



Lea County, NM (NAD 83 NME)

Hemlock 32 State #704H

Plan #0.1



Azimuths to Grid North
True North: 4.39°
Magnetic North: 6.40°
Magnetic Field
Strength: 4778.45nT
Dip Angle: 60.07°
Date: 1/15/2019
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.40°
To convert a Magnetic Direction to a True Direction, Add 6.80° East
To convert a True Direction to a Grid Direction, Subtract 0.39°

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: #704H

KB = 25 @ 3690.0usft
Northing 457231.00 Easting 766976.00 Latitude 32° 15' 17.486 N Longitude 103° 35' 49.027 W

SECTION DETAILS

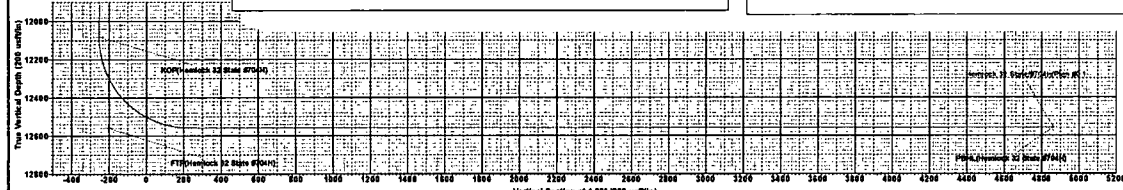
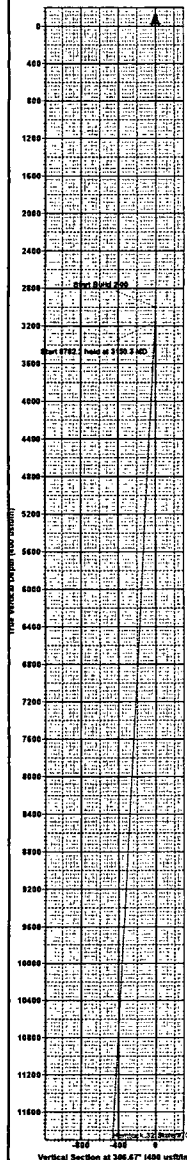
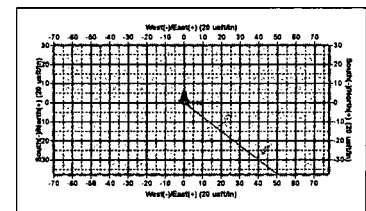
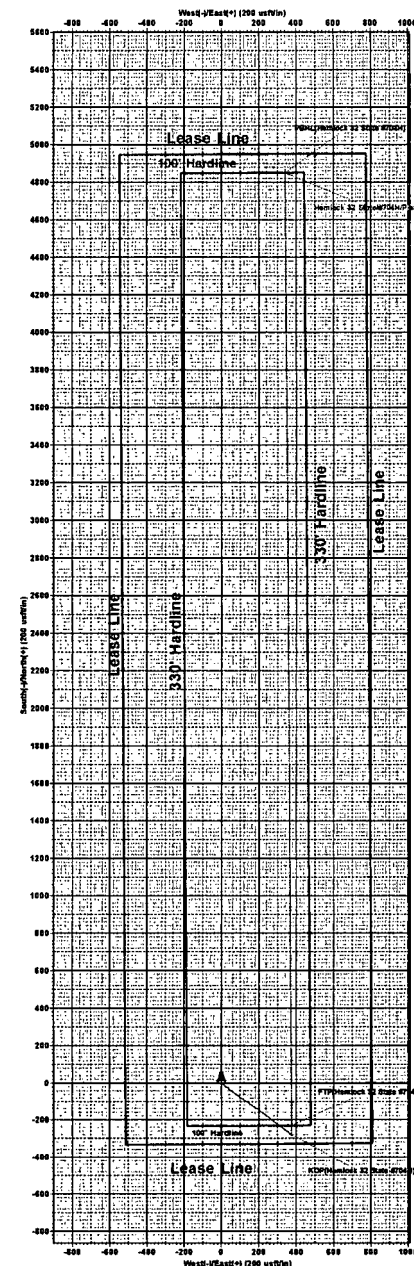
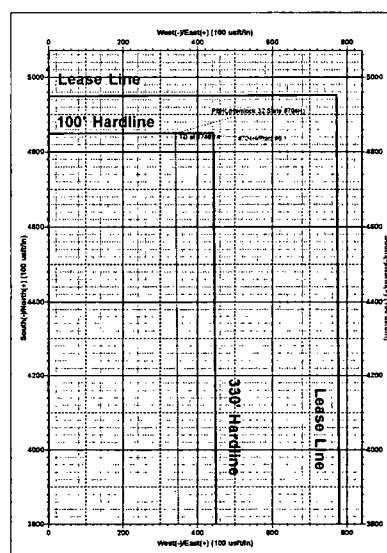
