

HOBBS OCD

Submit 1 Copy To Appropriate District Office
 District I - (505) 393-6161
 1625 S. French Dr., Hobbs, NM 88240
 District II - (505) 771-2333
 811 S. First St., Mesita, 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

OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

Form C-103
 Revised July 18, 2013

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.)		WELL API NO. 30-025-42086
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐		5. Indicate Type of Lease STATE ☒ FEE ☐
2. Name of Operator EOG Resources, Inc.		6. State Oil & Gas Lease No.
3. Address of Operator P.O. Box 2267 Midland, TX 79702		7. Lease Name or Unit Agreement Name Hearn's 27 State Com
4. Well Location Unit Letter M 210 feet from the South line and 600 feet from the West line Section 27 Township 24S Range 33E NMPM County Lea		8. Well Number 301H
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3480' GR		9. OGRID Number 7377
10. Pool name or Wildcat Triste Draw; Bone Spring, East		

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☒	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL. ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
CLOSED-LOOP SYSTEM ☐			
OTHER: ☐		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 in our approved APD for this well to reflect a change in target TVD.

Change TMD from 16273' to 15445'. TVD from 11200' to 10400'.

Also, we request the well number be changed from 502H to 301H to reflect the target change.

Spud Date:	Rig Release Date:	E-PERMITTING P&A NR _____ P&A R _____ INT to P&A _____ CSNG _____ Chng Loc _____ TA _____ CH Well # _____
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I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE <u>Stan Wagner</u>	TITLE <u>Regulatory Analyst</u>	DATE <u>10/29/14</u>
Type or print name <u>Stan Wagner</u>	E-mail address: _____	PHONE: <u>432-686-3689</u>
APPROVED BY: <u>[Signature]</u>	TITLE <u>Petroleum Engineer</u>	DATE <u>10/31/14</u>
Conditions of Approval (if any): _____		

OC 31 2014

Revised Permit Information:

Well Name: Hearn 27 State Com No. 301H

Location:

SL: 210' FSL & 600' FWL, Section 27, T-24-S, R-33-E, Lea Co., N.M.

BHL: 230' FSL & 820' FWL, Section 34, 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 – 1205'	13.375"	54.5#	J55	STC	1.125	1.25	1.60
12.25"	0-4000'	9.625"	40#	J55	LTC	1.125	1.25	1.60
12.25"	4000' – 5000'	9.625"	40#	HCK-55	LTC	1.125	1.25	1.60
8.75"	0'-15,445'	5.5"	17#	HCP-110	LTC	1.125	1.25	1.60

Cement Program:

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /ft	Slurry Description
1205'	500	13.5	1.73	Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	200	14.8	1.34	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
5,000'	800	12.7	2.22	Class 'C' + 1.50% R-3 + 0.25 lb/sk Cello-Flake + 2.0% Sodium Metasilicate + 10% Salt + 0.005 lb/sk Static Free (TOC @ Surface)
	200	14.8	1.32	Tail: Class 'C' + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
15,445'	375	10.8	3.67	60:40:0 Class C + 15.0 pps BA-90 + 4% MPA-5 + 3.0% SMS + 5.0% A-10 + 1.0% BA-10A + 0.80% ASA-301 + 2.55% R-21 + 8.0 pps LCM-1 (TOC @ 4500')
	400	11.8	2.38	50:50:10 Class H + 0.80% FL-52 + 0.30% ASA-301 + 0.40% SMS + 2.0% Salt + 0.30% R-21 + 3.0 pps LCM-1 + 0.25 pps Celloflake
	1300	14.2	1.28	50:50:2 Class H + 0.65% FL-52 + 0.45% CD-32 + 0.10% SMS + 2.0% Salt

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1205'	Fresh - Gel	8.6-8.8	28-34	N/c
1205' – 5,000'	Brine	10.0-10.2	28-34	N/c
5,000' – 9,827'	Cut Brine	8.4-9.0	28-34	N/c
9,827' – 15,445' Lateral	Cut Brine	9.0-9.5	40-42	8-10

