

HOBBS OCD

DEC 06 2017

RECEIVED



Lea County, NM (NAD 83 NME)

Cobalt 32 State #702H

Plan #0.1

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

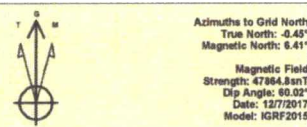
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

WELL DETAILS: #702H

KB = 25 @ 3440.0usft 3415.0
Northing 425644.00 Easting 803658.00 Latitude 32° 10' 2.399 N Longitude 103° 29' 8.073 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.0	0.0	0.0	0.0	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	3206.2	2.06	243.23	3206.2	-1.7	-3.3	1.00	243.23	-1.4	
4	12315.1	2.06	243.23	12309.2	-149.3	-295.9	0.00	0.00	-127.3	
5	13072.7	90.00	359.50	12794.0	328.0	-315.7	12.00	116.26	350.2	
6	17590.9	90.00	359.50	12794.0	4846.0	-355.0	0.00	0.00	4859.0	PBHL(Cobalt 32 State #702H)



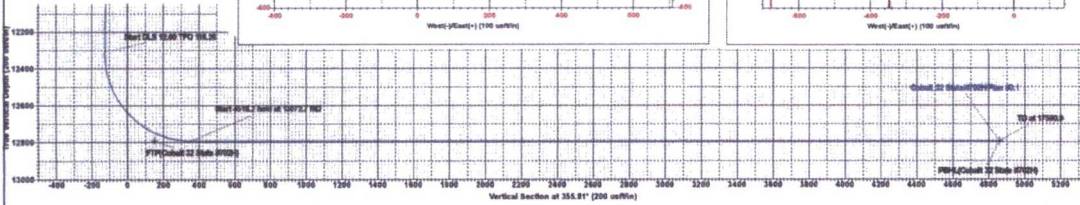
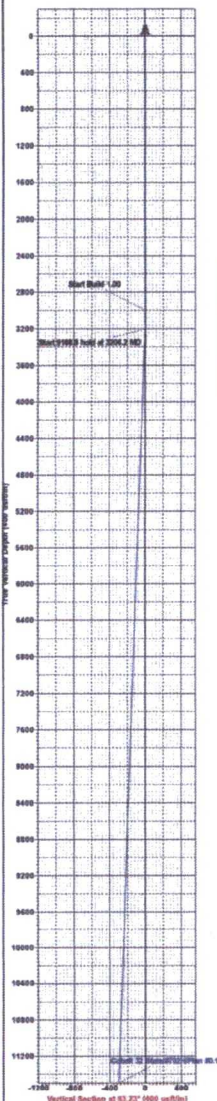
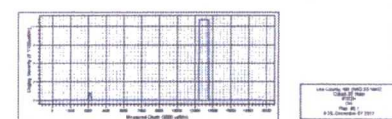
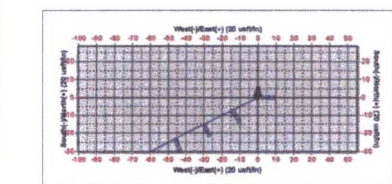
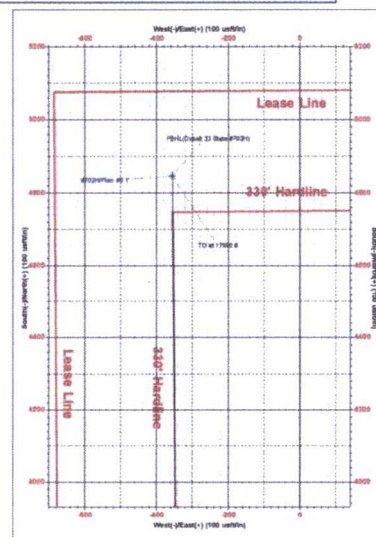
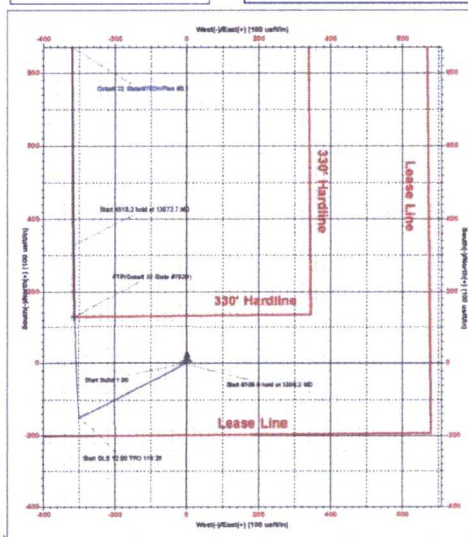
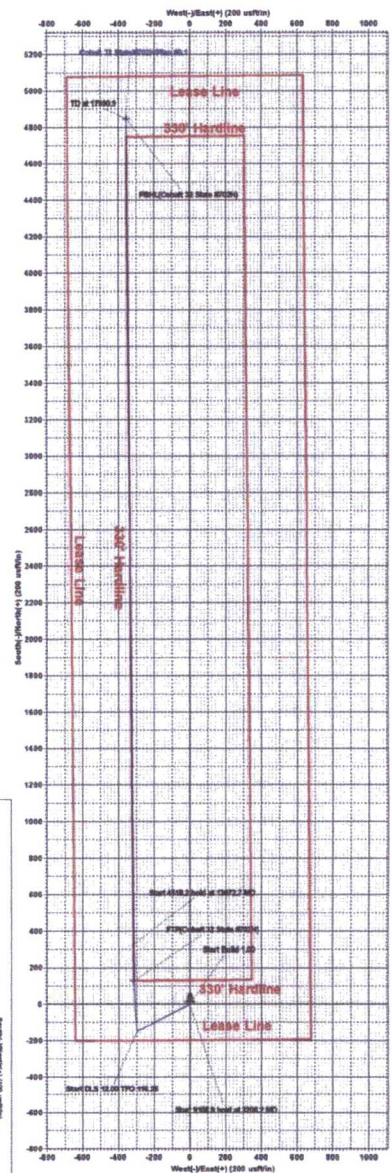
To convert a Magnetic Direction to a Grid Direction, Add 6.41°
To convert a Magnetic Direction to a True Direction, Add 6.96° East
To convert a True Direction to a Grid Direction, Subtract 0.45°