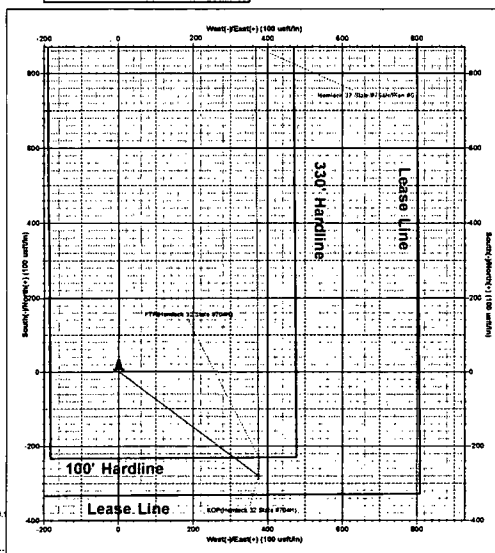
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	3090.0	0.00	0.00	3090.0	0.0	0.0	0.00	0.00	0.0		
3	3150.3	3.01	126.67	3150.2	-2.4	3.2	2.00	126.67	-2.1		
4	11942.6	3.01	126.67	11930.3	-277.6	372.8	0.00	0.00	-260.8		KOP(Hemlock 32 State #704H)
5	12092.7	0.00	0.00	12090.5	-280.0	376.0	2.00	180.00	-252.9		
6	12642.7	90.00	359.61	12658.0	197.5	372.7	12.00	359.61	223.1		
7	17495.4	90.00	359.61	12558.0	4850.0	341.0	0.00	0.00	4862.0		PBHL(Hemlock 32 State #704H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP(Hemlock 32 State #704H)	12092.6	-280.0	376.0	456861.00	766362.00
PBHL(Hemlock 32 State #704H)	12558.0	4850.0	341.0	462081.00	766317.00
FTP(Hemlock 32 State #704H)	12658.0	-230.0	376.0	457001.00	769362.00