Hearns 27 State Com #502H

Lea County, New Mexico

Revised 10/29/14

Proposed Wellbore

210' FSL

600' FWL

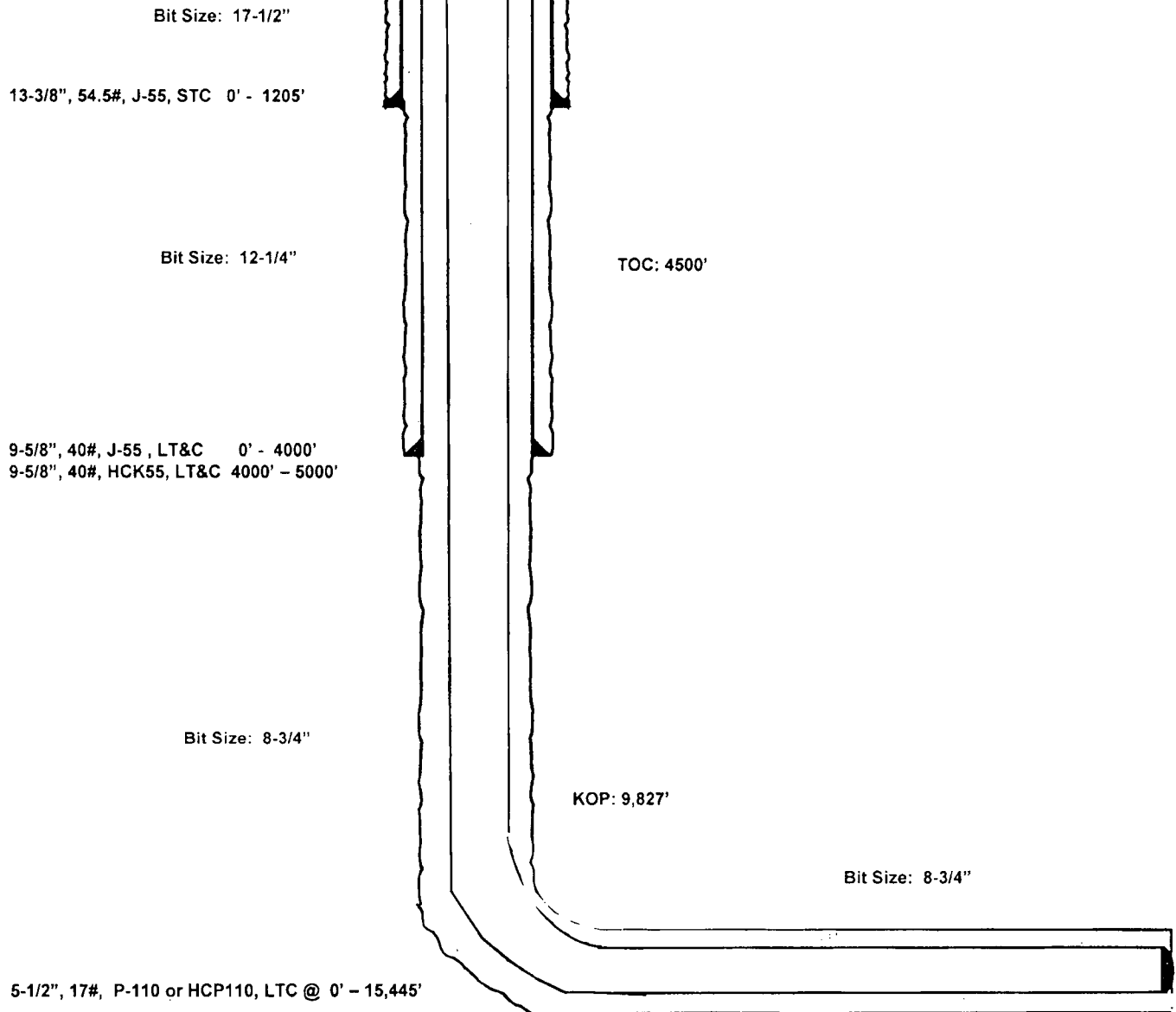
Section 27

T-24-S, R-33-E

API: 30-025-42086

KB: 3,501'

GL: 3,480'



Lateral: 15,445' MD, 10,400' TVD

BH Location: 230' FSL & 820' FWL
Section 34
T-24-S, R-33-E

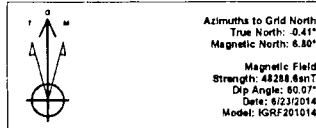


Lea County, NM (NAD 27 NME)

