



EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Valiant 24 Fed Com

#710H

OH

Plan: Plan #0.1

Standard Planning Report

07 January, 2019



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #710H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3487.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3487.0usft
Site:	Valiant 24 Fed Com	North Reference:	Grid
Well:	#710H	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	Valiant 24 Fed Com		
Site Position:		Northing:	406,151.00 usft
From:	Map	Easting:	760,107.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 6' 52.620 N
		Longitude:	103° 37' 36.212 W
		Grid Convergence:	0.38 °

Well	#710H		
Well Position	+N/-S	-265.0 usft	Northing:
	+E/-W	1,658.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	
		Latitude:	32° 6' 49.890 N
		Longitude:	103° 37' 16.955 W
		Ground Level:	3,462.0 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2015	1/7/2019	6.80
			Dip Angle
			(°)
			Field Strength
			(nT)
			47,707.10655031

Design	Plan #0.1		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			178.63

Plan Survey Tool Program	Date 1/7/2019		
Depth From	Depth To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
1	0.0	19,906.3 Plan #0.1 (OH)	MWD
			OWSG MWD - Standard

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(usft)	(°)	(°)	(usft)	(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	
3,256.5	5.13	8.97	3,256.1	11.3	1.8	2.00	2.00	0.00	8.97	
11,606.2	5.13	8.97	11,572.4	748.7	118.2	0.00	0.00	0.00	0.00	
11,862.6	0.00	0.00	11,828.5	760.0	120.0	2.00	-2.00	0.00	180.00	KOP(VAL 24 FC #710
12,612.6	90.00	179.65	12,306.0	282.5	122.9	12.00	12.00	23.95	179.65	
19,906.3	90.00	179.65	12,306.0	-7,011.0	168.0	0.00	0.00	0.00	0.00	PBHL(VAL 24 FC #71



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Site:	Valiant 24 Fed Com	North Reference:	Grid
Well:	#710H	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	8.97	3,100.0	1.7	0.3	-1.7	2.00	2.00	0.00
3,200.0	4.00	8.97	3,199.8	6.9	1.1	-6.9	2.00	2.00	0.00
3,256.5	5.13	8.97	3,256.1	11.3	1.8	-11.3	2.00	2.00	0.00
3,300.0	5.13	8.97	3,299.5	15.2	2.4	-15.1	0.00	0.00	0.00
3,400.0	5.13	8.97	3,399.1	24.0	3.8	-23.9	0.00	0.00	0.00
3,500.0	5.13	8.97	3,498.7	32.8	5.2	-32.7	0.00	0.00	0.00
3,600.0	5.13	8.97	3,598.3	41.7	6.6	-41.5	0.00	0.00	0.00
3,700.0	5.13	8.97	3,697.9	50.5	8.0	-50.3	0.00	0.00	0.00
3,800.0	5.13	8.97	3,797.5	59.3	9.4	-59.1	0.00	0.00	0.00
3,900.0	5.13	8.97	3,897.1	68.2	10.8	-67.9	0.00	0.00	0.00
4,000.0	5.13	8.97	3,996.7	77.0	12.2	-76.7	0.00	0.00	0.00
4,100.0	5.13	8.97	4,096.3	85.8	13.6	-85.5	0.00	0.00	0.00
4,200.0	5.13	8.97	4,195.9	94.7	14.9	-94.3	0.00	0.00	0.00
4,300.0	5.13	8.97	4,295.5	103.5	16.3	-103.1	0.00	0.00	0.00
4,400.0	5.13	8.97	4,395.1	112.3	17.7	-111.9	0.00	0.00	0.00
4,500.0	5.13	8.97	4,494.7	121.1	19.1	-120.7	0.00	0.00	0.00
4,600.0	5.13	8.97	4,594.3	130.0	20.5	-129.4	0.00	0.00	0.00
4,700.0	5.13	8.97	4,693.9	138.8	21.9	-138.2	0.00	0.00	0.00
4,800.0	5.13	8.97	4,793.5	147.6	23.3	-147.0	0.00	0.00	0.00
4,900.0	5.13	8.97	4,893.1	156.5	24.7	-155.8	0.00	0.00	0.00
5,000.0	5.13	8.97	4,992.7	165.3	26.1	-164.6	0.00	0.00	0.00
5,100.0	5.13	8.97	5,092.3	174.1	27.5	-173.4	0.00	0.00	0.00
5,200.0	5.13	8.97	5,191.9	183.0	28.9	-182.2	0.00	0.00	0.00



