



Lea County, NM (NAD 83 NME)

Mamba 30 State #702H

Plan #0.1

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

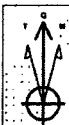
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Elevation: GDS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

WELL DETAILS: #702H

KB= 28 @ 3463.0' 3538.0
Northing 430819.00 Easting 785823.00 Latitude 32° 10' 56.305 N Longitude 103° 36' 27.820 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSecl	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	4228.4	2.28	206.54	4228.3	-4.1	-2.0	1.00	206.54	-4.4	
4	11952.9	2.28	206.54	11946.7	-279.5	-139.6	0.00	0.00	-100.5	
5	12719.8	90.00	359.57	12441.0	187.0	-152.1	12.00	153.01	165.9	
6	17372.3	90.00	359.57	12441.0	4850.0	-187.0	0.00	0.00	4730.9	PBHL (Mamba 30 State #702H)



Azimuths to Grid North
True North: -0.39°
Magnetic North: 6.64°
Magnetic Field
Strength: 47880.7nT
Dip Angle: 90.02°
Date: 8/26/2017
Model: IGRF2016

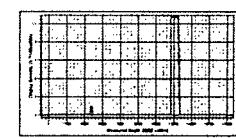
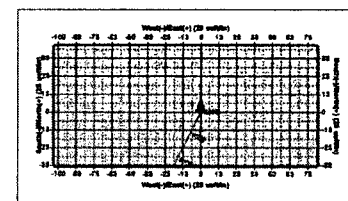
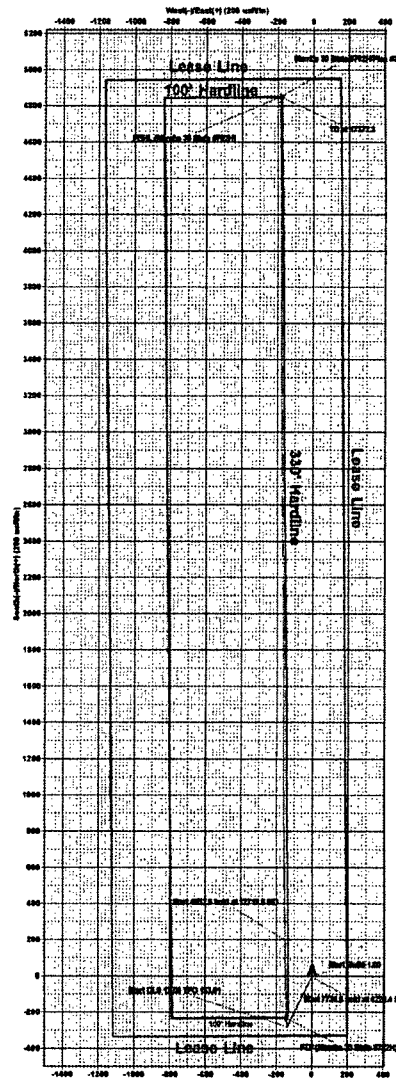
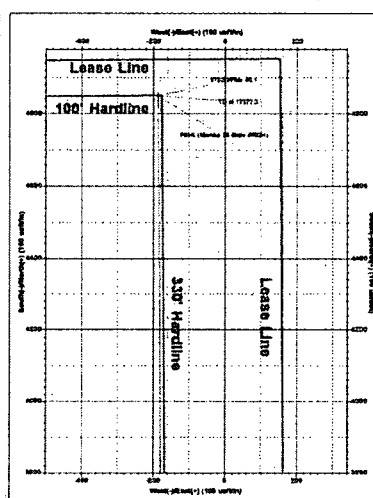
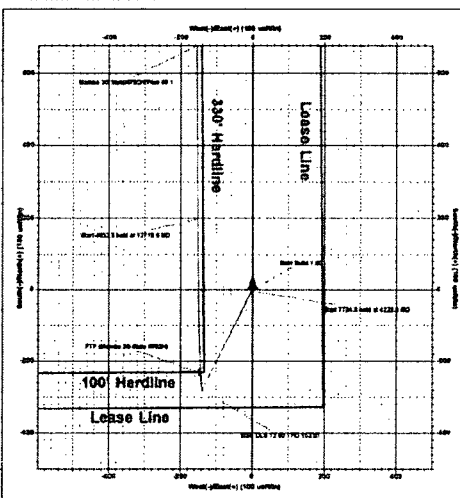
To convert a Magnetic Direction to a Grid Direction, Add 6.59°
To convert a Magnetic Direction to a True Direction, Add 6.94° East
To convert a True Direction to a Grid Direction, Subtract 0.35°

