

FORM C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ **AMENDED REPORT**

SEP 11 2014

Permit Information:

Well Name: Hearn's 27 State Com No. 502H

Location:

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

BHL: 230' FSL & 755' 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'-16,262'	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
16,262'	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' – 10,722'	Cut Brine	8.4-9.0	28-34	N/c
10,722' – 16,262' Lateral	Cut Brine	9.0-9.5	40-42	8-10

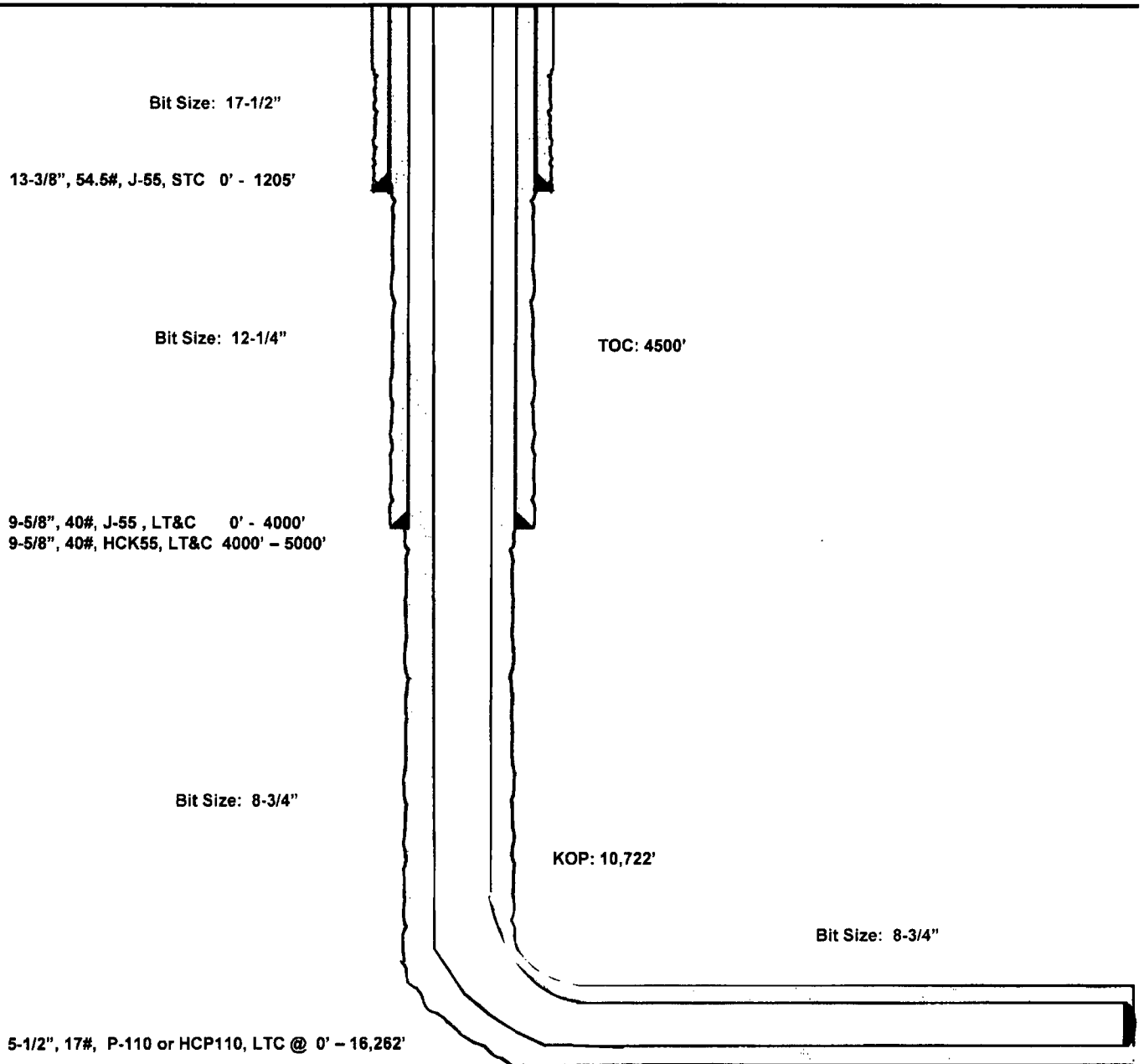
Hearns 27 State Com #502H
Lea County, New Mexico

