



HOBBS OCD
MAR 14 2019
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EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Hemlock 32 State

#704H

76067

OH

Plan: Plan #1

Standard Planning Report

12 March, 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 #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 #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	5.22

Plan Survey Tool Program	Date	3/12/2019			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	17,501.3	Plan #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	
3,178.0	3.56	120.36	3,177.9	-2.8	4.8	2.00	2.00	0.00	120.36	
11,919.6	3.56	120.36	11,902.6	-277.2	473.2	0.00	0.00	0.00	0.00	
12,097.6	0.00	0.00	12,080.5	-280.0	478.0	2.00	-2.00	0.00	180.00	KOP(Hemlock 32 Sta
12,847.6	90.00	359.61	12,558.0	197.5	474.7	12.00	12.00	-0.05	359.61	
17,501.3	90.00	359.61	12,558.0	4,851.0	443.0	0.00	0.00	0.00	0.00	PBHL(Hemlock 32 St

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Site:	Hemlock 32 State	North Reference:	Grid
Well:	#704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #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	120.36	3,100.0	-0.9	1.5	-0.7	2.00	2.00	0.00
3,178.0	3.56	120.36	3,177.9	-2.8	4.8	-2.3	2.00	2.00	0.00
3,200.0	3.56	120.36	3,199.8	-3.5	5.9	-2.9	0.00	0.00	0.00
3,300.0	3.56	120.36	3,299.6	-6.6	11.3	-5.6	0.00	0.00	0.00
3,400.0	3.56	120.36	3,399.5	-9.8	16.7	-8.2	0.00	0.00	0.00
3,500.0	3.56	120.36	3,499.3	-12.9	22.0	-10.8	0.00	0.00	0.00
3,600.0	3.56	120.36	3,599.1	-16.0	27.4	-13.5	0.00	0.00	0.00
3,700.0	3.56	120.36	3,698.9	-19.2	32.7	-16.1	0.00	0.00	0.00
3,800.0	3.56	120.36	3,798.7	-22.3	38.1	-18.8	0.00	0.00	0.00
3,900.0	3.56	120.36	3,898.5	-25.5	43.5	-21.4	0.00	0.00	0.00
4,000.0	3.56	120.36	3,998.3	-28.6	48.8	-24.0	0.00	0.00	0.00
4,100.0	3.56	120.36	4,098.1	-31.7	54.2	-26.7	0.00	0.00	0.00
4,200.0	3.56	120.36	4,197.9	-34.9	59.5	-29.3	0.00	0.00	0.00
4,300.0	3.56	120.36	4,297.7	-38.0	64.9	-32.0	0.00	0.00	0.00
4,400.0	3.56	120.36	4,397.5	-41.2	70.3	-34.6	0.00	0.00	0.00
4,500.0	3.56	120.36	4,497.3	-44.3	75.6	-37.2	0.00	0.00	0.00
4,600.0	3.56	120.36	4,597.1	-47.4	81.0	-39.9	0.00	0.00	0.00
4,700.0	3.56	120.36	4,696.9	-50.6	86.3	-42.5	0.00	0.00	0.00
4,800.0	3.56	120.36	4,796.8	-53.7	91.7	-45.1	0.00	0.00	0.00
4,900.0	3.56	120.36	4,896.6	-56.9	97.1	-47.8	0.00	0.00	0.00
5,000.0	3.56	120.36	4,996.4	-60.0	102.4	-50.4	0.00	0.00	0.00
5,100.0	3.56	120.36	5,096.2	-63.1	107.8	-53.1	0.00	0.00	0.00
5,200.0	3.56	120.36	5,196.0	-66.3	113.1	-55.7	0.00	0.00	0.00