CASING DETAILS

No casing data is available

WELLBORE YARDSTICK DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
PBHL (Mamba 30 State #702H)	12441.0	4850.0	-187.0	430819.00	785823.00
FTP (Mamba 30 State #702H)	12441.0	-231.6	-149.0	430884.00	785874.00





HOBBS OCD
JUL 05 2018
RECEIVED

EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Mamba 30 State

#702H

OH

Plan: Plan #0.1

Standard Planning Report

05 July, 2018



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #702H
Company:	EOG Resources - Midland	TYD Reference:	KB= 25 @ 3563.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB= 25 @ 3563.0usft
Site:	Mamba 30 State	North Reference:	Grid
Well:	#702H	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	Mamba 30 State				
Site Position:		Northing:	430,807.00 usft	Latitude:	32° 10' 56.143 N
From:	Map	Easting:	767,053.00 usft	Longitude:	103° 36' 13.509 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.39 °

Well	#702H					
Well Position	+N/-S	8.0 usft	Northing:	430,815.00 usft	Latitude:	32° 10' 56.305 N
	+E/-W	-1,230.0 usft	Easting:	765,823.00 usft	Longitude:	103° 36' 27.820 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,538.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/25/2017	6.94	60.02	47,880.65907407

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	10.71	

Plan Survey Tool Program	Date 7/5/2018				
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	17,372.3 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	
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,228.4	2.28	206.54	4,228.3	-4.1	-2.0	1.00	1.00	0.00	206.54	
11,952.9	2.28	206.54	11,946.7	-279.5	-139.6	0.00	0.00	0.00	0.00	
12,719.8	90.00	359.57	12,441.0	197.6	-152.1	12.00	11.44	19.95	153.01	
17,372.3	90.00	359.57	12,441.0	4,850.0	-187.0	0.00	0.00	0.00	0.00	PBHL (Mamba 30 Sta



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Mamba 30 State
 Well: #702H
 Wellbore: OH
 Design: Plan #0.1