210' FSL
600' FWL
Section 27
T-24-S, R-33-E

Proposed Wellbore

API: 30-025-

KB: 3,501'
GL: 3,480'



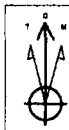
Lateral: 16,262' MD, 11,200' TVD

BH Location: 230' FSL & 755' FWL
Section 34
T-24-S, R-33-E



Lea County, NM (NAD 27 NME)
Hearns 27 State Com #502H
Nomac 55
Plan #2

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



Azimuths to Grid North
True North: -0.41°
Magnetic North: 8.50°
Magnetic Field
Strength: 48288.7 nT
Dip Angle: 60.07°
Date: 8/23/2014
Model: IGRF201014

To convert a Magnetic Direction to a Grid Direction, Add 8.90°
To convert a Magnetic Direction to a True Direction, Add 7.21° East
To convert a True Direction to a Grid Direction, Subtract 8.91°

WELL DETAILS: Hearns 27 State Com #502H

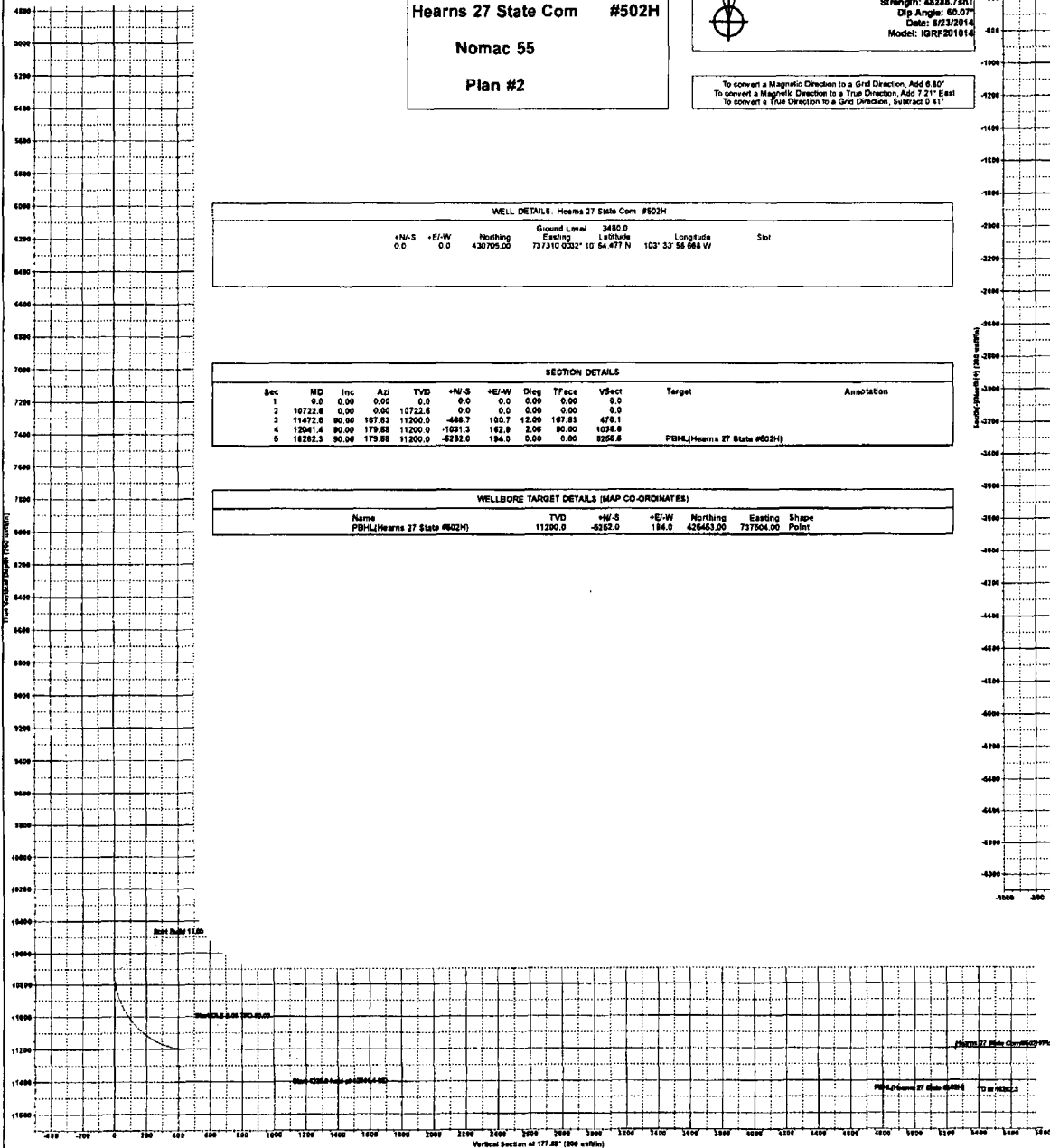
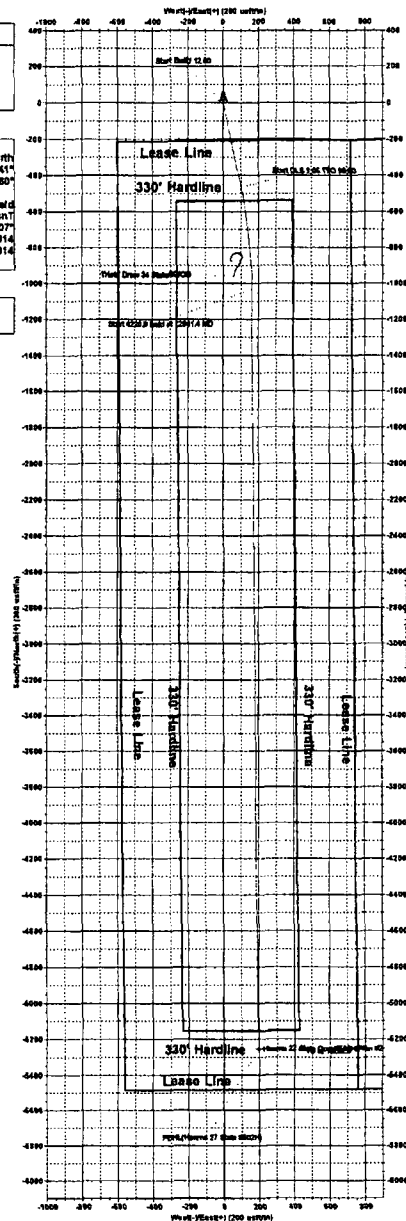
+N/-S	+E/-W	North	East	Longitude	Lat
0.0	0.0	430709.00	737310.0002° 10 54 477 N	103° 53' 56.968 W	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Diag	TFace	VDepth	Target	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	10732.6	0.00	0.00	10732.6	0.0	0.0	0.00	0.00	0.0		
3	11472.6	90.00	187.83	11200.0	-488.7	100.7	12.00	187.83	476.1		
4	12041.4	90.00	179.89	11200.0	-1221.3	162.8	2.06	90.00	1036.8		
5	16262.3	90.00	179.89	11200.0	-6282.0	184.0	0.00	0.00	8256.8	PBH4 (Hearns 27 State #502H)	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	North	East	Shape
PBH4 (Hearns 27 State #502H)	11200.0	-4882.0	184.0	426463.00	737904.00	Point





EOG Resources - Midland

Lea County, NM (NAD 27 NME)

Hearns 27 State Com

#502H

OH

Plan: Plan #2

Standard Planning Report

02 September, 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 27 State Com
Well: #502H
Wellbore: OH
Design: Plan #2

Local Co-ordinate Reference: Well #502H
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 27 State Com		
Site Position:		Northing:	430,710.00 usft
From:	Map	Easting:	737,910.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 10' 54.484 N
		Longitude:	103° 33' 51.687 W
		Grid Convergence:	0.41 °

