

HOBBS OCD

JAN 30 2019

RECEIVED



Lea County, NM (NAD 83 NME)

Gem 36 State Com #501H

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: #501H

KB = 25 @ 3451.0usft 3426.0
Northing 398126.00 Easting 761111.00 Latitude 32° 5' 33.144 N Longitude 103° 37' 25.153 W



Azimuths to Grid North
True North: -0.38°
Magnetic North: 6.42°

Magnetic Field
Strength: 47682.5nT
Dip Angle: 59.01°
Date: 1/14/2019
Model: IGRF2016

To convert a Magnetic Direction to a Grid Direction, Add 6.42°
To convert a Magnetic Direction to a True Direction, Add 6.80° East
To convert a True Direction to a Grid Direction, Subtract 0.38°

SECTION DETAILS

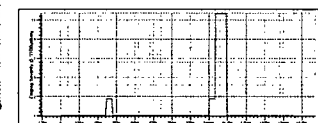
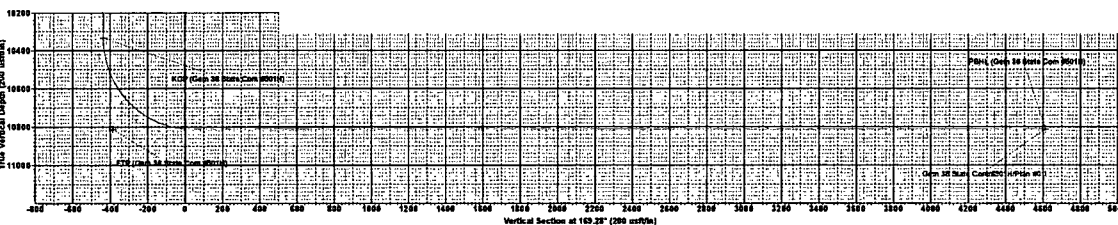