Local Co-ordinate Reference: Well #702H
 TVD Reference: KB= 25 @ 3563.0usft
 MD Reference: KB= 25 @ 3563.0usft
 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)
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	206.54	4,100.0	-0.8	-0.4	-0.8	1.00	1.00	0.00
4,200.0	2.00	206.54	4,200.0	-3.1	-1.6	-3.4	1.00	1.00	0.00
4,228.4	2.28	206.54	4,228.3	-4.1	-2.0	-4.4	1.00	1.00	0.00
4,300.0	2.28	206.54	4,299.9	-6.6	-3.3	-7.1	0.00	0.00	0.00
4,400.0	2.28	206.54	4,399.8	-10.2	-5.1	-11.0	0.00	0.00	0.00
4,500.0	2.28	206.54	4,499.7	-13.8	-6.9	-14.8	0.00	0.00	0.00
4,600.0	2.28	206.54	4,599.6	-17.3	-8.6	-18.6	0.00	0.00	0.00
4,700.0	2.28	206.54	4,699.6	-20.9	-10.4	-22.5	0.00	0.00	0.00
4,800.0	2.28	206.54	4,799.5	-24.4	-12.2	-26.3	0.00	0.00	0.00
4,900.0	2.28	206.54	4,899.4	-28.0	-14.0	-30.1	0.00	0.00	0.00
5,000.0	2.28	206.54	4,999.3	-31.6	-15.8	-34.0	0.00	0.00	0.00
5,100.0	2.28	206.54	5,099.2	-35.1	-17.6	-37.8	0.00	0.00	0.00
5,200.0	2.28	206.54	5,199.2	-38.7	-19.3	-41.6	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #702H
Company:	EOG Resources - Midland	TVD Reference:	KB= 25 @ 3563.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB= 25 @ 3563.0usft
Site:	Mamba 30 State	North Reference:	Grid
Well:	#702H	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	2.28	206.54	5,299.1	-42.3	-21.1	-45.5	0.00	0.00	0.00
5,400.0	2.28	206.54	5,399.0	-45.8	-22.9	-49.3	0.00	0.00	0.00
5,500.0	2.28	206.54	5,498.9	-49.4	-24.7	-53.1	0.00	0.00	0.00
5,600.0	2.28	206.54	5,598.8	-53.0	-26.5	-57.0	0.00	0.00	0.00
5,700.0	2.28	206.54	5,698.8	-56.5	-28.2	-60.8	0.00	0.00	0.00
5,800.0	2.28	206.54	5,798.7	-60.1	-30.0	-64.6	0.00	0.00	0.00
5,900.0	2.28	206.54	5,898.6	-63.7	-31.8	-68.5	0.00	0.00	0.00
6,000.0	2.28	206.54	5,998.5	-67.2	-33.6	-72.3	0.00	0.00	0.00
6,100.0	2.28	206.54	6,098.5	-70.8	-35.4	-76.1	0.00	0.00	0.00
6,200.0	2.28	206.54	6,198.4	-74.4	-37.1	-80.0	0.00	0.00	0.00
6,300.0	2.28	206.54	6,298.3	-77.9	-38.9	-83.8	0.00	0.00	0.00
6,400.0	2.28	206.54	6,398.2	-81.5	-40.7	-87.6	0.00	0.00	0.00
6,500.0	2.28	206.54	6,498.1	-85.1	-42.5	-91.5	0.00	0.00	0.00
6,600.0	2.28	206.54	6,598.1	-88.6	-44.3	-95.3	0.00	0.00	0.00
6,700.0	2.28	206.54	6,698.0	-92.2	-46.0	-99.1	0.00	0.00	0.00
6,800.0	2.28	206.54	6,797.9	-95.8	-47.8	-103.0	0.00	0.00	0.00
6,900.0	2.28	206.54	6,897.8	-99.3	-49.6	-106.8	0.00	0.00	0.00
7,000.0	2.28	206.54	6,997.7	-102.9	-51.4	-110.6	0.00	0.00	0.00
