

HOBBS OCD
FEB 19 2020
RECEIVED



EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Peachtree 24 Fed Com

#709H

OH

Design: OH

Final PVA Report

13 August, 2019



Final PVA Report

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Peachtree 24 Fed Com
Well: #709H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #709H
TVD Reference: KB = 25 @ 3370.0usft
MD Reference: KB = 25 @ 3370.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.14

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	Peachtree 24 Fed Com		
Site Position:		Northing:	372,756.00 usft
From:	Map	Easting:	793,433.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 1' 19.840 N
		Longitude:	103° 31' 11.665 W
		Grid Convergence:	0.43 °

Well	#709H		
Well Position	+N-S	0.0 usft	Northing: 372,817.00 usft
	+E-W	0.0 usft	Easting: 789,665.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 1' 20.722 N
		Longitude:	103° 31' 55.425 W
		Ground Level:	3,345.0 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2015	11/7/2017	6.88
			Dip Angle (°)
			59.88
			Field Strength (nT)
			47,782.72751825

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N-S	+E-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction (°)
			359.60

Survey Program	Date 8/13/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
138.0	22,805.0	Intrepid MWD #1 (OH)	MWD
			Description
			OWSG MWD - Standard



Final PVA Report

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Peachtree 24 Fed Com
Well: #709H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #709H
TVD Reference: KB = 25 @ 3370.0usft
MD Reference: KB = 25 @ 3370.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.14

Survey											
MD (usft)	Inc (")	Azi (grid_north_azim)	TVD (usft)	NIS (usft)	EW (usft)	DLeg (°/100usft)	BuId (°/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	0.0
136.0	0.20	8.90	136.0	0.2	0.0	0.15	0.15	0.00	-0.2	0.0	
316.0	0.40	88.80	316.0	0.8	0.7	0.23	0.11	44.28	-0.7	0.5	
501.0	0.40	111.90	501.0	0.3	2.0	0.09	0.00	12.59	-1.7	1.0	
688.0	1.20	98.10	688.0	-0.2	4.5	0.44	0.43	-7.38	-4.5	0.5	
876.0	0.80	157.30	875.9	-1.8	7.0	0.57	-0.16	31.49	-4.4	5.8	
901.0	1.00	256.90	900.9	-2.1	6.9	5.81	0.40	398.40	6.2	3.6	
1,052.0	0.97	160.20	1,051.9	-3.6	6.0	0.97	-0.02	-64.04	-5.4	4.5	
1,239.0	0.88	144.37	1,238.9	-6.2	7.4	0.14	-0.05	-8.47	-9.4	2.4	
1,427.0	1.14	142.26	1,426.9	-8.9	9.4	0.14	0.14	-1.12	-12.8	2.0	
1,615.0	1.32	144.90	1,614.8	-12.1	11.8	0.10	0.10	1.40	-16.7	2.7	
1,803.0	1.41	152.64	1,802.8	-15.9	14.1	0.11	0.05	4.12	-20.6	5.2	
1,991.0	1.41	255.47	1,990.7	-18.6	12.9	1.17	0.00	54.70	7.8	21.2	
2,178.0	1.76	279.37	2,177.7	-18.7	7.9	0.40	0.19	12.78	10.8	17.2	
2,367.0	1.76	283.59	2,366.6	-17.5	2.2	0.07	0.00	2.23	6.2	16.5	
2,556.0	1.93	303.10	2,555.5	-15.1	-3.3	0.34	0.09	10.32	5.5	14.5	
2,744.0	2.29	315.06	2,743.4	-10.7	-8.6	0.30	0.19	6.36	1.5	13.7	
2,932.0	1.85	143.14	2,931.3	-10.5	-9.5	2.20	-0.23	-91.45	-2.7	-13.9	
3,120.0	2.90	130.31	3,119.2	-16.0	-4.0	0.82	0.56	-6.82	-7.3	-14.8	
3,307.0	4.31	122.05	3,305.8	-22.8	5.6	0.80	0.75	-4.42	-16.8	-16.4	
3,495.0	2.37	130.66	3,493.5	-29.1	14.5	1.06	-1.03	4.58	-29.9	-12.6	
3,683.0	1.23	156.85	3,681.4	-33.5	18.2	0.73	-0.61	13.93	-34.6	4.1	
3,871.0	2.81	136.82	3,869.2	-38.7	22.2	0.91	0.84	-10.65	-26.9	-1.4	
4,060.0	4.84	131.01	4,057.8	-47.3	31.4	1.09	1.07	-3.07	-22.8	6.4	
4,248.0	5.19	140.88	4,243.1	-58.9	42.6	0.49	0.19	5.20	-19.8	19.4	
4,433.0	7.30	170.92	4,429.0	-77.2	49.9	2.05	1.13	16.17	-7.1	28.9	
4,621.0	6.77	168.88	4,615.6	-99.9	53.9	0.31	-0.28	-1.03	-11.5	26.9	



Final PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #709H
Project:	Los County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3370.0usft
Site:	Peachtree 24 Fed Com	MD Reference:	KB = 25 @ 3370.0usft
Well:	#709H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Asl (grid_north_usft)	TVD (usft)	N/S (usft)	EW (usft)	DLog (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
4,808.0	7.56	174.98	4,801.2	-123.0	57.0	0.58	0.42	3.20	-12.7	25.7	
4,895.0	7.21	173.03	4,888.6	-146.9	58.6	0.23	-0.19	-1.03	-18.2	22.1	
5,182.0	5.19	182.34	5,172.5	-167.0	60.6	1.20	-1.08	4.98	-15.8	20.8	
5,370.0	5.19	176.19	5,359.7	-184.0	60.8	0.30	0.00	-3.27	-15.6	14.2	
5,558.0	5.54	175.14	5,546.9	-201.5	62.2	0.19	0.19	-0.56	-14.1	10.3	
5,746.0	4.84	170.57	5,734.1	-218.3	64.3	0.43	-0.37	-2.43	-12.5	6.5	
5,934.0	4.57	170.57	5,921.5	-233.6	66.8	0.14	-0.14	0.00	-16.7	5.4	
6,121.0	2.81	167.40	6,108.1	-245.4	69.0	0.95	-0.94	-1.70	-27.9	4.0	
6,309.0	3.34	168.87	6,295.8	-255.2	71.2	0.28	0.28	-0.28	-38.0	3.7	
6,496.0	1.58	91.46	6,482.7	-260.8	75.1	1.77	-0.94	-40.33	-17.1	-41.2	
6,684.0	4.13	353.55	6,670.5	-253.9	76.9	2.46	1.36	-52.08	36.7	-13.9	
6,871.0	4.48	332.28	6,857.0	-240.8	72.7	0.87	0.19	-11.37	25.7	-2.0	
7,059.0	1.85	331.23	7,044.7	-231.6	67.9	1.40	-1.40	-0.56	15.3	-1.7	
7,246.0	1.49	333.87	7,231.6	-226.8	65.3	0.20	-0.19	1.41	9.8	-2.3	
7,434.0	0.97	336.85	7,419.6	-223.1	63.6	0.28	-0.28	1.59	5.6	-2.6	
7,623.0	0.97	325.98	7,608.6	-220.3	62.1	0.10	0.00	-5.76	2.8	-1.8	
7,810.0	0.53	328.42	7,795.5	-218.3	60.8	0.24	-0.24	1.32	0.3	-1.9	
7,997.0	0.26	240.88	7,982.5	-217.7	60.0	0.31	-0.14	-46.81	1.4	-0.6	
8,185.0	0.26	222.42	8,170.5	-218.3	59.3	0.04	0.00	-9.82	0.7	-0.3	
8,373.0	0.35	204.84	8,358.5	-219.1	58.8	0.07	0.05	-9.35	-0.2	-0.2	
8,562.0	0.35	234.73	8,547.5	-220.0	58.0	0.10	0.00	15.81	-1.3	0.2	
8,749.0	0.62	240.70	8,734.5	-220.8	56.7	0.15	0.14	3.19	-2.9	0.4	
8,937.0	0.70	216.97	8,922.5	-222.2	55.1	0.15	0.04	-12.62	-4.9	-1.2	
9,124.0	0.79	224.00	9,109.5	-224.0	53.5	0.07	0.05	3.76	-7.4	-0.4	
9,311.0	0.97	226.64	9,296.5	-226.0	51.5	0.10	0.10	1.41	-10.3	0.0	
9,498.0	0.79	230.33	9,483.4	-228.0	49.4	0.10	-0.10	1.97	-13.1	0.7	
9,686.0	0.88	222.95	9,671.4	-229.6	47.4	0.07	0.05	-3.93	-15.9	-1.1	



Final PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #709H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3370.0usft
Site:	Peachtree 24 Fed Com	MD Reference:	KB = 25 @ 3370.0usft
Well:	#709H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Asl (grid_north_xdmm)	TVD (usft)	N/S (usft)	EW (usft)	DLog (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
9,874.0	1.14	237.54	9,859.4	-231.9	44.8	0.19	0.14	7.76	-18.9	3.3	
10,061.0	0.53	249.32	10,048.4	-233.2	42.4	0.34	-0.33	6.30	-20.5	7.4	
10,249.0	0.88	13.77	10,234.4	-232.1	42.0	0.67	0.19	66.20	16.8	13.4	
10,436.0	0.88	304.16	10,421.4	-229.9	41.1	0.54	0.00	-37.22	-8.7	19.1	
10,623.0	1.23	288.89	10,608.3	-228.1	38.2	0.19	0.19	-2.82	-13.6	18.1	
10,810.0	0.70	29.76	10,795.3	-226.2	37.0	0.76	-0.28	48.59	17.2	15.6	
10,998.0	0.79	19.39	10,983.3	-224.0	38.0	0.09	0.05	-5.52	11.7	18.2	
11,186.0	1.58	220.49	11,171.3	-224.7	38.7	1.24	0.42	-84.52	-18.8	-13.2	
11,374.0	4.66	239.30	11,359.0	-230.6	28.5	1.70	1.64	10.01	-32.2	-5.7	
11,563.0	4.66	274.80	11,547.4	-233.9	14.2	1.50	0.00	18.78	-43.4	18.6	
11,679.0	3.34	270.41	11,663.1	-233.4	6.1	1.17	-1.14	-3.78	-52.7	14.8	
11,773.0	4.04	312.42	11,756.8	-231.2	1.0	2.90	0.74	44.69	-34.6	48.2	
11,961.0	2.64	306.62	11,944.6	-224.1	-7.4	0.77	-0.74	-3.09	-50.2	43.8	
12,074.0	2.64	285.55	12,057.5	-221.5	-11.8	0.45	0.00	-9.80	-62.8	32.8	
12,127.5	6.59	358.61	12,110.8	-217.8	-13.0	11.00	7.39	117.82	-2.9	72.0	
KOP (PT 24 Fed Com #709H)											
12,168.0	10.82	8.14	12,150.8	-211.8	-12.5	11.00	10.44	23.54	4.4	71.6	
12,213.0	16.18	5.16	12,194.6	-201.3	-11.4	12.01	11.91	-6.62	-4.1	71.0	
12,261.0	19.96	357.95	12,240.2	-186.5	-11.1	9.14	7.87	-15.02	-16.6	69.4	
12,309.0	22.97	358.75	12,284.9	-168.9	-11.6	6.29	6.26	1.67	-17.7	70.0	
HL Crossing, MD:12309.0', TVD:12284.9', N/S:-168.9', EW:-11.6', INC:22.97											
12,355.0	25.85	359.35	12,326.8	-149.8	-11.9	6.29	6.27	1.30	-16.5	70.3	
12,449.0	39.57	2.52	12,405.7	-99.3	-10.8	14.70	14.60	3.37	-12.0	89.4	
12,539.1	45.13	2.01	12,472.2	-38.7	-8.4	6.18	6.17	-0.57	-8.4	66.4	
FTP (PT 24 Fed Com #709H)											
12,543.0	45.37	1.99	12,475.0	-35.9	-8.3	6.18	6.17	-0.51	-8.1	66.2	
12,573.0	50.74	1.82	12,495.0	-13.6	-7.6	17.90	17.90	-0.57	-5.9	65.2	



Final PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #709H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3370.0usft
Site:	Peachtree 24 Fed Com	MD Reference:	KB = 25 @ 3370.0usft
Well:	#709H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Asl (grid_north_east)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
12,637.0	57.42	0.58	12,532.6	38.2	-8.5	10.55	10.44	-1.84	-1.9	63.7	
12,705.0	66.04	0.41	12,564.7	98.0	-8.0	12.68	12.68	-0.25	3.5	62.7	
12,726.0	69.64	1.89	12,573.8	120.3	-5.5	16.19	15.00	6.58	5.8	62.0	
12,823.0	82.57	2.52	12,596.3	211.2	-1.9	13.77	13.76	0.58	10.0	57.7	
12,917.0	91.45	1.46	12,601.2	305.0	1.3	9.51	9.45	-1.13	12.3	53.9	
13,011.0	92.33	3.05	12,598.1	398.8	5.0	1.93	0.94	1.69	9.3	49.5	
13,105.0	90.40	5.16	12,595.9	492.6	11.7	3.04	-2.05	2.24	7.3	42.1	
13,199.0	90.22	5.33	12,595.4	586.2	20.3	0.26	-0.19	0.18	7.0	32.8	
13,292.0	89.87	6.39	12,595.3	678.7	29.8	1.20	-0.38	1.14	7.1	22.6	
13,386.0	90.57	8.32	12,594.9	771.9	41.9	2.18	0.74	2.05	6.9	9.9	
13,479.0	89.34	6.56	12,595.0	864.1	53.9	2.31	-1.32	-1.89	7.1	-2.8	
13,573.0	88.64	1.29	12,596.7	957.8	60.3	5.65	-0.74	-5.61	8.9	-9.9	
13,666.0	91.45	2.34	12,596.6	1,050.8	63.3	3.23	3.02	1.13	9.0	-13.5	
13,759.0	89.43	0.41	12,595.9	1,143.7	65.5	3.00	-2.17	-2.08	8.4	-16.5	
13,852.0	91.10	1.29	12,595.4	1,236.7	68.9	2.03	1.80	0.95	8.2	-18.5	
13,946.0	91.89	1.82	12,593.0	1,330.7	69.4	1.01	0.84	0.56	5.9	-21.8	
14,039.0	91.01	1.11	12,590.6	1,423.6	71.8	1.22	-0.85	-0.76	3.7	-24.8	
14,132.0	87.85	358.12	12,591.6	1,516.6	71.2	4.68	-3.40	-3.22	4.8	-24.9	
14,226.0	90.75	358.83	12,592.7	1,610.5	68.7	3.18	3.09	0.76	6.1	-23.1	
14,319.0	91.83	359.18	12,590.8	1,703.5	67.1	1.02	0.95	0.38	4.3	-22.1	
14,412.0	89.25	358.65	12,590.1	1,796.5	65.3	2.62	-2.56	-0.57	3.8	-21.0	
14,504.0	91.45	0.06	12,589.5	1,888.4	64.3	2.84	2.39	1.53	3.3	-20.7	
14,598.0	90.40	356.72	12,588.0	1,982.4	61.6	3.72	-1.12	-3.55	2.0	-18.7	
14,692.0	90.57	356.37	12,587.2	2,076.2	56.0	0.41	0.18	-0.37	1.3	-13.7	
14,786.0	88.20	357.07	12,588.2	2,170.0	50.6	2.83	-2.52	0.74	2.5	-9.1	
14,879.0	90.31	357.95	12,589.4	2,262.9	46.6	2.46	2.27	0.95	3.9	-5.7	
14,974.0	88.64	359.35	12,590.3	2,357.9	44.3	2.29	-1.76	1.47	4.9	-4.2	



Final PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #709H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3370.0usft
Site:	Peachtree 24 Fed Com	MD Reference:	KB = 25 @ 3370.0usft
Well:	#709H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (")	Asd (grid_north_east)	TVD (usft)	N/S (usft)	EW (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
15,067.0	91.83	359.71	12,590.1	2,450.9	43.6	3.24	3.22	0.39	4.9	-4.1	
15,162.0	87.49	0.23	12,590.8	2,545.9	43.5	4.39	-4.36	0.55	5.8	-4.7	
15,255.0	86.79	359.35	12,595.4	2,638.7	43.2	1.21	-0.75	-0.95	10.6	-5.1	
15,348.0	87.41	359.00	12,600.2	2,732.6	41.8	0.76	0.66	-0.37	15.5	-4.4	
15,442.0	89.34	357.25	12,602.8	2,825.5	38.8	2.80	2.08	-1.88	18.3	-2.0	
15,536.0	88.64	356.37	12,604.5	2,918.4	33.5	1.20	-0.74	-0.94	20.1	2.5	
15,629.0	89.69	356.19	12,605.8	3,012.1	27.5	1.15	1.13	-0.19	21.6	7.9	
15,722.0	90.66	356.37	12,605.5	3,104.9	21.5	1.06	1.04	0.19	21.5	13.2	
15,816.0	90.92	357.42	12,604.3	3,198.8	18.4	1.15	0.28	1.12	20.4	17.6	
15,908.0	90.48	356.37	12,603.1	3,290.7	11.4	1.24	-0.48	-1.14	19.4	21.9	
16,001.0	92.59	359.53	12,600.6	3,383.5	8.1	4.08	2.27	3.40	17.0	24.6	
16,094.0	94.00	359.71	12,595.3	3,476.4	7.5	1.53	1.52	0.19	11.8	24.5	
16,189.0	95.06	359.53	12,587.8	3,571.1	8.8	1.13	1.12	-0.19	4.5	24.5	
16,282.0	90.48	1.11	12,583.3	3,664.0	7.4	5.21	-4.92	1.70	0.2	23.3	
16,375.0	90.13	1.11	12,582.8	3,756.9	9.2	0.38	-0.38	0.00	-0.1	20.8	
16,468.0	88.80	2.34	12,583.6	3,849.8	12.0	1.87	-1.32	1.32	0.8	17.3	
16,561.0	88.37	2.52	12,585.8	3,942.6	15.9	0.60	-0.57	0.19	3.2	12.7	
16,655.0	89.16	2.52	12,587.8	4,036.7	20.0	0.84	0.84	0.00	5.4	7.9	
16,748.0	89.78	2.87	12,588.7	4,129.6	24.4	0.77	0.67	0.38	6.4	2.8	
16,841.0	90.40	0.76	12,588.5	4,222.5	27.3	2.36	0.67	-2.27	6.4	-0.8	
16,918.4	89.38	2.06	12,588.7	4,299.9	29.3	2.14	-1.32	1.68	6.7	-3.3	
TGT 1 (PT 24 Fed Com #709H)											
16,935.0	89.16	2.34	12,588.9	4,316.5	29.9	2.14	-1.32	1.68	6.9	-4.0	
17,029.0	90.92	3.05	12,588.8	4,410.4	34.3	2.02	1.87	0.76	6.5	-9.1	
17,122.0	91.10	2.69	12,587.2	4,503.2	39.0	0.43	0.19	-0.39	4.5	-14.5	
17,215.0	91.63	2.69	12,585.0	4,596.1	43.3	0.57	0.57	0.00	2.0	-19.5	
17,308.0	91.54	1.82	12,582.4	4,689.0	47.0	0.94	-0.10	-0.94	-0.9	-23.9	



Final PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #709H
Project:	Lee County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3370.0usft
Site:	Peachtree 24 Fed Corn	MD Reference:	KB = 25 @ 3370.0usft
Well:	#709H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Asd (grid_north_east)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
17,402.0	93.03	0.76	12,578.7	4,782.9	49.1	1.94	1.59	-1.13	-5.0	-26.7	
17,495.0	92.51	1.11	12,574.2	4,875.8	50.6	0.67	-0.56	0.38	-9.8	-28.9	
17,589.0	88.20	359.71	12,573.6	4,969.7	51.3	4.82	-4.59	-1.49	-10.7	-30.2	
17,683.0	90.13	358.48	12,575.0	5,063.7	49.8	2.43	2.05	-1.31	-9.7	-29.4	
17,777.0	88.46	359.18	12,576.1	5,157.7	47.9	1.93	-1.78	0.74	-8.8	-28.2	
17,871.0	85.47	358.65	12,581.1	5,251.5	46.1	3.23	-3.18	-0.56	-4.2	-27.1	
17,965.0	84.06	357.95	12,589.7	5,345.1	43.3	1.67	-1.50	-0.74	4.1	-25.0	
18,058.0	86.35	357.77	12,597.4	5,437.7	39.9	2.47	2.46	-0.19	11.5	-22.2	
18,152.0	89.52	357.07	12,600.8	5,531.5	35.6	3.45	3.37	-0.74	14.8	-18.7	
18,246.0	92.24	357.60	12,599.4	5,625.4	31.3	2.95	2.89	0.56	12.8	-15.0	
18,339.0	89.96	356.37	12,597.6	5,718.2	26.4	2.79	-2.45	-1.32	10.7	-10.8	
18,432.0	88.89	355.31	12,598.4	5,811.0	19.6	1.54	-1.04	-1.14	11.2	-4.7	
18,525.0	91.01	356.54	12,598.4	5,903.7	13.0	2.54	2.17	1.32	10.9	1.2	
18,619.0	91.01	356.19	12,596.8	5,997.5	7.1	0.37	0.00	-0.37	8.9	6.5	
18,712.0	89.25	355.66	12,596.6	6,090.3	0.5	1.98	-1.89	-0.57	8.4	12.4	
18,807.0	91.80	1.46	12,585.7	6,185.2	-1.9	6.67	2.68	6.11	7.1	14.1	
18,900.0	90.57	1.82	12,593.8	6,278.2	0.7	1.38	-1.32	0.39	4.9	10.8	
18,993.0	90.04	1.11	12,593.3	6,371.1	3.1	0.95	-0.57	-0.76	4.1	7.7	
19,086.0	89.16	359.88	12,593.9	6,464.1	3.9	1.63	-0.95	-1.32	4.4	6.2	
19,180.0	88.29	359.35	12,598.0	6,558.1	3.3	1.08	-0.93	-0.56	6.2	6.2	
19,273.0	92.33	0.58	12,595.5	6,651.1	3.2	4.54	4.34	1.32	5.3	5.8	
19,367.0	91.28	359.71	12,592.6	6,745.0	3.5	1.45	-1.12	-0.93	2.1	4.6	
19,462.0	91.80	359.35	12,590.0	6,840.0	2.7	0.67	0.55	-0.38	-0.8	4.7	
19,555.0	92.88	0.41	12,588.2	6,932.9	2.5	1.61	1.14	1.14	-4.9	4.2	
19,649.0	92.07	0.76	12,582.2	7,026.8	3.4	0.92	-0.64	0.37	-9.3	2.6	
19,743.0	91.38	1.46	12,579.4	7,120.7	5.3	1.06	-0.78	0.74	-12.4	0.1	
19,836.0	89.69	0.94	12,578.5	7,213.7	7.2	1.88	-1.80	-0.56	-13.6	-2.5	



Final PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #709H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3370.0usft
Site:	Peachtree 24 Fed Com	MD Reference:	KB = 25 @ 3370.0usft
Well:	#709H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°H00usft)	Build (°H00usft)	Turn (°H00usft)	High to Plan (usft)	Right to Plan (usft)	
19,929.0	90.31	3.40	12,578.5	7,308.6		10.7	2.73	0.67	2.65	-14.0	-6.7
20,023.0	89.08	3.05	12,579.0	7,400.5		16.0	1.38	-1.31	-0.37	-13.8	-12.7
20,116.0	90.40	4.80	12,579.4	7,493.3		22.4	2.38	1.42	1.88	-13.7	-19.7
20,210.0	88.11	3.22	12,580.7	7,587.0		28.0	2.96	-2.44	-1.68	-12.8	-27.0
20,304.0	88.11	0.41	12,583.8	7,680.9		31.9	2.99	0.00	-2.99	-10.0	-30.7
20,398.0	88.99	359.18	12,586.1	7,774.9		31.6	1.81	0.94	-1.31	-8.0	-31.0
20,492.0	89.25	359.00	12,587.6	7,868.9		30.1	0.34	0.28	-0.19	-6.8	-30.2
20,585.0	89.69	0.06	12,588.5	7,961.8		29.3	1.23	0.47	1.14	-6.3	-30.1
20,678.0	90.13	359.88	12,588.6	8,054.8		29.3	0.51	0.47	-0.19	-6.5	-30.8
20,772.0	90.22	1.11	12,588.3	8,148.8		30.1	1.31	0.10	1.31	-7.1	-32.3
20,866.0	90.92	0.94	12,587.4	8,242.8		31.8	0.77	0.74	-0.18	-8.4	-34.6
20,959.0	91.63	0.23	12,585.3	8,335.8		32.7	1.08	0.76	-0.76	-10.8	-36.3
21,053.0	88.81	354.78	12,584.9	8,429.7		28.7	6.53	-3.00	-5.80	-11.4	-32.9
21,146.0	90.48	358.01	12,585.5	8,522.3		21.2	2.23	1.80	1.32	-11.2	-26.1
21,225.2	89.43	356.61	12,585.6	8,601.4		16.1	1.53	-1.32	0.76	-11.4	-21.6
TOT 2 (PT 24 Fed Com #709H)											
21,239.0	89.25	356.72	12,585.7	8,615.2		15.3	1.53	-1.32	0.76	-11.3	-20.9
21,333.0	91.89	358.12	12,584.8	8,709.0		11.1	3.18	2.81	1.49	-12.0	-17.3
21,426.0	89.60	359.00	12,583.6	8,802.0		8.7	2.64	-2.48	0.95	-13.1	-15.7
21,520.0	91.71	358.89	12,582.5	8,895.9		5.4	3.17	2.24	-2.24	-14.0	-13.0
21,613.0	88.20	354.61	12,582.6	8,988.6		-1.5	4.50	-3.77	-2.45	-13.7	-6.7
21,707.0	89.08	354.43	12,584.8	9,082.2		-10.5	0.98	0.94	-0.19	-11.3	1.5
21,801.0	90.75	356.89	12,585.0	9,175.9		-17.6	3.16	1.78	2.62	-11.0	8.0
21,894.0	92.15	356.89	12,582.6	9,268.7		-22.7	1.51	1.51	0.00	-13.1	12.3
21,988.0	89.08	354.26	12,581.6	9,362.4		-29.9	4.30	-3.27	-2.80	-14.0	18.9
22,082.0	89.60	355.84	12,582.7	9,456.1		-38.0	1.77	0.55	1.68	-12.7	28.3
22,176.0	91.54	356.54	12,581.8	9,549.9		-44.3	2.19	2.06	0.74	-13.4	31.9