Hearns 27 State Com #301H

Nomac 55

Plan #6



To convert a Magnetic Direction to a Grid Direction, Add 6.80°
To convert a Magnetic Direction to a True Direction, Add 7.21° East
To convert a True Direction to a Grid Direction, Subtract 0.41°

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

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

WELL DETAILS: #301H

Ground Level: 3480.0
KB = 21 @ 3501.0ush (Nomac 55)
Northing: 430705.00 Easting: 737310.00 32° 10' 54.477 N 103° 33' 58.664 W

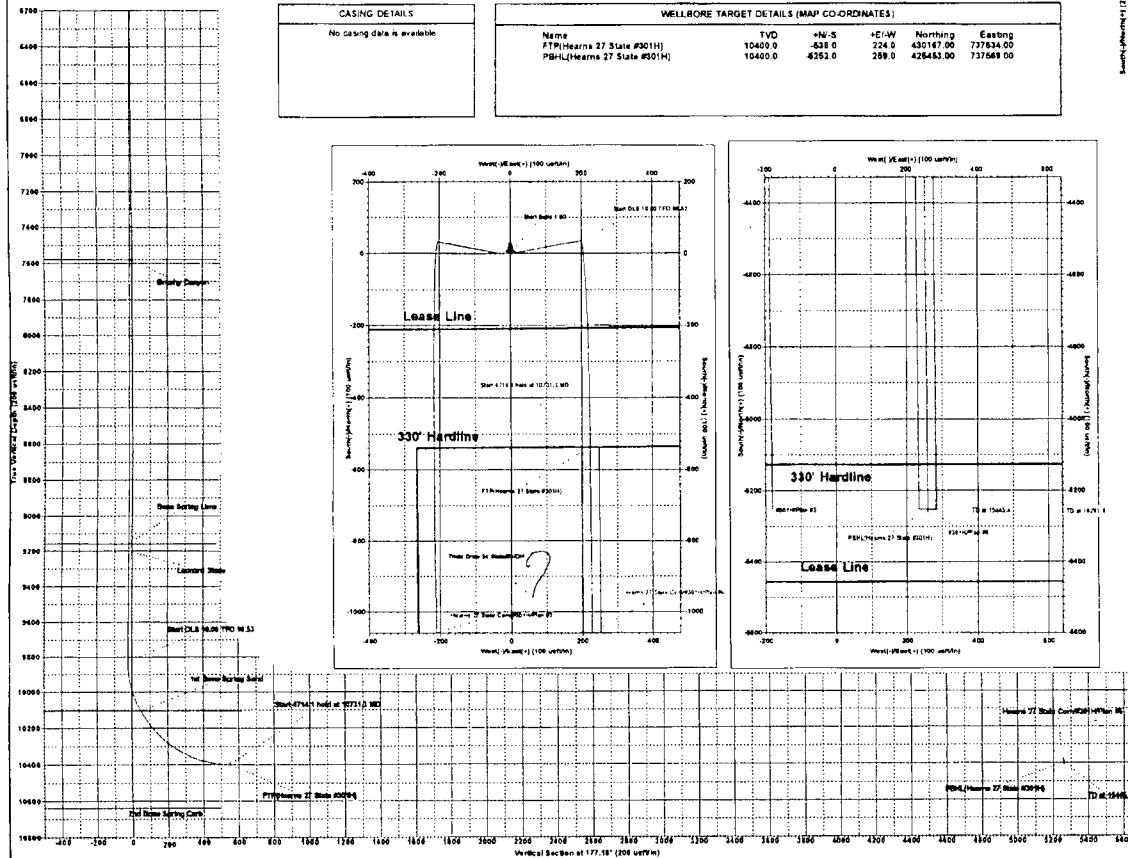
SECTION DETAILS

Sec	MD	Inc	At	TVD	+N-S	+E-W	Diag	TFace	VFace	Target	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	4500.0	0.00	0.00	4500.0	0.0	0.0	0.00	0.00	0.0		
3	4720.7	2.21	80.03	4720.6	0.7	-4.2	1.00	80.03	-4.5		
4	9827.6	2.21	80.03	9823.8	34.8	197.9	0.00	0.00	-26.0		
5	10731.3	90.00	179.87	10400.0	-826.0	224.0	10.00	98.63	548.4		FTPH (Hearns 27 State #301H)
6	16446.4	80.00	179.87	10400.0	-826.0	224.0	0.00	0.00	8268.4		PBHL (Hearns 27 State #301H)