FILE: C:\Program Files (x86)\Eog Resources\Hemlock 32 State #704H\Hemlock 32 State #704H.dwg
DATE: 1/15/2019
TIME: 1:10:10



EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Hemlock 32 State

#704H

OH

Plan: Plan #0.1

Standard Planning Report

15 January, 2019

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #704H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3690.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3690.0usft
Site:	Hemlock 32 State	North Reference:	Grid
Well:	#704H	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		Hemlock 32 State			
Site Position:		Northing:	457,257.00 usft	Latitude:	32° 15' 17.825 N
From:	Map	Easting:	767,769.00 usft	Longitude:	103° 36' 3.080 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.39 °

Well	#704H					
Well Position	+N/-S	-26.0 usft	Northing:	457,231.00 usft	Latitude:	32° 15' 17.486 N
	+E/-W	1,207.0 usft	Easting:	768,976.00 usft	Longitude:	103° 35' 49.027 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,665.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/15/2019	6.80	60.07	47,789.41642728

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	4.02

Plan Survey Tool Program	Date	1/15/2019		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	17,495.4 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	
3,150.3	3.01	126.67	3,150.2	-2.4	3.2	2.00	2.00	0.00	126.67	
11,942.5	3.01	126.67	11,930.3	-277.6	372.8	0.00	0.00	0.00	0.00	
12,092.7	0.00	0.00	12,080.5	-280.0	376.0	2.00	-2.00	0.00	180.00	KOP(Hemlock 32 Sta
12,842.7	90.00	359.61	12,558.0	197.5	372.7	12.00	12.00	-0.05	359.61	
17,495.4	90.00	359.61	12,558.0	4,850.0	341.0	0.00	0.00	0.00	0.00	PBHL(Hemlock 32 St