Planning Report

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Site:	Hemlock 32 State	North Reference:	Grid
Well:	#704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #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	3.56	120.36	5,295.8	-69.4	118.5	-58.3	0.00	0.00	0.00
5,400.0	3.56	120.36	5,395.6	-72.5	123.8	-61.0	0.00	0.00	0.00
5,500.0	3.56	120.36	5,495.4	-75.7	129.2	-63.6	0.00	0.00	0.00
5,600.0	3.56	120.36	5,595.2	-78.8	134.6	-66.3	0.00	0.00	0.00
5,700.0	3.56	120.36	5,695.0	-82.0	139.9	-68.9	0.00	0.00	0.00
5,800.0	3.56	120.36	5,794.8	-85.1	145.3	-71.5	0.00	0.00	0.00
5,900.0	3.56	120.36	5,894.6	-88.2	150.6	-74.2	0.00	0.00	0.00
6,000.0	3.56	120.36	5,994.4	-91.4	156.0	-76.8	0.00	0.00	0.00
6,100.0	3.56	120.36	6,094.2	-94.5	161.4	-79.5	0.00	0.00	0.00
6,200.0	3.56	120.36	6,194.1	-97.7	166.7	-82.1	0.00	0.00	0.00
6,300.0	3.56	120.36	6,293.9	-100.8	172.1	-84.7	0.00	0.00	0.00
6,400.0	3.56	120.36	6,393.7	-103.9	177.4	-87.4	0.00	0.00	0.00
6,500.0	3.56	120.36	6,493.5	-107.1	182.8	-90.0	0.00	0.00	0.00
6,600.0	3.56	120.36	6,593.3	-110.2	188.2	-92.6	0.00	0.00	0.00
6,700.0	3.56	120.36	6,693.1	-113.4	193.5	-95.3	0.00	0.00	0.00
6,800.0	3.56	120.36	6,792.9	-116.5	198.9	-97.9	0.00	0.00	0.00
6,900.0	3.56	120.36	6,892.7	-119.6	204.2	-100.6	0.00	0.00	0.00
7,000.0	3.56	120.36	6,992.5	-122.8	209.6	-103.2	0.00	0.00	0.00
7,100.0	3.56	120.36	7,092.3	-125.9	214.9	-105.8	0.00	0.00	0.00
7,200.0	3.56	120.36	7,192.1	-129.1	220.3	-108.5	0.00	0.00	0.00
7,300.0	3.56	120.36	7,291.9	-132.2	225.7	-111.1	0.00	0.00	0.00
7,400.0	3.56	120.36	7,391.7	-135.3	231.0	-113.8	0.00	0.00	0.00
7,500.0	3.56	120.36	7,491.5	-138.5	236.4	-116.4	0.00	0.00	0.00
7,600.0	3.56	120.36	7,591.3	-141.6	241.7	-119.0	0.00	0.00	0.00
7,700.0	3.56	120.36	7,691.2	-144.7	247.1	-121.7	0.00	0.00	0.00
7,800.0	3.56	120.36	7,791.0	-147.9	252.5	-124.3	0.00	0.00	0.00
7,900.0	3.56	120.36	7,890.8	-151.0	257.8	-127.0	0.00	0.00	0.00
8,000.0	3.56	120.36	7,990.6	-154.2	263.2	-129.6	0.00	0.00	0.00
8,100.0	3.56	120.36	8,090.4	-157.3	268.5	-132.2	0.00	0.00	0.00
8,200.0	3.56	120.36	8,190.2	-160.4	273.9	-134.9	0.00	0.00	0.00
8,300.0	3.56	120.36	8,290.0	-163.6	279.3	-137.5	0.00	0.00	0.00
8,400.0	3.56	120.36	8,389.8	-166.7	284.6	-140.1	0.00	0.00	0.00
8,500.0	3.56	120.36	8,489.6	-169.9	290.0	-142.8	0.00	0.00	0.00
8,600.0	3.56	120.36	8,589.4	-173.0	295.3	-145.4	0.00	0.00	0.00
8,700.0	3.56	120.36	8,689.2	-176.1	300.7	-148.1	0.00	0.00	0.00
8,800.0	3.56	120.36	8,789.0	-179.3	306.1	-150.7	0.00	0.00	0.00
8,900.0	3.56	120.36	8,888.8	-182.4	311.4	-153.3	0.00	0.00	0.00
9,000.0	3.56	120.36	8,988.6	-185.6	316.8	-156.0	0.00	0.00	0.00
9,100.0	3.56	120.36	9,088.5	-188.7	322.1	-158.6	0.00	0.00	0.00
9,200.0	3.56	120.36	9,188.3	-191.8	327.5	-161.3	0.00	0.00	0.00
9,300.0	3.56	120.36	9,288.1	-195.0	332.8	-163.9	0.00	0.00	0.00
9,400.0	3.56	120.36	9,387.9	-198.1	338.2	-166.5	0.00	0.00	0.00
9,500.0	3.56	120.36	9,487.7	-201.3	343.6	-169.2	0.00	0.00	0.00
9,600.0	3.56	120.36	9,587.5	-204.4	348.9	-171.8	0.00	0.00	0.00
9,700.0	3.56	120.36	9,687.3	-207.5	354.3	-174.4	0.00	0.00	0.00
9,800.0	3.56	120.36	9,787.1	-210.7	359.6	-177.1	0.00	0.00	0.00
9,900.0	3.56	120.36	9,886.9	-213.8	365.0	-179.7	0.00	0.00	0.00
10,000.0	3.56	120.36	9,986.7	-216.9	370.4	-182.4	0.00	0.00	0.00
10,100.0	3.56	120.36	10,086.5	-220.1	375.7	-185.0	0.00	0.00	0.00
10,200.0	3.56	120.36	10,186.3	-223.2	381.1	-187.6	0.00	0.00	0.00
10,300.0	3.56	120.36	10,286.1	-226.4	386.4	-190.3	0.00	0.00	0.00
10,400.0	3.56	120.36	10,385.9	-229.5	391.8	-192.9	0.00	0.00	0.00
10,500.0	3.56	120.36	10,485.8	-232.6	397.2	-195.6	0.00	0.00	0.00
10,600.0	3.56	120.36	10,585.6	-235.8	402.5	-198.2	0.00	0.00	0.00

