

HOBBS QCD

MAR 07 2018

RECEIVED



Lea County, NM (NAD 83 NME)

Gem 36 State Com #721H

Plan #0.1

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

WELL DETAILS: #721H

KB = 25 @ 3367.0usft
Northing 393799.00 Easting 787198.00 3342.0
Latitude 32° 4' 50.578 N Longitude 103° 38' 10.963 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSecl	Target	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.0		
2	3000.0	0.00	0.00	3000.0	0.0	0.0	0.00	0.00	0.0		
3	3312.1	3.12	129.87	3311.9	-8.4	6.5	1.80	129.87	-8.8		
4	11904.4	3.12	129.87	11891.6	-364.1	368.6	0.00	0.00	-270.5		
5	12870.9	90.00	0.33	12386.0	173.0	390.1	12.00	-129.30	206.9		
6	17190.9	90.00	0.33	12386.0	4693.0	416.0	0.00	0.00	4711.4		PBH (Gem 36 State Com #721H)

To convert a Magnetic Direction to a Grid Direction, Add 6.53°
To convert a Magnetic Direction to a True Direction, Add 6.90° East
To convert a True Direction to a Grid Direction, Subtract 0.37°



Azimuths to Grid North
True North: -0.37°
Magnetic North: 6.53°

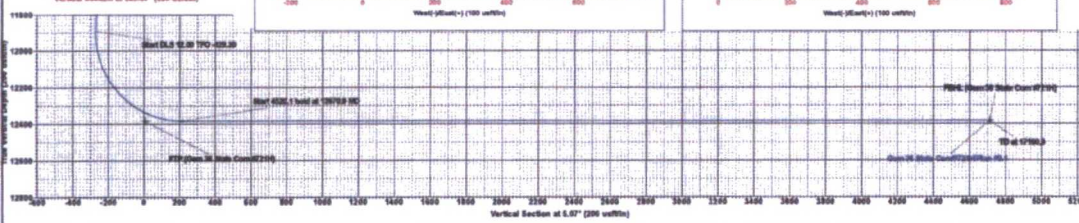
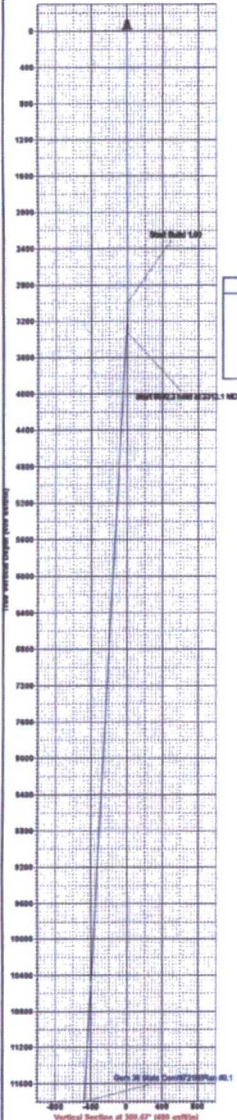
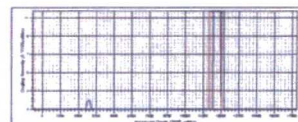
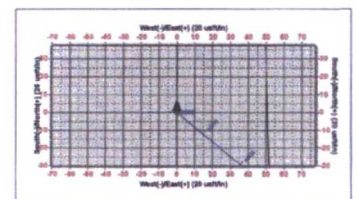
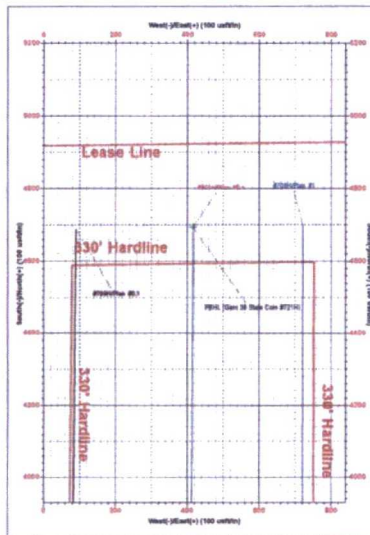
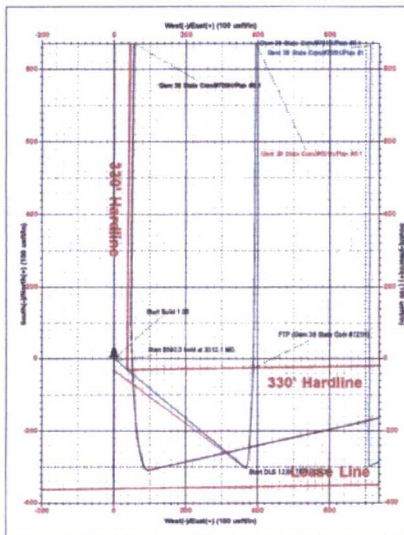
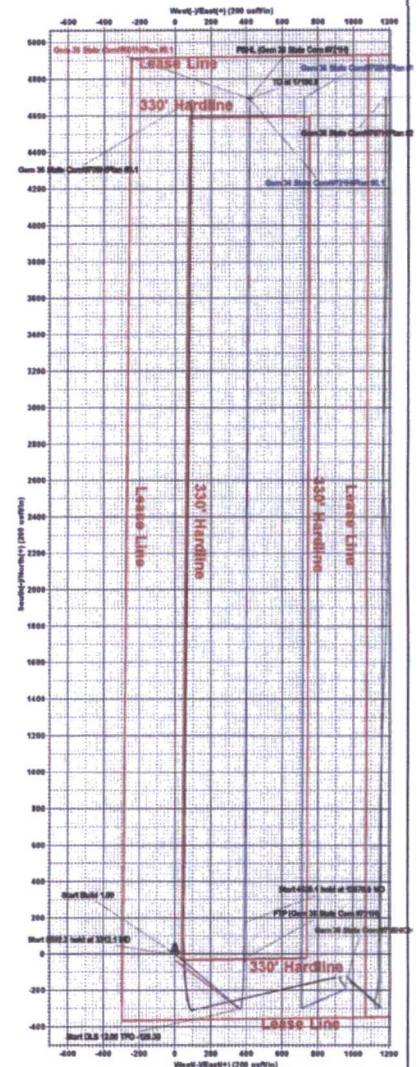
Magnetic Field
Strength: 47773.0nT
Dip Angle: 98.81°
Date: 3/6/2018
Model: IGRF2015

