

Submit 1 Copy To Appropriate District Office  
 District I - (575) 393-6161  
 1625 N. French Dr., Hobbs, NM 88240  
 District II - (575) 748-1283  
 811 S. First St., Artesia, NM 88210  
 District III - (505) 334-6178  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV - (505) 476-3460  
 1220 S. St. Francis Dr., Santa Fe, NM 87505

**HOBBS OCD**  
**JAN 12 2018**  
**RECEIVED**

State of New Mexico  
 Energy, Minerals and Natural Resources  
**OIL CONSERVATION DIVISION**  
 220 South St. Francis Dr.  
 Santa Fe, NM 87505

Form C-103  
 Revised July 18, 2013

WELL API NO. 30-025-44268
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Cobalt 32 State
8. Well Number 701H
9. OGRID Number 7377
10. Pool name or Wildcat WC-025 G-09 S243336I; Upper WC

**SUNDRY NOTICES AND REPORTS ON WELLS**  
 (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well  Gas Well  Other Monitor Well

2. Name of Operator  
EOG Resources, Inc.

3. Address of Operator  
P.O. Box 2267 Midland, TX 79702

4. Well Location  
 Unit Letter P : 200 feet from the South line and 643 feet from the East line  
 Section 32 Township 24S Range 34E NMPM County Lea

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
3415' GR

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

<b>NOTICE OF INTENTION TO:</b>		<b>SUBSEQUENT REPORT OF:</b>	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input checked="" type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
CLOSED-LOOP SYSTEM <input type="checkbox"/>			
OTHER: <input type="checkbox"/>		OTHER: <input type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

EOG Resources requests an amendment to our approved APD for this well to reflect a change in TVD.

Change TVD from 12794' TO 12340'.

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Stan Wagner TITLE Regulatory Analyst DATE 01/12/2018

Type or print name Stan Wagner E-mail address: \_\_\_\_\_ PHONE: 432-686-3689

**For State Use Only**

APPROVED BY: [Signature] TITLE Petroleum Engineer DATE 01/12/18

Conditions of Approval (if any): \_\_\_\_\_

**Revised Permit Information 1/12/18:**

Well Name: Cobalt 32 State No. 701H

## Location:

SL: 200' FSL &amp; 643' FEL, Section 32, T-24-S, R-34-E, Lea Co., N.M.

BHL: 230' FNL &amp; 330' FEL, Section 32, T-24-S, R-34-E, Lea Co., N.M.

**Casing Program:**

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF <sub>min</sub> Collapse	DF <sub>min</sub> Burst	DF <sub>min</sub> 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' - 5,200'	9.625"	40#	HCK55	LTC	1.125	1.25	1.60
8.75"	0 - 11,500'	7.625"	29.7#	HCP110	FXL	1.125	1.25	1.60
6.75"	0'-17,141'	5.5"	17#	HCP-110	LTC	1.125	1.25	1.60

**Cement Program:**

Depth	No. Sacks	Wt. lb/gal	Yld Ft <sup>3</sup> /ft	Slurry Description
1,200'	697	13.5	1.74	Lead: Class 'C' + 4.00% Bentonite + 2.00% CaCl <sub>2</sub> (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)
5,200'	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
11,500'	375	10.8	3.67	Lead: Class C + 0.40% D013 + 0.20% D046 + 0.10% D065 + 0.20% D167 (TOC @ 4,700')
	400	14.8	2.38	Tail: Class H + 94.0 pps D909 + 0.25% D065 + 0.30% D167 + 0.02% D208 + 0.15% D800
17,141'	950	14.8	1.31	Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 11,000')

