EOG Resources - Midland

Lea County, NM (NAD 83 NME)
Convoy 28 State Com
#703H
OH

Design: OH

PVA Report

07 March, 2018

EOG Resources
PVA Report

Company:	EOG Resources - Midland	**Local Co-ordinate Reference:**	Well #703H
Project:	Lea County, NM (NAD 83 NME)	**TVD Reference:**	KB = 25 @ 3551.0usft (HP 620)
Site:	Convoy 28 State Com	**MD Reference:**	KB = 25 @ 3551.0usft (HP 620)
Well:	#703H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.14 Single User Db

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 Convoy 28 State Com

Site Position:		**Northing:**	435,221.00 usft	**Latitude:**	32° 11' 39.126 N
From:	Map	**Easting:**	777,172.00 usft	**Longitude:**	103° 34' 15.406 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.41 °

Well #703H

Well Position	**+N/-S**	0.0 usft	**Northing:**	435,250.00 usft	**Latitude:**	32° 11' 39.479 N
	+E/-W	0.0 usft	**Easting:**	776,227.00 usft	**Longitude:**	103° 34' 26.400 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,526.0 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	11/30/2017	6.90	60.03	47,872.73032447

Design OH

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	176.67

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Survey Program Date 3/7/2018

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
143.0	1,323.0	Olebrook MWD (OH)	MWD	MWD - Standard
1,420.0	22,445.0	Drilltech MWD (OH)	MWD	MWD - Standard

Survey

MD (usft)	Inc (°)	Azi (grid_north_azim	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.0	0.0
143.0	1.06	357.84	143.0	1.3	0.0	0.74	0.74	0.00	-1.3	0.0
235.0	0.53	64.64	235.0	2.4	0.3	1.07	-0.58	72.61	-1.3	2.0
359.0	0.79	9.88	359.0	3.4	1.0	0.52	0.21	-44.16	-3.6	-0.4
453.0	0.26	46.89	453.0	4.2	1.2	0.64	-0.56	39.37	-3.8	2.2
580.0	0.09	52.07	580.0	4.5	1.5	0.13	-0.13	4.08	-4.0	2.6
674.0	0.18	26.93	674.0	4.7	1.6	0.11	0.10	-26.74	-4.9	0.6
768.0	0.18	25.97	768.0	4.9	1.8	0.00	0.00	-1.02	-5.2	0.6
895.0	0.35	345.27	895.0	5.5	1.8	0.19	0.13	-32.05	-4.9	-3.1
990.0	0.26	313.72	990.0	5.9	1.5	0.20	-0.09	-33.21	-3.0	-5.3
1,083.0	0.53	297.20	1,083.0	6.3	1.0	0.31	0.29	-17.76	-2.0	-6.0
1,178.0	0.35	277.25	1,178.0	6.5	0.3	0.25	-0.19	-21.00	-0.5	-6.5
1,272.0	0.62	294.21	1,272.0	6.7	-0.4	0.32	0.29	18.04	-3.1	-6.0
1,323.0	0.53	302.91	1,323.0	7.0	-0.9	0.25	-0.18	17.06	-4.5	-5.4
1,420.0	0.53	322.00	1,420.0	7.6	-1.5	0.18	0.00	19.69	-6.9	-3.5
1,512.0	1.41	54.37	1,511.9	8.6	-0.9	1.66	0.96	100.40	-4.3	7.5
1,605.0	2.37	56.13	1,604.9	10.3	1.7	1.03	1.03	1.89	-5.2	7.3
1,699.0	2.02	67.38	1,698.8	12.0	4.8	0.59	-0.37	11.97	-4.3	7.3
1,793.0	1.93	63.25	1,792.8	13.4	7.7	0.18	-0.10	-4.39	-4.9	5.8
1,887.0	3.52	62.99	1,886.7	15.4	11.7	1.69	1.69	-0.28	-6.3	4.8
1,981.0	3.52	59.91	1,980.5	18.2	16.8	0.20	0.00	-3.28	-9.1	3.4

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Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.14 Single User Db

Survey

MD (usft)	Inc (°)	Azi (grid_north_azim	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
2,075.0	3.69	63.34	2,074.3	21.0	22.0	0.29	0.18	3.65	-11.7	3.1
2,170.0	3.43	62.19	2,169.1	23.7	27.2	0.28	-0.27	-1.21	-14.5	1.8
2,263.0	3.61	65.71	2,261.9	26.2	32.4	0.30	0.19	3.78	-17.0	1.7
2,357.0	3.52	62.19	2,355.8	28.7	37.6	0.25	-0.10	-3.74	-19.8	-0.5
2,450.0	3.69	46.46	2,448.6	32.1	42.3	1.08	0.18	-16.91	-21.4	-6.7
2,542.0	4.13	40.84	2,540.4	36.7	46.6	0.63	0.48	-6.11	-23.4	-8.8
2,636.0	4.04	42.24	2,634.1	41.7	51.1	0.14	-0.10	1.49	-24.1	-7.8
2,729.0	4.04	41.89	2,726.9	46.5	55.5	0.03	0.00	-0.38	-22.6	-7.5
2,823.0	3.78	40.84	2,820.7	51.3	59.7	0.29	-0.28	-1.12	-20.7	-7.4
2,915.0	4.04	42.16	2,912.5	56.0	63.9	0.30	0.28	1.43	-19.1	-6.5
3,009.0	3.96	38.64	3,006.2	61.0	68.1	0.27	-0.09	-3.74	-17.1	-6.9
3,102.0	4.31	38.82	3,099.0	66.3	72.3	0.38	0.38	0.19	-15.7	-6.0
3,196.0	4.22	42.95	3,192.7	71.6	76.9	0.34	-0.10	4.39	-14.9	-4.3
3,290.0	4.48	44.97	3,286.5	76.7	81.8	0.32	0.28	2.15	-14.0	-3.6
3,383.0	4.66	42.16	3,379.2	82.0	86.9	0.31	0.19	-3.02	-13.1	-4.1
3,477.0	4.66	42.77	3,472.8	87.7	92.1	0.05	0.00	0.65	-12.6	-3.6
3,570.0	4.57	40.93	3,565.5	93.3	97.1	0.19	-0.10	-1.98	-11.9	-3.5
3,663.0	4.13	39.17	3,658.3	98.7	101.6	0.49	-0.47	-1.89	-10.7	-3.2
3,757.0	4.13	39.96	3,752.0	103.9	105.9	0.06	0.00	0.84	-9.4	-2.3
3,851.0	3.96	39.87	3,845.8	109.0	110.2	0.18	-0.18	-0.10	-7.8	-1.6
3,945.0	4.04	38.64	3,939.6	114.0	114.3	0.12	0.09	-1.31	-6.2	-0.9
4,038.0	3.87	34.33	4,032.3	119.2	118.1	0.37	-0.18	-4.63	-4.6	-0.1
4,132.0	3.96	32.22	4,126.1	124.5	121.7	0.18	0.10	-2.24	-3.0	1.4
4,227.0	4.13	32.66	4,220.9	130.2	125.3	0.18	0.18	0.46	-1.6	3.2
4,321.0	4.48	37.50	4,314.6	136.0	129.3	0.54	0.37	5.15	-0.2	4.7
4,414.0	4.57	37.23	4,407.3	141.8	133.8	0.10	0.10	-0.29	0.5	5.8
4,508.0	4.22	45.58	4,501.1	147.2	138.5	0.77	-0.37	8.88	2.3	6.1

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MD (usft)	Inc (°)	Azi (grid_north_azim	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
4,601.0	4.04	46.99	4,593.8	151.8	143.3	0.22	-0.19	1.52	3.9	5.9
4,695.0	3.96	53.23	4,687.6	156.0	148.4	0.47	-0.09	6.64	6.1	4.6
4,787.0	3.87	58.94	4,779.4	159.5	153.6	0.43	-0.10	6.21	8.0	2.4
4,881.0	3.96	59.21	4,873.2	162.8	159.1	0.10	0.10	0.29	9.6	0.3
4,974.0	3.96	66.50	4,965.9	165.8	164.8	0.54	0.00	7.84	10.7	-3.5
5,044.0	3.69	65.71	5,035.8	167.6	169.1	0.39	-0.39	-1.13	11.8	-5.5
5,137.0	3.78	62.46	5,128.6	170.3	174.5	0.25	0.10	-3.49	13.7	-7.4
5,231.0	4.48	52.35	5,222.3	174.0	180.2	1.07	0.74	-10.76	17.6	-6.9
5,324.0	6.68	54.02	5,314.9	179.4	187.4	2.37	2.37	1.80	20.6	-10.0
5,417.0	9.23	52.18	5,407.0	187.1	197.7	2.76	2.74	-1.98	23.1	-12.7
5,511.0	11.70	40.22	5,499.4	199.0	209.8	3.49	2.63	-12.72	24.6	-9.3
5,605.0	13.37	33.98	5,591.2	215.3	222.0	2.28	1.78	-6.64	21.2	-6.0
5,699.0	12.93	35.30	5,682.7	232.9	234.2	0.57	-0.47	1.40	15.9	-4.9
5,792.0	12.84	35.04	5,773.4	249.9	246.1	0.12	-0.10	-0.28	11.1	-3.4
5,885.0	12.93	35.39	5,864.0	266.8	258.1	0.13	0.10	0.38	6.4	-2.1
5,978.0	12.84	35.30	5,954.7	283.7	270.1	0.10	-0.10	-0.10	1.7	-0.8
6,073.0	11.70	36.00	6,047.5	300.1	281.8	1.21	-1.20	0.74	-2.1	0.4
6,166.0	11.26	35.65	6,138.7	315.1	292.7	0.48	-0.47	-0.38	-4.6	1.6
6,260.0	11.34	34.77	6,230.8	330.2	303.3	0.20	0.09	-0.94	-6.8	2.9
6,353.0	11.17	35.21	6,322.1	345.1	313.7	0.20	-0.18	0.47	-8.9	4.3
6,447.0	10.90	35.04	6,414.3	359.8	324.1	0.29	-0.29	-0.18	-10.7	5.7
6,540.0	10.73	35.04	6,505.7	374.1	334.1	0.18	-0.18	0.00	-12.0	7.1
6,634.0	10.64	35.12	6,598.0	388.3	344.1	0.10	-0.10	0.09	-13.2	8.5
6,728.0	10.64	35.65	6,690.4	402.5	354.1	0.10	0.00	0.56	-14.2	9.9
6,822.0	10.29	36.53	6,782.9	416.3	364.2	0.41	-0.37	0.94	-14.9	11.3
6,916.0	8.44	38.73	6,875.6	428.4	373.5	2.00	-1.97	2.34	-13.4	12.5
7,010.0	7.83	35.74	6,968.7	439.0	381.6	0.79	-0.65	-3.18	-11.0	12.7

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7,103.0	7.39	36.18	7,060.8	448.9	388.8	0.48	-0.47	0.47	-7.1	13.9
7,196.0	7.03	35.30	7,153.1	458.4	395.6	0.40	-0.39	-0.95	-2.8	15.0
7,289.0	6.33	51.03	7,245.5	466.3	402.9	2.10	-0.75	16.91	6.6	13.6
7,382.0	6.16	50.86	7,337.9	472.7	410.7	0.18	-0.18	-0.18	12.4	10.6
7,475.0	5.89	51.82	7,430.4	478.8	418.4	0.31	-0.29	1.03	18.5	7.2
7,568.0	6.24	61.05	7,522.9	484.2	426.5	1.11	0.38	9.92	22.6	0.0
7,662.0	5.63	67.73	7,616.4	488.4	435.3	0.98	-0.65	7.11	22.3	-7.1
7,755.0	3.43	67.03	7,709.1	491.2	442.1	2.37	-2.37	-0.75	21.9	-10.4
7,850.0	2.64	62.99	7,804.0	493.3	446.6	0.86	-0.83	-4.25	21.9	-10.9
7,943.0	2.37	66.77	7,896.9	495.0	450.3	0.34	-0.29	4.06	18.4	-12.9
8,036.0	2.02	71.51	7,989.8	496.3	453.6	0.42	-0.38	5.10	13.8	-14.2
8,130.0	2.11	76.08	8,083.7	497.2	456.9	0.20	0.10	4.86	9.2	-15.1
8,223.0	1.76	76.35	8,176.7	498.0	459.9	0.38	-0.38	0.29	6.0	-15.2
8,317.0	1.49	81.09	8,270.7	498.5	462.5	0.32	-0.29	5.04	2.1	-15.5
8,411.0	1.41	84.52	8,364.6	498.8	464.9	0.13	-0.09	3.65	-1.2	-15.5
8,505.0	0.53	25.72	8,458.6	499.3	466.2	1.30	-0.94	-62.55	11.6	-10.1
8,598.0	0.79	325.69	8,551.6	500.2	466.1	0.75	0.28	-64.55	13.7	4.6
8,692.0	0.62	319.89	8,645.6	501.2	465.4	0.20	-0.18	-6.17	12.0	5.9
8,786.0	0.53	307.67	8,739.6	501.8	464.7	0.16	-0.10	-13.00	9.5	8.2
8,880.0	0.44	293.08	8,833.6	502.2	464.0	0.16	-0.10	-15.52	6.4	10.2
8,973.0	0.35	302.40	8,926.6	502.5	463.4	0.12	-0.10	10.02	7.3	9.1
9,067.0	0.44	301.43	9,020.6	502.9	462.9	0.10	0.10	-1.03	6.5	9.2
9,162.0	0.62	296.51	9,115.6	503.3	462.1	0.20	0.19	-5.18	4.8	9.7
9,260.0	0.26	279.64	9,213.6	503.6	461.4	0.39	-0.37	-17.21	1.0	10.6
9,354.0	0.18	290.62	9,307.6	503.6	461.1	0.10	-0.09	11.68	2.7	10.2
9,447.0	0.62	53.32	9,400.6	504.0	461.4	0.79	0.47	131.94	6.7	-7.6
9,540.0	0.97	60.26	9,493.6	504.7	462.4	0.39	0.38	7.46	4.5	-8.3

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9,634.0	1.14	23.79	9,587.6	505.9	463.5	0.72	0.18	-38.80	7.0	-4.5
9,727.0	1.41	21.24	9,680.5	507.9	464.3	0.30	0.29	-2.74	5.1	-4.3
9,821.0	0.62	321.12	9,774.5	509.3	464.4	1.30	-0.84	-63.96	5.1	1.3
9,914.0	1.49	304.07	9,867.5	510.4	463.1	0.98	0.94	-18.33	2.8	2.6
10,006.0	1.67	312.33	9,959.5	512.0	461.1	0.32	0.20	8.98	0.7	2.3
10,100.0	0.88	303.63	10,053.4	513.3	459.5	0.86	-0.84	-9.26	-1.8	2.2
10,193.0	1.06	308.90	10,146.4	514.2	458.2	0.22	0.19	5.67	-3.1	2.4
10,287.0	0.70	282.98	10,240.4	514.9	457.0	0.56	-0.38	-27.57	-5.2	0.4
10,381.0	0.97	277.09	10,334.4	515.1	455.6	0.30	0.29	-6.27	-6.6	-0.2
10,476.0	0.97	281.92	10,429.4	515.4	454.0	0.09	0.00	5.08	-8.2	0.4
10,569.0	0.70	259.86	10,522.4	515.5	452.7	0.45	-0.29	-23.72	-9.1	-3.0
10,663.0	0.62	259.86	10,616.4	515.3	451.7	0.09	-0.09	0.00	-10.2	-3.0
10,756.0	0.62	220.93	10,709.4	514.8	450.8	0.44	0.00	-41.86	-6.9	-9.0
10,850.0	0.35	144.37	10,803.4	514.2	450.7	0.68	-0.29	-81.45	6.7	-9.3
10,943.0	0.35	90.14	10,896.4	514.0	451.1	0.34	0.00	-58.31	11.1	-0.2
11,036.0	0.44	139.19	10,989.4	513.7	451.6	0.36	0.10	52.74	6.5	-8.3
11,130.0	1.06	247.47	11,083.4	513.1	451.1	1.35	0.66	115.19	-10.7	-3.3
11,223.0	0.97	198.86	11,176.3	512.0	450.0	0.90	-0.10	-52.27	-6.0	-10.8
11,316.0	1.06	170.39	11,269.3	510.4	449.9	0.54	0.10	-30.61	-1.6	-12.7
11,409.0	1.41	196.40	11,362.3	508.5	449.7	0.70	0.38	27.97	-9.0	-10.3
11,502.0	1.49	206.25	11,455.3	506.3	448.9	0.28	0.09	10.59	-12.9	-8.5
11,596.0	0.97	186.91	11,549.3	504.4	448.2	0.70	-0.55	-20.57	-11.4	-12.7
11,689.0	1.32	209.32	11,642.2	502.7	447.6	0.60	0.38	24.10	-17.1	-7.1
11,782.0	1.93	214.07	11,735.2	500.4	446.2	0.67	0.66	5.11	-20.3	-5.6
11,827.0	2.29	211.52	11,780.2	499.1	445.3	0.83	0.80	-5.67	-21.7	-6.5
11,911.0	2.37	201.41	11,864.1	496.0	443.8	0.50	0.10	-12.04	-23.6	-10.5
12,004.0	2.46	210.11	11,957.0	492.5	442.1	0.41	0.10	9.35	-28.8	-6.5

EOG Resources
PVA Report

Company:	EOG Resources - Midland	**Local Co-ordinate Reference:**	Well #703H
Project:	Lea County, NM (NAD 83 NME)	**TVD Reference:**	KB = 25 @ 3551.0usft (HP 620)
Site:	Convoy 28 State Com	**MD Reference:**	KB = 25 @ 3551.0usft (HP 620)
Well:	#703H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.14 Single User Db

Survey

MD (usft)	Inc (°)	Azi (grid_north_azim	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
12,098.0	6.42	178.83	12,050.7	485.5	441.2	4.79	4.21	-33.28	-27.1	-21.6
12,191.0	19.87	162.74	12,141.1	465.1	446.0	14.85	14.46	-17.30	-25.9	-25.7
12,238.0	29.46	162.39	12,183.8	446.4	451.9	20.41	20.40	-0.74	-31.2	-22.0
12,285.0	38.43	166.17	12,222.7	421.2	458.9	19.60	19.09	8.04	-40.2	-15.7
12,332.0	41.86	170.30	12,258.7	391.5	465.0	9.24	7.30	8.79	-48.9	-9.1
12,379.0	43.44	172.85	12,293.2	360.0	469.7	4.98	3.36	5.43	-53.8	-4.5
12,426.0	43.88	171.27	12,327.2	327.9	474.2	2.50	0.94	-3.36	-54.0	-2.8
12,471.0	48.98	173.46	12,358.2	295.6	478.5	11.87	11.33	4.87	-51.6	1.3
12,518.0	53.55	174.34	12,387.6	259.1	482.4	9.83	9.72	1.87	-47.8	3.7
12,536.7	54.70	174.52	12,398.6	244.0	483.8	6.22	6.17	0.96	-45.8	4.4
HL Crossing, MD:12536.7', TVD:12398.6',N/S:244.0', E/W:483.8', INC:54.70										
12,565.0	56.45	174.78	12,414.6	220.8	486.0	6.22	6.17	0.92	-42.0	5.4
12,612.0	62.96	176.36	12,438.3	180.4	489.1	14.15	13.85	3.36	-35.0	6.6
12,659.0	72.55	179.44	12,456.1	136.9	490.7	21.28	20.40	6.55	-29.7	5.8
12,706.0	72.90	179.35	12,470.0	92.1	491.1	0.77	0.74	-0.19	-23.6	3.3
12,753.0	77.73	177.60	12,481.9	46.6	492.4	10.89	10.28	-3.72	-14.9	1.6
12,800.0	83.01	175.93	12,489.8	0.4	495.0	11.77	11.23	-3.55	-7.0	1.6
12,847.0	86.70	175.93	12,494.0	-46.3	498.3	7.85	7.85	0.00	-2.6	3.0
12,894.0	93.30	175.75	12,494.0	-93.1	501.7	14.05	14.04	-0.38	-2.4	5.3
12,941.0	93.56	176.10	12,491.2	-139.9	505.0	0.93	0.55	0.74	-5.0	8.2
13,034.0	90.75	179.27	12,487.7	-232.8	508.8	4.55	-3.02	3.41	-8.1	11.3
13,068.0	90.57	179.44	12,487.3	-266.8	509.2	0.73	-0.53	0.50	-8.3	11.4
13,162.0	91.36	179.70	12,485.7	-360.8	509.9	0.88	0.84	0.28	-9.5	11.4
13,256.0	90.40	177.77	12,484.3	-454.7	512.0	2.29	-1.02	-2.05	-10.5	12.8
13,349.0	90.40	177.68	12,483.6	-547.6	515.6	0.10	0.00	-0.10	-10.7	15.8
13,441.0	89.60	177.60	12,483.6	-639.6	519.4	0.87	-0.87	-0.09	-10.3	18.9
13,534.0	89.16	178.56	12,484.6	-732.5	522.6	1.14	-0.47	1.03	-8.9	21.4

EOG Resources
PVA Report

Company:	EOG Resources - Midland	**Local Co-ordinate Reference:**	Well #703H
Project:	Lea County, NM (NAD 83 NME)	**TVD Reference:**	KB = 25 @ 3551.0usft (HP 620)
Site:	Convoy 28 State Com	**MD Reference:**	KB = 25 @ 3551.0usft (HP 620)
Well:	#703H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.14 Single User Db

Survey

MD (usft)	Inc (°)	Azi (grid_north_azim	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
13,628.0	88.72	179.18	12,486.4	-826.5	524.4	0.81	-0.47	0.66	-6.8	22.6
13,721.0	88.37	181.02	12,488.7	-919.4	524.2	2.01	-0.38	1.98	-4.0	21.7
13,814.0	89.08	181.46	12,490.8	-1,012.4	522.2	0.90	0.76	0.47	-1.5	19.0
13,908.0	89.52	181.64	12,492.0	-1,106.4	519.7	0.51	0.47	0.19	0.1	15.8
14,001.0	89.43	181.29	12,492.8	-1,199.3	517.3	0.39	-0.10	-0.38	1.3	12.8
14,032.0	90.57	179.53	12,492.8	-1,230.3	517.1	6.76	3.68	-5.68	1.5	12.3
14,094.0	90.84	179.62	12,492.0	-1,292.3	517.6	0.46	0.44	0.15	1.0	12.3
14,188.0	89.78	178.65	12,491.5	-1,386.3	519.0	1.53	-1.13	-1.03	0.9	13.1
14,281.0	91.80	180.76	12,490.3	-1,479.3	519.4	3.14	2.17	2.27	0.0	12.9
14,375.0	90.04	181.02	12,488.7	-1,573.2	518.0	1.89	-1.87	0.28	-1.1	10.7
14,469.0	89.96	181.46	12,488.7	-1,667.2	516.0	0.48	-0.09	0.47	-0.6	8.0
14,562.0	89.43	179.88	12,489.2	-1,760.2	514.9	1.79	-0.57	-1.70	0.3	6.2
14,656.0	87.05	180.23	12,492.1	-1,854.2	514.8	2.56	-2.53	0.37	3.6	5.5
14,749.0	88.81	181.90	12,495.5	-1,947.1	513.0	2.61	1.89	1.80	7.4	3.1
14,843.0	90.57	182.60	12,496.0	-2,041.0	509.4	2.01	1.87	0.74	8.1	-1.3
14,937.0	90.92	183.13	12,494.8	-2,134.9	504.7	0.68	0.37	0.56	7.0	-6.7
15,030.0	92.24	179.97	12,492.2	-2,227.8	502.1	3.68	1.42	-3.40	4.6	-9.9
15,124.0	91.45	176.28	12,489.2	-2,321.7	505.2	4.01	-0.84	-3.93	1.7	-7.5
15,217.0	90.57	175.22	12,487.5	-2,414.4	512.1	1.48	-0.95	-1.14	0.2	-1.3
15,311.0	89.16	175.84	12,487.8	-2,508.1	519.4	1.64	-1.50	0.66	0.6	5.3
15,405.0	87.32	176.19	12,490.6	-2,601.8	526.0	1.99	-1.96	0.37	3.6	11.2
15,499.0	85.65	178.30	12,496.4	-2,695.5	530.5	2.86	-1.78	2.24	9.5	15.0
15,593.0	86.97	177.07	12,502.5	-2,789.3	534.3	1.92	1.40	-1.31	15.7	18.1
15,686.0	87.23	176.01	12,507.2	-2,882.0	539.9	1.17	0.28	-1.14	20.5	23.1
15,717.0	88.20	176.63	12,508.4	-2,912.9	541.9	3.71	3.13	2.00	21.8	24.8
15,749.0	87.58	176.80	12,509.6	-2,944.8	543.7	2.01	-1.94	0.53	23.0	26.4
15,780.0	88.64	178.03	12,510.6	-2,975.8	545.1	5.24	3.42	3.97	24.1	27.6

EOG Resources
PVA Report

Company:	EOG Resources - Midland	**Local Co-ordinate Reference:**	Well #703H
Project:	Lea County, NM (NAD 83 NME)	**TVD Reference:**	KB = 25 @ 3551.0usft (HP 620)
Site:	Convoy 28 State Com	**MD Reference:**	KB = 25 @ 3551.0usft (HP 620)
Well:	#703H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.14 Single User Db

Survey

MD (usft)	Inc (°)	Azi (grid_north_azim	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
15,812.0	89.96	178.83	12,511.0	-3,007.8	546.0	4.82	4.12	2.50	24.5	28.2
15,844.0	91.89	180.93	12,510.5	-3,039.7	546.0	8.91	6.03	6.56	24.1	28.0
15,875.0	93.21	183.13	12,509.1	-3,070.7	544.9	8.27	4.26	7.10	22.7	26.7
15,922.0	93.83	183.48	12,506.2	-3,117.5	542.2	1.51	1.32	0.74	19.9	23.7
15,969.0	94.35	183.40	12,502.9	-3,164.3	539.4	1.12	1.11	-0.17	16.6	20.6
16,063.0	92.95	182.34	12,496.9	-3,258.0	534.7	1.87	-1.49	-1.13	10.8	15.1
16,157.0	91.63	181.02	12,493.1	-3,351.9	532.0	1.99	-1.40	-1.40	7.2	11.7
16,250.0	90.57	180.23	12,491.3	-3,444.9	531.0	1.42	-1.14	-0.85	5.5	10.0
16,344.0	89.34	179.27	12,491.4	-3,538.9	531.4	1.66	-1.31	-1.02	5.8	9.7
16,437.0	89.16	180.32	12,492.6	-3,631.8	531.7	1.15	-0.19	1.13	7.1	9.3
16,531.0	90.22	179.62	12,493.1	-3,725.8	531.7	1.35	1.13	-0.74	7.8	8.7
16,625.0	90.13	180.23	12,492.8	-3,819.8	531.9	0.66	-0.10	0.65	7.6	8.1
16,718.0	89.60	181.20	12,493.1	-3,912.8	530.7	1.19	-0.57	1.04	8.0	6.3
16,811.0	88.90	181.81	12,494.3	-4,005.8	528.3	1.00	-0.75	0.66	9.2	3.2
16,904.0	88.72	183.22	12,496.2	-4,098.7	524.2	1.53	-0.19	1.52	10.7	-1.6
16,997.0	87.49	179.62	12,499.3	-4,191.6	521.9	4.09	-1.32	-3.87	13.4	-4.6
17,090.0	90.75	179.88	12,500.7	-4,284.6	522.3	3.52	3.51	0.28	14.4	-4.8
17,184.0	92.86	179.44	12,497.8	-4,378.5	522.8	2.29	2.24	-0.47	11.0	-5.0
17,276.0	93.56	178.56	12,492.6	-4,470.3	524.5	1.22	0.76	-0.96	5.4	-4.0
17,370.0	87.67	178.03	12,491.6	-4,564.3	527.2	6.29	-6.27	-0.56	4.0	-1.9
17,464.0	87.41	179.27	12,495.6	-4,658.1	529.5	1.35	-0.28	1.32	7.6	-0.4
17,557.0	91.45	177.77	12,496.6	-4,751.1	531.9	4.63	4.34	-1.61	8.1	1.3
17,650.0	91.89	178.30	12,493.8	-4,844.0	535.0	0.74	0.47	0.57	5.0	3.8
17,744.0	91.19	177.33	12,491.3	-4,937.9	538.6	1.27	-0.74	-1.03	2.1	6.7
17,837.0	90.40	177.77	12,490.0	-5,030.8	542.6	0.97	-0.85	0.47	0.3	10.0
17,931.0	90.22	176.10	12,489.5	-5,124.7	547.6	1.79	-0.19	-1.78	-0.6	14.4
18,024.0	88.37	177.95	12,490.7	-5,217.5	552.5	2.81	-1.99	1.99	0.1	18.5

EOG Resources

PVA Report

Company:	EOG Resources - Midland	**Local Co-ordinate Reference:**	Well #703H
Project:	Lea County, NM (NAD 83 NME)	**TVD Reference:**	KB = 25 @ 3551.0usft (HP 620)
Site:	Convoy 28 State Com	**MD Reference:**	KB = 25 @ 3551.0usft (HP 620)
Well:	#703H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.14 Single User Db

Survey

MD (usft)	Inc (°)	Azi (grid_north_azim	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
18,117.0	90.40	179.88	12,491.7	-5,310.5	554.2	3.01	2.18	2.08	0.7	19.6
18,215.0	90.92	179.79	12,490.5	-5,408.5	554.5	0.54	0.53	-0.09	-0.9	19.2
18,308.0	91.71	179.62	12,488.4	-5,501.4	555.0	0.87	0.85	-0.18	-3.4	19.0
18,402.0	89.43	180.23	12,487.5	-5,595.4	555.1	2.51	-2.43	0.65	-4.8	18.4
18,495.0	89.25	181.20	12,488.5	-5,688.4	553.9	1.06	-0.19	1.04	-4.1	16.6
18,588.0	90.31	182.25	12,488.9	-5,781.4	551.1	1.60	1.14	1.13	-4.2	13.1
18,681.0	91.71	184.01	12,487.3	-5,874.2	546.1	2.42	1.51	1.89	-6.3	7.3
18,774.0	88.90	182.43	12,486.8	-5,967.1	540.8	3.47	-3.02	-1.70	-7.2	1.4
18,868.0	88.81	181.81	12,488.6	-6,061.0	537.4	0.67	-0.10	-0.66	-5.4	-2.7
18,960.0	89.16	182.69	12,490.3	-6,152.9	533.8	1.03	0.38	0.96	-3.8	-7.0
19,053.0	89.16	181.81	12,491.6	-6,245.8	530.1	0.95	0.00	-0.95	-2.4	-11.3
19,148.0	89.16	180.67	12,493.0	-6,340.8	528.0	1.20	0.00	-1.20	-1.0	-14.1
19,241.0	89.34	181.11	12,494.2	-6,433.8	526.6	0.51	0.19	0.47	0.2	-16.2
19,334.0	88.55	181.20	12,496.0	-6,526.7	524.7	0.85	-0.85	0.10	1.9	-18.7
19,428.0	89.25	178.83	12,497.8	-6,620.7	524.7	2.63	0.74	-2.52	3.8	-19.4
19,521.0	89.16	178.39	12,499.1	-6,713.7	527.0	0.48	-0.10	-0.47	5.1	-17.9
19,614.0	88.72	178.91	12,500.8	-6,806.6	529.2	0.73	-0.47	0.56	6.8	-16.3
19,707.0	89.69	179.27	12,502.1	-6,899.6	530.6	1.11	1.04	0.39	8.1	-15.5
19,800.0	92.24	178.21	12,500.5	-6,992.5	532.7	2.97	2.74	-1.14	6.5	-14.2
19,893.0	92.86	178.56	12,496.4	-7,085.4	535.3	0.77	0.67	0.38	2.3	-12.2
19,987.0	93.74	179.62	12,490.9	-7,179.2	536.8	1.46	0.94	1.13	-3.0	-11.4
20,081.0	90.31	178.47	12,487.6	-7,273.2	538.3	3.85	-3.65	-1.22	-6.4	-10.5
20,174.0	90.48	178.03	12,487.0	-7,366.1	541.2	0.51	0.18	-0.47	-7.0	-8.4
20,268.0	90.84	180.14	12,485.9	-7,460.1	542.7	2.28	0.38	2.24	-8.1	-7.5
20,361.0	87.49	180.32	12,487.3	-7,553.1	542.3	3.61	-3.60	0.19	-6.8	-8.6
20,454.0	88.55	180.06	12,490.5	-7,646.0	542.0	1.17	1.14	-0.28	-3.7	-9.6
20,547.0	87.14	179.33	12,494.0	-7,738.9	542.5	1.71	-1.52	-0.78	-0.4	-9.8

EOG Resources
PVA Report

Company:	EOG Resources - Midland	**Local Co-ordinate Reference:**	Well #703H
Project:	Lea County, NM (NAD 83 NME)	**TVD Reference:**	KB = 25 @ 3551.0usft (HP 620)
Site:	Convoy 28 State Com	**MD Reference:**	KB = 25 @ 3551.0usft (HP 620)
Well:	#703H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.14 Single User Db

Survey

MD (usft)	Inc (°)	Azi (grid_north_azim	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
20,642.0	88.46	178.47	12,497.6	-7,833.8	544.3	1.66	1.39	-0.91	3.2	-8.6
20,735.0	88.90	178.03	12,499.8	-7,926.8	547.2	0.67	0.47	-0.47	5.2	-6.5
20,829.0	91.54	177.60	12,499.4	-8,020.7	550.7	2.85	2.81	-0.46	4.7	-3.6
20,923.0	92.95	178.21	12,495.7	-8,114.6	554.2	1.63	1.50	0.65	0.9	-0.8
21,016.0	92.68	178.74	12,491.1	-8,207.4	556.7	0.64	-0.29	0.57	-3.8	1.0
21,110.0	90.48	178.83	12,488.6	-8,301.4	558.6	2.34	-2.34	0.10	-6.5	2.3
21,204.0	89.96	177.95	12,488.2	-8,395.3	561.3	1.09	-0.55	-0.94	-7.0	4.2
21,297.0	90.04	178.21	12,488.2	-8,488.3	564.4	0.29	0.09	0.28	-7.1	6.6
21,386.0	89.16	178.56	12,488.8	-8,577.2	566.9	1.06	-0.99	0.39	-6.6	8.5
21,478.0	88.81	178.65	12,490.4	-8,669.2	569.2	0.39	-0.38	0.10	-5.1	10.1
21,572.0	89.08	178.30	12,492.2	-8,763.1	571.7	0.47	0.29	-0.37	-3.5	11.9
21,665.0	89.34	177.07	12,493.5	-8,856.0	575.4	1.35	0.28	-1.32	-2.4	15.0
21,759.0	89.25	176.72	12,494.6	-8,949.9	580.5	0.38	-0.10	-0.37	-1.3	19.4
21,852.0	90.04	177.51	12,495.2	-9,042.8	585.2	1.20	0.85	0.85	-0.9	23.4
21,946.0	90.84	178.21	12,494.5	-9,136.7	588.7	1.13	0.85	0.74	-1.7	26.2
22,039.0	89.69	180.60	12,494.0	-9,229.7	589.7	2.85	-1.24	2.57	-2.3	26.5
22,132.0	90.57	180.41	12,493.8	-9,322.7	588.8	0.97	0.95	-0.20	-2.6	25.0
22,179.0	90.31	180.06	12,493.5	-9,369.7	588.6	0.93	-0.55	-0.74	-3.0	24.4
22,225.0	90.31	179.44	12,493.2	-9,415.7	588.8	1.35	0.00	-1.35	-3.3	24.3
22,318.0	88.20	178.12	12,494.4	-9,508.7	590.8	2.68	-2.27	-1.42	-2.3	25.6
22,381.0	86.35	177.07	12,497.4	-9,571.5	593.5	3.38	-2.94	-1.67	0.6	27.8
Final MWD Survey (MD=22381.0')										
22,445.0	86.35	177.07	12,501.5	-9,635.3	596.7	0.00	0.00	0.00	4.6	30.6
Final Projection to Bit (MD=22445.0')										