Well	#502H		
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
		Latitude:	32° 10' 54.477 N
		Longitude:	103° 33' 58.668 W
		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 #2			
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	177.88

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	
10,722.5	0.00	0.00	10,722.5	0.0	0.0	0.00	0.00	0.00	0.00	
11,472.5	90.00	167.83	11,200.0	-466.7	100.7	12.00	12.00	0.00	167.83	
12,041.4	90.00	179.58	11,200.0	-1,031.3	162.9	2.06	0.00	2.06	90.00	
16,262.3	90.00	179.58	11,200.0	-5,252.0	194.0	0.00	0.00	0.00	0.00	PSHL(Hearn 27 Stat



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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
1,200.0	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	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	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00



EOG Resources, Inc.
Planning Report

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Wellbore: OH
Design: Plan #2

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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)
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.00	0.00	0.00
8,800.0	0.00	0.00	8,800.0	0.0	0.0	0.0	0.00	0.00	0.00
8,900.0	0.00	0.00	8,900.0	0.0	0.0	0.0	0.00	0.00	0.00
9,000.0	0.00	0.00	9,000.0	0.0	0.0	0.0	0.00	0.00	0.00
9,100.0	0.00	0.00	9,100.0	0.0	0.0	0.0	0.00	0.00	0.00
9,200.0	0.00	0.00	9,200.0	0.0	0.0	0.0	0.00	0.00	0.00
9,300.0	0.00	0.00	9,300.0	0.0	0.0	0.0	0.00	0.00	0.00
9,400.0	0.00	0.00	9,400.0	0.0	0.0	0.0	0.00	0.00	0.00
9,500.0	0.00	0.00	9,500.0	0.0	0.0	0.0	0.00	0.00	0.00
9,600.0	0.00	0.00	9,600.0	0.0	0.0	0.0	0.00	0.00	0.00
9,700.0	0.00	0.00	9,700.0	0.0	0.0	0.0	0.00	0.00	0.00
9,800.0	0.00	0.00	9,800.0	0.0	0.0	0.0	0.00	0.00	0.00
9,900.0	0.00	0.00	9,900.0	0.0	0.0	0.0	0.00	0.00	0.00
10,000.0	0.00	0.00	10,000.0	0.0	0.0	0.0	0.00	0.00	0.00
10,100.0	0.00	0.00	10,100.0	0.0	0.0	0.0	0.00	0.00	0.00
10,200.0	0.00	0.00	10,200.0	0.0	0.0	0.0	0.00	0.00	0.00
10,300.0	0.00	0.00	10,300.0	0.0	0.0	0.0	0.00	0.00	0.00
10,400.0	0.00	0.00	10,400.0	0.0	0.0	0.0	0.00	0.00	0.00
10,500.0	0.00	0.00	10,500.0	0.0	0.0	0.0	0.00	0.00	0.00
10,600.0	0.00	0.00	10,600.0	0.0	0.0	0.0	0.00	0.00	0.00
10,700.0	0.00	0.00	10,700.0	0.0	0.0	0.0	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: #502H
Wellbore: OH
Design: Plan #2