**Mud Program:**

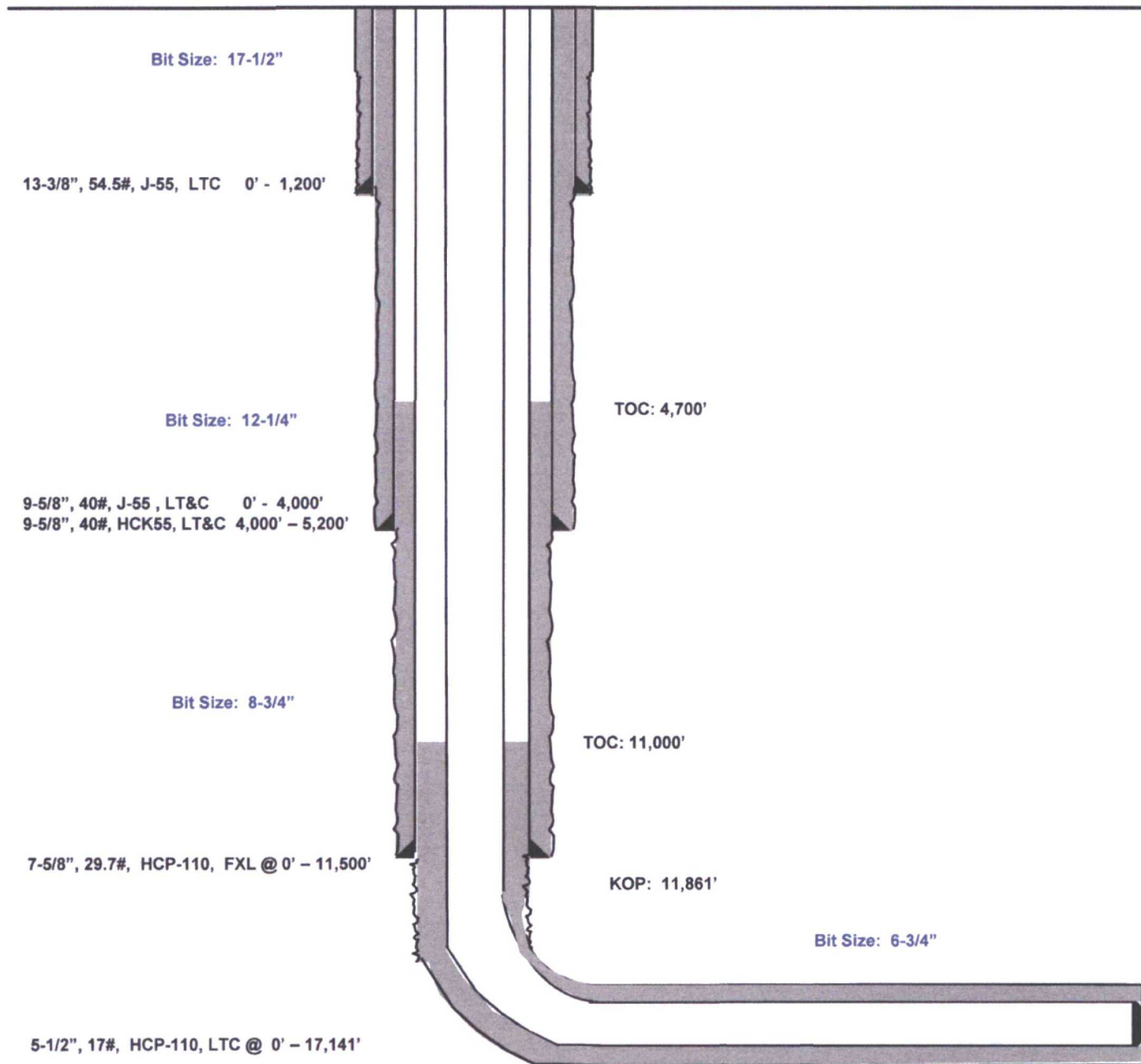
Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 - 1,200'	Fresh - Gel	8.6-8.8	28-34	N/c
1,200' - 5,200'	Brine	10.0-10.2	28-34	N/c
5,200' - 11,500'	Oil Base	8.7-9.4	58-68	N/c - 6
11,500' - 17,141' Lateral	Oil Base	10.0-11.5	58-68	3 - 6

Cobalt 32 State #701H  
Lea County, New Mexico

200' FSL  
643' FEL  
Section 32  
T-24-S, R-34-E

Proposed Wellbore  
Revised 1/12/18  
API: 30-025-44268

KB: 3,440'  
GL: 3,415'



Lateral: 17,141' MD, 12,340' TVD  
BH Location: 230' FNL & 330' FEL  
Section 32  
T-24-S, R-34-E



Lea County, NM (NAD 83 NME)

Cobalt 32 State #701H

Plan #0.2

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: #701H

KB = 25 @ 3440.0ust 3415.0  
 Northing 425645.00 Easting 803691.00 LatRtude 32° 10' 2.406 N Longitude 103° 29' 7.589 W

Azimuths to Grid North  
 True North: -0.45°  
 Magnetic North: 6.41°

Magnetic Field  
 Strength: 47864.8enT  
 Dip Angle: 60.02°  
 Date: 12/7/2017  
 Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.41°  
 To convert a Magnetic Direction to a True Direction, Add 0.96° East  
 To convert a True Direction to a Grid Direction, Subtract 0.45°