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #704H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3690.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3690.0usft
Site:	Hemlock 32 State	North Reference:	Grid
Well:	#704H	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	126.67	3,100.0	-1.0	1.4	-0.9	2.00	2.00	0.00
3,150.3	3.01	126.67	3,150.2	-2.4	3.2	-2.1	2.00	2.00	0.00
3,200.0	3.01	126.67	3,199.9	-3.9	5.3	-3.5	0.00	0.00	0.00
3,300.0	3.01	126.67	3,299.7	-7.0	9.5	-6.4	0.00	0.00	0.00
3,400.0	3.01	126.67	3,399.6	-10.2	13.7	-9.2	0.00	0.00	0.00
3,500.0	3.01	126.67	3,499.5	-13.3	17.9	-12.0	0.00	0.00	0.00
3,600.0	3.01	126.67	3,599.3	-16.4	22.1	-14.8	0.00	0.00	0.00
3,700.0	3.01	126.67	3,699.2	-19.6	26.3	-17.7	0.00	0.00	0.00
3,800.0	3.01	126.67	3,799.0	-22.7	30.5	-20.5	0.00	0.00	0.00
3,900.0	3.01	126.67	3,898.9	-25.8	34.7	-23.3	0.00	0.00	0.00
4,000.0	3.01	126.67	3,998.8	-29.0	38.9	-26.2	0.00	0.00	0.00
4,100.0	3.01	126.67	4,098.6	-32.1	43.1	-29.0	0.00	0.00	0.00
4,200.0	3.01	126.67	4,198.5	-35.2	47.3	-31.8	0.00	0.00	0.00
4,300.0	3.01	126.67	4,298.4	-38.4	51.5	-34.6	0.00	0.00	0.00
4,400.0	3.01	126.67	4,398.2	-41.5	55.7	-37.5	0.00	0.00	0.00
4,500.0	3.01	126.67	4,498.1	-44.6	59.9	-40.3	0.00	0.00	0.00
4,600.0	3.01	126.67	4,597.9	-47.7	64.1	-43.1	0.00	0.00	0.00
4,700.0	3.01	126.67	4,697.8	-50.9	68.3	-46.0	0.00	0.00	0.00
4,800.0	3.01	126.67	4,797.7	-54.0	72.5	-48.8	0.00	0.00	0.00
4,900.0	3.01	126.67	4,897.5	-57.1	76.7	-51.6	0.00	0.00	0.00
5,000.0	3.01	126.67	4,997.4	-60.3	80.9	-54.4	0.00	0.00	0.00
5,100.0	3.01	126.67	5,097.2	-63.4	85.1	-57.3	0.00	0.00	0.00
5,200.0	3.01	126.67	5,197.1	-66.5	89.3	-60.1	0.00	0.00	0.00