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name TVD +N-S +E-W Northing Easting
FTP(Cobalt 32 State #702H) 12794.0 128.0 -314.0 426772.00 803344.00
PBHL(Cobalt 32 State #702H) 12794.0 4846.0 -355.0 430400.00 803303.00





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EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Cobalt 32 State

#702H

OH

Plan: Plan #0.1

Standard Planning Report

07 December, 2017

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Cobalt 32 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 @ 3440.0usft
 KB = 25 @ 3440.0usft
 Grid
 Minimum Curvature

Project Lea County, NM (NAD 83 NME)

Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

Site Cobalt 32 State

Site Position: Northing: 425,645.00 usft Latitude: 32° 10' 2.406 N
From: Map Easting: 803,691.00 usft Longitude: 103° 29' 7.689 W
Position Uncertainty: 0.0 usft Slot Radius: 13-3/16 " Grid Convergence: 0.45 °

Well #702H

Well Position +N/-S -1.0 usft Northing: 425,644.00 usft Latitude: 32° 10' 2.399 N
 +E/-W -33.0 usft Easting: 803,658.00 usft Longitude: 103° 29' 8.073 W
Position Uncertainty 0.0 usft Wellhead Elevation: Ground Level: 3,415.0 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	12/7/2017	6.86	60.02	47,864.82428785

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	355.81

Plan Survey Tool Program Date 12/7/2017

Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	17,590.9 Plan #0.1 (OH)	MWD	
			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	
3,206.2	2.06	243.23	3,206.2	-1.7	-3.3	1.00	1.00	0.00	243.23	
12,315.1	2.06	243.23	12,309.2	-149.3	-295.9	0.00	0.00	0.00	0.00	
13,072.7	90.00	359.50	12,794.0	328.0	-315.7	12.00	11.61	15.35	116.26	
17,590.9	90.00	359.50	12,794.0	4,846.0	-355.0	0.00	0.00	0.00	0.00	PBHL(Cobalt 32 State