SECTION DETAILS

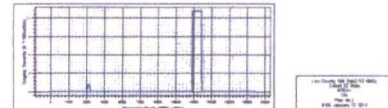
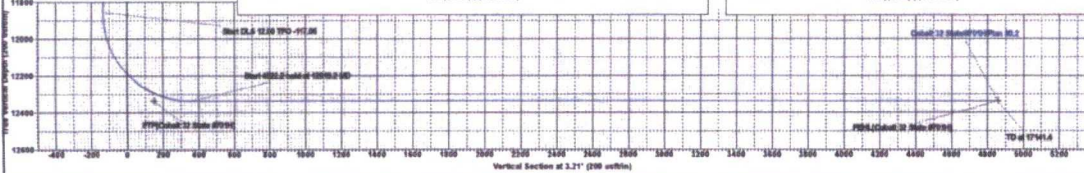
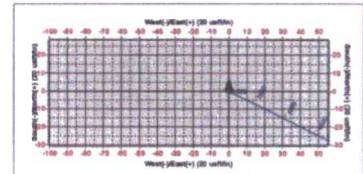
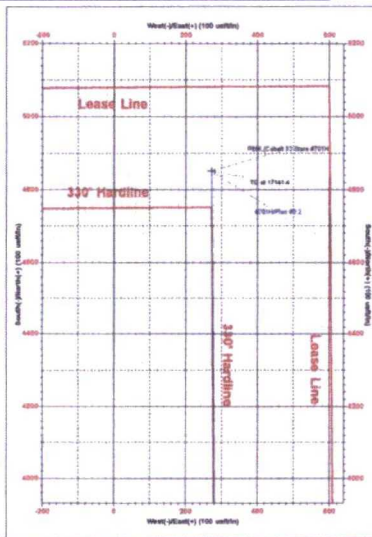
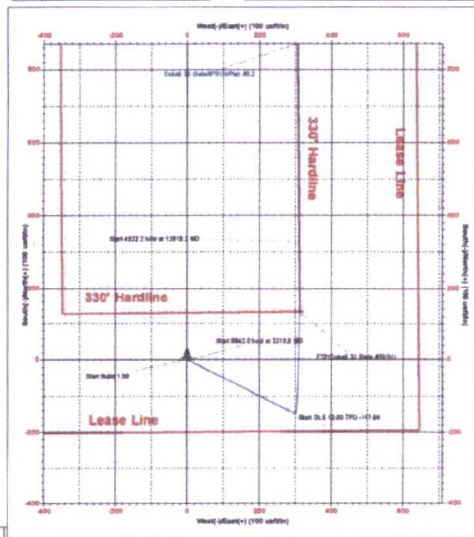
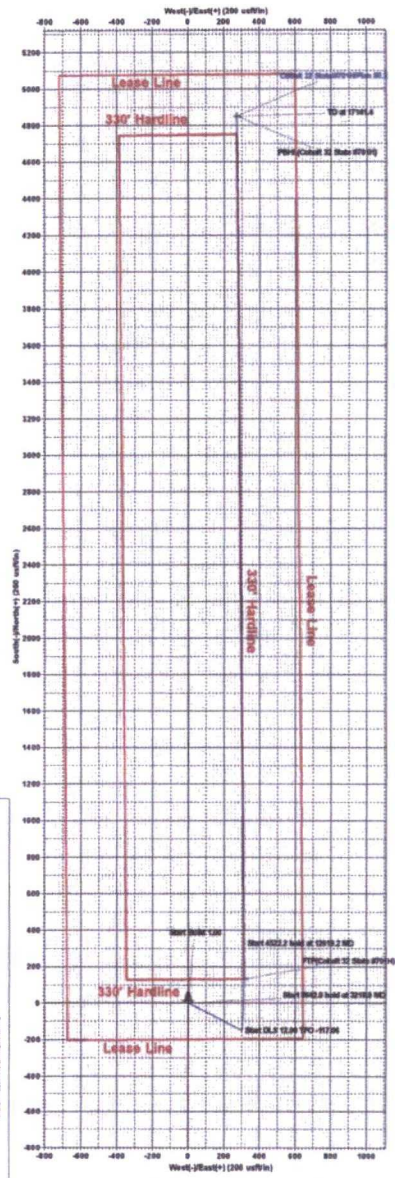
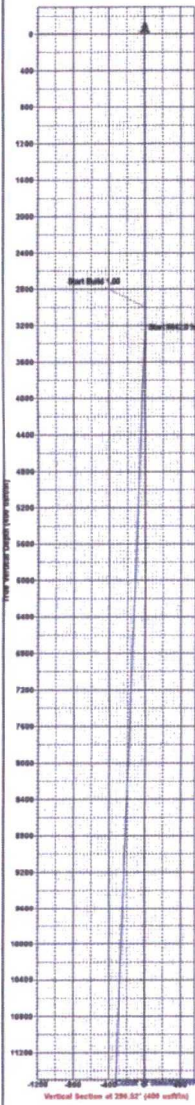
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	3000.0	0.00	0.00	3000.0	0.0	0.0	0.00	0.00	0.0	
3	3218.9	2.19	116.58	3218.8	-1.9	3.7	1.00	116.58	-1.7	
4	11860.9	2.19	116.58	11854.5	-149.5	298.9	0.00	0.00	-132.6	
5	12619.2	90.00	359.50	12340.0	328.0	311.3	12.00	-117.06	344.9	
6	17141.4	90.00	359.50	12340.0	4850.0	272.0	0.00	0.00	4857.6	PBHL(Cobalt 32 State #701H)