7,100.0	2.28	206.54	7,097.7	-106.4	-53.2	-114.5	0.00	0.00	0.00
7,200.0	2.28	206.54	7,197.6	-110.0	-54.9	-118.3	0.00	0.00	0.00
7,300.0	2.28	206.54	7,297.5	-113.6	-56.7	-122.1	0.00	0.00	0.00
7,400.0	2.28	206.54	7,397.4	-117.1	-58.5	-126.0	0.00	0.00	0.00
7,500.0	2.28	206.54	7,497.3	-120.7	-60.3	-129.8	0.00	0.00	0.00
7,600.0	2.28	206.54	7,597.3	-124.3	-62.1	-133.6	0.00	0.00	0.00
7,700.0	2.28	206.54	7,697.2	-127.8	-63.8	-137.5	0.00	0.00	0.00
7,800.0	2.28	206.54	7,797.1	-131.4	-65.6	-141.3	0.00	0.00	0.00
7,900.0	2.28	206.54	7,897.0	-135.0	-67.4	-145.1	0.00	0.00	0.00
8,000.0	2.28	206.54	7,996.9	-138.5	-69.2	-149.0	0.00	0.00	0.00
8,100.0	2.28	206.54	8,096.9	-142.1	-71.0	-152.8	0.00	0.00	0.00
8,200.0	2.28	206.54	8,196.8	-145.7	-72.7	-156.6	0.00	0.00	0.00
8,300.0	2.28	206.54	8,296.7	-149.2	-74.5	-160.5	0.00	0.00	0.00
8,400.0	2.28	206.54	8,396.6	-152.8	-76.3	-164.3	0.00	0.00	0.00
8,500.0	2.28	206.54	8,496.5	-156.4	-78.1	-168.1	0.00	0.00	0.00
8,600.0	2.28	206.54	8,596.5	-159.9	-79.9	-172.0	0.00	0.00	0.00
8,700.0	2.28	206.54	8,696.4	-163.5	-81.6	-175.8	0.00	0.00	0.00
8,800.0	2.28	206.54	8,796.3	-167.1	-83.4	-179.6	0.00	0.00	0.00
8,900.0	2.28	206.54	8,896.2	-170.6	-85.2	-183.5	0.00	0.00	0.00
9,000.0	2.28	206.54	8,996.1	-174.2	-87.0	-187.3	0.00	0.00	0.00
9,100.0	2.28	206.54	9,096.1	-177.7	-88.8	-191.1	0.00	0.00	0.00
9,200.0	2.28	206.54	9,196.0	-181.3	-90.5	-195.0	0.00	0.00	0.00
9,300.0	2.28	206.54	9,295.9	-184.9	-92.3	-198.8	0.00	0.00	0.00
9,400.0	2.28	206.54	9,395.8	-188.4	-94.1	-202.6	0.00	0.00	0.00
9,500.0	2.28	206.54	9,495.8	-192.0	-95.9	-206.5	0.00	0.00	0.00
9,600.0	2.28	206.54	9,595.7	-195.6	-97.7	-210.3	0.00	0.00	0.00
9,700.0	2.28	206.54	9,695.6	-199.1	-99.5	-214.1	0.00	0.00	0.00
9,800.0	2.28	206.54	9,795.5	-202.7	-101.2	-218.0	0.00	0.00	0.00
9,900.0	2.28	206.54	9,895.4	-206.3	-103.0	-221.8	0.00	0.00	0.00
10,000.0	2.28	206.54	9,995.4	-209.8	-104.8	-225.6	0.00	0.00	0.00
10,100.0	2.28	206.54	10,095.3	-213.4	-106.6	-229.5	0.00	0.00	0.00
10,200.0	2.28	206.54	10,195.2	-217.0	-108.4	-233.3	0.00	0.00	0.00
10,300.0	2.28	206.54	10,295.1	-220.5	-110.1	-237.1	0.00	0.00	0.00
10,400.0	2.28	206.54	10,395.0	-224.1	-111.9	-241.0	0.00	0.00	0.00
10,500.0	2.28	206.54	10,495.0	-227.7	-113.7	-244.8	0.00	0.00	0.00
10,600.0	2.28	206.54	10,594.9	-231.2	-115.5	-248.6	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Mamba 30 State
 Well: #702H
 Wellbore: OH
 Design: Plan #0.1