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Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Builde Rate (°/100usft)	Turn Rate (°/100usft)
10,700.0	3.56	120.36	10,685.4	-238.9	407.9	-200.8	0.00	0.00	0.00
10,800.0	3.56	120.36	10,785.2	-242.1	413.2	-203.5	0.00	0.00	0.00
10,900.0	3.56	120.36	10,885.0	-245.2	418.6	-206.1	0.00	0.00	0.00
11,000.0	3.56	120.36	10,984.8	-248.3	423.9	-208.8	0.00	0.00	0.00
11,100.0	3.56	120.36	11,084.6	-251.5	429.3	-211.4	0.00	0.00	0.00
11,200.0	3.56	120.36	11,184.4	-254.6	434.7	-214.0	0.00	0.00	0.00
11,300.0	3.56	120.36	11,284.2	-257.8	440.0	-216.7	0.00	0.00	0.00
11,400.0	3.56	120.36	11,384.0	-260.9	445.4	-219.3	0.00	0.00	0.00
11,500.0	3.56	120.36	11,483.8	-264.0	450.7	-221.9	0.00	0.00	0.00
11,600.0	3.56	120.36	11,583.6	-267.2	456.1	-224.6	0.00	0.00	0.00
11,700.0	3.56	120.36	11,683.4	-270.3	461.5	-227.2	0.00	0.00	0.00
11,800.0	3.56	120.36	11,783.2	-273.5	466.8	-229.9	0.00	0.00	0.00
11,900.0	3.56	120.36	11,883.0	-276.6	472.2	-232.5	0.00	0.00	0.00
11,919.6	3.56	120.36	11,902.6	-277.2	473.2	-233.0	0.00	0.00	0.00
12,000.0	1.95	120.36	11,982.9	-279.2	476.6	-234.7	2.00	-2.00	0.00
12,097.6	0.00	0.00	12,080.5	-280.0	478.0	-235.4	2.00	-2.00	0.00
12,100.0	0.29	359.61	12,082.9	-280.0	478.0	-235.4	12.00	12.00	0.00
12,125.0	3.29	359.61	12,107.9	-279.2	478.0	-234.6	12.00	12.00	0.00
12,150.0	6.29	359.61	12,132.8	-277.1	478.0	-232.5	12.00	12.00	0.00
12,175.0	9.29	359.61	12,157.6	-273.7	478.0	-229.1	12.00	12.00	0.00
12,200.0	12.29	359.61	12,182.1	-269.1	477.9	-224.5	12.00	12.00	0.00
12,225.0	15.29	359.61	12,206.4	-263.1	477.9	-218.6	12.00	12.00	0.00
12,250.0	18.29	359.61	12,230.3	-255.9	477.8	-211.4	12.00	12.00	0.00
12,275.0	21.29	359.61	12,253.8	-247.4	477.8	-202.9	12.00	12.00	0.00
12,300.0	24.29	359.61	12,276.9	-237.7	477.7	-193.3	12.00	12.00	0.00
12,325.0	27.29	359.61	12,299.4	-226.9	477.6	-182.5	12.00	12.00	0.00
12,350.0	30.29	359.61	12,321.3	-214.8	477.6	-170.5	12.00	12.00	0.00
12,375.0	33.29	359.61	12,342.6	-201.7	477.5	-157.4	12.00	12.00	0.00
12,400.0	36.29	359.61	12,363.1	-187.4	477.4	-143.2	12.00	12.00	0.00
12,425.0	39.29	359.61	12,382.8	-172.1	477.3	-128.0	12.00	12.00	0.00