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #704H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3690.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3690.0usft
Site:	Hemlock 32 State	North Reference:	Grid
Well:	#704H	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	3.01	126.67	5,297.0	-69.7	93.5	-62.9	0.00	0.00	0.00
5,400.0	3.01	126.67	5,396.8	-72.8	97.8	-65.8	0.00	0.00	0.00
5,500.0	3.01	126.67	5,496.7	-75.9	102.0	-68.6	0.00	0.00	0.00
5,600.0	3.01	126.67	5,596.6	-79.1	106.2	-71.4	0.00	0.00	0.00
5,700.0	3.01	126.67	5,696.4	-82.2	110.4	-74.2	0.00	0.00	0.00
5,800.0	3.01	126.67	5,796.3	-85.3	114.6	-77.1	0.00	0.00	0.00
5,900.0	3.01	126.67	5,896.1	-88.5	118.8	-79.9	0.00	0.00	0.00
6,000.0	3.01	126.67	5,996.0	-91.6	123.0	-82.7	0.00	0.00	0.00
6,100.0	3.01	126.67	6,095.9	-94.7	127.2	-85.6	0.00	0.00	0.00
6,200.0	3.01	126.67	6,195.7	-97.8	131.4	-88.4	0.00	0.00	0.00
6,300.0	3.01	126.67	6,295.6	-101.0	135.6	-91.2	0.00	0.00	0.00
6,400.0	3.01	126.67	6,395.5	-104.1	139.8	-94.0	0.00	0.00	0.00
6,500.0	3.01	126.67	6,495.3	-107.2	144.0	-96.9	0.00	0.00	0.00
6,600.0	3.01	126.67	6,595.2	-110.4	148.2	-99.7	0.00	0.00	0.00
6,700.0	3.01	126.67	6,695.0	-113.5	152.4	-102.5	0.00	0.00	0.00
6,800.0	3.01	126.67	6,794.9	-116.6	156.6	-105.4	0.00	0.00	0.00
6,900.0	3.01	126.67	6,894.8	-119.8	160.8	-108.2	0.00	0.00	0.00
7,000.0	3.01	126.67	6,994.6	-122.9	165.0	-111.0	0.00	0.00	0.00
7,100.0	3.01	126.67	7,094.5	-126.0	169.2	-113.8	0.00	0.00	0.00
7,200.0	3.01	126.67	7,194.4	-129.2	173.4	-116.7	0.00	0.00	0.00
7,300.0	3.01	126.67	7,294.2	-132.3	177.6	-119.5	0.00	0.00	0.00
7,400.0	3.01	126.67	7,394.1	-135.4	181.8	-122.3	0.00	0.00	0.00
7,500.0	3.01	126.67	7,493.9	-138.5	186.1	-125.2	0.00	0.00	0.00
7,600.0	3.01	126.67	7,593.8	-141.7	190.3	-128.0	0.00	0.00	0.00
7,700.0	3.01	126.67	7,693.7	-144.8	194.5	-130.8	0.00	0.00	0.00
7,800.0	3.01	126.67	7,793.5	-147.9	198.7	-133.6	0.00	0.00	0.00
7,900.0	3.01	126.67	7,893.4	-151.1	202.9	-136.5	0.00	0.00	0.00
8,000.0	3.01	126.67	7,993.3	-154.2	207.1	-139.3	0.00	0.00	0.00
8,100.0	3.01	126.67	8,093.1	-157.3	211.3	-142.1	0.00	0.00	0.00
8,200.0	3.01	126.67	8,193.0	-160.5	215.5	-145.0	0.00	0.00	0.00
8,300.0	3.01	126.67	8,292.8	-163.6	219.7	-147.8	0.00	0.00	0.00
8,400.0	3.01	126.67	8,392.7	-166.7	223.9	-150.6	0.00	0.00	0.00
8,500.0	3.01	126.67	8,492.6	-169.9	228.1	-153.4	0.00	0.00	0.00
8,600.0	3.01	126.67	8,592.4	-173.0	232.3	-156.3	0.00	0.00	0.00
8,700.0	3.01	126.67	8,692.3	-176.1	236.5	-159.1	0.00	0.00	0.00
8,800.0	3.01	126.67	8,792.2	-179.3	240.7	-161.9	0.00	0.00	0.00
8,900.0	3.01	126.67	8,892.0	-182.4	244.9	-164.8	0.00	0.00	0.00
9,000.0	3.01	126.67	8,991.9	-185.5	249.1	-167.6	0.00	0.00	0.00
9,100.0	3.01	126.67	9,091.7	-188.6	253.3	-170.4	0.00	0.00	0.00
9,200.0	3.01	126.67	9,191.6	-191.8	257.5	-173.2	0.00	0.00	0.00
9,300.0	3.01	126.67	9,291.5	-194.9	261.7	-176.1	0.00	0.00	0.00
9,400.0	3.01	126.67	9,391.3	-198.0	265.9	-178.9	0.00	0.00	0.00
9,500.0	3.01	126.67	9,491.2	-201.2	270.1	-181.7	0.00	0.00	0.00
9,600.0	3.01	126.67	9,591.1	-204.3	274.3	-184.6	0.00	0.00	0.00
9,700.0	3.01	126.67	9,690.9	-207.4	278.6	-187.4	0.00	0.00	0.00
9,800.0	3.01	126.67	9,790.8	-210.6	282.8	-190.2	0.00	0.00	0.00
9,900.0	3.01	126.67	9,890.6	-213.7	287.0	-193.0	0.00	0.00	0.00
10,000.0	3.01	126.67	9,990.5	-216.8	291.2	-195.9	0.00	0.00	0.00
10,100.0	3.01	126.67	10,090.4	-220.0	295.4	-198.7	0.00	0.00	0.00
10,200.0	3.01	126.67	10,190.2	-223.1	299.6	-201.5	0.00	0.00	0.00
10,300.0	3.01	126.67	10,290.1	-226.2	303.8	-204.4	0.00	0.00	0.00
10,400.0	3.01	126.67	10,390.0	-229.4	308.0	-207.2	0.00	0.00	0.00
10,500.0	3.01	126.67	10,489.8	-232.5	312.2	-210.0	0.00	0.00	0.00
10,600.0	3.01	126.67	10,589.7	-235.6	316.4	-212.8	0.00	0.00	0.00