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

Well #702H
 KB= 25 @ 3563.0usft
 KB= 25 @ 3563.0usft
 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	2.28	206.54	10,694.8	-234.8	-117.3	-252.5	0.00	0.00	0.00
10,800.0	2.28	206.54	10,794.7	-238.4	-119.0	-256.3	0.00	0.00	0.00
10,900.0	2.28	206.54	10,894.6	-241.9	-120.8	-260.1	0.00	0.00	0.00
11,000.0	2.28	206.54	10,994.6	-245.5	-122.6	-264.0	0.00	0.00	0.00
11,100.0	2.28	206.54	11,094.5	-249.0	-124.4	-267.8	0.00	0.00	0.00
11,200.0	2.28	206.54	11,194.4	-252.6	-126.2	-271.7	0.00	0.00	0.00
11,300.0	2.28	206.54	11,294.3	-256.2	-127.9	-275.5	0.00	0.00	0.00
11,400.0	2.28	206.54	11,394.2	-259.7	-129.7	-279.3	0.00	0.00	0.00
11,500.0	2.28	206.54	11,494.2	-263.3	-131.5	-283.2	0.00	0.00	0.00
11,600.0	2.28	206.54	11,594.1	-266.9	-133.3	-287.0	0.00	0.00	0.00
11,700.0	2.28	206.54	11,694.0	-270.4	-135.1	-290.8	0.00	0.00	0.00
11,800.0	2.28	206.54	11,793.9	-274.0	-136.8	-294.7	0.00	0.00	0.00
11,900.0	2.28	206.54	11,893.8	-277.6	-138.6	-298.5	0.00	0.00	0.00
11,952.9	2.28	206.54	11,946.7	-279.5	-139.6	-300.5	0.00	0.00	0.00
11,975.0	1.21	300.55	11,968.8	-279.7	-140.0	-300.9	12.00	-4.86	424.54
12,000.0	3.77	343.63	11,993.8	-278.8	-140.4	-300.0	12.00	10.23	172.29
12,025.0	6.70	350.72	12,018.7	-276.6	-140.9	-297.9	12.00	11.74	28.36
12,050.0	9.68	353.48	12,043.4	-273.0	-141.4	-294.6	12.00	11.90	11.06
12,075.0	12.66	354.95	12,067.9	-268.2	-141.8	-289.9	12.00	11.95	5.89
12,100.0	15.66	355.87	12,092.2	-262.1	-142.3	-284.0	12.00	11.97	3.67
12,125.0	18.65	356.50	12,116.1	-254.8	-142.8	-276.9	12.00	11.98	2.51
12,150.0	21.65	356.96	12,139.5	-246.2	-143.3	-268.5	12.00	11.98	1.84
12,175.0	24.64	357.31	12,162.5	-236.4	-143.8	-259.0	12.00	11.99	1.41
12,200.0	27.64	357.59	12,184.9	-225.4	-144.3	-248.2	12.00	11.99	1.12
12,225.0	30.64	357.82	12,206.8	-213.2	-144.8	-236.4	12.00	11.99	0.92
12,250.0	33.64	358.01	12,227.9	-199.9	-145.2	-223.4	12.00	11.99	0.77
12,275.0	36.63	358.18	12,248.4	-185.5	-145.7	-209.4	12.00	11.99	0.66
12,300.0	39.63	358.32	12,268.1	-170.1	-146.2	-194.3	12.00	11.99	0.57
12,325.0	42.63	358.44	12,286.9	-153.7	-146.7	-178.2	12.00	12.00	0.50
12,350.0	45.63	358.56	12,304.8	-136.3	-147.1	-161.2	12.00	12.00	0.45
12,373.3	48.42	358.65	12,320.7	-119.2	-147.5	-144.6	12.00	12.00	0.41
FTP (Mamba 30 State #702H)									
12,375.0	48.63	358.66	12,321.8	-118.0	-147.6	-143.3	12.00	12.00	0.39
12,400.0	51.63	358.75	12,337.9	-98.8	-148.0	-124.6	12.00	12.00	0.37
12,425.0	54.63	358.83	12,352.9	-78.8	-148.4	-105.0	12.00	12.00	0.34
12,450.0	57.63	358.91	12,366.8	-58.0	-148.8	-84.7	12.00	12.00	0.31
12,475.0	60.63	358.99	12,379.6	-36.6	-149.2	-63.7	12.00	12.00	0.29
12,500.0	63.63	359.06	12,391.3	-14.5	-149.6	-42.0	12.00	12.00	0.28
12,525.0	66.63	359.12	12,401.8	8.2	-150.0	-19.8	12.00	12.00	0.26
12,550.0	69.63	359.19	12,411.1	31.4	-150.3	2.9	12.00	12.00	0.25
12,575.0	72.63	359.25	12,419.2	55.0	-150.6	26.1	12.00	12.00	0.24
12,600.0	75.62	359.30	12,426.0	79.1	-150.9	49.7	12.00	12.00	0.23
12,625.0	78.62	359.36	12,431.6	103.4	-151.2	73.6	12.00	12.00	0.23
12,650.0	81.62	359.42	12,435.9	128.1	-151.5	97.7	12.00	12.00	0.22
12,675.0	84.62	359.47	12,438.9	152.9	-151.7	122.0	12.00	12.00	0.22
12,700.0	87.62	359.53	12,440.6	177.8	-151.9	146.5	12.00	12.00	0.22
12,719.8	90.00	359.57	12,441.0	197.6	-152.1	165.9	12.00	12.00	0.22
12,800.0	90.00	359.57	12,441.0	277.8	-152.7	244.6	0.00	0.00	0.00
12,900.0	90.00	359.57	12,441.0	377.8	-153.4	342.7	0.00	0.00	0.00
13,000.0	90.00	359.57	12,441.0	477.8	-154.2	440.9	0.00	0.00	0.00
13,100.0	90.00	359.57	12,441.0	577.8	-154.9	539.0	0.00	0.00	0.00
13,200.0	90.00	359.57	12,441.0	677.8	-155.7	637.1	0.00	0.00	0.00
13,300.0	90.00	359.57	12,441.0	777.8	-156.4	735.2	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Mamba 30 State
 Well: #702H
 Wellbore: OH
 Design: Plan #0.1