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 Site: Valiant 24 Fed Com
 Well: #710H
 Wellbore: OH
 Design: Plan #0.1

Local Co-ordinate Reference: Well #710H
 TVD Reference: KB = 25 @ 3487.0usft
 MD Reference: KB = 25 @ 3487.0usft
 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	5.13	8.97	5,291.5	191.8	30.3	-191.0	0.00	0.00	0.00
5,400.0	5.13	8.97	5,391.1	200.6	31.7	-199.8	0.00	0.00	0.00
5,500.0	5.13	8.97	5,490.7	209.5	33.1	-208.6	0.00	0.00	0.00
5,600.0	5.13	8.97	5,590.3	218.3	34.5	-217.4	0.00	0.00	0.00
5,700.0	5.13	8.97	5,689.9	227.1	35.9	-226.2	0.00	0.00	0.00
5,800.0	5.13	8.97	5,789.5	235.9	37.3	-235.0	0.00	0.00	0.00
5,900.0	5.13	8.97	5,889.1	244.8	38.6	-243.8	0.00	0.00	0.00
6,000.0	5.13	8.97	5,988.7	253.6	40.0	-252.6	0.00	0.00	0.00
6,100.0	5.13	8.97	6,088.3	262.4	41.4	-261.4	0.00	0.00	0.00
6,200.0	5.13	8.97	6,187.9	271.3	42.8	-270.2	0.00	0.00	0.00
6,300.0	5.13	8.97	6,287.5	280.1	44.2	-279.0	0.00	0.00	0.00
6,400.0	5.13	8.97	6,387.1	288.9	45.6	-287.8	0.00	0.00	0.00
6,500.0	5.13	8.97	6,486.7	297.8	47.0	-296.5	0.00	0.00	0.00
6,600.0	5.13	8.97	6,586.3	306.6	48.4	-305.3	0.00	0.00	0.00
6,700.0	5.13	8.97	6,685.9	315.4	49.8	-314.1	0.00	0.00	0.00
6,800.0	5.13	8.97	6,785.5	324.3	51.2	-322.9	0.00	0.00	0.00
6,900.0	5.13	8.97	6,885.1	333.1	52.6	-331.7	0.00	0.00	0.00
7,000.0	5.13	8.97	6,984.7	341.9	54.0	-340.5	0.00	0.00	0.00
7,100.0	5.13	8.97	7,084.3	350.7	55.4	-349.3	0.00	0.00	0.00
7,200.0	5.13	8.97	7,183.9	359.6	56.8	-358.1	0.00	0.00	0.00
7,300.0	5.13	8.97	7,283.5	368.4	58.2	-366.9	0.00	0.00	0.00
7,400.0	5.13	8.97	7,383.1	377.2	59.6	-375.7	0.00	0.00	0.00
7,500.0	5.13	8.97	7,482.7	386.1	61.0	-384.5	0.00	0.00	0.00
7,600.0	5.13	8.97	7,582.3	394.9	62.4	-393.3	0.00	0.00	0.00
7,700.0	5.13	8.97	7,681.9	403.7	63.7	-402.1	0.00	0.00	0.00
7,800.0	5.13	8.97	7,781.5	412.6	65.1	-410.9	0.00	0.00	0.00
7,900.0	5.13	8.97	7,881.1	421.4	66.5	-419.7	0.00	0.00	0.00
8,000.0	5.13	8.97	7,980.7	430.2	67.9	-428.5	0.00	0.00	0.00
8,100.0	5.13	8.97	8,080.3	439.1	69.3	-437.3	0.00	0.00	0.00
8,200.0	5.13	8.97	8,179.9	447.9	70.7	-446.1	0.00	0.00	0.00
8,300.0	5.13	8.97	8,279.5	456.7	72.1	-454.9	0.00	0.00	0.00
8,400.0	5.13	8.97	8,379.1	465.5	73.5	-463.6	0.00	0.00	0.00
8,500.0	5.13	8.97	8,478.7	474.4	74.9	-472.4	0.00	0.00	0.00
8,600.0	5.13	8.97	8,578.3	483.2	76.3	-481.2	0.00	0.00	0.00
8,700.0	5.13	8.97	8,677.9	492.0	77.7	-490.0	0.00	0.00	0.00
8,800.0	5.13	8.97	8,777.5	500.9	79.1	-498.8	0.00	0.00	0.00
8,900.0	5.13	8.97	8,877.1	509.7	80.5	-507.6	0.00	0.00	0.00
9,000.0	5.13	8.97	8,976.7	518.5	81.9	-516.4	0.00	0.00	0.00
9,100.0	5.13	8.97	9,076.3	527.4	83.3	-525.2	0.00	0.00	0.00
9,200.0	5.13	8.97	9,175.9	536.2	84.7	-534.0	0.00	0.00	0.00
9,300.0	5.13	8.97	9,275.5	545.0	86.1	-542.8	0.00	0.00	0.00
9,400.0	5.13	8.97	9,375.1	553.8	87.4	-551.6	0.00	0.00	0.00
9,500.0	5.13	8.97	9,474.7	562.7	88.8	-560.4	0.00	0.00	0.00
9,600.0	5.13	8.97	9,574.3	571.5	90.2	-569.2	0.00	0.00	0.00
9,700.0	5.13	8.97	9,673.9	580.3	91.6	-578.0	0.00	0.00	0.00
9,800.0	5.13	8.97	9,773.5	589.2	93.0	-586.8	0.00	0.00	0.00
9,900.0	5.13	8.97	9,873.1	598.0	94.4	-595.6	0.00	0.00	0.00
10,000.0	5.13	8.97	9,972.7	606.8	95.8	-604.4	0.00	0.00	0.00
10,100.0	5.13	8.97	10,072.3	615.7	97.2	-613.2	0.00	0.00	0.00
10,200.0	5.13	8.97	10,171.9	624.5	98.6	-622.0	0.00	0.00	0.00
10,300.0	5.13	8.97	10,271.5	633.3	100.0	-630.7	0.00	0.00	0.00
10,400.0	5.13	8.97	10,371.1	642.2	101.4	-639.5	0.00	0.00	0.00
10,500.0	5.13	8.97	10,470.7	651.0	102.8	-648.3	0.00	0.00	0.00
10,600.0	5.13	8.97	10,570.3	659.8	104.2	-657.1	0.00	0.00	0.00



