0.00
22,300.0	90.00	359.59	12,500.0	9,779.4	-54.1	9,779.5	0.00	0.00	0.00
22,400.0	90.00	359.59	12,500.0	9,879.4	-54.8	9,879.5	0.00	0.00	0.00
22,500.0	90.00	359.59	12,500.0	9,979.3	-55.5	9,979.5	0.00	0.00	0.00
22,570.7	90.00	359.59	12,500.0	10,050.0	-56.0	10,050.2	0.00	0.00	0.00
PBHL (Hearns 34 State Com #709H)									



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Hearn 34 State Com
Well: #709H
Wellbore: OH
Design: Plan #0.2

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

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
FTP (Hearn 34 State C - plan misses target center by 40.3usft at 12585.9usft MD (12462.8 TVD, 70.5 N, 15.3 E) - Point	0.00	0.01	12,500.0	55.0	15.0	425,623.00	780,830.00	32° 10' 3.893 N	103° 33' 33.642 W
PBHL (Hearn 34 State - plan hits target center - Point	0.00	0.00	12,500.0	10,050.0	-56.0	435,618.00	780,759.00	32° 11' 42.801 N	103° 33' 33.631 W