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 #701H)	12340.0	132.0	313.0	426777.00	804604.00
PBHL(Cobalt 32 State #701H)	12340.0	4860.0	272.0	426496.00	803963.00





## **EOG Resources - Midland**

**Lea County, NM (NAD 83 NME)**

**Cobalt 32 State**

**#701H**

**OH**

**Plan: Plan #0.2**

## **Standard Planning Report**

**12 January, 2018**



Planning Report

<b>Database:</b>	EDM 5000.14	<b>Local Co-ordinate Reference:</b>	Well #701H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	KB = 25 @ 3440.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB = 25 @ 3440.0usft
<b>Site:</b>	Cobalt 32 State	<b>North Reference:</b>	Grid
<b>Well:</b>	#701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.2		

<b>Project</b>	Lea County, NM (NAD 83 NME)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Eastern Zone		

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

<b>Well</b>	#701H					
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	425,645.00 usft	<b>Latitude:</b>	32° 10' 2.406 N
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	803,691.00 usft	<b>Longitude:</b>	103° 29' 7.689 W
<b>Position Uncertainty</b>	0.0 usft	<b>Wellhead Elevation:</b>		<b>Ground Level:</b>	3,415.0 usft	

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>	<b>Dip Angle</b>	<b>Field Strength</b>
	IGRF2015	12/7/2017	(°)	(°)	(nT)
			6.86	60.02	47,864.83664921

<b>Design</b>	Plan #0.2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	3.21

<b>Plan Survey Tool Program</b>	Date 1/12/2018			
<b>Depth From</b>	<b>Depth To</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
(usft)	(usft)			
1	0.0	17,141.4 Plan #0.2 (OH)	MWD	
			MWD - Standard	

<b>Plan Sections</b>										
<b>Measured</b>	<b>Inclination</b>	<b>Azimuth</b>	<b>Vertical</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Dogleg</b>	<b>Build</b>	<b>Turn</b>	<b>TFO</b>	<b>Target</b>
<b>Depth</b>	<b>(°)</b>	<b>(°)</b>	<b>Depth</b>	<b>(usft)</b>	<b>(usft)</b>	<b>Rate</b>	<b>Rate</b>	<b>Rate</b>	<b>(°)</b>	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
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	
3,218.9	2.19	116.58	3,218.8	-1.9	3.7	1.00	1.00	0.00	116.58	
11,860.9	2.19	116.58	11,854.5	-149.5	298.9	0.00	0.00	0.00	0.00	
12,619.2	90.00	359.50	12,340.0	328.0	311.3	12.00	11.58	-15.44	-117.06	
17,141.4	90.00	359.50	12,340.0	4,850.0	272.0	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: #701H  
 Wellbore: OH  
 Design: Plan #0.2

Local Co-ordinate Reference: Well #701H  
 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	116.58	3,100.0	-0.4	0.8	-0.3	1.00	1.00	0.00
3,200.0	2.00	116.58	3,200.0	-1.6	3.1	-1.4	1.00	1.00	0.00
3,218.9	2.19	116.58	3,218.8	-1.9	3.7	-1.7	1.00	1.00	0.00
3,300.0	2.19	116.58	3,299.9	-3.3	6.5	-2.9	0.00	0.00	0.00
3,400.0	2.19	116.58	3,399.8	-5.0	9.9	-4.4	0.00	0.00	0.00
3,500.0	2.19	116.58	3,499.7	-6.7	13.3	-5.9	0.00	0.00	0.00
3,600.0	2.19	116.58	3,599.7	-8.4	16.8	-7.4	0.00	0.00	0.00
3,700.0	2.19	116.58	3,699.6	-10.1	20.2	-8.9	0.00	0.00	0.00
3,800.0	2.19	116.58	3,799.5	-11.8	23.6	-10.5	0.00	0.00	0.00
3,900.0	2.19	116.58	3,899.4	-13.5	27.0	-12.0	0.00	0.00	0.00
4,000.0	2.19	116.58	3,999.4	-15.2	30.4	-13.5	0.00	0.00	0.00
4,100.0	2.19	116.58	4,099.3	-16.9	33.8	-15.0	0.00	0.00	0.00
4,200.0	2.19	116.58	4,199.2	-18.6	37.3	-16.5	0.00	0.00	0.00
4,300.0	2.19	116.58	4,299.2	-20.3	40.7	-18.0	0.00	0.00	0.00
4,400.0	2.19	116.58	4,399.1	-22.1	44.1	-19.6	0.00	0.00	0.00
4,500.0	2.19	116.58	4,499.0	-23.8	47.5	-21.1	0.00	0.00	0.00
4,600.0	2.19	116.58	4,598.9	-25.5	50.9	-22.6	0.00	0.00	0.00
4,700.0	2.19	116.58	4,698.9	-27.2	54.3	-24.1	0.00	0.00	0.00
4,800.0	2.19	116.58	4,798.8	-28.9	57.7	-25.6	0.00	0.00	0.00
4,900.0	2.19	116.58	4,898.7	-30.6	61.2	-27.1	0.00	0.00	0.00
5,000.0	2.19	116.58	4,998.6	-32.3	64.6	-28.6	0.00	0.00	0.00
5,100.0	2.19	116.58	5,098.6	-34.0	68.0	-30.2	0.00	0.00	0.00
5,200.0	2.19	116.58	5,198.5	-35.7	71.4	-31.7	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14  
 Company: EOG Resources - Midland  
 Project: Lea County, NM (NAD 83 NME)  
 Site: Cobalt 32 State  
 Well: #701H  
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 Design: Plan #0.2