Local Co-ordinate Reference: Well #702H
 TVD Reference: KB= 25 @ 3563.0usft
 MD Reference: KB= 25 @ 3563.0usft
 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	359.57	12,441.0	877.8	-157.2	833.3	0.00	0.00	0.00
13,500.0	90.00	359.57	12,441.0	977.8	-157.9	931.4	0.00	0.00	0.00
13,600.0	90.00	359.57	12,441.0	1,077.8	-158.7	1,029.6	0.00	0.00	0.00
13,700.0	90.00	359.57	12,441.0	1,177.8	-159.4	1,127.7	0.00	0.00	0.00
13,800.0	90.00	359.57	12,441.0	1,277.8	-160.2	1,225.8	0.00	0.00	0.00
13,900.0	90.00	359.57	12,441.0	1,377.8	-160.9	1,323.9	0.00	0.00	0.00
14,000.0	90.00	359.57	12,441.0	1,477.8	-161.7	1,422.0	0.00	0.00	0.00
14,100.0	90.00	359.57	12,441.0	1,577.8	-162.4	1,520.1	0.00	0.00	0.00
14,200.0	90.00	359.57	12,441.0	1,677.8	-163.2	1,618.3	0.00	0.00	0.00
14,300.0	90.00	359.57	12,441.0	1,777.8	-163.9	1,716.4	0.00	0.00	0.00
14,400.0	90.00	359.57	12,441.0	1,877.8	-164.7	1,814.5	0.00	0.00	0.00
14,500.0	90.00	359.57	12,441.0	1,977.8	-165.4	1,912.6	0.00	0.00	0.00
14,600.0	90.00	359.57	12,441.0	2,077.8	-166.2	2,010.7	0.00	0.00	0.00
14,700.0	90.00	359.57	12,441.0	2,177.8	-166.9	2,108.8	0.00	0.00	0.00
14,800.0	90.00	359.57	12,441.0	2,277.8	-167.7	2,207.0	0.00	0.00	0.00
14,900.0	90.00	359.57	12,441.0	2,377.8	-168.4	2,305.1	0.00	0.00	0.00
15,000.0	90.00	359.57	12,441.0	2,477.8	-169.2	2,403.2	0.00	0.00	0.00
15,100.0	90.00	359.57	12,441.0	2,577.7	-169.9	2,501.3	0.00	0.00	0.00
15,200.0	90.00	359.57	12,441.0	2,677.7	-170.7	2,599.4	0.00	0.00	0.00
15,300.0	90.00	359.57	12,441.0	2,777.7	-171.4	2,697.6	0.00	0.00	0.00
15,400.0	90.00	359.57	12,441.0	2,877.7	-172.2	2,795.7	0.00	0.00	0.00
15,500.0	90.00	359.57	12,441.0	2,977.7	-172.9	2,893.8	0.00	0.00	0.00
15,600.0	90.00	359.57	12,441.0	3,077.7	-173.7	2,991.9	0.00	0.00	0.00
15,700.0	90.00	359.57	12,441.0	3,177.7	-174.4	3,090.0	0.00	0.00	0.00
15,800.0	90.00	359.57	12,441.0	3,277.7	-175.2	3,188.1	0.00	0.00	0.00
15,900.0	90.00	359.57	12,441.0	3,377.7	-176.0	3,286.3	0.00	0.00	0.00
16,000.0	90.00	359.57	12,441.0	3,477.7	-176.7	3,384.4	0.00	0.00	0.00
16,100.0	90.00	359.57	12,441.0	3,577.7	-177.5	3,482.5	0.00	0.00	0.00
16,200.0	90.00	359.57	12,441.0	3,677.7	-178.2	3,580.6	0.00	0.00	0.00
16,300.0	90.00	359.57	12,441.0	3,777.7	-179.0	3,678.7	0.00	0.00	0.00
16,400.0	90.00	359.57	12,441.0	3,877.7	-179.7	3,776.8	0.00	0.00	0.00
16,500.0	90.00	359.57	12,441.0	3,977.7	-180.5	3,875.0	0.00	0.00	0.00
16,600.0	90.00	359.57	12,441.0	4,077.7	-181.2	3,973.1	0.00	0.00	0.00
16,700.0	90.00	359.57	12,441.0	4,177.7	-182.0	4,071.2	0.00	0.00	0.00
16,800.0	90.00	359.57	12,441.0	4,277.7	-182.7	4,169.3	0.00	0.00	0.00
16,900.0	90.00	359.57	12,441.0	4,377.7	-183.5	4,267.4	0.00	0.00	0.00
17,000.0	90.00	359.57	12,441.0	4,477.7	-184.2	4,365.5	0.00	0.00	0.00
17,100.0	90.00	359.57	12,441.0	4,577.7	-185.0	4,463.7	0.00	0.00	0.00
17,200.0	90.00	359.57	12,441.0	4,677.7	-185.7	4,561.8	0.00	0.00	0.00
17,300.0	90.00	359.57	12,441.0	4,777.7	-186.5	4,659.9	0.00	0.00	0.00
17,372.3	90.00	359.57	12,441.0	4,850.0	-187.0	4,730.9	0.00	0.00	0.00