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
PBH (Gem 36 State Com #721H)	12386.0	4693.0	416.0	393482.00	787814.00
FTP (Gem 36 State Com #721H)	12386.0	-27.0	399.0	393772.00	787687.00





EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Gem 36 State Com

#721H

OH

Plan: Plan #0.1

Standard Planning Report

06 March, 2018



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #721H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3367.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3367.0usft
Site:	Gem 36 State Com	North Reference:	Grid
Well:	#721H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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		Gem 36 State Com			
Site Position:		Northing:	393,686.00 usft	Latitude:	32° 4' 49.331 N
From:	Map	Easting:	759,213.00 usft	Longitude:	103° 37' 47.552 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.37°

Well	#721H					
Well Position	+N/-S	113.0 usft	Northing:	393,799.00 usft	Latitude:	32° 4' 50.578 N
	+E/-W	-2,015.0 usft	Easting:	757,198.00 usft	Longitude:	103° 38' 10.963 W
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level:	3,342.0 usft	

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	3/6/2018	6.90	59.91	47,773.01112707

Design	Plan #0.1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	5.07

Plan Survey Tool Program	Date 3/6/2018			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	17,190.9 Plan #0.1 (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	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,312.1	3.12	129.67	3,311.9	-5.4	6.5	1.00	1.00	0.00	129.67	
11,904.4	3.12	129.67	11,891.5	-304.1	366.6	0.00	0.00	0.00	0.00	
12,670.9	90.00	0.33	12,385.0	173.0	390.1	12.00	11.33	-16.87	-129.30	
17,190.9	90.00	0.33	12,385.0	4,693.0	416.0	0.00	0.00	0.00	0.00	PBHL (Gem 36 State



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Gem 36 State Com
 Well: #721H
 Wellbore: OH
 Design: Plan #0.1