CASING DETAILS
No casing data is available

WELLBORE TARGET DETAILS (MAP COORDINATES)

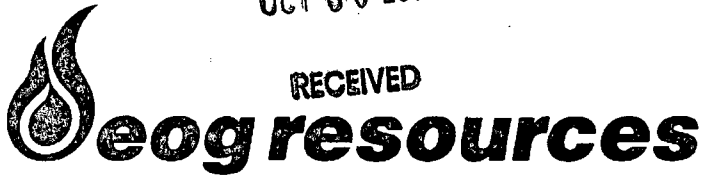
Name	TVD	+N-S	+E-W	Northing	Easting
FTPH (Hearns 27 State #301H)	10400.0	-826.0	224.0	4307167.00	737534.00
PBHL (Hearns 27 State #301H)	10400.0	-826.0	224.0	428462.00	737569.00



HOBBSD

OCT 30 2014

RECEIVED



EOG Resources - Midland

Lea County, NM (NAD 27 NME)

Hearns 27 State Com

#301H

OH

Plan: Plan #6

Standard Planning Report

28 October, 2014



EOG Resources, Inc.

Planning Report

Database: EDM 5000.1 Single User Db
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Hearn's 27 State Com
Well: #301H
Wellbore: OH
Design: Plan #6

Local Co-ordinate Reference: Well #301H
TVD Reference: KB = 21 @ 3501.0usft (Nomac 55)
MD Reference: KB = 21 @ 3501.0usft (Nomac 55)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Lea County, NM (NAD 27 NME)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Hearn's 27 State Com			
Site Position:		Northing:	430,710.00 usft	Latitude: 32° 10' 54.484 N
From:	Map	Easting:	737,910.00 usft	Longitude: 103° 33' 51.687 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence: 0.41°

Well	#301H			
Well Position	+N/-S	-5.0 usft	Northing:	430,705.00 usft
	+E/-W	-600.0 usft	Easting:	737,310.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level: 3,480.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF201014	6/23/2014	7.21	60.07	48,289

Design	Plan #6			
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	177.18

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	
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,720.7	2.21	80.03	4,720.6	0.7	4.2	1.00	1.00	0.00	80.03	
9,827.6	2.21	80.03	9,823.8	34.8	197.9	0.00	0.00	0.00	0.00	
10,731.3	90.00	179.57	10,400.0	-538.0	224.0	10.00	9.72	11.02	99.53	FTP(Hearn's 27 State
15,445.4	90.00	179.57	10,400.0	-5,252.0	259.0	0.00	0.00	0.00	0.00	PBHL(Hearn's 27 State



EOG Resources, Inc.

Planning Report

Database: EDM 5000.1 Single User Db
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Hearn's 27 State Com
Well: #301H
Wellbore: OH
Design: Plan #6

Local Co-ordinate Reference: Well #301H
TVD Reference: KB = 21 @ 3501.0usft (Nomac 55)
MD Reference: KB = 21 @ 3501.0usft (Nomac 55)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,180.0	0.00	0.00	1,180.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
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
1,420.0	0.00	0.00	1,420.0	0.0	0.0	0.0	0.00	0.00	0.00
Top of Salt									
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	1.00	80.03	4,600.0	0.2	0.9	-0.1	1.00	1.00	0.00
4,700.0	2.00	80.03	4,700.0	0.6	3.4	-0.4	1.00	1.00	0.00
4,720.7	2.21	80.03	4,720.6	0.7	4.2	-0.5	1.00	1.00	0.00
4,800.0	2.21	80.03	4,799.9	1.3	7.2	-0.9	0.00	0.00	0.00