Local Co-ordinate Reference: Well #701H  
 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)
5,300.0	2.19	116.58	5,298.4	-37.4	74.8	-33.2	0.00	0.00	0.00
5,400.0	2.19	116.58	5,398.4	-39.1	78.2	-34.7	0.00	0.00	0.00
5,500.0	2.19	116.58	5,498.3	-40.9	81.7	-36.2	0.00	0.00	0.00
5,600.0	2.19	116.58	5,598.2	-42.6	85.1	-37.7	0.00	0.00	0.00
5,700.0	2.19	116.58	5,698.1	-44.3	88.5	-39.2	0.00	0.00	0.00
5,800.0	2.19	116.58	5,798.1	-46.0	91.9	-40.8	0.00	0.00	0.00
5,900.0	2.19	116.58	5,898.0	-47.7	95.3	-42.3	0.00	0.00	0.00
6,000.0	2.19	116.58	5,997.9	-49.4	98.7	-43.8	0.00	0.00	0.00
6,100.0	2.19	116.58	6,097.8	-51.1	102.1	-45.3	0.00	0.00	0.00
6,200.0	2.19	116.58	6,197.8	-52.8	105.6	-46.8	0.00	0.00	0.00
6,300.0	2.19	116.58	6,297.7	-54.5	109.0	-48.3	0.00	0.00	0.00
6,400.0	2.19	116.58	6,397.6	-56.2	112.4	-49.8	0.00	0.00	0.00
6,500.0	2.19	116.58	6,497.6	-57.9	115.8	-51.4	0.00	0.00	0.00
6,600.0	2.19	116.58	6,597.5	-59.6	119.2	-52.9	0.00	0.00	0.00
6,700.0	2.19	116.58	6,697.4	-61.4	122.6	-54.4	0.00	0.00	0.00
6,800.0	2.19	116.58	6,797.3	-63.1	126.1	-55.9	0.00	0.00	0.00
6,900.0	2.19	116.58	6,897.3	-64.8	129.5	-57.4	0.00	0.00	0.00
7,000.0	2.19	116.58	6,997.2	-66.5	132.9	-58.9	0.00	0.00	0.00
7,100.0	2.19	116.58	7,097.1	-68.2	136.3	-60.5	0.00	0.00	0.00
7,200.0	2.19	116.58	7,197.0	-69.9	139.7	-62.0	0.00	0.00	0.00
7,300.0	2.19	116.58	7,297.0	-71.6	143.1	-63.5	0.00	0.00	0.00
7,400.0	2.19	116.58	7,396.9	-73.3	146.6	-65.0	0.00	0.00	0.00
7,500.0	2.19	116.58	7,496.8	-75.0	150.0	-66.5	0.00	0.00	0.00
7,600.0	2.19	116.58	7,596.8	-76.7	153.4	-68.0	0.00	0.00	0.00
7,700.0	2.19	116.58	7,696.7	-78.4	156.8	-69.5	0.00	0.00	0.00
7,800.0	2.19	116.58	7,796.6	-80.2	160.2	-71.1	0.00	0.00	0.00
7,900.0	2.19	116.58	7,896.5	-81.9	163.6	-72.6	0.00	0.00	0.00