12,450.0	42.29	359.61	12,401.8	-155.8	477.2	-111.7	12.00	12.00	0.00
12,475.0	45.29	359.61	12,419.8	-138.5	477.0	-94.5	12.00	12.00	0.00
12,500.0	48.29	359.61	12,436.9	-120.2	476.9	-76.4	12.00	12.00	0.00
12,525.0	51.29	359.61	12,453.1	-101.2	476.8	-57.4	12.00	12.00	0.00
12,550.0	54.29	359.61	12,468.2	-81.2	476.6	-37.6	12.00	12.00	0.00
12,575.0	57.29	359.61	12,482.2	-60.6	476.5	-17.0	12.00	12.00	0.00
12,600.0	60.29	359.61	12,495.2	-39.2	476.4	4.3	12.00	12.00	0.00
12,625.0	63.29	359.61	12,507.0	-17.2	476.2	26.2	12.00	12.00	0.00
12,650.0	66.29	359.61	12,517.7	5.4	476.1	48.7	12.00	12.00	0.00
12,675.0	69.29	359.61	12,527.1	28.6	475.9	71.7	12.00	12.00	0.00
12,700.0	72.29	359.61	12,535.3	52.2	475.7	95.2	12.00	12.00	0.00
12,725.0	75.29	359.61	12,542.3	76.2	475.6	119.1	12.00	12.00	0.00
12,750.0	78.29	359.61	12,548.0	100.5	475.4	143.3	12.00	12.00	0.00
12,775.0	81.29	359.61	12,552.5	125.1	475.2	167.8	12.00	12.00	0.00
12,800.0	84.29	359.61	12,555.6	149.9	475.1	192.5	12.00	12.00	0.00
12,825.0	87.29	359.61	12,557.4	174.9	474.9	217.3	12.00	12.00	0.00
12,847.6	90.00	359.61	12,558.0	197.5	474.7	239.8	12.00	12.00	0.00
12,900.0	90.00	359.61	12,558.0	249.8	474.4	292.0	0.00	0.00	0.00
13,000.0	90.00	359.61	12,558.0	349.8	473.7	391.5	0.00	0.00	0.00
13,100.0	90.00	359.61	12,558.0	449.8	473.0	491.0	0.00	0.00	0.00
13,200.0	90.00	359.61	12,558.0	549.8	472.3	590.5	0.00	0.00	0.00
13,300.0	90.00	359.61	12,558.0	649.8	471.7	690.0	0.00	0.00	0.00
13,400.0	90.00	359.61	12,558.0	749.8	471.0	789.6	0.00	0.00	0.00
13,500.0	90.00	359.61	12,558.0	849.8	470.3	889.1	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 #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)
13,600.0	90.00	359.61	12,558.0	949.8	469.6	988.6	0.00	0.00	0.00
13,700.0	90.00	359.61	12,558.0	1,049.8	468.9	1,088.1	0.00	0.00	0.00
13,800.0	90.00	359.61	12,558.0	1,149.8	468.2	1,187.6	0.00	0.00	0.00
13,900.0	90.00	359.61	12,558.0	1,249.8	467.6	1,287.2	0.00	0.00	0.00
14,000.0	90.00	359.61	12,558.0	1,349.8	466.9	1,386.7	0.00	0.00	0.00
14,100.0	90.00	359.61	12,558.0	1,449.8	466.2	1,486.2	0.00	0.00	0.00
14,200.0	90.00	359.61	12,558.0	1,549.8	465.5	1,585.7	0.00	0.00	0.00
14,300.0	90.00	359.61	12,558.0	1,649.8	464.8	1,685.3	0.00	0.00	0.00