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

Well #721H
 KB = 25 @ 3367.0usft
 KB = 25 @ 3367.0usft
 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	1.00	129.67	3,100.0	-0.6	0.7	-0.5	1.00	1.00	0.00
3,200.0	2.00	129.67	3,200.0	-2.2	2.7	-2.0	1.00	1.00	0.00
3,300.0	3.00	129.67	3,299.9	-5.0	6.0	-4.5	1.00	1.00	0.00
3,312.1	3.12	129.67	3,311.9	-5.4	6.5	-4.8	1.00	1.00	0.00
3,400.0	3.12	129.67	3,399.7	-8.5	10.2	-7.5	0.00	0.00	0.00
3,500.0	3.12	129.67	3,499.6	-12.0	14.4	-10.6	0.00	0.00	0.00
3,600.0	3.12	129.67	3,599.4	-15.4	18.6	-13.7	0.00	0.00	0.00
3,700.0	3.12	129.67	3,699.3	-18.9	22.8	-16.8	0.00	0.00	0.00
3,800.0	3.12	129.67	3,799.1	-22.4	27.0	-19.9	0.00	0.00	0.00
3,900.0	3.12	129.67	3,899.0	-25.9	31.2	-23.0	0.00	0.00	0.00
4,000.0	3.12	129.67	3,998.8	-29.3	35.4	-26.1	0.00	0.00	0.00
4,100.0	3.12	129.67	4,098.7	-32.8	39.6	-29.2	0.00	0.00	0.00
4,200.0	3.12	129.67	4,198.5	-36.3	43.7	-32.3	0.00	0.00	0.00
4,300.0	3.12	129.67	4,298.4	-39.8	47.9	-35.4	0.00	0.00	0.00
4,400.0	3.12	129.67	4,398.2	-43.2	52.1	-38.5	0.00	0.00	0.00
4,500.0	3.12	129.67	4,498.1	-46.7	56.3	-41.6	0.00	0.00	0.00
4,600.0	3.12	129.67	4,597.9	-50.2	60.5	-44.6	0.00	0.00	0.00
4,700.0	3.12	129.67	4,697.8	-53.7	64.7	-47.7	0.00	0.00	0.00
4,800.0	3.12	129.67	4,797.6	-57.1	68.9	-50.8	0.00	0.00	0.00
4,900.0	3.12	129.67	4,897.5	-60.6	73.1	-53.9	0.00	0.00	0.00
5,000.0	3.12	129.67	4,997.3	-64.1	77.3	-57.0	0.00	0.00	0.00
5,100.0	3.12	129.67	5,097.2	-67.6	81.5	-60.1	0.00	0.00	0.00
5,200.0	3.12	129.67	5,197.0	-71.0	85.7	-63.2	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Gem 36 State Com
Well: #721H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference:
TVD Reference: KB = 25 @ 3367.0usft
MD Reference: KB = 25 @ 3367.0usft
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)
5,300.0	3.12	129.67	5,296.9	-74.5	89.8	-66.3	0.00	0.00	0.00
5,400.0	3.12	129.67	5,396.7	-78.0	94.0	-69.4	0.00	0.00	0.00
5,500.0	3.12	129.67	5,496.6	-81.5	98.2	-72.5	0.00	0.00	0.00
5,600.0	3.12	129.67	5,596.5	-84.9	102.4	-75.6	0.00	0.00	0.00
5,700.0	3.12	129.67	5,696.3	-88.4	106.6	-78.7	0.00	0.00	0.00
5,800.0	3.12	129.67	5,796.2	-91.9	110.8	-81.8	0.00	0.00	0.00
5,900.0	3.12	129.67	5,896.0	-95.4	115.0	-84.8	0.00	0.00	0.00
6,000.0	3.12	129.67	5,995.9	-98.8	119.2	-87.9	0.00	0.00	0.00
6,100.0	3.12	129.67	6,095.7	-102.3	123.4	-91.0	0.00	0.00	0.00
6,200.0	3.12	129.67	6,195.6	-105.8	127.6	-94.1	0.00	0.00	0.00
6,300.0	3.12	129.67	6,295.4	-109.3	131.8	-97.2	0.00	0.00	0.00