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Hemlock 32 State
Well: #704H
Wellbore: OH
Design: Plan #0.1

Local Co-ordinate Reference: Well #704H
TVD Reference: KB = 25 @ 3690.0usft
MD Reference: KB = 25 @ 3690.0usft
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	3.01	126.67	10,689.5	-238.7	320.6	-215.7	0.00	0.00	0.00
10,800.0	3.01	126.67	10,789.4	-241.9	324.8	-218.5	0.00	0.00	0.00
10,900.0	3.01	126.67	10,889.3	-245.0	329.0	-221.3	0.00	0.00	0.00
11,000.0	3.01	126.67	10,989.1	-248.1	333.2	-224.2	0.00	0.00	0.00
11,100.0	3.01	126.67	11,089.0	-251.3	337.4	-227.0	0.00	0.00	0.00
11,200.0	3.01	126.67	11,188.9	-254.4	341.6	-229.8	0.00	0.00	0.00
11,300.0	3.01	126.67	11,288.7	-257.5	345.8	-232.6	0.00	0.00	0.00
11,400.0	3.01	126.67	11,388.6	-260.7	350.0	-235.5	0.00	0.00	0.00
11,500.0	3.01	126.67	11,488.4	-263.8	354.2	-238.3	0.00	0.00	0.00
11,600.0	3.01	126.67	11,588.3	-266.9	358.4	-241.1	0.00	0.00	0.00
11,700.0	3.01	126.67	11,688.2	-270.1	362.6	-244.0	0.00	0.00	0.00
11,800.0	3.01	126.67	11,788.0	-273.2	366.8	-246.8	0.00	0.00	0.00
11,900.0	3.01	126.67	11,887.9	-276.3	371.1	-249.6	0.00	0.00	0.00
11,942.5	3.01	126.67	11,930.3	-277.6	372.8	-250.8	0.00	0.00	0.00
12,000.0	1.85	126.67	11,987.8	-279.1	374.8	-252.1	2.00	-2.00	0.00
12,092.7	0.00	0.00	12,080.5	-280.0	376.0	-252.9	2.00	-2.00	0.00
KOP(Hemlock 32 State #704H)									
12,100.0	0.87	359.61	12,087.8	-279.9	376.0	-252.9	12.00	12.00	0.00
12,125.0	3.87	359.61	12,112.7	-278.9	376.0	-251.9	12.00	12.00	0.00
12,150.0	6.87	359.61	12,137.6	-276.6	376.0	-249.5	12.00	12.00	0.00
12,175.0	9.87	359.61	12,162.4	-272.9	376.0	-245.9	12.00	12.00	0.00
12,200.0	12.87	359.61	12,186.9	-268.0	375.9	-241.0	12.00	12.00	0.00
12,225.0	15.87	359.61	12,211.1	-261.8	375.9	-234.8	12.00	12.00	0.00
12,250.0	18.87	359.61	12,234.9	-254.3	375.8	-227.3	12.00	12.00	0.00
12,275.0	21.87	359.61	12,258.4	-245.6	375.8	-218.7	12.00	12.00	0.00
12,300.0	24.87	359.61	12,281.3	-235.7	375.7	-208.8	12.00	12.00	0.00
12,325.0	27.87	359.61	12,303.7	-224.6	375.6	-197.7	12.00	12.00	0.00
12,350.0	30.87	359.61	12,325.5	-212.3	375.5	-185.5	12.00	12.00	0.00
12,375.0	33.87	359.61	12,346.6	-199.0	375.4	-172.1	12.00	12.00	0.00
12,400.0	36.87	359.61	12,367.0	-184.5	375.3	-157.7	12.00	12.00	0.00
12,425.0	39.87	359.61	12,386.6	-169.0	375.2	-142.2	12.00	12.00	0.00
12,450.0	42.87	359.61	12,405.4	-152.5	375.1	-125.8	12.00	12.00	0.00
12,475.0	45.87	359.61	12,423.2	-135.0	375.0	-108.3	12.00	12.00	0.00
12,496.4	48.44	359.61	12,437.7	-119.3	374.9	-92.7	12.00	12.00	0.00
FTP(Hemlock 32 State #704H)									
12,500.0	48.87	359.61	12,440.2	-116.6	374.9	-90.0	12.00	12.00	0.00
12,525.0	51.87	359.61	12,456.1	-97.3	374.8	-70.8	12.00	12.00	0.00
12,550.0	54.87	359.61	12,471.0	-77.3	374.6	-50.8	12.00	12.00	0.00
12,575.0	57.87	359.61	12,484.8	-56.5	374.5	-30.1	12.00	12.00	0.00
12,600.0	60.87	359.61	12,497.6	-34.9	374.3	-8.6	12.00	12.00	0.00
12,625.0	63.87	359.61	12,509.2	-12.8	374.2	13.5	12.00	12.00	0.00
12,650.0	66.87	359.61	12,519.6	9.9	374.0	36.1	12.00	12.00	0.00
12,675.0	69.87	359.61	12,528.8	33.2	373.9	59.3	12.00	12.00	0.00
12,700.0	72.87	359.61	12,536.8	56.8	373.7	82.9	12.00	12.00	0.00
12,725.0	75.87	359.61	12,543.5	80.9	373.5	106.9	12.00	12.00	0.00
12,750.0	78.87	359.61	12,549.0	105.3	373.4	131.2	12.00	12.00	0.00
12,775.0	81.87	359.61	12,553.2	130.0	373.2	155.8	12.00	12.00	0.00
12,800.0	84.87	359.61	12,556.1	154.8	373.0	180.6	12.00	12.00	0.00
12,825.0	87.87	359.61	12,557.6	179.7	372.9	205.4	12.00	12.00	0.00
12,842.7	90.00	359.61	12,558.0	197.5	372.7	223.1	12.00	12.00	0.00
12,900.0	90.00	359.61	12,558.0	254.7	372.4	280.2	0.00	0.00	0.00
13,000.0	90.00	359.61	12,558.0	354.7	371.7	379.9	0.00	0.00	0.00
13,100.0	90.00	359.61	12,558.0	454.7	371.0	479.6	0.00	0.00	0.00
13,200.0	90.00	359.61	12,558.0	554.7	370.3	579.3	0.00	0.00	0.00