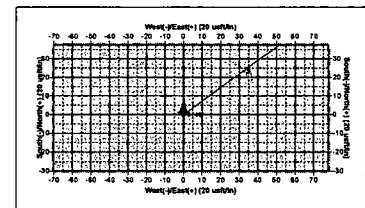
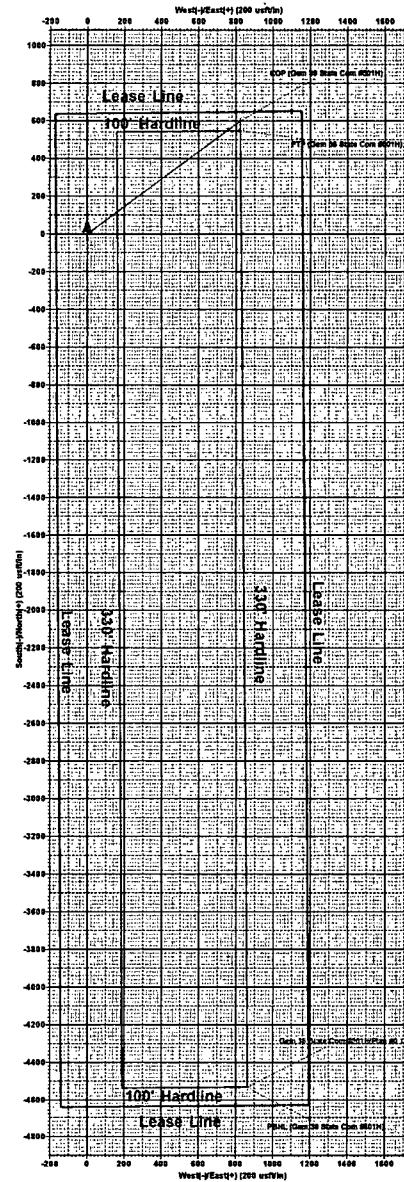
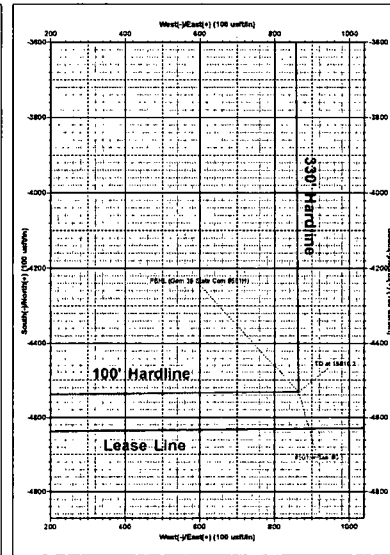
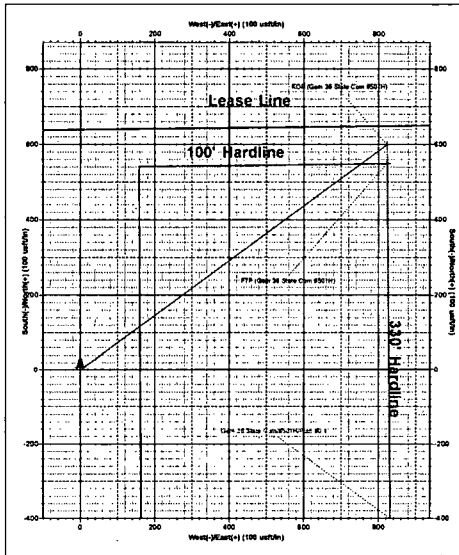
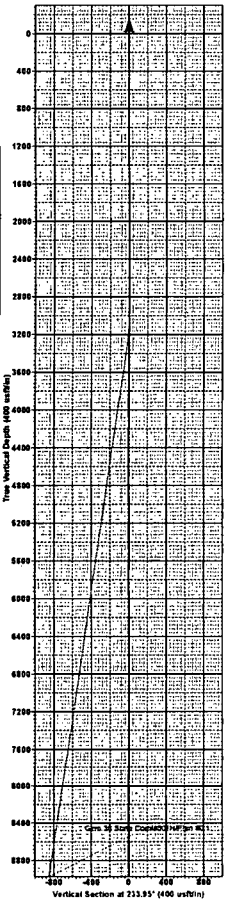
Sec	MD	Inc	Azi	TVD	+W-S	+E-W	Dlog	TFace	Vsect	Target	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	3900.0	0.00	0.00	3900.0	0.0	0.0	0.00	0.00	0.0		
3	3418.7	8.37	63.95	3417.3	18.0	24.7	2.00	50.95	-13.1		
4	9989.8	8.37	63.95	9917.3	581.0	798.3	0.00	0.00	-422.4		
5	10407.6	0.00	0.00	10334.6	599.0	823.0	2.00	180.00	-435.5	KOP (Gem 36 State Com #501H)	
6	11157.6	80.00	179.54	10812.0	121.0	826.8	12.00	179.54	34.3		
7	15810.2	80.00	179.54	10812.0	-4531.0	864.0	0.00	0.00	4612.6	PBHL (Gem 36 State Com #501H)	