6,400.0	3.12	129.67	6,395.3	-112.7	135.9	-100.3	0.00	0.00	0.00
6,500.0	3.12	129.67	6,495.1	-116.2	140.1	-103.4	0.00	0.00	0.00
6,600.0	3.12	129.67	6,595.0	-119.7	144.3	-106.5	0.00	0.00	0.00
6,700.0	3.12	129.67	6,694.8	-123.2	148.5	-109.6	0.00	0.00	0.00
6,800.0	3.12	129.67	6,794.7	-126.6	152.7	-112.7	0.00	0.00	0.00
6,900.0	3.12	129.67	6,894.5	-130.1	156.9	-115.8	0.00	0.00	0.00
7,000.0	3.12	129.67	6,994.4	-133.6	161.1	-118.9	0.00	0.00	0.00
7,100.0	3.12	129.67	7,094.2	-137.1	165.3	-121.9	0.00	0.00	0.00
7,200.0	3.12	129.67	7,194.1	-140.6	169.5	-125.0	0.00	0.00	0.00
7,300.0	3.12	129.67	7,293.9	-144.0	173.7	-128.1	0.00	0.00	0.00
7,400.0	3.12	129.67	7,393.8	-147.5	177.8	-131.2	0.00	0.00	0.00
7,500.0	3.12	129.67	7,493.6	-151.0	182.0	-134.3	0.00	0.00	0.00
7,600.0	3.12	129.67	7,593.5	-154.5	186.2	-137.4	0.00	0.00	0.00
7,700.0	3.12	129.67	7,693.3	-157.9	190.4	-140.5	0.00	0.00	0.00
7,800.0	3.12	129.67	7,793.2	-161.4	194.6	-143.6	0.00	0.00	0.00
7,900.0	3.12	129.67	7,893.0	-164.9	198.8	-146.7	0.00	0.00	0.00
8,000.0	3.12	129.67	7,992.9	-168.4	203.0	-149.8	0.00	0.00	0.00
8,100.0	3.12	129.67	8,092.7	-171.8	207.2	-152.9	0.00	0.00	0.00
8,200.0	3.12	129.67	8,192.6	-175.3	211.4	-156.0	0.00	0.00	0.00
8,300.0	3.12	129.67	8,292.4	-178.8	215.6	-159.0	0.00	0.00	0.00
8,400.0	3.12	129.67	8,392.3	-182.3	219.8	-162.1	0.00	0.00	0.00
8,500.0	3.12	129.67	8,492.2	-185.7	223.9	-165.2	0.00	0.00	0.00
8,600.0	3.12	129.67	8,592.0	-189.2	228.1	-168.3	0.00	0.00	0.00
8,700.0	3.12	129.67	8,691.9	-192.7	232.3	-171.4	0.00	0.00	0.00
8,800.0	3.12	129.67	8,791.7	-196.2	236.5	-174.5	0.00	0.00	0.00
8,900.0	3.12	129.67	8,891.6	-199.6	240.7	-177.6	0.00	0.00	0.00
9,000.0	3.12	129.67	8,991.4	-203.1	244.9	-180.7	0.00	0.00	0.00
9,100.0	3.12	129.67	9,091.3	-206.6	249.1	-183.8	0.00	0.00	0.00
9,200.0	3.12	129.67	9,191.1	-210.1	253.3	-186.9	0.00	0.00	0.00
9,300.0	3.12	129.67	9,291.0	-213.5	257.5	-190.0	0.00	0.00	0.00
9,400.0	3.12	129.67	9,390.8	-217.0	261.7	-193.1	0.00	0.00	0.00
9,500.0	3.12	129.67	9,490.7	-220.5	265.8	-196.2	0.00	0.00	0.00
9,600.0	3.12	129.67	9,590.5	-224.0	270.0	-199.2	0.00	0.00	0.00
9,700.0	3.12	129.67	9,690.4	-227.4	274.2	-202.3	0.00	0.00	0.00
9,800.0	3.12	129.67	9,790.2	-230.9	278.4	-205.4	0.00	0.00	0.00
9,900.0	3.12	129.67	9,890.1	-234.4	282.6	-208.5	0.00	0.00	0.00
10,000.0	3.12	129.67	9,989.9	-237.9	286.8	-211.6	0.00	0.00	0.00
10,100.0	3.12	129.67	10,089.8	-241.3	291.0	-214.7	0.00	0.00	0.00
10,200.0	3.12	129.67	10,189.6	-244.8	295.2	-217.8	0.00	0.00	0.00