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Site: Hearn's 27 State Com
Well: #301H
Wellbore: OH
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MD Reference: KB = 21 @ 3501.0usft (Nomac 55)
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)
4,885.2	2.21	80.03	4,885.0	1.8	10.4	-1.3	0.00	0.00	0.00
Base Salt									
4,900.0	2.21	80.03	4,899.8	1.9	11.0	-1.4	0.00	0.00	0.00
5,000.0	2.21	80.03	4,999.7	2.6	14.8	-1.9	0.00	0.00	0.00
5,100.0	2.21	80.03	5,099.7	3.3	18.6	-2.3	0.00	0.00	0.00
5,130.4	2.21	80.03	5,130.0	3.5	19.7	-2.5	0.00	0.00	0.00
Lamar									
5,160.4	2.21	80.03	5,160.0	3.7	20.9	-2.6	0.00	0.00	0.00
Bell Canyon									
5,200.0	2.21	80.03	5,199.6	3.9	22.4	-2.8	0.00	0.00	0.00
5,300.0	2.21	80.03	5,299.5	4.6	26.2	-3.3	0.00	0.00	0.00
5,400.0	2.21	80.03	5,399.4	5.3	29.9	-3.8	0.00	0.00	0.00
5,500.0	2.21	80.03	5,499.4	5.9	33.7	-4.3	0.00	0.00	0.00
5,600.0	2.21	80.03	5,599.3	6.6	37.5	-4.7	0.00	0.00	0.00
5,700.0	2.21	80.03	5,699.2	7.3	41.3	-5.2	0.00	0.00	0.00
5,800.0	2.21	80.03	5,799.1	7.9	45.1	-5.7	0.00	0.00	0.00
5,900.0	2.21	80.03	5,899.1	8.6	48.9	-6.2	0.00	0.00	0.00
6,000.0	2.21	80.03	5,999.0	9.3	52.7	-6.7	0.00	0.00	0.00
6,100.0	2.21	80.03	6,098.9	9.9	56.5	-7.1	0.00	0.00	0.00
6,151.1	2.21	80.03	6,150.0	10.3	58.4	-7.4	0.00	0.00	0.00
Cherry Canyon									
6,200.0	2.21	80.03	6,198.8	10.6	60.3	-7.6	0.00	0.00	0.00
6,300.0	2.21	80.03	6,298.8	11.3	64.1	-8.1	0.00	0.00	0.00
6,400.0	2.21	80.03	6,398.7	11.9	67.9	-8.6	0.00	0.00	0.00
6,500.0	2.21	80.03	6,498.6	12.6	71.7	-9.0	0.00	0.00	0.00
6,600.0	2.21	80.03	6,598.6	13.3	75.5	-9.5	0.00	0.00	0.00
6,700.0	2.21	80.03	6,698.5	13.9	79.2	-10.0	0.00	0.00	0.00
6,800.0	2.21	80.03	6,798.4	14.6	83.0	-10.5	0.00	0.00	0.00
6,900.0	2.21	80.03	6,898.3	15.3	86.8	-11.0	0.00	0.00	0.00
7,000.0	2.21	80.03	6,998.3	15.9	90.6	-11.4	0.00	0.00	0.00
7,100.0	2.21	80.03	7,098.2	16.6	94.4	-11.9	0.00	0.00	0.00
7,200.0	2.21	80.03	7,198.1	17.3	98.2	-12.4	0.00	0.00	0.00
7,300.0	2.21	80.03	7,298.0	17.9	102.0	-12.9	0.00	0.00	0.00
7,400.0	2.21	80.03	7,398.0	18.6	105.8	-13.4	0.00	0.00	0.00
7,500.0	2.21	80.03	7,497.9	19.3	109.6	-13.8	0.00	0.00	0.00
7,582.2	2.21	80.03	7,580.0	19.8	112.7	-14.2	0.00	0.00	0.00
Brushy Canyon									
7,600.0	2.21	80.03	7,597.8	19.9	113.4	-14.3	0.00	0.00	0.00
7,700.0	2.21	80.03	7,697.7	20.6	117.2	-14.8	0.00	0.00	0.00
7,800.0	2.21	80.03	7,797.7	21.3	121.0	-15.3	0.00	0.00	0.00
7,900.0	2.21	80.03	7,897.6	21.9	124.8	-15.8	0.00	0.00	0.00
8,000.0	2.21	80.03	7,997.5	22.6	128.5	-16.2	0.00	0.00	0.00
8,100.0	2.21	80.03	8,097.4	23.3	132.3	-16.7	0.00	0.00	0.00
8,200.0	2.21	80.03	8,197.4	23.9	136.1	-17.2	0.00	0.00	0.00
8,300.0	2.21	80.03	8,297.3	24.6	139.9	-17.7	0.00	0.00	0.00
8,400.0	2.21	80.03	8,397.2	25.3	143.7	-18.1	0.00	0.00	0.00
8,500.0	2.21	80.03	8,497.1	25.9	147.5	-18.6	0.00	0.00	0.00
8,600.0	2.21	80.03	8,597.1	26.6	151.3	-19.1	0.00	0.00	0.00
8,700.0	2.21	80.03	8,697.0	27.3	155.1	-19.6	0.00	0.00	0.00
8,800.0	2.21	80.03	8,796.9	27.9	158.9	-20.1	0.00	0.00	0.00
8,900.0	2.21	80.03	8,896.8	28.6	162.7	-20.5	0.00	0.00	0.00
9,000.0	2.21	80.03	8,996.8	29.3	166.5	-21.0	0.00	0.00	0.00
9,100.0	2.21	80.03	9,096.7	29.9	170.3	-21.5	0.00	0.00	0.00