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Cobalt 32 State
Well: #702H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference: Well #702H
TVD Reference: KB = 25 @ 3440.0usft
MD Reference: KB = 25 @ 3440.0usft
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	1.00	243.23	3,100.0	-0.4	-0.8	-0.3	1.00	1.00	0.00
3,206.2	2.06	243.23	3,206.2	-1.7	-3.3	-1.4	1.00	1.00	0.00
3,300.0	2.06	243.23	3,299.9	-3.2	-6.3	-2.7	0.00	0.00	0.00
3,400.0	2.06	243.23	3,399.8	-4.8	-9.5	-4.1	0.00	0.00	0.00
3,500.0	2.06	243.23	3,499.8	-6.4	-12.8	-5.5	0.00	0.00	0.00
3,600.0	2.06	243.23	3,599.7	-8.1	-16.0	-6.9	0.00	0.00	0.00
3,700.0	2.06	243.23	3,699.6	-9.7	-19.2	-8.2	0.00	0.00	0.00
3,800.0	2.06	243.23	3,799.6	-11.3	-22.4	-9.6	0.00	0.00	0.00
3,900.0	2.06	243.23	3,899.5	-12.9	-25.6	-11.0	0.00	0.00	0.00
4,000.0	2.06	243.23	3,999.4	-14.5	-28.8	-12.4	0.00	0.00	0.00
4,100.0	2.06	243.23	4,099.4	-16.2	-32.0	-13.8	0.00	0.00	0.00
4,200.0	2.06	243.23	4,199.3	-17.8	-35.2	-15.2	0.00	0.00	0.00
4,300.0	2.06	243.23	4,299.2	-19.4	-38.5	-16.5	0.00	0.00	0.00
4,400.0	2.06	243.23	4,399.2	-21.0	-41.7	-17.9	0.00	0.00	0.00
4,500.0	2.06	243.23	4,499.1	-22.6	-44.9	-19.3	0.00	0.00	0.00
4,600.0	2.06	243.23	4,599.1	-24.3	-48.1	-20.7	0.00	0.00	0.00
4,700.0	2.06	243.23	4,699.0	-25.9	-51.3	-22.1	0.00	0.00	0.00
4,800.0	2.06	243.23	4,798.9	-27.5	-54.5	-23.4	0.00	0.00	0.00
4,900.0	2.06	243.23	4,898.9	-29.1	-57.7	-24.8	0.00	0.00	0.00
5,000.0	2.06	243.23	4,998.8	-30.7	-60.9	-26.2	0.00	0.00	0.00
5,100.0	2.06	243.23	5,098.7	-32.4	-64.2	-27.6	0.00	0.00	0.00
5,200.0	2.06	243.23	5,198.7	-34.0	-67.4	-29.0	0.00	0.00	0.00
5,300.0	2.06	243.23	5,298.6	-35.6	-70.6	-30.3	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Cobalt 32 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 @ 3440.0usft
KB = 25 @ 3440.0usft
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)
5,400.0	2.06	243.23	5,398.5	-37.2	-73.8	-31.7	0.00	0.00	0.00
5,500.0	2.06	243.23	5,498.5	-38.8	-77.0	-33.1	0.00	0.00	0.00
5,600.0	2.06	243.23	5,598.4	-40.5	-80.2	-34.5	0.00	0.00	0.00
5,700.0	2.06	243.23	5,698.3	-42.1	-83.4	-35.9	0.00	0.00	0.00
5,800.0	2.06	243.23	5,798.3	-43.7	-86.6	-37.3	0.00	0.00	0.00
5,900.0	2.06	243.23	5,898.2	-45.3	-89.9	-38.6	0.00	0.00	0.00
6,000.0	2.06	243.23	5,998.1	-46.9	-93.1	-40.0	0.00	0.00	0.00
6,100.0	2.06	243.23	6,098.1	-48.6	-96.3	-41.4	0.00	0.00	0.00
6,200.0	2.06	243.23	6,198.0	-50.2	-99.5	-42.8	0.00	0.00	0.00
6,300.0	2.06	243.23	6,298.0	-51.8	-102.7	-44.2	0.00	0.00	0.00
6,400.0	2.06	243.23	6,397.9	-53.4	-105.9	-45.5	0.00	0.00	0.00
6,500.0	2.06	243.23	6,497.8	-55.0	-109.1	-46.9	0.00	0.00	0.00
6,600.0	2.06	243.23	6,597.8	-56.7	-112.3	-48.3	0.00	0.00	0.00
6,700.0	2.06	243.23	6,697.7	-58.3	-115.6	-49.7	0.00	0.00	0.00