10,300.0	3.12	129.67	10,289.5	-248.3	299.4	-220.9	0.00	0.00	0.00
10,400.0	3.12	129.67	10,389.3	-251.8	303.6	-224.0	0.00	0.00	0.00
10,500.0	3.12	129.67	10,489.2	-255.2	307.8	-227.1	0.00	0.00	0.00
10,600.0	3.12	129.67	10,589.0	-258.7	311.9	-230.2	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Gem 36 State Com
Well: #721H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Well #721H
KB = 25 @ 3367.0usft
KB = 25 @ 3367.0usft
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)
10,700.0	3.12	129.67	10,688.9	-262.2	316.1	-233.3	0.00	0.00	0.00
10,800.0	3.12	129.67	10,788.7	-265.7	320.3	-236.3	0.00	0.00	0.00
10,900.0	3.12	129.67	10,888.6	-269.1	324.5	-239.4	0.00	0.00	0.00
11,000.0	3.12	129.67	10,988.4	-272.6	328.7	-242.5	0.00	0.00	0.00
11,100.0	3.12	129.67	11,088.3	-276.1	332.9	-245.6	0.00	0.00	0.00
11,200.0	3.12	129.67	11,188.1	-279.6	337.1	-248.7	0.00	0.00	0.00
11,300.0	3.12	129.67	11,288.0	-283.0	341.3	-251.8	0.00	0.00	0.00
11,400.0	3.12	129.67	11,387.9	-286.5	345.5	-254.9	0.00	0.00	0.00
11,500.0	3.12	129.67	11,487.7	-290.0	349.7	-258.0	0.00	0.00	0.00
11,600.0	3.12	129.67	11,587.6	-293.5	353.8	-261.1	0.00	0.00	0.00
11,700.0	3.12	129.67	11,687.4	-296.9	358.0	-264.2	0.00	0.00	0.00
11,800.0	3.12	129.67	11,787.3	-300.4	362.2	-267.3	0.00	0.00	0.00
11,904.4	3.12	129.67	11,891.5	-304.1	366.6	-270.5	0.00	0.00	0.00
11,925.0	2.46	78.74	11,912.1	-304.3	367.5	-270.7	12.00	-3.18	-247.15
11,950.0	4.25	34.92	11,937.0	-303.5	368.5	-269.7	12.00	7.13	-175.25
11,975.0	6.93	20.63	11,961.9	-301.3	369.6	-267.5	12.00	10.72	-57.16
12,000.0	9.79	14.47	11,986.7	-297.8	370.7	-263.9	12.00	11.47	-24.68
12,025.0	12.72	11.09	12,011.2	-293.1	371.7	-259.1	12.00	11.71	-13.50
12,050.0	15.68	8.97	12,035.4	-287.0	372.8	-253.0	12.00	11.82	-8.49
12,075.0	18.65	7.51	12,059.3	-279.7	373.8	-245.6	12.00	11.88	-5.85
12,100.0	21.62	6.43	12,082.8	-271.2	374.9	-237.0	12.00	11.91	-4.29
12,125.0	24.61	5.61	12,105.7	-261.4	375.9	-227.2	12.00	11.93	-3.29
12,150.0	27.59	4.96	12,128.2	-250.5	376.9	-216.2	12.00	11.94	-2.62
12,175.0	30.58	4.42	12,150.0	-238.4	377.9	-204.1	12.00	11.95	-2.14
12,200.0	33.57	3.97	12,171.2	-225.1	378.9	-190.8	12.00	11.96	-1.80
12,225.0	36.56	3.59	12,191.7	-210.8	379.8	-176.4	12.00	11.97	-1.53
12,250.0	39.56	3.25	12,211.4	-195.4	380.7	-161.0	12.00	11.97	-1.33
12,275.0	42.55	2.96	12,230.2	-179.0	381.6	-144.6	12.00	11.98	-1.17
12,300.0	45.55	2.70	12,248.2	-161.6	382.5	-127.2	12.00	11.98	-1.05
12,325.0	48.54	2.46	12,265.2	-143.4	383.3	-109.0	12.00	11.98	-0.94