14,400.0	90.00	359.61	12,558.0	1,749.8	464.2	1,784.8	0.00	0.00	0.00
14,500.0	90.00	359.61	12,558.0	1,849.8	463.5	1,884.3	0.00	0.00	0.00
14,600.0	90.00	359.61	12,558.0	1,949.8	462.8	1,983.8	0.00	0.00	0.00
14,700.0	90.00	359.61	12,558.0	2,049.8	462.1	2,083.3	0.00	0.00	0.00
14,800.0	90.00	359.61	12,558.0	2,149.8	461.4	2,182.9	0.00	0.00	0.00
14,900.0	90.00	359.61	12,558.0	2,249.8	460.7	2,282.4	0.00	0.00	0.00
15,000.0	90.00	359.61	12,558.0	2,349.8	460.1	2,381.9	0.00	0.00	0.00
15,100.0	90.00	359.61	12,558.0	2,449.8	459.4	2,481.4	0.00	0.00	0.00
15,200.0	90.00	359.61	12,558.0	2,549.8	458.7	2,580.9	0.00	0.00	0.00
15,300.0	90.00	359.61	12,558.0	2,649.8	458.0	2,680.5	0.00	0.00	0.00
15,400.0	90.00	359.61	12,558.0	2,749.8	457.3	2,780.0	0.00	0.00	0.00
15,500.0	90.00	359.61	12,558.0	2,849.8	456.7	2,879.5	0.00	0.00	0.00
15,600.0	90.00	359.61	12,558.0	2,949.8	456.0	2,979.0	0.00	0.00	0.00
15,700.0	90.00	359.61	12,558.0	3,049.8	455.3	3,078.5	0.00	0.00	0.00
15,800.0	90.00	359.61	12,558.0	3,149.8	454.6	3,178.1	0.00	0.00	0.00
15,900.0	90.00	359.61	12,558.0	3,249.8	453.9	3,277.6	0.00	0.00	0.00
16,000.0	90.00	359.61	12,558.0	3,349.8	453.2	3,377.1	0.00	0.00	0.00
16,100.0	90.00	359.61	12,558.0	3,449.8	452.6	3,476.6	0.00	0.00	0.00
16,200.0	90.00	359.61	12,558.0	3,549.8	451.9	3,576.2	0.00	0.00	0.00
16,300.0	90.00	359.61	12,558.0	3,649.8	451.2	3,675.7	0.00	0.00	0.00
16,400.0	90.00	359.61	12,558.0	3,749.8	450.5	3,775.2	0.00	0.00	0.00
16,500.0	90.00	359.61	12,558.0	3,849.8	449.8	3,874.7	0.00	0.00	0.00
16,600.0	90.00	359.61	12,558.0	3,949.8	449.1	3,974.2	0.00	0.00	0.00
16,700.0	90.00	359.61	12,558.0	4,049.8	448.5	4,073.8	0.00	0.00	0.00
16,800.0	90.00	359.61	12,558.0	4,149.8	447.8	4,173.3	0.00	0.00	0.00
16,900.0	90.00	359.61	12,558.0	4,249.8	447.1	4,272.8	0.00	0.00	0.00
17,000.0	90.00	359.61	12,558.0	4,349.8	446.4	4,372.3	0.00	0.00	0.00
17,100.0	90.00	359.61	12,558.0	4,449.7	445.7	4,471.8	0.00	0.00	0.00
17,200.0	90.00	359.61	12,558.0	4,549.7	445.1	4,571.4	0.00	0.00	0.00
17,300.0	90.00	359.61	12,558.0	4,649.7	444.4	4,670.9	0.00	0.00	0.00
17,400.0	90.00	359.61	12,558.0	4,749.7	443.7	4,770.4	0.00	0.00	0.00
17,501.3	90.00	359.61	12,558.0	4,851.0	443.0	4,871.2	0.00	0.00	0.00