Local Co-ordinate Reference: Well #502H
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)
10,722.5	0.00	0.00	10,722.5	0.0	0.0	0.0	0.00	0.00	0.00
10,725.0	0.30	167.83	10,725.0	0.0	0.0	0.0	12.00	12.00	0.00
10,750.0	3.30	167.83	10,750.0	-0.8	0.2	0.8	12.00	12.00	0.00
10,775.0	6.30	167.83	10,774.9	-2.8	0.6	2.8	12.00	12.00	0.00
10,800.0	9.30	167.83	10,799.7	-6.1	1.3	6.2	12.00	12.00	0.00
10,825.0	12.30	167.83	10,824.2	-10.7	2.3	10.8	12.00	12.00	0.00
10,850.0	15.30	167.83	10,848.5	-16.5	3.6	16.7	12.00	12.00	0.00
10,875.0	18.30	167.83	10,872.4	-23.6	5.1	23.8	12.00	12.00	0.00
10,900.0	21.30	167.83	10,895.9	-31.9	6.9	32.1	12.00	12.00	0.00
10,925.0	24.30	167.83	10,919.0	-41.4	8.9	41.7	12.00	12.00	0.00
10,950.0	27.30	167.83	10,941.5	-52.0	11.2	52.4	12.00	12.00	0.00
10,975.0	30.30	167.83	10,963.4	-63.8	13.8	64.2	12.00	12.00	0.00
11,000.0	33.30	167.83	10,984.6	-76.8	16.5	77.2	12.00	12.00	0.00
11,025.0	36.30	167.83	11,005.2	-90.6	19.5	91.2	12.00	12.00	0.00
11,050.0	39.30	167.83	11,024.9	-105.6	22.8	106.3	12.00	12.00	0.00
11,075.0	42.30	167.83	11,043.8	-121.5	26.2	122.4	12.00	12.00	0.00
11,100.0	45.30	167.83	11,061.9	-138.4	29.9	139.4	12.00	12.00	0.00
11,125.0	48.30	167.83	11,079.0	-156.2	33.7	157.4	12.00	12.00	0.00
11,150.0	51.30	167.83	11,095.1	-174.9	37.7	176.2	12.00	12.00	0.00
11,175.0	54.30	167.83	11,110.2	-194.4	41.9	195.8	12.00	12.00	0.00
11,200.0	57.30	167.83	11,124.3	-214.6	46.3	216.1	12.00	12.00	0.00
11,225.0	60.30	167.83	11,137.2	-235.5	50.8	237.2	12.00	12.00	0.00
11,250.0	63.30	167.83	11,149.1	-257.0	55.4	258.9	12.00	12.00	0.00
11,275.0	66.30	167.83	11,159.7	-279.1	60.2	281.2	12.00	12.00	0.00
11,300.0	69.30	167.83	11,169.1	-301.8	65.1	304.0	12.00	12.00	0.00
11,325.0	72.30	167.83	11,177.4	-324.8	70.1	327.2	12.00	12.00	0.00
11,350.0	75.30	167.83	11,184.3	-348.3	75.1	350.8	12.00	12.00	0.00
11,375.0	78.30	167.83	11,190.0	-372.1	80.2	374.8	12.00	12.00	0.00
11,400.0	81.30	167.83	11,194.5	-396.1	85.4	399.0	12.00	12.00	0.00
11,425.0	84.30	167.83	11,197.6	-420.4	90.7	423.4	12.00	12.00	0.00
11,450.0	87.30	167.83	11,199.4	-444.7	95.9	448.0	12.00	12.00	0.00
11,472.5	90.00	167.83	11,200.0	-466.7	100.7	470.1	12.00	12.00	0.00
11,500.0	90.00	168.40	11,200.0	-493.6	106.3	497.2	2.06	0.00	2.06
11,600.0	90.00	170.46	11,200.0	-591.9	124.7	596.1	2.06	0.00	2.06
11,700.0	90.00	172.53	11,200.0	-690.8	139.5	695.5	2.06	0.00	2.06
11,800.0	90.00	174.59	11,200.0	-790.2	150.7	795.2	2.06	0.00	2.06
11,900.0	90.00	176.66	11,200.0	-889.9	158.3	895.1	2.06	0.00	2.06
12,000.0	90.00	178.72	11,200.0	-989.8	162.3	995.1	2.06	0.00	2.06
12,041.4	90.00	179.58	11,200.0	-1,031.3	162.9	1,036.6	2.06	0.00	2.06
12,100.0	90.00	179.58	11,200.0	-1,089.8	163.4	1,095.1	0.00	0.00	0.00
12,200.0	90.00	179.58	11,200.0	-1,189.8	164.1	1,195.1	0.00	0.00	0.00
12,300.0	90.00	179.58	11,200.0	-1,289.8	164.8	1,295.0	0.00	0.00	0.00
12,400.0	90.00	179.58	11,200.0	-1,389.8	165.8	1,395.0	0.00	0.00	0.00
12,500.0	90.00	179.58	11,200.0	-1,489.8	166.3	1,494.9	0.00	0.00	0.00
12,600.0	90.00	179.58	11,200.0	-1,589.8	167.0	1,594.9	0.00	0.00	0.00
12,700.0	90.00	179.58	11,200.0	-1,689.8	167.8	1,694.8	0.00	0.00	0.00
12,800.0	90.00	179.58	11,200.0	-1,789.8	168.5	1,794.8	0.00	0.00	0.00
12,900.0	90.00	179.58	11,200.0	-1,889.8	169.3	1,894.7	0.00	0.00	0.00
13,000.0	90.00	179.58	11,200.0	-1,989.8	170.0	1,994.7	0.00	0.00	0.00
13,100.0	90.00	179.58	11,200.0	-2,089.8	170.7	2,094.7	0.00	0.00	0.00
13,200.0	90.00	179.58	11,200.0	-2,189.8	171.5	2,194.6	0.00	0.00	0.00
13,300.0	90.00	179.58	11,200.0	-2,289.8	172.2	2,294.6	0.00	0.00	0.00
13,400.0	90.00	179.58	11,200.0	-2,389.8	172.9	2,394.5	0.00	0.00	0.00
13,500.0	90.00	179.58	11,200.0	-2,489.8	173.7	2,494.5	0.00	0.00	0.00