8,000.0	2.19	116.58	7,996.5	-83.6	167.0	-74.1	0.00	0.00	0.00
8,100.0	2.19	116.58	8,096.4	-85.3	170.5	-75.6	0.00	0.00	0.00
8,200.0	2.19	116.58	8,196.3	-87.0	173.9	-77.1	0.00	0.00	0.00
8,300.0	2.19	116.58	8,296.2	-88.7	177.3	-78.6	0.00	0.00	0.00
8,400.0	2.19	116.58	8,396.2	-90.4	180.7	-80.1	0.00	0.00	0.00
8,500.0	2.19	116.58	8,496.1	-92.1	184.1	-81.7	0.00	0.00	0.00
8,600.0	2.19	116.58	8,596.0	-93.8	187.5	-83.2	0.00	0.00	0.00
8,700.0	2.19	116.58	8,695.9	-95.5	191.0	-84.7	0.00	0.00	0.00
8,800.0	2.19	116.58	8,795.9	-97.2	194.4	-86.2	0.00	0.00	0.00
8,900.0	2.19	116.58	8,895.8	-99.0	197.8	-87.7	0.00	0.00	0.00
9,000.0	2.19	116.58	8,995.7	-100.7	201.2	-89.2	0.00	0.00	0.00
9,100.0	2.19	116.58	9,095.7	-102.4	204.6	-90.8	0.00	0.00	0.00
9,200.0	2.19	116.58	9,195.6	-104.1	208.0	-92.3	0.00	0.00	0.00
9,300.0	2.19	116.58	9,295.5	-105.8	211.5	-93.8	0.00	0.00	0.00
9,400.0	2.19	116.58	9,395.4	-107.5	214.9	-95.3	0.00	0.00	0.00
9,500.0	2.19	116.58	9,495.4	-109.2	218.3	-96.8	0.00	0.00	0.00
9,600.0	2.19	116.58	9,595.3	-110.9	221.7	-98.3	0.00	0.00	0.00
9,700.0	2.19	116.58	9,695.2	-112.6	225.1	-99.8	0.00	0.00	0.00
9,800.0	2.19	116.58	9,795.1	-114.3	228.5	-101.4	0.00	0.00	0.00
9,900.0	2.19	116.58	9,895.1	-116.0	231.9	-102.9	0.00	0.00	0.00
10,000.0	2.19	116.58	9,995.0	-117.7	235.4	-104.4	0.00	0.00	0.00
10,100.0	2.19	116.58	10,094.9	-119.5	238.8	-105.9	0.00	0.00	0.00
10,200.0	2.19	116.58	10,194.9	-121.2	242.2	-107.4	0.00	0.00	0.00
10,300.0	2.19	116.58	10,294.8	-122.9	245.6	-108.9	0.00	0.00	0.00
10,400.0	2.19	116.58	10,394.7	-124.6	249.0	-110.4	0.00	0.00	0.00
10,500.0	2.19	116.58	10,494.6	-126.3	252.4	-112.0	0.00	0.00	0.00
10,600.0	2.19	116.58	10,594.6	-128.0	255.9	-113.5	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: #701H  
 Wellbore: OH  
 Design: Plan #0.2