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+W-S	+E-W	Northing	Easting
KOP (Gem 36 State Com #501H)	10334.6	599.0	823.0	398725.00	761834.00
PBHL (Gem 36 State Com #501H)	10812.0	-4531.0	864.0	393595.00	761975.00
FTP (Gem 36 State Com #501H)	10812.0	549.0	823.0	338675.00	761934.00



Lea County, NM (NAD 83 NME)
Gem 36 State Com #501H
Plan #0.1
1/14/2019



EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Gem 36 State Com

#501H

OH

Plan: Plan #0.1

Standard Planning Report

14 January, 2019

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #501H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3451.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3451.0usft
Site:	Gem 36 State Com	North Reference:	Grid
Well:	#501H	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	#501H					
Well Position	+N/-S	4,440.0 usft	Northing:	398,126.00 usft	Latitude:	32° 5' 33.144 N
	+E/-W	1,898.0 usft	Easting:	761,111.00 usft	Longitude:	103° 37' 25.153 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,426.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/14/2019	6.80	59.91	47,692.53012734

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	169.28	

Plan Survey Tool Program			Date	1/14/2019	
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	15,810.2	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	
3,418.7	8.37	53.95	3,417.2	18.0	24.7	2.00	2.00	0.00	53.95	
9,988.8	8.37	53.95	9,917.3	581.0	798.3	0.00	0.00	0.00	0.00	
10,407.5	0.00	0.00	10,334.5	599.0	823.0	2.00	-2.00	0.00	180.00	KOP (Gem 36 State C
11,157.5	90.00	179.54	10,812.0	121.6	826.8	12.00	12.00	23.94	179.54	
15,810.2	90.00	179.54	10,812.0	-4,531.0	864.0	0.00	0.00	0.00	0.00	PBHL (Gem 36 State



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #501H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3451.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3451.0usft
Site:	Gem 36 State Com	North Reference:	Grid
Well:	#501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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	2.00	53.95	3,100.0	1.0	1.4	-0.7	2.00	2.00	0.00
3,200.0	4.00	53.95	3,199.8	4.1	5.6	-3.0	2.00	2.00	0.00
3,300.0	6.00	53.95	3,299.5	9.2	12.7	-6.7	2.00	2.00	0.00
3,400.0	8.00	53.95	3,398.7	16.4	22.5	-11.9	2.00	2.00	0.00
3,418.7	8.37	53.95	3,417.2	18.0	24.7	-13.1	2.00	2.00	0.00
3,500.0	8.37	53.95	3,497.6	24.9	34.3	-18.1	0.00	0.00	0.00
3,600.0	8.37	53.95	3,596.6	33.5	46.0	-24.4	0.00	0.00	0.00
3,700.0	8.37	53.95	3,695.5	42.1	57.8	-30.6	0.00	0.00	0.00
3,800.0	8.37	53.95	3,794.4	50.7	69.6	-36.8	0.00	0.00	0.00
3,900.0	8.37	53.95	3,893.4	59.2	81.4	-43.1	0.00	0.00	0.00
4,000.0	8.37	53.95	3,992.3	67.8	93.1	-49.3	0.00	0.00	0.00
4,100.0	8.37	53.95	4,091.2	76.4	104.9	-55.5	0.00	0.00	0.00
4,200.0	8.37	53.95	4,190.2	84.9	116.7	-61.7	0.00	0.00	0.00
4,300.0	8.37	53.95	4,289.1	93.5	128.5	-68.0	0.00	0.00	0.00
4,400.0	8.37	53.95	4,388.0	102.1	140.2	-74.2	0.00	0.00	0.00
4,500.0	8.37	53.95	4,487.0	110.6	152.0	-80.4	0.00	0.00	0.00
4,600.0	8.37	53.95	4,585.9	119.2	163.8	-86.7	0.00	0.00	0.00
4,700.0	8.37	53.95	4,684.9	127.8	175.6	-92.9	0.00	0.00	0.00
4,800.0	8.37	53.95	4,783.8	136.3	187.3	-99.1	0.00	0.00	0.00
4,900.0	8.37	53.95	4,882.7	144.9	199.1	-105.4	0.00	0.00	0.00
5,000.0	8.37	53.95	4,981.7	153.5	210.9	-111.6	0.00	0.00	0.00
5,100.0	8.37	53.95	5,080.6	162.1	222.7	-117.8	0.00	0.00	0.00
5,200.0	8.37	53.95	5,179.5	170.6	234.4	-124.1	0.00	0.00	0.00