EOG Resources, Inc.

Planning Report

Database: EDM 5000.1 Single User Db
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Hearn 27 State Com
Well: #301H
Wellbore: OH
Design: Plan #6

Local Co-ordinate Reference: Well #301H
TVD Reference: KB = 21 @ 3501.0usft (Nomac 55)
MD Reference: KB = 21 @ 3501.0usft (Nomac 55)
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)
9,163.3	2.21	80.03	9,160.0	30.3	172.7	-21.8	0.00	0.00	0.00
Bone Spring Lime									
9,200.0	2.21	80.03	9,196.6	30.6	174.1	-22.0	0.00	0.00	0.00
9,203.4	2.21	80.03	9,200.0	30.6	174.2	-22.0	0.00	0.00	0.00
Leonard Shale									
9,300.0	2.21	80.03	9,296.5	31.3	177.8	-22.5	0.00	0.00	0.00
9,400.0	2.21	80.03	9,396.5	31.9	181.6	-22.9	0.00	0.00	0.00
9,500.0	2.21	80.03	9,496.4	32.6	185.4	-23.4	0.00	0.00	0.00
9,600.0	2.21	80.03	9,596.3	33.3	189.2	-23.9	0.00	0.00	0.00
9,700.0	2.21	80.03	9,696.3	33.9	193.0	-24.4	0.00	0.00	0.00
9,800.0	2.21	80.03	9,796.2	34.6	196.8	-24.8	0.00	0.00	0.00
9,827.6	2.21	80.03	9,823.8	34.8	197.9	-25.0	0.00	0.00	0.00
9,850.0	2.87	130.27	9,846.1	34.5	198.7	-24.7	10.00	2.96	224.68
9,900.0	7.20	162.08	9,895.9	30.7	200.6	-20.8	10.00	8.67	63.63
9,950.0	12.07	169.33	9,945.2	22.6	202.6	-12.6	10.00	9.72	14.50
10,000.0	17.01	172.44	9,993.6	10.2	204.5	-0.1	10.00	9.88	6.21
10,050.0	21.97	174.17	10,040.7	-6.4	206.4	16.6	10.00	9.93	3.47
10,100.0	26.95	175.29	10,086.2	-27.0	208.3	37.2	10.00	9.96	2.24
10,121.3	29.07	175.66	10,105.0	-37.0	209.1	47.2	10.00	9.97	1.72
1st Bone Spring Sand									
10,150.0	31.94	176.08	10,129.8	-51.5	210.1	61.8	10.00	9.97	1.48
10,200.0	36.93	176.68	10,171.0	-79.7	211.9	90.1	10.00	9.98	1.19
10,250.0	41.92	177.15	10,209.6	-111.4	213.6	121.8	10.00	9.98	0.94
10,300.0	46.91	177.54	10,245.3	-146.3	215.2	156.8	10.00	9.99	0.78
10,350.0	51.90	177.87	10,277.8	-184.3	216.7	194.7	10.00	9.99	0.66
10,400.0	56.90	178.16	10,306.9	-224.9	218.1	235.4	10.00	9.99	0.58
10,450.0	61.89	178.41	10,332.4	-267.9	219.4	278.4	10.00	9.99	0.51