12,350.0	51.54	2.25	12,281.3	-124.2	384.1	-89.8	12.00	11.98	-0.86
12,375.0	54.53	2.05	12,296.3	-104.3	384.8	-69.9	12.00	11.98	-0.79
12,400.0	57.53	1.87	12,310.3	-83.6	385.5	-49.2	12.00	11.98	-0.74
12,425.0	60.52	1.69	12,323.1	-62.1	386.2	-27.8	12.00	11.99	-0.69
12,450.0	63.52	1.53	12,334.9	-40.1	386.8	-5.8	12.00	11.99	-0.65
12,475.0	66.52	1.38	12,345.4	-17.4	387.4	16.9	12.00	11.99	-0.62
12,481.0	67.23	1.34	12,347.8	-11.9	387.5	22.3	12.00	11.99	-0.60
FTP (Gem 36 State Com #721H)									
12,500.0	69.51	1.23	12,354.8	5.8	387.9	40.0	12.00	11.99	-0.59
12,525.0	72.51	1.09	12,362.9	29.4	388.4	63.6	12.00	11.99	-0.57
12,550.0	75.51	0.95	12,369.8	53.4	388.8	87.5	12.00	11.99	-0.55
12,575.0	78.51	0.82	12,375.4	77.8	389.2	111.8	12.00	11.99	-0.53
12,600.0	81.50	0.69	12,379.8	102.4	389.5	136.4	12.00	11.99	-0.52
12,625.0	84.50	0.56	12,382.8	127.2	389.8	161.1	12.00	11.99	-0.51
12,650.0	87.50	0.43	12,384.5	152.1	390.0	186.0	12.00	11.99	-0.51
12,670.9	90.00	0.33	12,385.0	173.0	390.1	206.8	12.00	11.99	-0.51
12,700.0	90.00	0.33	12,385.0	202.1	390.3	235.8	0.00	0.00	0.00
12,800.0	90.00	0.33	12,385.0	302.1	390.9	335.5	0.00	0.00	0.00
12,900.0	90.00	0.33	12,385.0	402.1	391.5	435.1	0.00	0.00	0.00
13,000.0	90.00	0.33	12,385.0	502.1	392.0	534.8	0.00	0.00	0.00
13,100.0	90.00	0.33	12,385.0	602.1	392.6	634.4	0.00	0.00	0.00
13,200.0	90.00	0.33	12,385.0	702.1	393.2	734.1	0.00	0.00	0.00
13,300.0	90.00	0.33	12,385.0	802.1	393.7	833.7	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Gem 36 State Cor
Well: #721H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference:
TVD Reference: KB = 25 @ 3367.0usft
MD Reference: KB = 25 @ 3367.0usft
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)
13,400.0	90.00	0.33	12,385.0	902.1	394.3	933.4	0.00	0.00	0.00
13,500.0	90.00	0.33	12,385.0	1,002.1	394.9	1,033.1	0.00	0.00	0.00
13,600.0	90.00	0.33	12,385.0	1,102.1	395.5	1,132.7	0.00	0.00	0.00
13,700.0	90.00	0.33	12,385.0	1,202.1	396.0	1,232.4	0.00	0.00	0.00
13,800.0	90.00	0.33	12,385.0	1,302.1	396.6	1,332.0	0.00	0.00	0.00
13,900.0	90.00	0.33	12,385.0	1,402.1	397.2	1,431.7	0.00	0.00	0.00
14,000.0	90.00	0.33	12,385.0	1,502.1	397.7	1,531.4	0.00	0.00	0.00
14,100.0	90.00	0.33	12,385.0	1,602.1	398.3	1,631.0	0.00	0.00	0.00
14,200.0	90.00	0.33	12,385.0	1,702.1	398.9	1,730.7	0.00	0.00	0.00
14,300.0	90.00	0.33	12,385.0	1,802.1	399.5	1,830.3	0.00	0.00	0.00
14,400.0	90.00	0.33	12,385.0	1,902.1	400.0	1,930.0	0.00	0.00	0.00
14,500.0	90.00	0.33	12,385.0	2,002.1	400.6	2,029.6	0.00	0.00	0.00