PBHL (Mamba 30 State #702H)



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Mamba 30 State
Well: #702H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference: Well #702H
TVD Reference: KB= 25 @ 3563.0usft
MD Reference: KB= 25 @ 3563.0usft
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
PBHL (Mamba 30 State - plan hits target center - Point	0.00	0.00	12,441.0	4,850.0	-187.0	435,665.00	765,636.00	32° 11' 44.309 N	103° 36' 29.615 W
FTP (Mamba 30 State # - plan misses target center by 164.2usft at 12373.3usft MD (12320.7 TVD, -119.2 N, -147.5 E) - Point	0.00	0.00	12,441.0	-231.0	-149.0	430,584.00	765,674.00	32° 10' 54.029 N	103° 36' 29.572 W

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.
MAMBA 30 STATE COM #702H

- **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.
MAMBA 30 STATE COM #702H

Emergency Assistance Telephone List

<u>PUBLIC SAFETY:</u>	<u>911 or</u>
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
<u>EOG Resources, Inc.</u>	
EOG / Midland	Office (432) 686-3600
<u>Company Drilling Consultants:</u>	
David Dominique	Cell (985) 518-5839
Mike Vann	Cell (817) 980-5507
<u>Drilling Engineer</u>	
Steve Munsell	Office (432) 686-3609
	Cell (432) 894-1256
<u>Drilling Manager</u>	
Floyd Hernandez	Office (432) 686-3716
	Cell (817) 682-4569
<u>Drilling Superintendent</u>	
Jason Fitzgerald	Office (432) 848-9029
	Cell (318) 347-3916
<u>H&P Drilling</u>	
H&P Drilling	Office (432) 563-5757
H&P 651 Drilling Rig	Rig (903) 509-7131
<u>Tool Pusher:</u>	
Johnathan Craig	Cell (817) 760-6374
Brad Garrett	
<u>Safety</u>	
Brian Chandler (HSE Manager)	Office (432) 686-3695
	Cell (817) 239-0251

Permit Information:

Well Name: Mamba 30 State Com No. 702H

Location:

SL: 330' FSL & 1509' FEL, Section 30, T-24-S, R-33-E, Lea Co., N.M.

BHL: 100' FNL & 1660' FEL, Section 30, 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 - 1,200'	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' - 4,800'	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'-17,372'	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
1,200'	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)
4,800'	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 @ 4,300')
	400	14.8	2.38	Tail: Class H + 94.0 pps D909 + 0.25% D065 + 0.30% D167 + 0.02% D208 + 0.15% D800
17,372'	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 - 1,200'	Fresh - Gel	8.6-8.8	28-34	N/c
1,200' - 4,800'	Brine	10.0-10.2	28-34	N/c
4,800' - 11,400'	Oil Base	8.7-9.4	58-68	N/c - 6
11,400' - 17,372' Lateral	Oil Base	10.0-11.5	58-68	3 - 6