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #704H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3690.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3690.0usft
Site:	Hemlock 32 State	North Reference:	Grid
Well:	#704H	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)
13,300.0	90.00	359.61	12,558.0	654.7	369.6	679.0	0.00	0.00	0.00
13,400.0	90.00	359.61	12,558.0	754.7	368.9	778.7	0.00	0.00	0.00
13,500.0	90.00	359.61	12,558.0	854.7	368.3	878.4	0.00	0.00	0.00
13,600.0	90.00	359.61	12,558.0	954.7	367.6	978.1	0.00	0.00	0.00
13,700.0	90.00	359.61	12,558.0	1,054.7	366.9	1,077.8	0.00	0.00	0.00
13,800.0	90.00	359.61	12,558.0	1,154.7	366.2	1,177.5	0.00	0.00	0.00
13,900.0	90.00	359.61	12,558.0	1,254.7	365.5	1,277.2	0.00	0.00	0.00
14,000.0	90.00	359.61	12,558.0	1,354.7	364.8	1,377.0	0.00	0.00	0.00
14,100.0	90.00	359.61	12,558.0	1,454.7	364.2	1,476.7	0.00	0.00	0.00
14,200.0	90.00	359.61	12,558.0	1,554.7	363.5	1,576.4	0.00	0.00	0.00
14,300.0	90.00	359.61	12,558.0	1,654.7	362.8	1,676.1	0.00	0.00	0.00
14,400.0	90.00	359.61	12,558.0	1,754.7	362.1	1,775.8	0.00	0.00	0.00
14,500.0	90.00	359.61	12,558.0	1,854.7	361.4	1,875.5	0.00	0.00	0.00
14,600.0	90.00	359.61	12,558.0	1,954.7	360.8	1,975.2	0.00	0.00	0.00
14,700.0	90.00	359.61	12,558.0	2,054.7	360.1	2,074.9	0.00	0.00	0.00
14,800.0	90.00	359.61	12,558.0	2,154.7	359.4	2,174.6	0.00	0.00	0.00
14,900.0	90.00	359.61	12,558.0	2,254.7	358.7	2,274.3	0.00	0.00	0.00
15,000.0	90.00	359.61	12,558.0	2,354.7	358.0	2,374.0	0.00	0.00	0.00
15,100.0	90.00	359.61	12,558.0	2,454.7	357.3	2,473.7	0.00	0.00	0.00
15,200.0	90.00	359.61	12,558.0	2,554.7	356.7	2,573.4	0.00	0.00	0.00
15,300.0	90.00	359.61	12,558.0	2,654.7	356.0	2,673.1	0.00	0.00	0.00
15,400.0	90.00	359.61	12,558.0	2,754.7	355.3	2,772.8	0.00	0.00	0.00
15,500.0	90.00	359.61	12,558.0	2,854.7	354.6	2,872.5	0.00	0.00	0.00
15,600.0	90.00	359.61	12,558.0	2,954.7	353.9	2,972.2	0.00	0.00	0.00
15,700.0	90.00	359.61	12,558.0	3,054.7	353.2	3,071.9	0.00	0.00	0.00
15,800.0	90.00	359.61	12,558.0	3,154.7	352.6	3,171.6	0.00	0.00	0.00
15,900.0	90.00	359.61	12,558.0	3,254.7	351.9	3,271.3	0.00	0.00	0.00
16,000.0	90.00	359.61	12,558.0	3,354.7	351.2	3,371.0	0.00	0.00	0.00
16,100.0	90.00	359.61	12,558.0	3,454.7	350.5	3,470.7	0.00	0.00	0.00
16,200.0	90.00	359.61	12,558.0	3,554.6	349.8	3,570.4	0.00	0.00	0.00
16,300.0	90.00	359.61	12,558.0	3,654.6	349.2	3,670.1	0.00	0.00	0.00
16,400.0	90.00	359.61	12,558.0	3,754.6	348.5	3,769.8	0.00	0.00	0.00
16,500.0	90.00	359.61	12,558.0	3,854.6	347.8	3,869.5	0.00	0.00	0.00
16,600.0	90.00	359.61	12,558.0	3,954.6	347.1	3,969.2	0.00	0.00	0.00
16,700.0	90.00	359.61	12,558.0	4,054.6	346.4	4,068.9	0.00	0.00	0.00
16,800.0	90.00	359.61	12,558.0	4,154.6	345.7	4,168.7	0.00	0.00	0.00
16,900.0	90.00	359.61	12,558.0	4,254.6	345.1	4,268.4	0.00	0.00	0.00
17,000.0	90.00	359.61	12,558.0	4,354.6	344.4	4,368.1	0.00	0.00	0.00
17,100.0	90.00	359.61	12,558.0	4,454.6	343.7	4,467.8	0.00	0.00	0.00
17,200.0	90.00	359.61	12,558.0	4,554.6	343.0	4,567.5	0.00	0.00	0.00
17,300.0	90.00	359.61	12,558.0	4,654.6	342.3	4,667.2	0.00	0.00	0.00
17,400.0	90.00	359.61	12,558.0	4,754.6	341.7	4,766.9	0.00	0.00	0.00
17,495.4	90.00	359.61	12,558.0	4,850.0	341.0	4,862.0	0.00	0.00	0.00

PBHL(Hemlock 32 State #704H)

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #704H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3690.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3690.0usft
Site:	Hemlock 32 State	North Reference:	Grid
Well:	#704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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
KOP(Hemlock 32 State #1 - plan hits target center - Point	0.00	0.00	12,080.5	-280.0	376.0	456,951.00	769,352.00	32° 15' 14.689 N	103° 35' 44.671 W
FTP(Hemlock 32 State #1 - plan misses target center by 163.4usft at 12496.4usft MD (12437.7 TVD, -119.3 N, 374.9 E) - Point	0.00	0.00	12,558.0	-230.0	376.0	457,001.00	769,352.00	32° 15' 15.184 N	103° 35' 44.667 W
PBHL(Hemlock 32 State #1 - plan hits target center - Point	0.00	0.00	12,558.0	4,850.0	341.0	462,081.00	769,317.00	32° 16' 5.454 N	103° 35' 44.668 W