EOG Resources

PVA Report

Company:	EOG Resources - Midland	**Local Co-ordinate Reference:**	Well #703H
Project:	Lea County, NM (NAD 83 NME)	**TVD Reference:**	KB = 25 @ 3551.0usft (HP 620)
Site:	Convoy 28 State Com	**MD Reference:**	KB = 25 @ 3551.0usft (HP 620)
Well:	#703H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM 5000.14 Single User Db

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
12,536.7	12,398.6	244.0	483.8	HL Crossing, MD:12536.7', TVD:12398.6',N/S:244.0', E/W:483.8', INC:54.70
22,381.0	12,497.4	-9,571.5	593.5	Final MWD Survey (MD=22381.0')
22,445.0	12,501.5	-9,635.3	596.7	Final Projection to Bit (MD=22445.0')

Checked By: _____ Approved By: _____ Date: _____

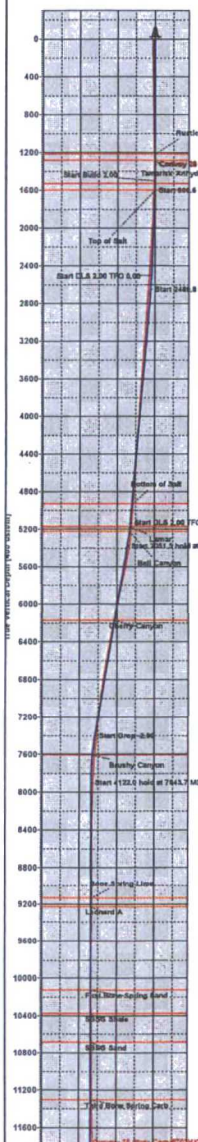
eog resources

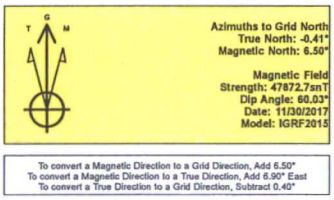
Lea County, NM (NAD 83 NME)

Convoy 28 State Com #703H

HP 620

Plan #3





To convert a Magnetic Direction to a Grid Direction, Add 6.50°
To convert a Magnetic Direction to a True Direction, Add 6.90° East
To convert a True Direction to a Grid Direction, Subtract 0.40°

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: #703H

3526.0
KB = 25 @ 3551.0usft (HP 620)

Northing	Easting	Latitude	Longitude
435250.00	776227.00	32° 11' 39.479 N	103° 34' 26.400 W

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	1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0	
3	1600.0	2.00	45.00	1600.0	1.2	1.2	2.00	45.00	-1.2	
4	2500.6	2.00	45.00	2500.0	23.5	23.5	0.00	0.00	-22.1	
5	2650.6	5.00	45.00	2649.7	29.9	29.9	2.00	0.00	-28.1	
6	5140.3	5.00	45.00	5130.0	183.4	183.4	0.00	0.00	-172.4	
7	5392.2	10.00	40.00	5379.7	207.9	205.2	2.00	-9.92	-195.6	
8	7443.7	10.00	40.00	7400.0	480.8	434.2	0.00	0.00	-454.8	
9	7943.7	0.00	0.00	7897.5	514.1	462.2	2.00	180.00	-486.4	
10	12065.8	0.00	0.00	12019.5	514.1	462.2	0.00	0.00	-486.4	
11	12817.9	90.25	176.50	12497.0	35.5	491.4	12.00	176.50	-6.9	
12	12972.1	90.26	179.58	12496.3	-118.6	496.7	2.00	89.90	147.2	
13	14830.5	90.26	179.58	12488.0	-1977.0	510.2	0.00	0.00	2003.3	TGT 1 (Con 28 ST Com #703H)
14	14839.0	90.09	179.58	12488.0	-1985.5	510.3	2.00	-178.34	2011.8	
15	16832.6	90.09	179.58	12485.0	-3979.0	524.9	0.00	0.00	4002.8	TGT 2 (Con 28 ST Com #703H)
16	16849.8	89.74	179.58	12485.0	-3996.2	525.0	2.00	179.52	4019.9	
17	18834.7	89.74	179.58	12494.0	-5981.0	539.5	0.00	0.00	6002.2	TGT 3 (Con 28 ST Com #703H)
18	18847.6	90.00	179.58	12494.0	-5994.0	539.6	2.00	0.45	6015.2	
19	20336.7	90.00	179.58	12494.0	-7483.0	550.4	0.00	0.00	7502.3	TGT 4 (Con 28 ST Com #703H)
20	20340.5	89.92	179.58	12494.0	-7486.9	550.4	2.00	-177.20	7506.2	
21	22603.8	89.92	179.58	12497.0	-9750.0	567.0	0.00	0.00	9766.5	PBHL(Con 28 ST Com #703H)

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP(Con 28 ST Com #703H)	11852.3	514.1	461.0	435764.14	776688.00
TGT 2 (Con 28 ST Com #703H)	12485.0	-3979.0	524.9	431271.00	776751.90
TGT 1 (Con 28 ST Com #703H)	12488.0	-1977.0	510.2	433273.00	776737.20
TGT 3 (Con 28 ST Com #703H)	12494.0	-5981.0	539.5	429269.00	776766.50
TGT 4 (Con 28 ST Com #703H)	12494.0	-7483.0	550.4	427767.00	776777.40
FTP(Con 28 ST Com #703H)	12497.0	243.0	493.0	435493.00	776720.00
PBHL(Con 28 ST Com #703H)	12497.0	-9750.0	567.0	425500.00	776794.00