EOG Resources, Inc.

Planning Report

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 Wellbore: OH
 Design: Plan #2

Local Co-ordinate Reference: Well #502H
 TVD Reference: KB = 21 @ 3501.0usft (Nomac 55)
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 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)
13,600.0	90.00	179.58	11,200.0	-2,589.8	174.4	2,594.4	0.00	0.00	0.00
13,700.0	90.00	179.58	11,200.0	-2,689.8	175.1	2,694.4	0.00	0.00	0.00
13,800.0	90.00	179.58	11,200.0	-2,789.8	175.9	2,794.4	0.00	0.00	0.00
13,900.0	90.00	179.58	11,200.0	-2,889.8	176.6	2,894.3	0.00	0.00	0.00
14,000.0	90.00	179.58	11,200.0	-2,989.8	177.4	2,994.3	0.00	0.00	0.00
14,100.0	90.00	179.58	11,200.0	-3,089.8	178.1	3,094.2	0.00	0.00	0.00
14,200.0	90.00	179.58	11,200.0	-3,189.8	178.8	3,194.2	0.00	0.00	0.00
14,300.0	90.00	179.58	11,200.0	-3,289.8	179.6	3,294.1	0.00	0.00	0.00
14,400.0	90.00	179.58	11,200.0	-3,389.7	180.3	3,394.1	0.00	0.00	0.00
14,500.0	90.00	179.58	11,200.0	-3,489.7	181.0	3,494.1	0.00	0.00	0.00
14,600.0	90.00	179.58	11,200.0	-3,589.7	181.8	3,594.0	0.00	0.00	0.00
14,700.0	90.00	179.58	11,200.0	-3,689.7	182.5	3,694.0	0.00	0.00	0.00
14,800.0	90.00	179.58	11,200.0	-3,789.7	183.2	3,793.9	0.00	0.00	0.00
14,900.0	90.00	179.58	11,200.0	-3,889.7	184.0	3,893.9	0.00	0.00	0.00
15,000.0	90.00	179.58	11,200.0	-3,989.7	184.7	3,993.8	0.00	0.00	0.00
15,100.0	90.00	179.58	11,200.0	-4,089.7	185.4	4,093.8	0.00	0.00	0.00
15,200.0	90.00	179.58	11,200.0	-4,189.7	186.2	4,193.7	0.00	0.00	0.00
15,300.0	90.00	179.58	11,200.0	-4,289.7	186.9	4,293.7	0.00	0.00	0.00
15,400.0	90.00	179.58	11,200.0	-4,389.7	187.7	4,393.7	0.00	0.00	0.00
15,500.0	90.00	179.58	11,200.0	-4,489.7	188.4	4,493.6	0.00	0.00	0.00
15,600.0	90.00	179.58	11,200.0	-4,589.7	189.1	4,593.6	0.00	0.00	0.00
15,700.0	90.00	179.58	11,200.0	-4,689.7	189.9	4,693.5	0.00	0.00	0.00
15,800.0	90.00	179.58	11,200.0	-4,789.7	190.6	4,793.5	0.00	0.00	0.00
15,900.0	90.00	179.58	11,200.0	-4,889.7	191.3	4,893.4	0.00	0.00	0.00
16,000.0	90.00	179.58	11,200.0	-4,989.7	192.1	4,993.4	0.00	0.00	0.00
16,100.0	90.00	179.58	11,200.0	-5,089.7	192.8	5,093.4	0.00	0.00	0.00
16,200.0	90.00	179.58	11,200.0	-5,189.7	193.5	5,193.3	0.00	0.00	0.00
16,262.3	90.00	179.58	11,200.0	-5,252.0	194.0	5,255.6	0.00	0.00	0.00

PBHL(Hearn's 27 State #502H)

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N-S (usft)	+E-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL(Hearn's 27 State #502H) - plan hits target center - Point	0.00	0.00	11,200.0	-5,252.0	194.0	425,453.00	737,504.00	32° 10' 2.482 N	103° 33' 56.847 W

EOG RESOURCES, INC.
HEARNS 27 STATE COM #502H

Hydrogen Sulfide Plan Summary

- A. All personnel shall receive proper H₂S training in accordance with Onshore Order III.C.3.a.
- B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.
- C. Required Emergency Equipment:
 - Well control equipment
 - a. Flare line 150' from wellhead to be ignited by flare gun.
 - b. Choke manifold with a remotely operated choke.
 - c. Mud/gas separator
 - Protective equipment for essential personnel.
 - Breathing apparatus:
 - a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
 - b. Work/Escapes packs — 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
 - c. Emergency Escape Packs — 4 packs shall be stored in the doghouse for emergency evacuation.
 - Auxiliary Rescue Equipment:
 - a. Stretcher
 - b. Two OSHA full body harness
 - c. 100 ft 5/8 inch OSHA approved rope
 - d. 1-20# class ABC fire extinguisher
 - H₂S detection and monitoring equipment:
 - The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.
 - (Gas sample tubes will be stored in the safety trailer)
 - Visual warning systems.
 - a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
 - b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
 - c. Two wind socks will be placed in strategic locations, visible from all angles.

EOG RESOURCES, INC.
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- **Mud program:**
The mud program has been designed to minimize the volume of H₂S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H₂S bearing zones.
- **Metallurgy:**
All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.
- **Communication:**
Communication will be via cell phones and land lines where available.

EOG RESOURCES, INC.
HEARNS 27 STATE COM #502H

Emergency Assistance Telephone List

PUBLIC SAFETY: **911 or**

Lea County Sheriff's Department (575) 396-3611

Rod Coffman

Fire Department:

Carlsbad (575) 885-3125

Artesia (575) 746-5050

Hospitals:

Carlsbad (575) 887-4121

Artesia (575) 748-3333

Hobbs (575) 392-1979

Dept. of Public Safety/Carlsbad (575) 748-9718

Highway Department (575) 885-3281

New Mexico Oil Conservation (575) 476-3440

U.S. Dept. of Labor (575) 887-1174

EOG Resources, Inc.

EOG / Midland Office (432) 686-3600

Company Drilling Consultants:

Jett Dueitt Cell (432) 230-4840

Blake Burney

Drilling Engineer

Robert Brosig Office (432) 686-3737

Cell (432) 770-0705

Drilling Manager

Lee Lohoefer Office (432) 686-6716

Cell (817) 374-9686

Drilling Superintendent

Jason Richey Office (432) 686-3665

Cell (817) 879-6521

H&P Drilling

H&P Drilling Office (432) 563-5757

H&P 415 Drilling Rig Rig (432) 230-4840

Tool Pusher:

Johnathan Craig Cell (817) 760-6374

Brad Garrett

Safety

Reggie Phillips (HSE Manager) Office (432) 686-3747

Cell (432) 250-7507