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Site:	Gem 36 State Com	North Reference:	Grid
Well:	#501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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	8.37	53.95	5,278.5	179.2	246.2	-130.3	0.00	0.00	0.00
5,400.0	8.37	53.95	5,377.4	187.8	258.0	-136.5	0.00	0.00	0.00
5,500.0	8.37	53.95	5,476.3	196.3	269.8	-142.7	0.00	0.00	0.00
5,600.0	8.37	53.95	5,575.3	204.9	281.5	-149.0	0.00	0.00	0.00
5,700.0	8.37	53.95	5,674.2	213.5	293.3	-155.2	0.00	0.00	0.00
5,800.0	8.37	53.95	5,773.1	222.0	305.1	-161.4	0.00	0.00	0.00
5,900.0	8.37	53.95	5,872.1	230.6	316.9	-167.7	0.00	0.00	0.00
6,000.0	8.37	53.95	5,971.0	239.2	328.6	-173.9	0.00	0.00	0.00
6,100.0	8.37	53.95	6,069.9	247.8	340.4	-180.1	0.00	0.00	0.00
6,200.0	8.37	53.95	6,168.9	256.3	352.2	-186.4	0.00	0.00	0.00
6,300.0	8.37	53.95	6,267.8	264.9	364.0	-192.6	0.00	0.00	0.00
6,400.0	8.37	53.95	6,366.7	273.5	375.7	-198.8	0.00	0.00	0.00
6,500.0	8.37	53.95	6,465.7	282.0	387.5	-205.1	0.00	0.00	0.00
6,600.0	8.37	53.95	6,564.6	290.6	399.3	-211.3	0.00	0.00	0.00
6,700.0	8.37	53.95	6,663.5	299.2	411.1	-217.5	0.00	0.00	0.00
6,800.0	8.37	53.95	6,762.5	307.7	422.8	-223.8	0.00	0.00	0.00
6,900.0	8.37	53.95	6,861.4	316.3	434.6	-230.0	0.00	0.00	0.00
7,000.0	8.37	53.95	6,960.3	324.9	446.4	-236.2	0.00	0.00	0.00
7,100.0	8.37	53.95	7,059.3	333.5	458.2	-242.4	0.00	0.00	0.00
7,200.0	8.37	53.95	7,158.2	342.0	469.9	-248.7	0.00	0.00	0.00
7,300.0	8.37	53.95	7,257.1	350.6	481.7	-254.9	0.00	0.00	0.00
7,400.0	8.37	53.95	7,356.1	359.2	493.5	-261.1	0.00	0.00	0.00
7,500.0	8.37	53.95	7,455.0	367.7	505.3	-267.4	0.00	0.00	0.00
7,600.0	8.37	53.95	7,553.9	376.3	517.0	-273.6	0.00	0.00	0.00
7,700.0	8.37	53.95	7,652.9	384.9	528.8	-279.8	0.00	0.00	0.00
7,800.0	8.37	53.95	7,751.8	393.4	540.6	-286.1	0.00	0.00	0.00
7,900.0	8.37	53.95	7,850.7	402.0	552.4	-292.3	0.00	0.00	0.00
8,000.0	8.37	53.95	7,949.7	410.6	564.1	-298.5	0.00	0.00	0.00
8,100.0	8.37	53.95	8,048.6	419.2	575.9	-304.8	0.00	0.00	0.00
8,200.0	8.37	53.95	8,147.5	427.7	587.7	-311.0	0.00	0.00	0.00
8,300.0	8.37	53.95	8,246.5	436.3	599.5	-317.2	0.00	0.00	0.00
8,400.0	8.37	53.95	8,345.4	444.9	611.2	-323.4	0.00	0.00	0.00
8,500.0	8.37	53.95	8,444.3	453.4	623.0	-329.7	0.00	0.00	0.00
8,600.0	8.37	53.95	8,543.3	462.0	634.8	-335.9	0.00	0.00	0.00
8,700.0	8.37	53.95	8,642.2	470.6	646.6	-342.1	0.00	0.00	0.00
8,800.0	8.37	53.95	8,741.1	479.1	658.3	-348.4	0.00	0.00	0.00
8,900.0	8.37	53.95	8,840.1	487.7	670.1	-354.6	0.00	0.00	0.00
9,000.0	8.37	53.95	8,939.0	496.3	681.9	-360.8	0.00	0.00	0.00
9,100.0	8.37	53.95	9,037.9	504.9	693.6	-367.1	0.00	0.00	0.00
9,200.0	8.37	53.95	9,136.9	513.4	705.4	-373.3	0.00	0.00	0.00
9,300.0	8.37	53.95	9,235.8	522.0	717.2	-379.5	0.00	0.00	0.00
9,400.0	8.37	53.95	9,334.7	530.6	729.0	-385.8	0.00	0.00	0.00
9,500.0	8.37	53.95	9,433.7	539.1	740.7	-392.0	0.00	0.00	0.00
9,600.0	8.37	53.95	9,532.6	547.7	752.5	-398.2	0.00	0.00	0.00
9,700.0	8.37	53.95	9,631.5	556.3	764.3	-404.4	0.00	0.00	0.00
9,800.0	8.37	53.95	9,730.5	564.8	776.1	-410.7	0.00	0.00	0.00
9,900.0	8.37	53.95	9,829.4	573.4	787.8	-416.9	0.00	0.00	0.00
9,988.8	8.37	53.95	9,917.3	581.0	798.3	-422.4	0.00	0.00	0.00
10,000.0	8.15	53.95	9,928.3	582.0	799.6	-423.1	2.00	-2.00	0.00
10,100.0	6.15	53.95	10,027.6	589.3	809.7	-428.5	2.00	-2.00	0.00
10,200.0	4.15	53.95	10,127.2	594.6	816.9	-432.3	2.00	-2.00	0.00
10,300.0	2.15	53.95	10,227.0	597.8	821.4	-434.6	2.00	-2.00	0.00
10,407.5	0.00	0.00	10,334.5	599.0	823.0	-435.5	2.00	-2.00	0.00