14,600.0	90.00	0.33	12,385.0	2,102.1	401.2	2,129.3	0.00	0.00	0.00
14,700.0	90.00	0.33	12,385.0	2,202.1	401.8	2,229.0	0.00	0.00	0.00
14,800.0	90.00	0.33	12,385.0	2,302.1	402.3	2,328.6	0.00	0.00	0.00
14,900.0	90.00	0.33	12,385.0	2,402.1	402.9	2,428.3	0.00	0.00	0.00
15,000.0	90.00	0.33	12,385.0	2,502.1	403.5	2,527.9	0.00	0.00	0.00
15,100.0	90.00	0.33	12,385.0	2,602.1	404.0	2,627.6	0.00	0.00	0.00
15,200.0	90.00	0.33	12,385.0	2,702.1	404.6	2,727.3	0.00	0.00	0.00
15,300.0	90.00	0.33	12,385.0	2,802.1	405.2	2,826.9	0.00	0.00	0.00
15,400.0	90.00	0.33	12,385.0	2,902.1	405.8	2,926.6	0.00	0.00	0.00
15,500.0	90.00	0.33	12,385.0	3,002.1	406.3	3,026.2	0.00	0.00	0.00
15,600.0	90.00	0.33	12,385.0	3,102.1	406.9	3,125.9	0.00	0.00	0.00
15,700.0	90.00	0.33	12,385.0	3,202.1	407.5	3,225.5	0.00	0.00	0.00
15,800.0	90.00	0.33	12,385.0	3,302.1	408.0	3,325.2	0.00	0.00	0.00
15,900.0	90.00	0.33	12,385.0	3,402.1	408.6	3,424.9	0.00	0.00	0.00
16,000.0	90.00	0.33	12,385.0	3,502.1	409.2	3,524.5	0.00	0.00	0.00
16,100.0	90.00	0.33	12,385.0	3,602.1	409.8	3,624.2	0.00	0.00	0.00
16,200.0	90.00	0.33	12,385.0	3,702.1	410.3	3,723.8	0.00	0.00	0.00
16,300.0	90.00	0.33	12,385.0	3,802.1	410.9	3,823.5	0.00	0.00	0.00
16,400.0	90.00	0.33	12,385.0	3,902.1	411.5	3,923.2	0.00	0.00	0.00
16,500.0	90.00	0.33	12,385.0	4,002.1	412.0	4,022.8	0.00	0.00	0.00
16,600.0	90.00	0.33	12,385.0	4,102.1	412.6	4,122.5	0.00	0.00	0.00
16,700.0	90.00	0.33	12,385.0	4,202.1	413.2	4,222.1	0.00	0.00	0.00
16,800.0	90.00	0.33	12,385.0	4,302.1	413.8	4,321.8	0.00	0.00	0.00
16,900.0	90.00	0.33	12,385.0	4,402.1	414.3	4,421.4	0.00	0.00	0.00
17,000.0	90.00	0.33	12,385.0	4,502.1	414.9	4,521.1	0.00	0.00	0.00
17,100.0	90.00	0.33	12,385.0	4,602.1	415.5	4,620.8	0.00	0.00	0.00
17,190.9	90.00	0.33	12,385.0	4,693.0	416.0	4,711.4	0.00	0.00	0.00

PBHL (Gem 36 State Cor #721H)

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 (Gem 36 State Co - plan hits target center - Point	0.00	0.00	12,385.0	4,693.0	416.0	398,492.00	757,614.00	32° 5' 36.991 N	103° 38' 5.775 W
FTP (Gem 36 State Cor - plan misses target center by 40.2usft at 12481.0usft MD (12347.8 TVD, -11.9 N, 387.5 E) - Point	0.00	0.00	12,385.0	-27.0	389.0	393,772.00	757,587.00	32° 4' 50.286 N	103° 38' 6.444 W



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Gem 36 State Com
Well: #721H
Wellbore: OH
Design: Plan #0.1

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

Well #721H
KB = 25 @ 3367.0usft
KB = 25 @ 3367.0usft
Grid
Minimum Curvature