Final PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #708H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3370.0usft
Site:	Peashree 24 Fed Com	MD Reference:	KB = 25 @ 3370.0usft
Well:	#708H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

MD (usft)	Inc (")	Asd (grid north usft)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
22,268.0	88.88	357.25	12,580.5	8,841.7	-49.3	1.88	-1.72	0.77	-14.5	38.2
22,361.0	90.13	359.71	12,580.5	8,734.7	-51.7	2.65	0.18	2.65	-14.4	38.0
22,454.0	90.48	0.94	12,580.0	8,827.7	-51.2	1.38	0.38	1.32	-14.7	38.8
22,548.0	89.98	2.52	12,579.8	8,822.8	-48.3	1.75	-0.55	1.88	-14.9	33.2
22,642.0	90.84	1.11	12,579.0	10,015.8	-45.4	1.79	0.85	-1.52	-15.4	29.8
22,736.0	89.25	1.82	12,578.9	10,109.5	-43.0	1.85	-1.69	0.76	-15.2	28.5
Final MWD Survey (MD=22736.0')										
22,805.0	89.25	1.82	12,578.8	10,178.5	-40.8	0.00	0.00	0.00	-14.2	23.8
Final Projection to Bit (MD=22805.0') - PBHL (PT 24 Fed Com #708H)										

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/S (usft)	+E/W (usft)	
12,308.0	12,284.9	-168.9	-11.8	HL Crossing, MD:12308.0', TVD:12284.9', N/S:-168.9', E/W:-11.8', INC:22.97
22,736.0	12,578.9	10,109.5	-43.0	Final MWD Survey (MD=22736.0')
22,805.0	12,578.8	10,178.5	-40.8	Final Projection to Bit (MD=22805.0')

Checked By: _____ Approved By: _____ Date: _____

I certify this survey to be true and correct to the best of my belief and knowledge.

Kay Maddox 2/10/2020
 Signed Date



Lea County, NM (NAD 83 NME)

Peachtree 24 Fed Com #709H

Plan #1



Azimuth to Grid North
True North: 0.42°
Magnetic North: 5.45°

Magnetic Pole
Stations: 478677m
Dip Angle: 66.89°
Date: 11/7/2017
Model: 10M2016

To convert a Magnetic Direction to a Grid Direction, Add 6.45°
To convert a Magnetic Direction to a True Direction, Add 6.89° East
To convert a True Direction to a Grid Direction, Subtract 6.42°

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: #709H

KB = 25 @ 3370.0ust
Northing: 372817.00 Easting: 789665.00
Latitude: 32° 1' 22.722 N Longitude: 103° 31' 53.425 W

SECTION DETAILS

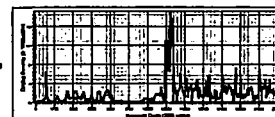
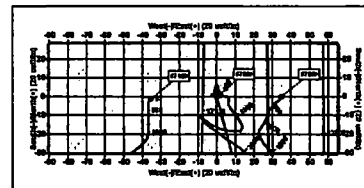
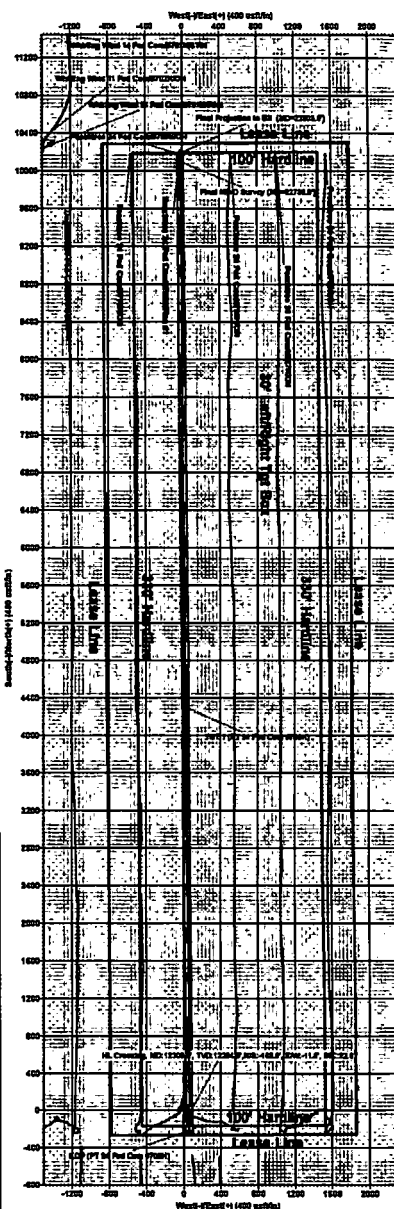
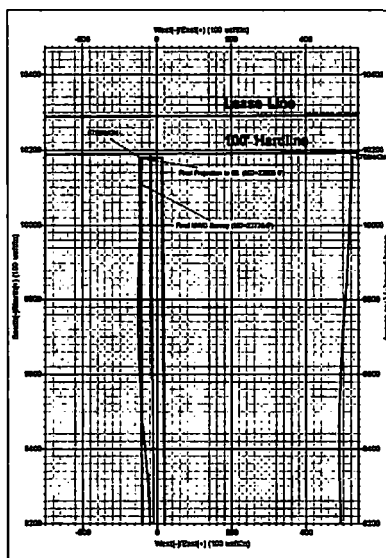
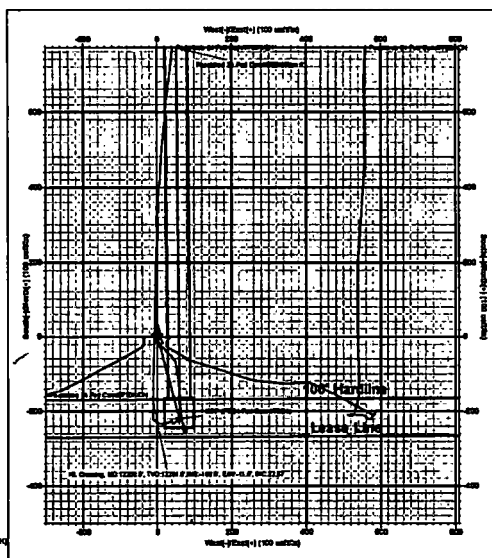
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dlog	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	3543.0	0.00	0.00	3543.0	0.0	0.0	0.00	0.00	0.0	
3	3843.2	6.00	164.92	3842.6	-15.2	4.1	2.00	164.92	-15.2	
4	5711.2	6.00	164.92	5700.4	-203.8	54.9	0.00	0.00	-203.9	
5	6011.3	0.00	0.00	6000.0	-219.0	59.0	2.00	180.00	-219.1	
6	12122.8	0.00	0.00	12111.5	-219.0	59.0	0.00	0.00	-219.1	KOP (PT 24 Fed Com #709H)
7	12573.7	90.10	359.58	12569.0	259.3	55.6	12.00	359.58	259.2	
8	16914.5	90.10	359.58	12582.0	4300.0	25.0	0.00	0.00	4300.0	TGT 1 (PT 24 Fed Com #709H)
9	16929.5	89.80	359.58	12582.0	4315.0	25.9	2.00	-180.00	4314.9	
10	21214.6	89.80	359.58	12597.0	8600.0	-5.5	0.00	0.00	8600.0	TGT 2 (PT 24 Fed Com #709H)
11	21230.2	90.11	359.58	12597.0	8615.6	-5.6	2.00	0.00	8615.5	
12	22794.7	90.11	359.58	12594.0	10180.0	-17.0	0.00	0.00	10180.0	PBHL (PT 24 Fed Com #709H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
KOP (PT 24 Fed Com #709H)	12111.5	-219.0	59.0	372817.00	789734.55
TGT 1 (PT 24 Fed Com #709H)	12582.0	4300.0	25.0	377117.00	792630.97
TGT 2 (PT 24 Fed Com #709H)	12597.0	8600.0	5.0	372848.00	789734.55
PBHL (PT 24 Fed Com #709H)	12594.0	10180.0	-17.0	382987.00	789642.50
TGT 3 (PT 24 Fed Com #709H)	12597.0	8600.0	-4.6	381417.00	789650.55



Wellbore Trajectory
KOP
TGT 1
TGT 2
PBHL