6,800.0	2.06	243.23	6,797.6	-59.9	-118.8	-51.1	0.00	0.00	0.00
6,900.0	2.06	243.23	6,897.6	-61.5	-122.0	-52.5	0.00	0.00	0.00
7,000.0	2.06	243.23	6,997.5	-63.1	-125.2	-53.8	0.00	0.00	0.00
7,100.0	2.06	243.23	7,097.4	-64.8	-128.4	-55.2	0.00	0.00	0.00
7,200.0	2.06	243.23	7,197.4	-66.4	-131.6	-56.6	0.00	0.00	0.00
7,300.0	2.06	243.23	7,297.3	-68.0	-134.8	-58.0	0.00	0.00	0.00
7,400.0	2.06	243.23	7,397.2	-69.6	-138.0	-59.4	0.00	0.00	0.00
7,500.0	2.06	243.23	7,497.2	-71.3	-141.3	-60.7	0.00	0.00	0.00
7,600.0	2.06	243.23	7,597.1	-72.9	-144.5	-62.1	0.00	0.00	0.00
7,700.0	2.06	243.23	7,697.0	-74.5	-147.7	-63.5	0.00	0.00	0.00
7,800.0	2.06	243.23	7,797.0	-76.1	-150.9	-64.9	0.00	0.00	0.00
7,900.0	2.06	243.23	7,896.9	-77.7	-154.1	-66.3	0.00	0.00	0.00
8,000.0	2.06	243.23	7,996.9	-79.4	-157.3	-67.6	0.00	0.00	0.00
8,100.0	2.06	243.23	8,096.8	-81.0	-160.5	-69.0	0.00	0.00	0.00
8,200.0	2.06	243.23	8,196.7	-82.6	-163.7	-70.4	0.00	0.00	0.00
8,300.0	2.06	243.23	8,296.7	-84.2	-167.0	-71.8	0.00	0.00	0.00
8,400.0	2.06	243.23	8,396.6	-85.8	-170.2	-73.2	0.00	0.00	0.00
8,500.0	2.06	243.23	8,496.5	-87.5	-173.4	-74.6	0.00	0.00	0.00
8,600.0	2.06	243.23	8,596.5	-89.1	-176.6	-75.9	0.00	0.00	0.00
8,700.0	2.06	243.23	8,696.4	-90.7	-179.8	-77.3	0.00	0.00	0.00
8,800.0	2.06	243.23	8,796.3	-92.3	-183.0	-78.7	0.00	0.00	0.00
8,900.0	2.06	243.23	8,896.3	-93.9	-186.2	-80.1	0.00	0.00	0.00
9,000.0	2.06	243.23	8,996.2	-95.6	-189.4	-81.5	0.00	0.00	0.00
9,100.0	2.06	243.23	9,096.1	-97.2	-192.7	-82.8	0.00	0.00	0.00
9,200.0	2.06	243.23	9,196.1	-98.8	-195.9	-84.2	0.00	0.00	0.00
9,300.0	2.06	243.23	9,296.0	-100.4	-199.1	-85.6	0.00	0.00	0.00
9,400.0	2.06	243.23	9,395.9	-102.0	-202.3	-87.0	0.00	0.00	0.00
9,500.0	2.06	243.23	9,495.9	-103.7	-205.5	-88.4	0.00	0.00	0.00
9,600.0	2.06	243.23	9,595.8	-105.3	-208.7	-89.8	0.00	0.00	0.00
9,700.0	2.06	243.23	9,695.8	-106.9	-211.9	-91.1	0.00	0.00	0.00
9,800.0	2.06	243.23	9,795.7	-108.5	-215.1	-92.5	0.00	0.00	0.00
9,900.0	2.06	243.23	9,895.6	-110.1	-218.4	-93.9	0.00	0.00	0.00
10,000.0	2.06	243.23	9,995.6	-111.8	-221.6	-95.3	0.00	0.00	0.00
10,100.0	2.06	243.23	10,095.5	-113.4	-224.8	-96.7	0.00	0.00	0.00
10,200.0	2.06	243.23	10,195.4	-115.0	-228.0	-98.0	0.00	0.00	0.00
10,300.0	2.06	243.23	10,295.4	-116.6	-231.2	-99.4	0.00	0.00	0.00
10,400.0	2.06	243.23	10,395.3	-118.2	-234.4	-100.8	0.00	0.00	0.00
10,500.0	2.06	243.23	10,495.2	-119.9	-237.6	-102.2	0.00	0.00	0.00
10,600.0	2.06	243.23	10,595.2	-121.5	-240.8	-103.6	0.00	0.00	0.00
10,700.0	2.06	243.23	10,695.1	-123.1	-244.1	-104.9	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Cobalt 32 State
Well: #702H
Wellbore: OH
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Local Co-ordinate Reference:
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Survey Calculation Method:

Well #702H
KB = 25 @ 3440.0usft
KB = 25 @ 3440.0usft
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)
10,800.0	2.06	243.23	10,795.0	-124.7	-247.3	-106.3	0.00	0.00	0.00
10,900.0	2.06	243.23	10,895.0	-126.3	-250.5	-107.7	0.00	0.00	0.00
11,000.0	2.06	243.23	10,994.9	-128.0	-253.7	-109.1	0.00	0.00	0.00
11,100.0	2.06	243.23	11,094.8	-129.6	-256.9	-110.5	0.00	0.00	0.00
11,200.0	2.06	243.23	11,194.8	-131.2	-260.1	-111.9	0.00	0.00	0.00
11,300.0	2.06	243.23	11,294.7	-132.8	-263.3	-113.2	0.00	0.00	0.00
11,400.0	2.06	243.23	11,394.6	-134.5	-266.5	-114.6	0.00	0.00	0.00
11,500.0	2.06	243.23	11,494.6	-136.1	-269.8	-116.0	0.00	0.00	0.00
11,600.0	2.06	243.23	11,594.5	-137.7	-273.0	-117.4	0.00	0.00	0.00
11,700.0	2.06	243.23	11,694.5	-139.3	-276.2	-118.8	0.00	0.00	0.00
11,800.0	2.06	243.23	11,794.4	-140.9	-279.4	-120.1	0.00	0.00	0.00
11,900.0	2.06	243.23	11,894.3	-142.6	-282.6	-121.5	0.00	0.00	0.00
12,000.0	2.06	243.23	11,994.3	-144.2	-285.8	-122.9	0.00	0.00	0.00
12,100.0	2.06	243.23	12,094.2	-145.8	-289.0	-124.3	0.00	0.00	0.00
12,200.0	2.06	243.23	12,194.1	-147.4	-292.2	-125.7	0.00	0.00	0.00
12,300.0	2.06	243.23	12,294.1	-149.0	-295.5	-127.1	0.00	0.00	0.00
12,315.1	2.06	243.23	12,309.2	-149.3	-295.9	-127.3	0.00	0.00	0.00
12,325.0	1.87	277.88	12,319.1	-149.3	-296.3	-127.3	12.00	-1.95	350.93
12,350.0	3.76	330.06	12,344.0	-148.6	-297.1	-126.5	12.00	7.56	208.73
12,375.0	6.54	343.14	12,368.9	-146.5	-297.9	-124.3	12.00	11.12	52.31
12,400.0	9.45	348.32	12,393.7	-143.1	-298.7	-120.9	12.00	11.66	20.72
12,425.0	12.41	351.06	12,418.2	-138.5	-299.6	-116.2	12.00	11.82	10.97
12,450.0	15.38	352.76	12,442.5	-132.5	-300.4	-110.2	12.00	11.89	6.79
12,475.0	18.36	353.92	12,466.4	-125.3	-301.2	-103.0	12.00	11.93	4.63
12,500.0	21.35	354.76	12,489.9	-116.9	-302.1	-94.5	12.00	11.95	3.38
12,525.0	24.34	355.41	12,513.0	-107.2	-302.9	-84.8	12.00	11.96	2.58
12,550.0	27.33	355.92	12,535.5	-96.3	-303.7	-73.9	12.00	11.97	2.05
12,575.0	30.32	356.34	12,557.4	-84.3	-304.5	-61.8	12.00	11.97	1.67
12,600.0	33.32	356.69	12,578.6	-71.1	-305.3	-48.7	12.00	11.98	1.40
12,625.0	36.31	356.98	12,599.1	-56.9	-306.1	-34.4	12.00	11.98	1.19
12,650.0	39.31	357.24	12,618.9	-41.6	-306.9	-19.1	12.00	11.98	1.03
12,675.0	42.31	357.47	12,637.8	-25.3	-307.6	-2.7	12.00	11.99	0.91
12,700.0	45.30	357.67	12,655.8	-8.0	-308.4	14.6	12.00	11.99	0.81
12,725.0	48.30	357.85	12,672.9	10.2	-309.1	32.8	12.00	11.99	0.73
12,750.0	51.30	358.02	12,689.1	29.3	-309.8	51.9	12.00	11.99	0.66
12,775.0	54.29	358.17	12,704.2	49.2	-310.4	71.7	12.00	11.99	0.61