Local Co-ordinate Reference: Well #701H  
 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)
10,700.0	2.19	116.58	10,694.5	-129.7	259.3	-115.0	0.00	0.00	0.00
10,800.0	2.19	116.58	10,794.4	-131.4	262.7	-116.5	0.00	0.00	0.00
10,900.0	2.19	116.58	10,894.3	-133.1	266.1	-118.0	0.00	0.00	0.00
11,000.0	2.19	116.58	10,994.3	-134.8	269.5	-119.5	0.00	0.00	0.00
11,100.0	2.19	116.58	11,094.2	-136.5	272.9	-121.0	0.00	0.00	0.00
11,200.0	2.19	116.58	11,194.1	-138.3	276.4	-122.6	0.00	0.00	0.00
11,300.0	2.19	116.58	11,294.1	-140.0	279.8	-124.1	0.00	0.00	0.00
11,400.0	2.19	116.58	11,394.0	-141.7	283.2	-125.6	0.00	0.00	0.00
11,500.0	2.19	116.58	11,493.9	-143.4	286.6	-127.1	0.00	0.00	0.00
11,600.0	2.19	116.58	11,593.8	-145.1	290.0	-128.6	0.00	0.00	0.00
11,700.0	2.19	116.58	11,693.8	-146.8	293.4	-130.1	0.00	0.00	0.00
11,800.0	2.19	116.58	11,793.7	-148.5	296.8	-131.7	0.00	0.00	0.00
11,860.9	2.19	116.58	11,854.5	-149.5	298.9	-132.6	0.00	0.00	0.00
11,875.0	2.07	69.77	11,868.6	-149.6	299.4	-132.6	12.00	-0.84	-331.37
11,900.0	4.18	27.25	11,893.6	-148.6	300.2	-131.6	12.00	8.44	-170.07
11,925.0	6.98	15.65	11,918.5	-146.3	301.1	-129.3	12.00	11.18	-46.40
11,950.0	9.89	10.76	11,943.2	-142.8	301.9	-125.6	12.00	11.66	-19.58
11,975.0	12.85	8.09	11,967.7	-137.9	302.7	-120.7	12.00	11.82	-10.69
12,000.0	15.82	6.40	11,991.9	-131.8	303.4	-114.6	12.00	11.88	-6.73
12,025.0	18.80	5.24	12,015.8	-124.4	304.2	-107.1	12.00	11.92	-4.65
12,050.0	21.78	4.39	12,039.2	-115.7	304.9	-98.5	12.00	11.94	-3.41
12,075.0	24.77	3.73	12,062.2	-105.9	305.6	-88.6	12.00	11.96	-2.62
12,100.0	27.76	3.21	12,084.6	-94.8	306.3	-77.5	12.00	11.96	-2.09
12,125.0	30.75	2.78	12,106.4	-82.6	306.9	-65.3	12.00	11.97	-1.71
12,150.0	33.75	2.42	12,127.6	-69.3	307.5	-52.0	12.00	11.98	-1.44
12,175.0	36.74	2.11	12,148.0	-54.9	308.1	-37.6	12.00	11.98	-1.23
12,200.0	39.74	1.85	12,167.6	-39.4	308.6	-22.1	12.00	11.98	-1.07
12,225.0	42.73	1.61	12,186.4	-23.0	309.1	-5.6	12.00	11.98	-0.94
12,250.0	45.73	1.40	12,204.3	-5.5	309.6	11.8	12.00	11.99	-0.84
12,275.0	48.73	1.21	12,221.3	12.8	310.0	30.2	12.00	11.99	-0.76
12,300.0	51.73	1.04	12,237.3	32.0	310.4	49.4	12.00	11.99	-0.69
12,325.0	54.72	0.88	12,252.3	52.0	310.7	69.4	12.00	11.99	-0.64
12,350.0	57.72	0.73	12,266.2	72.8	311.0	90.1	12.00	11.99	-0.59
12,375.0	60.72	0.60	12,278.9	94.3	311.2	111.6	12.00	11.99	-0.55
12,400.0	63.72	0.47	12,290.6	116.4	311.5	133.7	12.00	11.99	-0.52
12,425.0	66.71	0.34	12,301.1	139.1	311.6	156.3	12.00	11.99	-0.50
12,432.9	67.66	0.30	12,304.1	146.3	311.7	163.6	12.00	11.99	-0.48
<b>FTP(Cobalt 32 State #701H)</b>									
12,450.0	69.71	0.22	12,310.4	162.3	311.7	179.5	12.00	11.99	-0.47
12,475.0	72.71	0.11	12,318.4	186.0	311.8	203.1	12.00	11.99	-0.46
12,500.0	75.71	360.00	12,325.2	210.0	311.8	227.2	12.00	11.99	-0.44
12,525.0	78.71	359.89	12,330.7	234.4	311.8	251.5	12.00	11.99	-0.43
12,550.0	81.70	359.79	12,335.0	259.0	311.7	276.1	12.00	11.99	-0.42
12,575.0	84.70	359.68	12,338.0	283.9	311.6	300.9	12.00	11.99	-0.41
12,600.0	87.70	359.58	12,339.6	308.8	311.5	325.8	12.00	11.99	-0.41
12,619.2	90.00	359.50	12,340.0	328.0	311.3	344.9	12.00	11.99	-0.41
12,700.0	90.00	359.50	12,340.0	408.8	310.6	425.5	0.00	0.00	0.00
12,800.0	90.00	359.50	12,340.0	508.8	309.7	525.3	0.00	0.00	0.00
12,900.0	90.00	359.50	12,340.0	608.8	308.9	625.1	0.00	0.00	0.00
13,000.0	90.00	359.50	12,340.0	708.8	308.0	724.9	0.00	0.00	0.00
13,100.0	90.00	359.50	12,340.0	808.8	307.1	824.7	0.00	0.00	0.00
13,200.0	90.00	359.50	12,340.0	908.8	306.2	924.5	0.00	0.00	0.00
13,300.0	90.00	359.50	12,340.0	1,008.8	305.4	1,024.3	0.00	0.00	0.00