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10,700.0	5.13	8.97	10,669.9	668.6	105.6	-665.9	0.00	0.00	0.00
10,800.0	5.13	8.97	10,769.5	677.5	107.0	-674.7	0.00	0.00	0.00
10,900.0	5.13	8.97	10,869.1	686.3	108.4	-683.5	0.00	0.00	0.00
11,000.0	5.13	8.97	10,968.7	695.1	109.8	-692.3	0.00	0.00	0.00
11,100.0	5.13	8.97	11,068.2	704.0	111.2	-701.1	0.00	0.00	0.00
11,200.0	5.13	8.97	11,167.8	712.8	112.5	-709.9	0.00	0.00	0.00
11,300.0	5.13	8.97	11,267.4	721.6	113.9	-718.7	0.00	0.00	0.00
11,400.0	5.13	8.97	11,367.0	730.5	115.3	-727.5	0.00	0.00	0.00
11,500.0	5.13	8.97	11,466.6	739.3	116.7	-736.3	0.00	0.00	0.00
11,606.2	5.13	8.97	11,572.4	748.7	118.2	-745.6	0.00	0.00	0.00
11,700.0	3.25	8.97	11,666.0	755.4	119.3	-752.4	2.00	-2.00	0.00
11,800.0	1.25	8.97	11,765.9	759.3	119.9	-756.2	2.00	-2.00	0.00
11,862.6	0.00	0.00	11,828.5	760.0	120.0	-756.9	2.00	-2.00	0.00
KOP(VAL 24 FC #710H)									
11,875.0	1.49	179.65	11,840.9	759.8	120.0	-756.7	12.00	12.00	0.00
11,900.0	4.49	179.65	11,865.8	758.5	120.0	-755.4	12.00	12.00	0.00
11,925.0	7.49	179.65	11,890.7	755.9	120.0	-752.8	12.00	12.00	0.00
11,950.0	10.49	179.65	11,915.4	752.0	120.0	-748.9	12.00	12.00	0.00
11,975.0	13.49	179.65	11,939.8	746.8	120.1	-743.7	12.00	12.00	0.00
12,000.0	16.49	179.65	11,964.0	740.4	120.1	-737.3	12.00	12.00	0.00
12,025.0	19.49	179.65	11,987.8	732.7	120.2	-729.6	12.00	12.00	0.00
12,050.0	22.49	179.65	12,011.1	723.7	120.2	-720.6	12.00	12.00	0.00
12,075.0	25.49	179.65	12,033.9	713.5	120.3	-710.5	12.00	12.00	0.00
12,100.0	28.49	179.65	12,056.2	702.2	120.4	-699.1	12.00	12.00	0.00
12,125.0	31.49	179.65	12,077.9	689.7	120.4	-686.6	12.00	12.00	0.00
12,150.0	34.49	179.65	12,098.8	676.1	120.5	-673.0	12.00	12.00	0.00
12,175.0	37.49	179.65	12,119.1	661.4	120.6	-658.3	12.00	12.00	0.00
12,200.0	40.49	179.65	12,138.5	645.7	120.7	-642.6	12.00	12.00	0.00
12,225.0	43.49	179.65	12,157.1	629.0	120.8	-625.9	12.00	12.00	0.00
12,250.0	46.49	179.65	12,174.8	611.3	120.9	-608.2	12.00	12.00	0.00
12,264.5	48.23	179.65	12,184.6	600.6	121.0	-597.6	12.00	12.00	0.00
FTP(VAL 24 FC #710H)									
12,275.0	49.49	179.65	12,191.5	592.7	121.0	-589.6	12.00	12.00	0.00
12,300.0	52.49	179.65	12,207.2	573.3	121.2	-570.2	12.00	12.00	0.00
12,325.0	55.49	179.65	12,221.9	553.1	121.3	-550.0	12.00	12.00	0.00
12,350.0	58.49	179.65	12,235.5	532.1	121.4	-529.1	12.00	12.00	0.00
12,375.0	61.49	179.65	12,248.0	510.5	121.5	-507.4	12.00	12.00	0.00
12,400.0	64.49	179.65	12,259.4	488.2	121.7	-485.1	12.00	12.00	0.00
12,425.0	67.49	179.65	12,269.6	465.4	121.8	-462.3	12.00	12.00	0.00