Planning Report

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 #1		

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									
KOP(Hemlock 32 State ; - plan hits target center - Point	0.00	0.00	12,080.5	-280.0	478.0	456,951.00	769,454.00	32° 15' 14.682 N	103° 35' 43.483 W
FTP(Hemlock 32 State # - plan misses target center by 163.4usft at 12500.0usft MD (12436.9 TVD, -120.2 N, 476.9 E) - Point	0.00	0.00	12,558.0	-230.0	478.0	457,001.00	769,454.00	32° 15' 15.177 N	103° 35' 43.479 W
PBHL(Hemlock 32 State - plan hits target center - Point	0.00	0.00	12,558.0	4,851.0	443.0	462,082.00	769,419.00	32° 16' 5.457 N	103° 35' 43.480 W

HOLLOMAR
MAR 14 2019
RECEIVED



Lea County, NM (NAD 83 NME)

Hemlock 32 State #704H

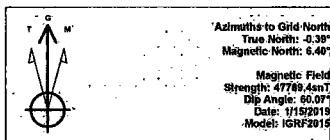
Plan #1

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: #704H

KB = 25 @ 3690.0usft 3665.0
Northing 457231.00 Easting 768976.00 32° 15' 17.486 N 103° 35' 49.027 W

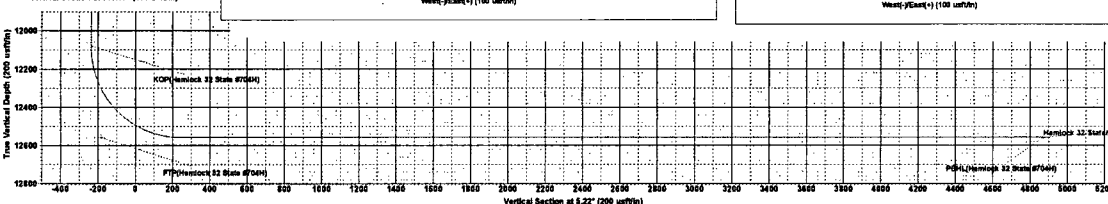
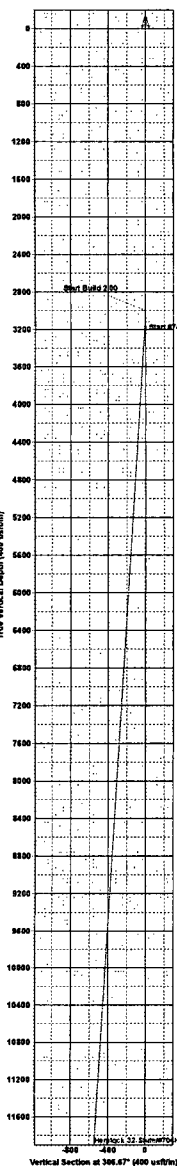
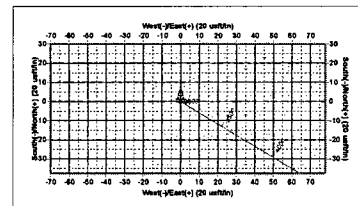
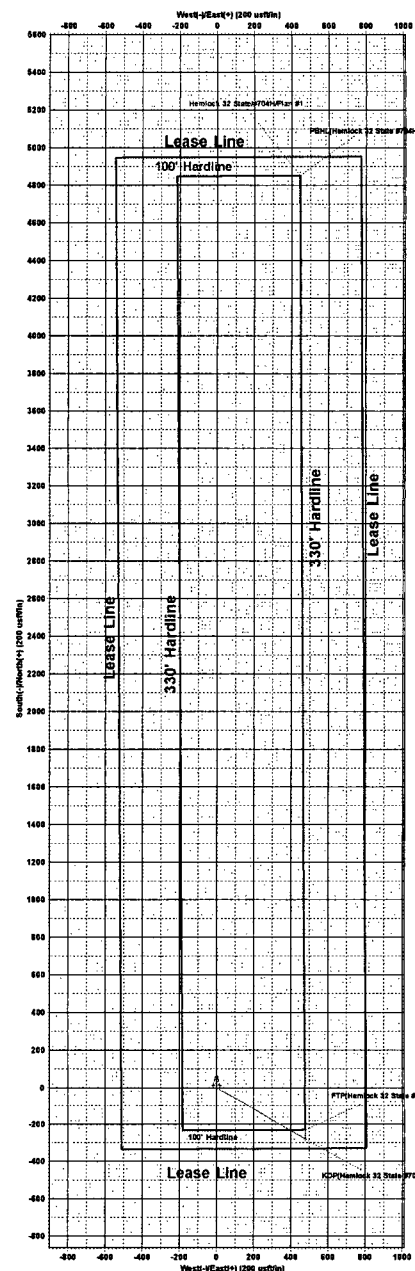