10,500.0	66.89	178.65	10,354.0	-313.0	220.6	323.4	10.00	9.99	0.47
10,550.0	71.88	178.86	10,371.6	-359.7	221.6	370.2	10.00	9.99	0.43
10,600.0	76.88	179.07	10,385.0	-407.9	222.5	418.3	10.00	9.99	0.41
10,650.0	81.88	179.26	10,394.2	-457.0	223.2	467.4	10.00	9.99	0.39
10,700.0	86.87	179.46	10,399.1	-506.7	223.7	517.1	10.00	9.99	0.38
10,731.3	90.00	179.57	10,400.0	-538.0	224.0	548.4	10.00	9.99	0.38
FTP(Hearn 27 State #301H)									
10,731.5	90.00	179.57	10,400.0	-538.2	224.0	548.5	0.00	0.00	0.00
FTP(Hearn 27 State #502H) 1000'									
10,800.0	90.00	179.57	10,400.0	-606.7	224.5	617.0	0.00	0.00	0.00
10,900.0	90.00	179.57	10,400.0	-706.7	225.3	716.9	0.00	0.00	0.00
11,000.0	90.00	179.57	10,400.0	-806.7	226.0	816.8	0.00	0.00	0.00
11,100.0	90.00	179.57	10,400.0	-906.7	226.7	916.8	0.00	0.00	0.00
11,200.0	90.00	179.57	10,400.0	-1,006.7	227.5	1,016.7	0.00	0.00	0.00
11,300.0	90.00	179.57	10,400.0	-1,106.7	228.2	1,116.6	0.00	0.00	0.00
11,400.0	90.00	179.57	10,400.0	-1,206.7	229.0	1,216.5	0.00	0.00	0.00
11,500.0	90.00	179.57	10,400.0	-1,306.7	229.7	1,316.4	0.00	0.00	0.00
11,600.0	90.00	179.57	10,400.0	-1,406.7	230.4	1,416.3	0.00	0.00	0.00
11,700.0	90.00	179.57	10,400.0	-1,506.7	231.2	1,516.2	0.00	0.00	0.00
11,800.0	90.00	179.57	10,400.0	-1,606.7	231.9	1,616.1	0.00	0.00	0.00
11,900.0	90.00	179.57	10,400.0	-1,706.7	232.7	1,716.1	0.00	0.00	0.00
12,000.0	90.00	179.57	10,400.0	-1,806.7	233.4	1,816.0	0.00	0.00	0.00
12,100.0	90.00	179.57	10,400.0	-1,906.7	234.2	1,915.9	0.00	0.00	0.00
12,200.0	90.00	179.57	10,400.0	-2,006.7	234.9	2,015.8	0.00	0.00	0.00
12,300.0	90.00	179.57	10,400.0	-2,106.7	235.6	2,115.7	0.00	0.00	0.00
12,400.0	90.00	179.57	10,400.0	-2,206.7	236.4	2,215.6	0.00	0.00	0.00
12,500.0	90.00	179.57	10,400.0	-2,306.7	237.1	2,315.5	0.00	0.00	0.00



EOG Resources, Inc.

Planning Report

Database: EDM 5000.1 Single User Db
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Hearn 27 State Corn
Well: #301H
Wellbore: OH
Design: Plan #6