12,450.0	70.49	179.65	12,278.5	442.0	122.0	-439.0	12.00	12.00	0.00
12,475.0	73.49	179.65	12,286.3	418.3	122.1	-415.2	12.00	12.00	0.00
12,500.0	76.49	179.65	12,292.7	394.1	122.3	-391.1	12.00	12.00	0.00
12,525.0	79.49	179.65	12,297.9	369.7	122.4	-366.6	12.00	12.00	0.00
12,550.0	82.49	179.65	12,301.9	345.0	122.6	-341.9	12.00	12.00	0.00
12,575.0	85.49	179.65	12,304.5	320.1	122.7	-317.1	12.00	12.00	0.00
12,600.0	88.49	179.65	12,305.8	295.2	122.9	-292.1	12.00	12.00	0.00
12,612.6	90.00	179.65	12,306.0	282.5	122.9	-279.5	12.00	12.00	0.00
12,700.0	90.00	179.65	12,306.0	195.2	123.5	-192.2	0.00	0.00	0.00
12,800.0	90.00	179.65	12,306.0	95.2	124.1	-92.2	0.00	0.00	0.00
12,900.0	90.00	179.65	12,306.0	-4.8	124.7	7.8	0.00	0.00	0.00
13,000.0	90.00	179.65	12,306.0	-104.8	125.3	107.8	0.00	0.00	0.00
13,100.0	90.00	179.65	12,306.0	-204.8	126.0	207.8	0.00	0.00	0.00
13,200.0	90.00	179.65	12,306.0	-304.8	126.6	307.8	0.00	0.00	0.00
13,300.0	90.00	179.65	12,306.0	-404.8	127.2	407.8	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #710H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3487.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3487.0usft
Site:	Valiant 24 Fed Com	North Reference:	Grid
Well:	#710H	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)
13,400.0	90.00	179.65	12,306.0	-504.8	127.8	507.7	0.00	0.00	0.00
13,500.0	90.00	179.65	12,306.0	-604.8	128.4	607.7	0.00	0.00	0.00
13,600.0	90.00	179.65	12,306.0	-704.8	129.0	707.7	0.00	0.00	0.00
13,700.0	90.00	179.65	12,306.0	-804.8	129.7	807.7	0.00	0.00	0.00
13,800.0	90.00	179.65	12,306.0	-904.8	130.3	907.7	0.00	0.00	0.00
13,900.0	90.00	179.65	12,306.0	-1,004.8	130.9	1,007.7	0.00	0.00	0.00
14,000.0	90.00	179.65	12,306.0	-1,104.8	131.5	1,107.6	0.00	0.00	0.00
14,100.0	90.00	179.65	12,306.0	-1,204.8	132.1	1,207.6	0.00	0.00	0.00
14,200.0	90.00	179.65	12,306.0	-1,304.8	132.8	1,307.6	0.00	0.00	0.00
14,300.0	90.00	179.65	12,306.0	-1,404.8	133.4	1,407.6	0.00	0.00	0.00
14,400.0	90.00	179.65	12,306.0	-1,504.8	134.0	1,507.6	0.00	0.00	0.00
14,500.0	90.00	179.65	12,306.0	-1,604.8	134.6	1,607.6	0.00	0.00	0.00
14,600.0	90.00	179.65	12,306.0	-1,704.8	135.2	1,707.5	0.00	0.00	0.00
14,700.0	90.00	179.65	12,306.0	-1,804.8	135.8	1,807.5	0.00	0.00	0.00
14,800.0	90.00	179.65	12,306.0	-1,904.8	136.5	1,907.5	0.00	0.00	0.00
14,900.0	90.00	179.65	12,306.0	-2,004.8	137.1	2,007.5	0.00	0.00	0.00
15,000.0	90.00	179.65	12,306.0	-2,104.8	137.7	2,107.5	0.00	0.00	0.00
15,100.0	90.00	179.65	12,306.0	-2,204.8	138.3	2,207.5	0.00	0.00	0.00
15,200.0	90.00	179.65	12,306.0	-2,304.8	138.9	2,307.5	0.00	0.00	0.00
15,300.0	90.00	179.65	12,306.0	-2,404.8	139.5	2,407.4	0.00	0.00	0.00
15,400.0	90.00	179.65	12,306.0	-2,504.8	140.2	2,507.4	0.00	0.00	0.00
15,500.0	90.00	179.65	12,306.0	-2,604.8	140.8	2,607.4	0.00	0.00	0.00
15,600.0	90.00	179.65	12,306.0	-2,704.8	141.4	2,707.4	0.00	0.00	0.00
15,700.0	90.00	179.65	12,306.0	-2,804.8	142.0	2,807.4	0.00	0.00	0.00
15,800.0	90.00	179.65	12,306.0	-2,904.8	142.6	2,907.4	0.00	0.00	0.00
15,900.0	90.00	179.65	12,306.0	-3,004.8	143.3	3,007.3	0.00	0.00	0.00
16,000.0	90.00	179.65	12,306.0	-3,104.8	143.9	3,107.3	0.00	0.00	0.00
16,100.0	90.00	179.65	12,306.0	-3,204.8	144.5	3,207.3	0.00	0.00	0.00
16,200.0	90.00	179.65	12,306.0	-3,304.8	145.1	3,307.3	0.00	0.00	0.00
16,300.0	90.00	179.65	12,306.0	-3,404.8	145.7	3,407.3	0.00	0.00	0.00
16,400.0	90.00	179.65	12,306.0	-3,504.8	146.3	3,507.3	0.00	0.00	0.00
16,500.0	90.00	179.65	12,306.0	-3,604.8	147.0	3,607.2	0.00	0.00	0.00
16,600.0	90.00	179.65	12,306.0	-3,704.8	147.6	3,707.2	0.00	0.00	0.00
16,700.0	90.00	179.65	12,306.0	-3,804.8	148.2	3,807.2	0.00	0.00	0.00
16,800.0	90.00	179.65	12,306.0	-3,904.8	148.8	3,907.2	0.00	0.00	0.00
16,900.0	90.00	179.65	12,306.0	-4,004.8	149.4	4,007.2	0.00	0.00	0.00
17,000.0	90.00	179.65	12,306.0	-4,104.8	150.0	4,107.2	0.00	0.00	0.00
17,100.0	90.00	179.65	12,306.0	-4,204.8	150.7	4,207.2	0.00	0.00	0.00
17,200.0	90.00	179.65	12,306.0	-4,304.7	151.3	4,307.1	0.00	0.00	0.00
17,300.0	90.00	179.65	12,306.0	-4,404.7	151.9	4,407.1	0.00	0.00	0.00
17,400.0	90.00	179.65	12,306.0	-4,504.7	152.5	4,507.1	0.00	0.00	0.00
17,500.0	90.00	179.65	12,306.0	-4,604.7	153.1	4,607.1	0.00	0.00	0.00
17,600.0	90.00	179.65	12,306.0	-4,704.7	153.8	4,707.1	0.00	0.00	0.00
17,700.0	90.00	179.65	12,306.0	-4,804.7	154.4	4,807.1	0.00	0.00	0.00
17,800.0	90.00	179.65	12,306.0	-4,904.7	155.0	4,907.0	0.00	0.00	0.00
17,900.0	90.00	179.65	12,306.0	-5,004.7	155.6	5,007.0	0.00	0.00	0.00
18,000.0	90.00	179.65	12,306.0	-5,104.7	156.2	5,107.0	0.00	0.00	0.00
18,100.0	90.00	179.65	12,306.0	-5,204.7	156.8	5,207.0	0.00	0.00	0.00
18,200.0	90.00	179.65	12,306.0	-5,304.7	157.5	5,307.0	0.00	0.00	0.00
18,300.0	90.00	179.65	12,306.0	-5,404.7	158.1	5,407.0	0.00	0.00	0.00
18,400.0	90.00	179.65	12,306.0	-5,504.7	158.7	5,506.9	0.00	0.00	0.00
18,500.0	90.00	179.65	12,306.0	-5,604.7	159.3	5,606.9	0.00	0.00	0.00
18,600.0	90.00	179.65	12,306.0	-5,704.7	159.9	5,706.9	0.00	0.00	0.00
18,700.0	90.00	179.65	12,306.0	-5,804.7	160.5	5,806.9	0.00	0.00	0.00

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #710H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3487.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3487.0usft
Site:	Valiant 24 Fed Com	North Reference:	Grid
Well:	#710H	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)
18,800.0	90.00	179.65	12,306.0	-5,904.7	161.2	5,906.9	0.00	0.00	0.00
18,900.0	90.00	179.65	12,306.0	-6,004.7	161.8	6,006.9	0.00	0.00	0.00
19,000.0	90.00	179.65	12,306.0	-6,104.7	162.4	6,106.9	0.00	0.00	0.00
19,100.0	90.00	179.65	12,306.0	-6,204.7	163.0	6,206.8	0.00	0.00	0.00
19,200.0	90.00	179.65	12,306.0	-6,304.7	163.6	6,306.8	0.00	0.00	0.00
19,300.0	90.00	179.65	12,306.0	-6,404.7	164.3	6,406.8	0.00	0.00	0.00
19,400.0	90.00	179.65	12,306.0	-6,504.7	164.9	6,506.8	0.00	0.00	0.00
19,500.0	90.00	179.65	12,306.0	-6,604.7	165.5	6,606.8	0.00	0.00	0.00
19,600.0	90.00	179.65	12,306.0	-6,704.7	166.1	6,706.8	0.00	0.00	0.00
19,700.0	90.00	179.65	12,306.0	-6,804.7	166.7	6,806.7	0.00	0.00	0.00
19,800.0	90.00	179.65	12,306.0	-6,904.7	167.3	6,906.7	0.00	0.00	0.00
19,906.3	90.00	179.65	12,306.0	-7,011.0	168.0	7,013.0	0.00	0.00	0.00

PBHL(VAL 24 FC #710H)

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
KOP(VAL 24 FC #710H)	0.00	0.00	11,828.5	760.0	120.0	406,646.00	761,885.00	32° 6' 57.403 N	103° 37' 15.501 W
- plan hits target center									
- Point									
PBHL(VAL 24 FC #710H)	0.00	0.00	12,306.0	-7,011.0	168.0	398,875.00	761,933.00	32° 5' 40.502 N	103° 37' 15.540 W
- plan hits target center									
- Point									
FTP(VAL 24 FC #710H)	0.00	0.00	12,306.0	710.0	120.0	406,596.00	761,885.00	32° 6' 56.908 N	103° 37' 15.505 W
- plan misses target center by 163.4usft at 12264.5usft MD (12184.6 TVD, 600.6 N, 121.0 E)									
- Point									