12,800.0	57.29	358.31	12,718.2	69.9	-311.0	92.4	12.00	11.99	0.57
12,825.0	60.29	358.45	12,731.2	91.2	-311.7	113.8	12.00	11.99	0.53
12,850.0	63.29	358.57	12,743.0	113.3	-312.2	135.8	12.00	11.99	0.50
12,875.0	66.29	358.69	12,753.7	135.9	-312.8	158.3	12.00	11.99	0.47
12,883.0	67.25	358.73	12,756.8	143.2	-312.9	165.7	12.00	11.99	0.46
FTP(Cobalt 32 State #702H)									
12,900.0	69.28	358.80	12,763.1	159.0	-313.3	181.5	12.00	11.99	0.45
12,925.0	72.28	358.91	12,771.3	182.6	-313.7	205.0	12.00	11.99	0.43
12,950.0	75.28	359.02	12,778.3	206.6	-314.2	229.0	12.00	11.99	0.42
12,975.0	78.28	359.12	12,784.0	230.9	-314.6	253.3	12.00	11.99	0.41
13,000.0	81.28	359.22	12,788.5	255.5	-314.9	277.9	12.00	11.99	0.40
13,025.0	84.28	359.32	12,791.6	280.3	-315.2	302.6	12.00	11.99	0.39
13,050.0	87.27	359.41	12,793.5	305.2	-315.5	327.5	12.00	11.99	0.39
13,072.7	90.00	359.50	12,794.0	328.0	-315.7	350.2	12.00	11.99	0.39
13,100.0	90.00	359.50	12,794.0	355.2	-316.0	377.4	0.00	0.00	0.00
13,200.0	90.00	359.50	12,794.0	455.2	-316.8	477.2	0.00	0.00	0.00
13,300.0	90.00	359.50	12,794.0	555.2	-317.7	577.0	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Cobalt 32 State
Well: #702H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference:
TVD Reference: KB = 25 @ 3440.0usft
MD Reference: KB = 25 @ 3440.0usft
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	359.50	12,794.0	655.2	-318.6	676.8	0.00	0.00	0.00
13,500.0	90.00	359.50	12,794.0	755.2	-319.5	776.5	0.00	0.00	0.00
13,600.0	90.00	359.50	12,794.0	855.2	-320.3	876.3	0.00	0.00	0.00
13,700.0	90.00	359.50	12,794.0	955.2	-321.2	976.1	0.00	0.00	0.00
13,800.0	90.00	359.50	12,794.0	1,055.2	-322.1	1,075.9	0.00	0.00	0.00
13,900.0	90.00	359.50	12,794.0	1,155.2	-322.9	1,175.7	0.00	0.00	0.00
14,000.0	90.00	359.50	12,794.0	1,255.2	-323.8	1,275.5	0.00	0.00	0.00
14,100.0	90.00	359.50	12,794.0	1,355.2	-324.7	1,375.3	0.00	0.00	0.00
14,200.0	90.00	359.50	12,794.0	1,455.2	-325.5	1,475.1	0.00	0.00	0.00
14,300.0	90.00	359.50	12,794.0	1,555.2	-326.4	1,574.9	0.00	0.00	0.00
14,400.0	90.00	359.50	12,794.0	1,655.2	-327.3	1,674.7	0.00	0.00	0.00
14,500.0	90.00	359.50	12,794.0	1,755.2	-328.1	1,774.5	0.00	0.00	0.00
14,600.0	90.00	359.50	12,794.0	1,855.2	-329.0	1,874.3	0.00	0.00	0.00
14,700.0	90.00	359.50	12,794.0	1,955.2	-329.9	1,974.1	0.00	0.00	0.00
14,800.0	90.00	359.50	12,794.0	2,055.2	-330.7	2,073.8	0.00	0.00	0.00
14,900.0	90.00	359.50	12,794.0	2,155.2	-331.6	2,173.6	0.00	0.00	0.00
15,000.0	90.00	359.50	12,794.0	2,255.2	-332.5	2,273.4	0.00	0.00	0.00
15,100.0	90.00	359.50	12,794.0	2,355.2	-333.4	2,373.2	0.00	0.00	0.00