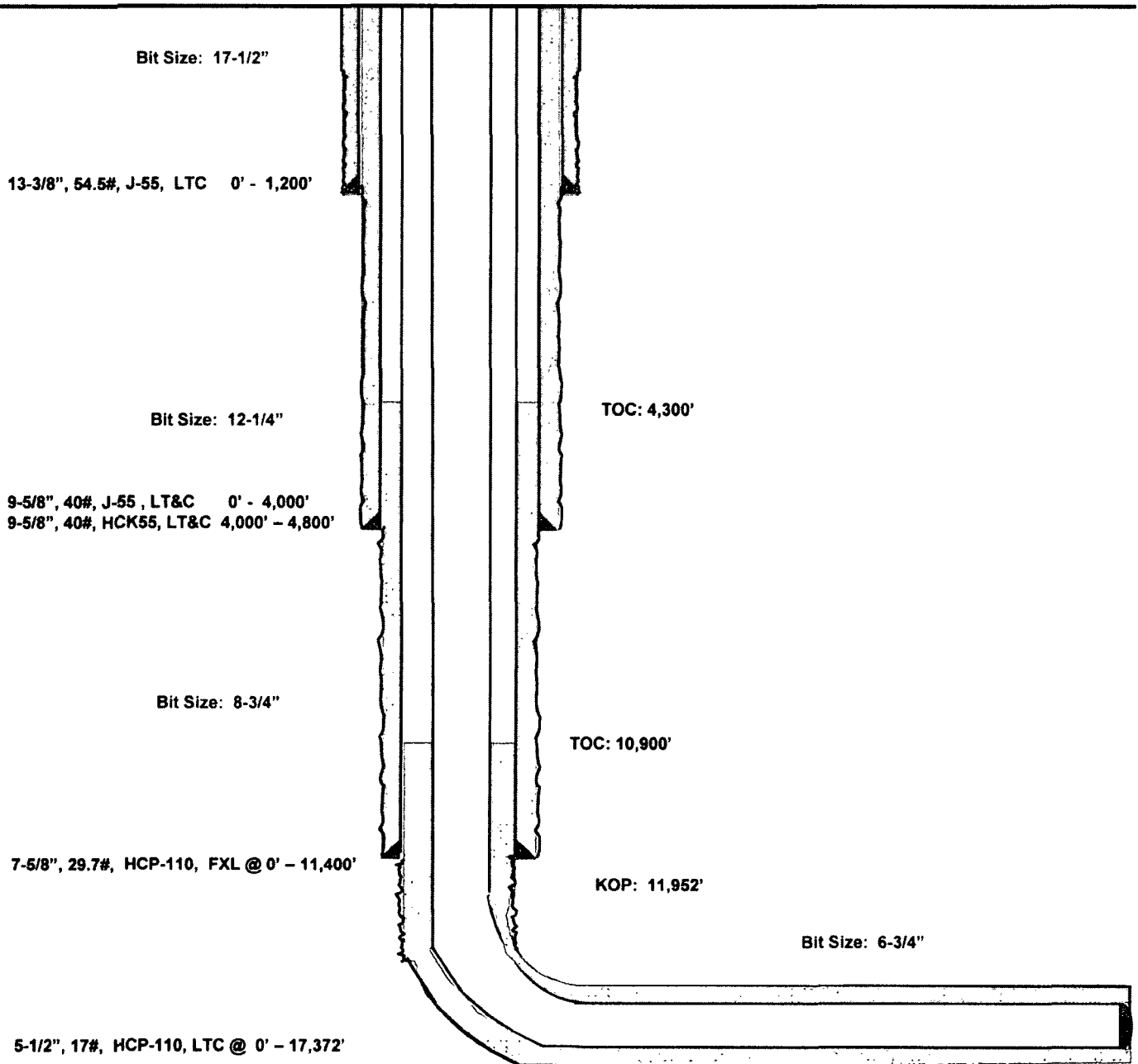
**Mamba 30 State Com #702H
Lea County, New Mexico**

**330' FSL
1509' FEL
Section 30
T-24-S, R-33-E**

Proposed Wellbore

API: 30-025-*****

**KB: 3,563'
GL: 3,538'**



Lateral: 17,372' MD, 12,441' TVD

**BH Location: 100' FNL & 1660' FEL
Section 30
T-24-S, R-33-E**