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #501H
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Design:	Plan #0.1		

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)
KOP (Gem 36 State Com #501H)									
10,425.0	2.10	179.54	10,352.0	598.7	823.0	-435.2	12.00	12.00	0.00
10,450.0	5.10	179.54	10,376.9	597.1	823.0	-433.7	12.00	12.00	0.00
10,475.0	8.10	179.54	10,401.8	594.2	823.0	-430.8	12.00	12.00	0.00
10,500.0	11.10	179.54	10,426.4	590.1	823.1	-426.7	12.00	12.00	0.00
10,525.0	14.10	179.54	10,450.8	584.6	823.1	-421.4	12.00	12.00	0.00
10,550.0	17.10	179.54	10,474.9	577.9	823.2	-414.7	12.00	12.00	0.00
10,575.0	20.10	179.54	10,498.6	569.9	823.2	-406.9	12.00	12.00	0.00
10,600.0	23.10	179.54	10,521.8	560.7	823.3	-397.8	12.00	12.00	0.00
10,625.0	26.10	179.54	10,544.5	550.3	823.4	-387.6	12.00	12.00	0.00
10,650.0	29.10	179.54	10,566.7	538.7	823.5	-376.2	12.00	12.00	0.00
10,675.0	32.10	179.54	10,588.2	526.0	823.6	-363.7	12.00	12.00	0.00
10,700.0	35.10	179.54	10,609.0	512.2	823.7	-350.1	12.00	12.00	0.00
10,725.0	38.10	179.54	10,629.1	497.3	823.8	-335.4	12.00	12.00	0.00
10,750.0	41.10	179.54	10,648.4	481.4	823.9	-319.7	12.00	12.00	0.00
10,775.0	44.10	179.54	10,666.8	464.4	824.1	-303.1	12.00	12.00	0.00
10,800.0	47.10	179.54	10,684.2	446.6	824.2	-285.5	12.00	12.00	0.00
10,807.7	48.02	179.54	10,689.4	440.9	824.3	-280.0	12.00	12.00	0.00
FTP (Gem 36 State Com #501H)									
10,825.0	50.10	179.54	10,700.8	427.8	824.4	-267.1	12.00	12.00	0.00
10,850.0	53.10	179.54	10,716.3	408.2	824.5	-247.8	12.00	12.00	0.00
10,875.0	56.10	179.54	10,730.8	387.9	824.7	-227.7	12.00	12.00	0.00
10,900.0	59.10	179.54	10,744.2	366.8	824.9	-207.0	12.00	12.00	0.00
10,925.0	62.10	179.54	10,756.5	345.0	825.0	-185.5	12.00	12.00	0.00
10,950.0	65.10	179.54	10,767.6	322.6	825.2	-163.5	12.00	12.00	0.00
10,975.0	68.10	179.54	10,777.5	299.7	825.4	-140.9	12.00	12.00	0.00