15,200.0	90.00	359.50	12,794.0	2,455.2	-334.2	2,473.0	0.00	0.00	0.00
15,300.0	90.00	359.50	12,794.0	2,555.2	-335.1	2,572.8	0.00	0.00	0.00
15,400.0	90.00	359.50	12,794.0	2,655.2	-336.0	2,672.6	0.00	0.00	0.00
15,500.0	90.00	359.50	12,794.0	2,755.1	-336.8	2,772.4	0.00	0.00	0.00
15,600.0	90.00	359.50	12,794.0	2,855.1	-337.7	2,872.2	0.00	0.00	0.00
15,700.0	90.00	359.50	12,794.0	2,955.1	-338.6	2,972.0	0.00	0.00	0.00
15,800.0	90.00	359.50	12,794.0	3,055.1	-339.4	3,071.8	0.00	0.00	0.00
15,900.0	90.00	359.50	12,794.0	3,155.1	-340.3	3,171.6	0.00	0.00	0.00
16,000.0	90.00	359.50	12,794.0	3,255.1	-341.2	3,271.4	0.00	0.00	0.00
16,100.0	90.00	359.50	12,794.0	3,355.1	-342.0	3,371.1	0.00	0.00	0.00
16,200.0	90.00	359.50	12,794.0	3,455.1	-342.9	3,470.9	0.00	0.00	0.00
16,300.0	90.00	359.50	12,794.0	3,555.1	-343.8	3,570.7	0.00	0.00	0.00
16,400.0	90.00	359.50	12,794.0	3,655.1	-344.7	3,670.5	0.00	0.00	0.00
16,500.0	90.00	359.50	12,794.0	3,755.1	-345.5	3,770.3	0.00	0.00	0.00
16,600.0	90.00	359.50	12,794.0	3,855.1	-346.4	3,870.1	0.00	0.00	0.00
16,700.0	90.00	359.50	12,794.0	3,955.1	-347.3	3,969.9	0.00	0.00	0.00
16,800.0	90.00	359.50	12,794.0	4,055.1	-348.1	4,069.7	0.00	0.00	0.00
16,900.0	90.00	359.50	12,794.0	4,155.1	-349.0	4,169.5	0.00	0.00	0.00
17,000.0	90.00	359.50	12,794.0	4,255.1	-349.9	4,269.3	0.00	0.00	0.00
17,100.0	90.00	359.50	12,794.0	4,355.1	-350.7	4,369.1	0.00	0.00	0.00
17,200.0	90.00	359.50	12,794.0	4,455.1	-351.6	4,468.9	0.00	0.00	0.00
17,300.0	90.00	359.50	12,794.0	4,555.1	-352.5	4,568.7	0.00	0.00	0.00
17,400.0	90.00	359.50	12,794.0	4,655.1	-353.3	4,668.5	0.00	0.00	0.00
17,500.0	90.00	359.50	12,794.0	4,755.1	-354.2	4,768.2	0.00	0.00	0.00
17,590.9	90.00	359.50	12,794.0	4,846.0	-355.0	4,859.0	0.00	0.00	0.00

PBHL(Cobalt 32 State #702H)



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Cobalt 32 State
Well: #702H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference: Well #702H
TVD Reference: KB = 25 @ 3440.0usft
MD Reference: KB = 25 @ 3440.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Design Targets

Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
FTP(Cobalt 32 State #7(	0.00	0.00	12,794.0	128.0	-314.0	425,772.00	803,344.00	32° 10' 3.690 N	103° 29' 11.714 W
- plan misses target center by 40.2usft at 12883.0usft MD (12756.8 TVD, 143.2 N, -312.9 E)									
- Point									
PBHL(Cobalt 32 State #	0.00	0.00	12,794.0	4,846.0	-355.0	430,490.00	803,303.00	32° 10' 50.378 N	103° 29' 11.759 W
- plan hits target center									
- Point									