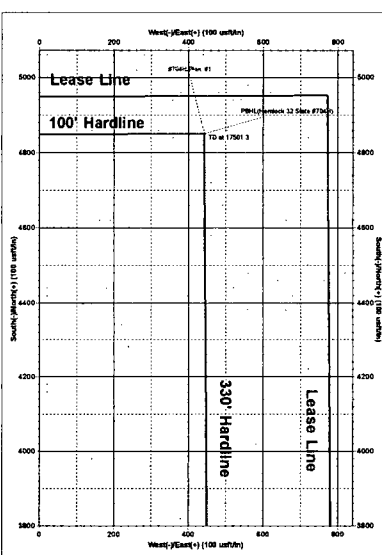
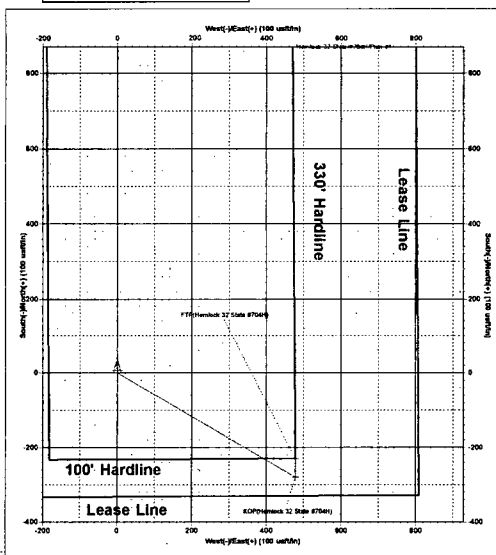


To convert a Magnetic Direction to a Grid Direction, Add 6.40°
To convert a Magnetic Direction to a True Direction, Add 6.80° East
To convert a True Direction to a Grid Direction, Subtract 0.39°

SECTION DETAILS													Target		Annotation	
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSecl							
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	3178.0	3.86	120.38	3177.9	-2.8	4.8	2.00	120.38	-2.3							
4	11919.8	3.56	120.36	11902.6	-277.2	473.2	0.00	0.00	-233.0							
6	12097.8	0.00	0.00	12098.0	-260.0	478.0	2.00	180.00	-235.4				KOP(Hemlock 32 State #704H)			
8	12847.8	90.00	359.61	12568.0	197.5	474.7	12.00	359.61	239.8							
7	17801.3	90.00	359.61	12568.0	4891.0	463.0	0.00	0.00	4871.2				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)	12098.0	-260.0	478.0	455961.00	769454.00		
PBHL(Hemlock 32 State #704H)	12568.0	4891.0	463.0	462082.00	769419.00		
FTP(Hemlock 32 State #704H)	12568.0	-230.0	478.0	457001.00	769454.00		



Lea County, NM (NAD 83 NME)
Hemlock 32 State #704H
Plan #1
1/19/2019