11,000.0	71.10	179.54	10,786.2	276.2	825.6	-117.9	12.00	12.00	0.00
11,025.0	74.10	179.54	10,793.7	252.4	825.8	-94.4	12.00	12.00	0.00
11,050.0	77.10	179.54	10,799.9	228.2	826.0	-70.6	12.00	12.00	0.00
11,075.0	80.10	179.54	10,804.9	203.7	826.2	-46.5	12.00	12.00	0.00
11,100.0	83.10	179.54	10,808.5	178.9	826.4	-22.1	12.00	12.00	0.00
11,125.0	86.10	179.54	10,810.9	154.0	826.6	2.3	12.00	12.00	0.00
11,150.0	89.10	179.54	10,811.9	129.1	826.8	26.9	12.00	12.00	0.00
11,157.5	90.00	179.54	10,812.0	121.6	826.8	34.3	12.00	12.00	0.00
11,200.0	90.00	179.54	10,812.0	79.1	827.2	76.1	0.00	0.00	0.00
11,300.0	90.00	179.54	10,812.0	-20.9	828.0	174.5	0.00	0.00	0.00
11,400.0	90.00	179.54	10,812.0	-120.9	828.8	272.9	0.00	0.00	0.00
11,500.0	90.00	179.54	10,812.0	-220.9	829.6	371.3	0.00	0.00	0.00
11,600.0	90.00	179.54	10,812.0	-320.9	830.4	469.7	0.00	0.00	0.00
11,700.0	90.00	179.54	10,812.0	-420.9	831.2	568.1	0.00	0.00	0.00
11,800.0	90.00	179.54	10,812.0	-520.9	832.0	666.5	0.00	0.00	0.00
11,900.0	90.00	179.54	10,812.0	-620.9	832.7	764.9	0.00	0.00	0.00
12,000.0	90.00	179.54	10,812.0	-720.9	833.5	863.3	0.00	0.00	0.00
12,100.0	90.00	179.54	10,812.0	-820.9	834.3	961.7	0.00	0.00	0.00
12,200.0	90.00	179.54	10,812.0	-920.9	835.1	1,060.1	0.00	0.00	0.00
12,300.0	90.00	179.54	10,812.0	-1,020.9	835.9	1,158.5	0.00	0.00	0.00
12,400.0	90.00	179.54	10,812.0	-1,120.9	836.7	1,256.9	0.00	0.00	0.00
12,500.0	90.00	179.54	10,812.0	-1,220.9	837.5	1,355.3	0.00	0.00	0.00
12,600.0	90.00	179.54	10,812.0	-1,320.9	838.3	1,453.7	0.00	0.00	0.00
12,700.0	90.00	179.54	10,812.0	-1,420.9	839.1	1,552.1	0.00	0.00	0.00
12,800.0	90.00	179.54	10,812.0	-1,520.9	839.9	1,650.5	0.00	0.00	0.00
12,900.0	90.00	179.54	10,812.0	-1,620.9	840.7	1,748.9	0.00	0.00	0.00
13,000.0	90.00	179.54	10,812.0	-1,720.9	841.5	1,847.3	0.00	0.00	0.00
13,100.0	90.00	179.54	10,812.0	-1,820.9	842.3	1,945.7	0.00	0.00	0.00

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #501H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3451.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3451.0usft
Site:	Gem 36 State Com	North Reference:	Grid
Well:	#501H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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)
13,200.0	90.00	179.54	10,812.0	-1,920.9	843.1	2,044.1	0.00	0.00	0.00
13,300.0	90.00	179.54	10,812.0	-2,020.9	843.9	2,142.5	0.00	0.00	0.00
13,400.0	90.00	179.54	10,812.0	-2,120.9	844.7	2,240.9	0.00	0.00	0.00
13,500.0	90.00	179.54	10,812.0	-2,220.9	845.5	2,339.3	0.00	0.00	0.00
13,600.0	90.00	179.54	10,812.0	-2,320.8	846.3	2,437.8	0.00	0.00	0.00
13,700.0	90.00	179.54	10,812.0	-2,420.8	847.1	2,536.2	0.00	0.00	0.00
13,800.0	90.00	179.54	10,812.0	-2,520.8	847.9	2,634.6	0.00	0.00	0.00
13,900.0	90.00	179.54	10,812.0	-2,620.8	848.7	2,733.0	0.00	0.00	0.00
14,000.0	90.00	179.54	10,812.0	-2,720.8	849.5	2,831.4	0.00	0.00	0.00
14,100.0	90.00	179.54	10,812.0	-2,820.8	850.3	2,929.8	0.00	0.00	0.00
14,200.0	90.00	179.54	10,812.0	-2,920.8	851.1	3,028.2	0.00	0.00	0.00
14,300.0	90.00	179.54	10,812.0	-3,020.8	851.9	3,126.6	0.00	0.00	0.00
14,400.0	90.00	179.54	10,812.0	-3,120.8	852.7	3,225.0	0.00	0.00	0.00
14,500.0	90.00	179.54	10,812.0	-3,220.8	853.5	3,323.4	0.00	0.00	0.00
14,600.0	90.00	179.54	10,812.0	-3,320.8	854.3	3,421.8	0.00	0.00	0.00
14,700.0	90.00	179.54	10,812.0	-3,420.8	855.1	3,520.2	0.00	0.00	0.00
14,800.0	90.00	179.54	10,812.0	-3,520.8	855.9	3,618.6	0.00	0.00	0.00
14,900.0	90.00	179.54	10,812.0	-3,620.8	856.7	3,717.0	0.00	0.00	0.00
15,000.0	90.00	179.54	10,812.0	-3,720.8	857.5	3,815.4	0.00	0.00	0.00
15,100.0	90.00	179.54	10,812.0	-3,820.8	858.3	3,913.8	0.00	0.00	0.00
15,200.0	90.00	179.54	10,812.0	-3,920.8	859.1	4,012.2	0.00	0.00	0.00
15,300.0	90.00	179.54	10,812.0	-4,020.8	859.9	4,110.6	0.00	0.00	0.00
15,400.0	90.00	179.54	10,812.0	-4,120.8	860.7	4,209.0	0.00	0.00	0.00
15,500.0	90.00	179.54	10,812.0	-4,220.8	861.5	4,307.4	0.00	0.00	0.00
15,600.0	90.00	179.54	10,812.0	-4,320.8	862.3	4,405.8	0.00	0.00	0.00
15,700.0	90.00	179.54	10,812.0	-4,420.8	863.1	4,504.2	0.00	0.00	0.00
15,800.0	90.00	179.54	10,812.0	-4,520.8	863.9	4,602.6	0.00	0.00	0.00
15,810.2	90.00	179.54	10,812.0	-4,531.0	864.0	4,612.6	0.00	0.00	0.00
PBHL (Gem 36 State Com #501H)									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP (Gem 36 State Cor - hit/miss target - Shape - Point	0.00	0.00	10,334.5	599.0	823.0	398,725.00	761,934.00	32° 5' 39.017 N	103° 37' 15.540 W
PBHL (Gem 36 State Cc - plan hits target center - Point	0.00	0.00	10,812.0	-4,531.0	864.0	393,595.00	761,975.00	32° 4' 48.251 N	103° 37' 15.457 W
FTP (Gem 36 State Cor - plan misses target center by 163.4usft at 10807.7usft MD (10689.4 TVD, 440.9 N, 824.3 E) - Point	0.00	0.00	10,812.0	549.0	823.0	398,675.00	761,934.00	32° 5' 38.523 N	103° 37' 15.544 W