Local Co-ordinate Reference: Well #301H
TVD Reference: KB = 21 @ 3501.0usft (Nomac 55)
MD Reference: KB = 21 @ 3501.0usft (Nomac 55)
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)
12,600.0	90.00	179.57	10,400.0	-2,406.6	237.9	2,415.4	0.00	0.00	0.00
12,700.0	90.00	179.57	10,400.0	-2,506.6	238.6	2,515.4	0.00	0.00	0.00
12,800.0	90.00	179.57	10,400.0	-2,606.6	239.4	2,615.3	0.00	0.00	0.00
12,900.0	90.00	179.57	10,400.0	-2,706.6	240.1	2,715.2	0.00	0.00	0.00
13,000.0	90.00	179.57	10,400.0	-2,806.6	240.8	2,815.1	0.00	0.00	0.00
13,100.0	90.00	179.57	10,400.0	-2,906.6	241.6	2,915.0	0.00	0.00	0.00
13,200.0	90.00	179.57	10,400.0	-3,006.6	242.3	3,014.9	0.00	0.00	0.00
13,300.0	90.00	179.57	10,400.0	-3,106.6	243.1	3,114.8	0.00	0.00	0.00
13,400.0	90.00	179.57	10,400.0	-3,206.6	243.8	3,214.7	0.00	0.00	0.00
13,500.0	90.00	179.57	10,400.0	-3,306.6	244.6	3,314.7	0.00	0.00	0.00
13,600.0	90.00	179.57	10,400.0	-3,406.6	245.3	3,414.6	0.00	0.00	0.00
13,700.0	90.00	179.57	10,400.0	-3,506.6	246.0	3,514.5	0.00	0.00	0.00
13,800.0	90.00	179.57	10,400.0	-3,606.6	246.8	3,614.4	0.00	0.00	0.00
13,900.0	90.00	179.57	10,400.0	-3,706.6	247.5	3,714.3	0.00	0.00	0.00
14,000.0	90.00	179.57	10,400.0	-3,806.6	248.3	3,814.2	0.00	0.00	0.00
14,100.0	90.00	179.57	10,400.0	-3,906.6	249.0	3,914.1	0.00	0.00	0.00
14,200.0	90.00	179.57	10,400.0	-4,006.6	249.8	4,014.0	0.00	0.00	0.00
14,300.0	90.00	179.57	10,400.0	-4,106.6	250.5	4,114.0	0.00	0.00	0.00
14,400.0	90.00	179.57	10,400.0	-4,206.6	251.2	4,213.9	0.00	0.00	0.00
14,500.0	90.00	179.57	10,400.0	-4,306.6	252.0	4,313.8	0.00	0.00	0.00
14,600.0	90.00	179.57	10,400.0	-4,406.6	252.7	4,413.7	0.00	0.00	0.00
14,700.0	90.00	179.57	10,400.0	-4,506.6	253.5	4,513.6	0.00	0.00	0.00
14,800.0	90.00	179.57	10,400.0	-4,606.6	254.2	4,613.5	0.00	0.00	0.00
14,900.0	90.00	179.57	10,400.0	-4,706.6	255.0	4,713.4	0.00	0.00	0.00
15,000.0	90.00	179.57	10,400.0	-4,806.6	255.7	4,813.3	0.00	0.00	0.00
15,100.0	90.00	179.57	10,400.0	-4,906.6	256.4	4,913.3	0.00	0.00	0.00
15,200.0	90.00	179.57	10,400.0	-5,006.6	257.2	5,013.2	0.00	0.00	0.00
15,300.0	90.00	179.57	10,400.0	-5,106.6	257.9	5,113.1	0.00	0.00	0.00
15,400.0	90.00	179.57	10,400.0	-5,206.6	258.7	5,213.0	0.00	0.00	0.00
15,445.4	90.00	179.57	10,400.0	-5,252.0	259.0	5,258.4	0.00	0.00	0.00

PBHL(Hearn 27 State #301H) - PBHL(Hearn 27 State #502H) 1000'

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL(Hearn 27 State #301H)	90.00	179.57	10,400.0	-5,252.0	259.0	425,453.00	737,569.00	32° 10' 2.487 N	103° 33' 56.091 W
- plan hits target center									
- Rectangle (sides W50.0 H0.0 D4,714.1)									
FTP(Hearn 27 State #301H)	0.00	0.00	10,400.0	-538.0	224.0	430,167.00	737,534.00	32° 10' 49.138 N	103° 33' 56.107 W
- plan hits target center									
- Point									



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Well: #301H
Wellbore: OH
Design: Plan #6

Local Co-ordinate Reference: Well #301H
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MD Reference: KB = 21 @ 3501.0usft (Nomac 55)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,180.0	1,180.0	Rustler			
1,420.0	1,420.0	Top of Salt			
4,885.2	4,885.0	Base Salt			
5,130.4	5,130.0	Lamar			
5,160.4	5,160.0	Bell Canyon			
6,151.1	6,150.0	Cherry Canyon			
7,582.2	7,580.0	Brushy Canyon			
9,163.3	9,160.0	Bone Spring Lime			
9,203.4	9,200.0	Leonard Shale			
10,121.3	10,105.0	1st Bone Spring Sand			