Planning Report

<b>Database:</b>	EDM 5000.14	<b>Local Co-ordinate Reference:</b>	Well #701H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	KB = 25 @ 3440.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB = 25 @ 3440.0usft
<b>Site:</b>	Cobalt 32 State	<b>North Reference:</b>	Grid
<b>Well:</b>	#701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.2		

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	12,340.0	1,108.8	304.5	1,124.1	0.00	0.00	0.00	
13,500.0	90.00	359.50	12,340.0	1,208.8	303.6	1,223.9	0.00	0.00	0.00	
13,600.0	90.00	359.50	12,340.0	1,308.8	302.8	1,323.7	0.00	0.00	0.00	
13,700.0	90.00	359.50	12,340.0	1,408.8	301.9	1,423.4	0.00	0.00	0.00	
13,800.0	90.00	359.50	12,340.0	1,508.8	301.0	1,523.2	0.00	0.00	0.00	
13,900.0	90.00	359.50	12,340.0	1,608.7	300.2	1,623.0	0.00	0.00	0.00	
14,000.0	90.00	359.50	12,340.0	1,708.7	299.3	1,722.8	0.00	0.00	0.00	
14,100.0	90.00	359.50	12,340.0	1,808.7	298.4	1,822.6	0.00	0.00	0.00	
14,200.0	90.00	359.50	12,340.0	1,908.7	297.6	1,922.4	0.00	0.00	0.00	
14,300.0	90.00	359.50	12,340.0	2,008.7	296.7	2,022.2	0.00	0.00	0.00	
14,400.0	90.00	359.50	12,340.0	2,108.7	295.8	2,122.0	0.00	0.00	0.00	
14,500.0	90.00	359.50	12,340.0	2,208.7	295.0	2,221.8	0.00	0.00	0.00	
14,600.0	90.00	359.50	12,340.0	2,308.7	294.1	2,321.6	0.00	0.00	0.00	
14,700.0	90.00	359.50	12,340.0	2,408.7	293.2	2,421.4	0.00	0.00	0.00	
14,800.0	90.00	359.50	12,340.0	2,508.7	292.3	2,521.1	0.00	0.00	0.00	
14,900.0	90.00	359.50	12,340.0	2,608.7	291.5	2,620.9	0.00	0.00	0.00	
15,000.0	90.00	359.50	12,340.0	2,708.7	290.6	2,720.7	0.00	0.00	0.00	
15,100.0	90.00	359.50	12,340.0	2,808.7	289.7	2,820.5	0.00	0.00	0.00	
15,200.0	90.00	359.50	12,340.0	2,908.7	288.9	2,920.3	0.00	0.00	0.00	
15,300.0	90.00	359.50	12,340.0	3,008.7	288.0	3,020.1	0.00	0.00	0.00	
15,400.0	90.00	359.50	12,340.0	3,108.7	287.1	3,119.9	0.00	0.00	0.00	
15,500.0	90.00	359.50	12,340.0	3,208.7	286.3	3,219.7	0.00	0.00	0.00	
15,600.0	90.00	359.50	12,340.0	3,308.7	285.4	3,319.5	0.00	0.00	0.00	
15,700.0	90.00	359.50	12,340.0	3,408.7	284.5	3,419.3	0.00	0.00	0.00	
15,800.0	90.00	359.50	12,340.0	3,508.7	283.7	3,519.1	0.00	0.00	0.00	
15,900.0	90.00	359.50	12,340.0	3,608.7	282.8	3,618.8	0.00	0.00	0.00	
16,000.0	90.00	359.50	12,340.0	3,708.7	281.9	3,718.6	0.00	0.00	0.00	
16,100.0	90.00	359.50	12,340.0	3,808.7	281.0	3,818.4	0.00	0.00	0.00	
16,200.0	90.00	359.50	12,340.0	3,908.7	280.2	3,918.2	0.00	0.00	0.00	
16,300.0	90.00	359.50	12,340.0	4,008.7	279.3	4,018.0	0.00	0.00	0.00	
16,400.0	90.00	359.50	12,340.0	4,108.7	278.4	4,117.8	0.00	0.00	0.00	
16,500.0	90.00	359.50	12,340.0	4,208.6	277.6	4,217.6	0.00	0.00	0.00	
16,600.0	90.00	359.50	12,340.0	4,308.6	276.7	4,317.4	0.00	0.00	0.00	
16,700.0	90.00	359.50	12,340.0	4,408.6	275.8	4,417.2	0.00	0.00	0.00	
16,800.0	90.00	359.50	12,340.0	4,508.6	275.0	4,517.0	0.00	0.00	0.00	
16,900.0	90.00	359.50	12,340.0	4,608.6	274.1	4,616.8	0.00	0.00	0.00	
17,000.0	90.00	359.50	12,340.0	4,708.6	273.2	4,716.5	0.00	0.00	0.00	
17,100.0	90.00	359.50	12,340.0	4,808.6	272.4	4,816.3	0.00	0.00	0.00	
17,141.4	90.00	359.50	12,340.0	4,850.0	272.0	4,857.6	0.00	0.00	0.00	

PBHL(Cobalt 32 State #701H)

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
PBHL(Cobalt 32 State # - hit/miss target - Shape - Point	0.00	0.00	12,340.0	4,850.0	272.0	430,495.00	803,963.00	32° 10' 50.376 N	103° 29' 4.080 W	
FTP(Cobalt 32 State #701H - plan misses target center by 38.7usft at 12432.9usft MD (12304.1 TVD, 146.3 N, 311.7 E) - Point	0.00	0.00	12,340.0	132.0	313.0	425,777.00	804,004.00	32° 10' 3.688 N	103° 29' 4.036 W	



Planning Report

**Database:** EDM 5000.14  
**Company:** EOG Resources - Midland  
**Project:** Lea County, NM (NAD 83 NME)  
**Site:** Cobalt 32 State  
**Well:** #701H  
**Wellbore:** OH  
**Design:** Plan #0.2

**Local Co-ordinate Reference:** Well #701H  
**TVD Reference:** KB = 25 @ 3440.0usft  
**MD Reference:** KB = 25 @ 3440.0usft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature