

HOBBS OCD
MAY 29 2019
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EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Green Drake 16 Fed Com

#704H

OH

Design: OH

Midland PVA

08 March, 2019



Midland PVA

Company:	EOG Resources - Midland			Local Co-ordinate Reference:	Well #704H
Project:	Lea County, NM (NAD 83 NME)			TVD Reference:	KB = 25 @ 3433.0usft
Site:	Green Drake 16 Fed Com			MD Reference:	KB = 25 @ 3433.0usft
Well:	#704H			North Reference:	Grid
Wellbore:	OH			Survey Calculation Method:	Minimum Curvature
Design:	OH			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	Green Drake 16 Fed Com				
Site Position:		Northing:	411,802.00 usft	Latitude:	32° 7' 47.652 N
From:	Map	Easting:	773,380.00 usft	Longitude:	103° 34' 1.431 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.40 °

Well	#704H					
Well Position	+N-S	0.0 usft	Northing:	411,491.00 usft	Latitude:	32° 7' 44.510 N
	+E-W	0.0 usft	Easting:	774,315.00 usft	Longitude:	103° 34' 50.584 W
Position Uncertainty	0.0 usft		Wellhead Elevation:	usft	Ground Level:	3,408.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	7/3/2018	6.84	59.96	47,773.61190851

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	178.40	

Survey Program	Date 3/8/2018				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
144.0	20,035.0	Learn MWD (OH)	MWD	OWSG MWD - Standard	



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Well:	#704H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Asd (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLag (°/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	
144.0	0.80	38.90	144.0	0.9	0.7	0.82	0.82	0.00	-1.1	0.0	
318.0	1.00	18.10	318.0	3.4	2.0	0.19	0.08	-10.80	-3.9	-0.8	
492.0	1.00	7.70	491.9	6.4	2.8	0.10	0.00	-5.88	-8.7	-1.8	
678.0	1.00	349.40	677.9	9.6	2.8	0.17	0.00	-9.84	-9.0	-4.3	
854.0	1.10	349.90	853.9	12.8	2.0	0.08	0.08	0.28	-12.2	-4.2	
1,038.0	0.90	353.10	1,037.9	15.9	1.5	0.11	-0.11	1.74	-15.6	-3.4	
1,125.0	0.90	342.50	1,124.8	17.3	1.2	0.19	0.00	-12.18	-18.1	-6.4	
1,221.0	0.90	339.70	1,220.8	18.7	0.7	0.05	0.00	-2.92	-17.3	-7.2	
1,314.0	0.80	311.10	1,313.8	19.8	0.0	0.48	-0.11	-30.75	-13.0	-14.9	
1,406.0	1.10	313.90	1,405.8	20.8	-1.1	0.33	0.33	3.04	-15.3	-14.2	
1,498.0	1.20	308.10	1,497.8	22.0	-2.5	0.17	0.11	-8.30	-15.6	-15.8	
1,686.0	1.40	301.40	1,685.7	24.5	-8.0	0.13	0.11	-3.56	-17.9	-17.7	
1,780.0	1.50	310.90	1,779.7	25.9	-7.9	0.28	0.11	10.11	-22.9	-14.3	
1,874.0	1.70	299.00	1,873.7	27.3	-10.1	0.41	0.21	-12.66	-22.1	-19.0	
1,968.0	1.80	303.00	1,967.6	28.8	-12.6	0.17	0.11	4.26	-26.2	-17.3	
2,062.0	1.80	301.80	2,061.6	30.4	-15.1	0.11	0.11	-1.28	-28.9	-17.9	
2,156.0	2.00	310.90	2,155.5	32.3	-17.7	0.35	0.11	8.68	-34.5	-12.9	
2,250.0	3.10	346.80	2,249.4	35.9	-19.5	2.01	1.17	38.19	-38.7	11.2	
2,343.0	4.70	4.30	2,342.2	42.1	-19.8	2.13	1.72	18.82	-36.0	23.9	
2,436.0	7.20	13.80	2,434.7	51.8	-18.1	2.88	2.69	10.22	-34.3	30.5	
2,530.0	8.60	17.90	2,527.8	64.0	-14.6	1.60	1.49	4.38	-35.5	33.0	
2,623.0	8.40	19.60	2,619.8	77.0	-10.1	0.35	-0.22	1.83	-38.5	33.7	
2,717.0	8.60	18.90	2,712.8	90.1	-5.8	0.24	0.21	-0.74	-43.1	32.8	
2,810.0	8.40	19.50	2,804.8	103.1	-1.0	0.24	-0.22	0.65	-46.8	32.8	
2,903.0	8.10	20.20	2,896.8	115.7	3.5	0.34	-0.32	0.75	-50.1	32.8	
2,996.0	8.40	19.80	2,988.8	128.2	8.1	0.33	0.32	-0.43	-54.0	31.9	



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Well:	#704H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (")	Azi (azimuth) (")	TVD (usft)	N/S (usft)	E/W (usft)	DLeg ("/100usft)	Build ("/100usft)	Turn ("/100usft)	High to Plan (usft)	Right to Plan (usft)	
3,090.0	8.50	21.80	3,081.8	141.1	13.0	0.35	0.11	2.23	-56.8	33.1	
3,184.0	8.80	23.30	3,174.7	154.2	18.4	0.39	0.32	1.49	-60.4	33.5	
3,278.0	9.10	27.90	3,267.8	167.3	24.7	0.83	0.32	4.89	-62.6	36.9	
3,371.0	7.70	21.70	3,359.8	179.6	30.5	1.79	-1.51	-6.67	-70.1	28.3	
3,468.0	7.20	19.80	3,453.8	191.2	34.8	0.59	-0.53	-2.00	-73.4	25.2	
3,559.0	6.60	26.00	3,546.1	201.4	39.2	1.03	-0.65	6.67	-71.8	31.9	
3,653.0	6.10	27.20	3,639.5	210.7	43.8	0.55	-0.53	1.28	-71.9	31.7	
3,747.0	5.30	13.70	3,733.1	219.4	47.1	1.66	-0.85	-14.38	-76.7	13.5	
3,840.0	5.30	18.20	3,825.7	227.7	49.5	0.45	0.00	4.84	-74.2	19.5	
3,933.0	5.70	26.80	3,918.3	235.9	52.9	0.98	0.43	9.25	-69.8	29.2	
4,027.0	5.10	25.80	4,011.8	243.8	56.8	0.65	-0.64	-1.06	-69.5	26.3	
4,120.0	4.90	24.40	4,104.5	251.1	60.3	0.25	-0.22	-1.51	-68.6	23.2	
4,214.0	4.70	16.70	4,198.2	258.5	63.0	0.72	-0.21	-8.19	-69.0	13.3	
4,307.0	4.70	17.00	4,290.8	265.8	65.2	0.03	0.00	0.32	-66.9	13.6	
4,495.0	3.60	47.60	4,478.4	277.1	71.9	1.28	-0.59	16.28	-46.4	39.4	
4,588.0	4.40	47.80	4,571.1	281.5	76.7	0.86	0.86	0.22	-44.5	34.5	
4,682.0	5.00	65.20	4,664.8	285.6	83.0	1.64	0.64	18.51	-33.3	39.8	
4,776.0	4.70	67.60	4,758.5	288.8	90.3	0.39	-0.32	2.55	-33.3	33.7	
4,870.0	4.90	28.70	4,852.2	293.9	95.7	3.57	0.21	-43.51	-44.5	-0.4	
4,964.0	4.90	20.30	4,945.9	301.2	98.9	0.58	0.00	-8.81	-42.4	-6.4	
5,058.0	4.40	19.30	5,039.5	308.4	101.5	0.54	-0.53	-1.06	-40.0	-7.7	
5,152.0	4.60	17.50	5,133.3	315.4	103.8	0.26	0.21	-1.91	-37.3	-9.2	
5,245.0	4.60	13.30	5,226.0	322.6	105.8	0.38	0.00	-4.52	-34.3	-11.7	
5,339.0	3.70	10.00	5,319.7	329.2	107.2	0.99	-0.98	-3.51	-30.6	-12.7	
5,433.0	6.20	9.30	5,413.3	337.2	108.5	2.66	2.66	-0.74	-28.8	-11.9	
5,527.0	7.00	4.70	5,506.7	347.9	109.8	1.02	0.65	-4.89	-28.9	-12.5	
5,620.0	7.00	5.20	5,599.0	359.2	110.8	0.07	0.00	0.54	-30.9	-10.3	



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Well:	#704H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey

MD (usft)	Inc (")	Azi (azimuth) (")	TVD (usft)	N/S (usft)	EW (usft)	DLeg ("/100usft)	Build ("/100usft)	Turn ("/100usft)	High to Plan (usft)	Right to Plan (usft)
5,714.0	6.90	3.80	5,692.3	370.6	111.7	0.21	-0.11	-1.49	-32.4	-9.0
5,902.0	7.20	2.20	5,878.9	393.6	112.9	0.19	0.16	-0.85	-36.2	-5.4
5,996.0	6.30	0.70	5,972.3	404.6	113.2	0.98	-0.98	-1.60	-37.6	-3.8
6,091.0	6.20	0.10	6,066.7	415.0	113.2	0.13	-0.11	-0.63	-38.4	-1.5
6,185.0	6.00	356.80	6,160.2	425.0	113.0	0.43	-0.21	-3.51	-39.0	-0.8
6,279.0	6.40	3.50	6,253.6	435.1	113.0	0.88	0.43	7.13	-39.4	6.7
6,373.0	6.50	7.30	6,347.0	445.6	114.0	0.47	0.11	4.04	-39.7	11.2
6,466.0	6.30	5.90	6,439.4	455.9	115.2	0.27	-0.22	-1.51	-40.6	11.9
6,555.0	6.40	4.90	6,527.3	476.7	117.2	0.08	0.05	-0.53	-42.5	15.0
6,749.0	6.20	4.20	6,720.7	487.0	118.0	0.23	-0.21	-0.74	-43.4	16.5
6,843.0	5.90	2.20	6,814.2	496.9	118.6	0.39	-0.32	-2.13	-44.4	17.2
6,936.0	3.60	6.60	6,906.8	504.5	119.2	2.55	-2.47	7.98	-39.8	24.5
7,030.0	2.70	33.90	7,000.7	509.3	121.0	1.69	-0.96	25.85	-21.7	37.0
7,124.0	2.40	79.20	7,094.7	511.5	124.1	2.11	-0.32	48.19	12.0	34.3
7,217.0	2.30	91.40	7,187.6	511.8	127.9	0.55	-0.11	13.12	17.8	22.0
7,312.0	1.00	115.10	7,282.5	511.4	130.6	1.52	-1.37	24.95	21.1	4.0
7,406.0	0.60	136.90	7,376.5	510.7	131.6	0.53	-0.43	23.19	15.3	-11.5
7,499.0	0.70	125.10	7,469.5	510.0	132.4	0.18	0.11	-12.69	14.4	-13.7
7,593.0	0.70	108.80	7,563.5	509.5	133.4	0.21	0.00	-17.34	16.4	-12.2
7,687.0	0.50	111.00	7,657.5	509.2	134.4	0.21	-0.21	2.34	14.9	-13.0
7,781.0	0.60	119.80	7,751.5	508.6	135.2	0.14	0.11	9.36	11.9	-15.1
7,875.0	0.60	113.50	7,845.5	508.3	136.1	0.07	0.00	-6.70	12.5	-13.8
7,969.0	0.50	131.80	7,939.5	507.9	136.8	0.21	-0.11	19.47	6.7	-16.8
8,063.0	0.80	153.10	8,033.5	507.0	137.4	0.40	0.32	22.66	-1.0	-18.0
8,157.0	1.10	154.60	8,127.5	505.6	138.1	0.32	0.32	1.60	-3.0	-17.9
8,250.0	1.00	166.60	8,220.5	504.0	138.7	0.26	-0.11	12.90	-8.3	-16.7
8,344.0	1.10	177.30	8,314.4	502.3	138.9	0.23	0.11	11.38	-13.0	-14.7



Midland PVA

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 Site: Green Drake 16 Fed Com
 Well: #704H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #704H
 TVD Reference: KB = 25 @ 3433.0usft
 MD Reference: KB = 25 @ 3433.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

Survey

MD (usft)	Inc (")	Azi (azimuth) (")	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
8,438.0	1.20	178.00	8,408.4	500.4	139.0	0.11	0.11	0.74	-15.1	-14.6
8,531.0	1.50	182.60	8,501.4	498.3	139.0	0.34	0.32	4.95	-18.4	-13.2
8,626.0	1.60	180.30	8,598.4	495.7	138.9	0.12	0.11	-2.42	-20.4	-14.0
8,718.0	1.60	188.20	8,688.3	493.0	138.7	0.33	0.22	8.59	-24.8	-10.9
8,812.0	0.40	123.00	8,782.3	491.3	138.8	1.78	-1.49	-69.36	-1.5	-28.5
8,905.0	0.40	78.40	8,875.3	491.2	139.3	0.34	0.00	-50.11	19.1	-20.9
8,999.0	0.30	126.70	8,969.3	491.2	139.9	0.33	-0.11	53.51	-4.3	-27.8
9,093.0	0.40	172.60	9,063.3	490.7	140.1	0.31	0.11	48.83	-23.4	-16.1
9,187.0	0.70	182.80	9,157.3	489.8	140.0	0.38	0.32	21.49	-28.4	-8.9
9,280.0	0.60	188.90	9,250.3	488.8	139.8	0.12	-0.11	-4.19	-28.9	-8.8
9,374.0	0.80	186.30	9,344.3	487.6	139.7	0.22	0.21	-2.77	-29.7	-10.1
9,467.0	0.30	150.20	9,437.3	488.8	139.7	0.63	-0.54	-38.82	-18.8	-26.1
9,561.0	0.40	29.50	9,531.3	488.8	140.0	0.65	0.11	-128.40	31.8	-3.0
9,655.0	0.70	313.90	9,625.3	487.5	139.7	0.76	0.32	-80.43	10.2	29.7
9,844.0	0.70	281.40	9,814.3	488.6	137.8	0.21	0.00	-17.20	-9.5	29.9
9,938.0	0.80	237.40	9,908.3	488.3	136.7	0.61	0.11	-46.81	-28.7	14.5
10,032.0	0.80	211.10	10,002.2	487.3	135.7	0.42	0.11	-27.88	-33.5	0.0
10,125.0	1.30	202.10	10,095.2	485.7	135.0	0.47	0.43	-9.68	-34.8	-5.3
10,219.0	1.50	207.70	10,189.2	483.6	134.0	0.28	0.21	5.96	-37.5	-1.8
10,313.0	1.80	212.60	10,283.2	481.3	132.6	0.35	0.32	5.21	-40.2	1.5
10,406.0	1.30	249.20	10,376.1	479.7	130.8	1.16	-0.54	39.35	-33.6	26.1
10,499.0	1.60	268.90	10,469.1	479.3	128.6	0.62	0.32	21.18	-25.1	38.2
10,593.0	1.80	270.30	10,563.1	479.3	125.8	0.22	0.21	1.49	-27.0	36.9
10,687.0	2.00	297.90	10,657.0	480.1	122.8	0.99	0.21	29.36	-9.8	45.9
10,781.0	1.70	281.20	10,751.0	481.1	120.0	0.85	-0.32	-17.77	-25.6	40.6
10,874.0	0.40	350.80	10,843.9	481.7	118.6	1.73	-1.40	74.84	28.4	39.4
10,868.0	0.60	274.70	10,937.9	482.1	118.1	0.68	0.21	-80.96	-32.0	38.7



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11,082.0	1.30	290.00	11,031.9	482.5	116.6	0.79	0.74	16.28	-22.7	44.0
11,156.0	1.40	276.30	11,125.9	483.0	114.4	0.36	0.11	-14.57	-34.7	37.1
11,250.0	1.70	269.60	11,219.9	483.5	112.0	0.50	0.32	14.15	-27.7	44.3
11,285.0	1.80	283.20	11,264.8	484.1	110.7	0.33	0.22	8.00	-26.3	48.0
11,385.0	2.10	287.50	11,354.8	485.1	107.8	0.40	0.33	-8.33	-33.8	43.1
11,478.0	1.50	8.20	11,448.8	486.8	106.4	2.53	-0.64	65.85	35.5	42.0
11,573.0	1.80	21.40	11,542.7	489.4	107.1	0.51	0.32	14.04	41.5	33.1
11,667.0	1.50	26.80	11,636.7	491.9	108.2	0.36	-0.32	5.74	41.7	29.2
11,760.0	1.30	94.70	11,729.7	492.9	109.8	1.69	-0.22	73.01	41.2	-26.6
11,854.0	1.30	125.60	11,823.6	492.2	111.7	0.74	0.00	32.87	19.7	-43.4
11,947.0	1.40	124.10	11,916.6	490.9	113.5	0.11	0.11	-1.61	18.7	-42.9
12,040.0	9.10	143.90	12,009.2	484.4	118.8	8.38	8.28	21.29	-5.3	-46.3
12,087.0	15.80	147.10	12,055.0	478.0	124.6	14.33	14.26	6.81	-17.1	-45.0
12,134.0	19.80	155.50	12,099.8	463.3	131.2	10.09	8.51	17.87	-32.8	-38.6
12,181.0	19.60	162.20	12,144.0	448.6	137.0	4.82	-0.43	14.26	-42.9	-30.0
12,228.0	20.00	160.80	12,188.2	433.5	142.0	1.32	0.85	-2.98	-43.4	-25.6
12,275.0	25.90	169.10	12,231.5	415.8	146.6	14.29	12.55	17.66	-44.4	-14.3
12,319.0	32.50	174.90	12,269.9	394.6	149.5	16.30	15.00	13.18	-43.5	-7.3
12,366.0	39.80	174.00	12,307.8	367.0	152.2	15.57	15.53	-1.91	-42.1	-4.9
12,413.0	47.00	177.80	12,342.0	334.8	154.4	16.29	15.32	8.09	-41.8	-0.7
12,459.0	53.50	178.40	12,371.4	299.5	155.6	14.17	14.13	1.30	-41.8	0.6
12,506.0	59.10	179.40	12,397.4	260.4	156.3	12.05	11.91	2.13	-41.8	1.6
12,552.0	61.90	179.20	12,420.1	220.4	156.8	6.10	6.09	-0.43	-40.3	1.8
12,598.0	67.00	179.80	12,440.4	178.0	157.2	10.91	10.85	1.28	-37.0	2.0
12,645.0	74.80	178.40	12,455.4	134.6	157.9	17.20	16.98	-3.04	-34.1	2.2
12,692.0	77.60	177.80	12,466.6	89.0	159.4	6.09	5.96	-1.28	-30.5	3.5
12,739.0	79.50	176.00	12,475.9	42.9	161.1	4.06	4.04	0.43	-24.0	5.1



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Green Drake 16 Fed Com
 Well: #704H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #704H
 TVD Reference: KB = 25 @ 3433.0usft
 MD Reference: KB = 25 @ 3433.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
12,786.0	79.30	178.20	12,484.6	-3.3	162.6	0.60	-0.43	0.43	-15.4	6.3
12,879.0	85.40	180.80	12,497.0	-95.4	163.4	7.12	6.56	2.80	-3.0	6.4
12,973.0	90.00	182.20	12,500.7	-189.2	160.9	5.11	4.89	1.49	0.8	3.4
13,067.0	87.00	182.10	12,503.2	-283.1	157.4	3.19	-3.19	-0.11	3.2	-0.8
13,160.0	86.50	181.90	12,508.5	-375.9	154.1	0.58	-0.54	-0.22	6.5	-4.6
13,253.0	89.50	181.00	12,511.7	-468.6	151.8	3.37	3.23	-0.97	11.7	-7.5
13,347.0	92.00	181.90	12,510.5	-562.6	149.4	2.83	2.66	0.96	10.5	-10.5
13,440.0	88.70	180.30	12,509.8	-655.7	147.6	3.94	-3.55	-1.72	9.9	-12.9
13,534.0	88.50	178.90	12,512.2	-749.7	148.3	1.50	-0.21	-1.49	12.2	-12.9
13,627.0	88.50	175.90	12,514.6	-842.6	152.5	3.22	0.00	-3.23	14.7	-9.2
13,722.0	88.70	177.00	12,517.0	-937.4	158.4	1.16	0.21	1.16	17.0	-4.0
13,815.0	88.00	178.70	12,519.6	-1,030.2	161.9	1.98	-0.75	1.83	19.7	-1.1
13,908.0	92.20	179.40	12,519.5	-1,124.2	163.4	4.53	4.47	0.74	19.5	-0.1
14,003.0	92.50	179.80	12,515.6	-1,218.1	164.1	0.53	0.32	0.43	15.6	-0.1
14,096.0	91.20	186.10	12,512.6	-1,310.9	159.3	6.91	-1.40	6.77	12.6	-5.4
14,190.0	91.60	191.00	12,510.3	-1,403.8	145.3	5.23	0.43	5.21	10.6	-19.9
14,284.0	91.10	190.90	12,508.1	-1,496.1	127.5	0.54	-0.53	-0.11	8.4	-38.4
14,378.0	91.00	180.70	12,506.4	-1,589.5	118.0	10.85	-0.11	-10.85	6.4	-48.6
14,472.0	91.30	178.20	12,504.5	-1,683.4	118.9	2.68	0.32	-2.66	4.5	-48.3
14,566.0	91.40	175.40	12,502.3	-1,777.2	124.2	2.98	0.11	-2.98	2.2	-43.6
14,659.0	90.70	176.30	12,500.6	-1,870.0	130.9	1.23	-0.75	0.97	0.5	-37.5
14,753.0	89.50	180.10	12,500.4	-1,963.9	133.6	4.24	-1.28	4.04	0.4	-35.1
14,847.0	87.80	183.60	12,502.6	-2,057.8	130.6	4.14	-1.81	3.72	2.9	-36.6
14,940.0	85.80	180.50	12,507.8	-2,150.6	127.5	3.96	-2.15	-3.33	9.0	-42.7
15,034.0	88.10	175.70	12,512.8	-2,244.4	130.6	5.66	2.45	-5.11	14.9	-40.2
15,128.0	87.90	176.40	12,516.1	-2,338.1	137.1	0.77	-0.21	0.74	19.0	-34.3
15,221.0	92.60	177.70	12,515.7	-2,430.9	141.8	5.24	5.05	1.40	19.3	-30.2



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Green Drake 16 Fed Com
 Well: #704H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #704H
 TVD Reference: KB = 25 @ 3433.0usft
 MD Reference: KB = 25 @ 3433.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	NIS (usft)	ENW (usft)	DLeg (°/100usft)	Buld (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
15,315.0	91.70	176.60	12,512.2	-2,524.6	146.5	1.51	-0.98	-1.17	16.6	-26.1
15,408.0	92.30	177.10	12,508.9	-2,617.6	151.6	0.84	0.65	0.54	14.1	-21.6
15,502.0	91.50	176.10	12,505.8	-2,711.3	157.2	1.36	-0.85	-1.06	11.8	-16.6
15,595.0	92.10	176.60	12,502.9	-2,804.1	163.0	0.99	0.65	0.75	9.7	-11.4
15,689.0	92.90	177.50	12,498.8	-2,897.8	167.6	1.13	0.65	0.74	6.4	-7.4
15,782.0	89.70	176.60	12,496.7	-2,990.6	172.2	3.52	-3.44	-0.75	5.1	-3.3
15,875.0	91.60	176.90	12,495.6	-3,083.7	175.7	3.04	2.04	2.26	4.8	-0.5
15,969.0	91.10	178.40	12,493.4	-3,177.6	178.0	0.75	-0.53	-0.53	3.4	1.2
16,063.0	89.00	177.70	12,493.3	-3,271.6	181.1	2.35	-2.23	-0.74	4.1	3.7
16,156.0	90.40	177.70	12,493.8	-3,364.5	184.9	1.51	1.51	0.00	5.4	6.9
16,249.0	89.90	177.30	12,493.6	-3,457.4	188.9	0.69	-0.54	-0.43	6.0	10.3
16,343.0	91.20	181.40	12,492.7	-3,551.4	190.0	4.58	1.38	4.38	5.8	10.8
16,437.0	91.10	185.00	12,490.8	-3,645.2	184.8	3.83	-0.11	3.83	4.8	4.9
16,531.0	91.30	184.20	12,488.8	-3,738.9	177.2	0.88	0.21	-0.85	3.6	-3.2
16,625.0	94.10	185.60	12,484.4	-3,832.4	169.2	3.33	2.98	1.49	0.1	-11.8
16,812.0	89.00	182.10	12,479.3	-4,018.8	156.7	3.31	-2.73	-1.67	-3.8	-25.5
16,805.0	89.60	178.50	12,480.5	-4,111.8	156.2	3.92	0.65	-3.87	-1.8	-26.6
16,899.0	90.20	178.20	12,480.6	-4,205.8	158.9	0.71	0.64	-0.32	-1.0	-24.5
17,092.0	89.70	177.00	12,480.7	-4,298.7	162.6	1.40	-0.54	-1.29	-0.3	-21.2
17,186.0	89.60	178.40	12,481.3	-4,392.5	168.2	0.65	-0.11	-0.64	0.9	-16.4
17,280.0	90.10	177.10	12,481.5	-4,486.4	173.5	0.92	0.53	0.74	1.7	-11.7
17,373.0	90.70	178.20	12,480.9	-4,579.3	177.3	1.35	0.65	1.18	1.7	-6.5
17,467.0	91.50	178.70	12,479.1	-4,673.2	179.9	1.00	0.85	0.53	0.5	-6.6
17,560.0	89.40	178.00	12,478.3	-4,766.2	182.6	2.38	-2.26	-0.75	0.3	-4.5
17,653.0	89.40	177.50	12,479.3	-4,859.1	186.2	0.54	0.00	-0.54	1.9	-1.4
17,746.0	90.40	178.40	12,479.5	-4,952.0	189.5	1.45	1.08	0.97	2.7	1.3
17,840.0	90.50	177.70	12,478.7	-5,046.0	192.7	0.75	0.11	-0.74	2.6	3.9



Midland PVA

Company: EOG Resources - Midland		Local Co-ordinate Reference:		Well #704H	
Project: Lea County, NM (NAD 83 NME)		TVD Reference:		KB = 25 @ 3433.0usft	
Site: Green Drake 16 Fed Com		MD Reference:		KB = 25 @ 3433.0usft	
Well: #704H		North Reference:		Grid	
Wellbore: OH		Survey Calculation Method:		Minimum Curvature	
Design: OH		Database:		EDM 5000.14	

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
17,932.0	91.00	178.70	12,477.5	-5,137.9	195.6	1.22	0.54	1.09	2.0	8.2	
18,026.0	92.40	179.20	12,474.7	-5,231.9	197.3	1.58	1.49	0.53	-0.2	7.3	
18,120.0	90.10	177.80	12,472.7	-5,325.8	199.8	2.86	-2.45	-1.49	-1.7	9.2	
18,214.0	90.10	177.80	12,472.5	-5,419.7	203.4	0.00	0.00	0.00	-1.2	12.2	
18,308.0	90.00	177.30	12,472.4	-5,513.7	207.4	0.54	-0.11	-0.53	-0.7	15.6	
18,401.0	90.80	178.40	12,471.8	-5,608.8	210.9	1.46	0.86	1.18	-0.7	18.5	
18,496.0	91.50	178.70	12,469.9	-5,701.5	213.3	0.80	0.74	0.32	-2.0	20.3	
18,589.0	89.70	178.70	12,468.9	-5,794.5	215.4	1.94	-1.94	0.00	-2.4	21.8	
18,682.0	88.50	178.00	12,470.4	-5,887.4	218.1	1.49	-1.29	-0.75	-0.4	23.9	
18,776.0	88.90	178.40	12,472.5	-5,981.4	221.1	0.60	0.43	0.43	2.4	26.2	
18,871.0	92.30	181.40	12,471.5	-6,076.3	221.2	4.77	3.58	3.16	2.6	25.8	
18,964.0	92.30	181.90	12,467.8	-6,169.2	218.5	0.54	0.00	0.54	0.4	22.5	
19,058.0	92.50	181.90	12,463.8	-6,263.1	215.4	0.21	0.21	0.00	-2.0	18.8	
19,152.0	88.00	180.00	12,463.4	-6,357.1	213.9	5.20	-4.79	-2.02	-0.9	16.6	
19,246.0	88.20	180.30	12,466.5	-6,451.0	213.6	0.38	0.21	0.32	3.7	15.7	
19,339.0	88.50	181.00	12,469.2	-6,544.0	212.6	0.82	0.32	0.75	7.9	14.1	
19,433.0	90.50	181.70	12,470.0	-6,637.9	210.4	2.25	2.13	0.74	10.3	11.3	
19,526.0	90.00	178.10	12,469.6	-6,730.9	209.7	2.85	-0.54	-2.80	11.3	10.0	
19,620.0	90.30	172.60	12,469.4	-6,824.6	216.5	6.92	0.32	-6.91	12.7	16.2	
19,714.0	91.50	174.30	12,467.9	-6,918.0	227.2	2.21	1.28	1.81	12.7	26.3	
19,807.0	91.70	172.00	12,465.3	-7,010.3	236.3	2.48	0.22	-2.47	11.8	36.8	
19,901.0	92.10	168.90	12,462.2	-7,102.9	253.9	3.32	0.43	-3.30	10.4	51.7	
19,977.0	93.10	165.50	12,458.8	-7,176.9	270.7	4.66	1.32	-4.47	8.8	68.0	
20,035.0	93.10	165.50	12,455.6	-7,233.0	285.2	0.00	0.00	0.00	6.7	82.2	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #704H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3433.0usft
Site:	Green Drake 16 Fed Com	MD Reference:	KB = 25 @ 3433.0usft
Well:	#704H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/S (usft)	+E/W (usft)	
11,997.0	11,966.5	488.7	115.5	KOP, MD:11997.0', TVD:11966.5', N/S:488.7', E/W:115.5', INC:5.51
12,125.2	12,091.5	466.0	130.0	FTP Crossing, MD:12125.2', TVD:12091.5', N/S:466.0', E/W:130.0', INC:19.03
19,977.0	12,458.8	-7,176.9	270.7	Last MWD Survey (MD=19977.0')
20,035.0	12,455.6	-7,233.0	285.2	Projection to Bit (MD=20035.0')

Checked By: _____	Approved By: _____	Date: _____
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Lea County, NM (NAD 83 NME)
Green Drake 16 Fed Com #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 @ 3433.0usft
Northing 411491.00 Easting 774315.00 Longitude 32° 7' 44.510 N 103° 34' 50.584 W

To convert a Magnetic Direction to a Grid Direction, Add 5.44°
To convert a Magnetic Direction to a True Direction, Add 6.84° East
To convert a True Direction to a Grid Direction, Subtract 0.40°

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSeet	Target
1	0.0	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.0	
2	2180.0	0.00	0.00	2180.0	0.0	0.00	0.00	0.00	0.0	
3	2479.9	6.00	16.52	2479.3	15.0	4.5	2.00	16.52	-14.9	
4	7330.8	6.00	16.52	7303.7	501.0	148.5	0.00	0.00	-496.6	
5	7630.6	0.00	0.00	7603.0	516.0	153.0	2.00	180.00	-511.5	Brushy Top(GD 16 FC #704H)
6	12050.1	0.00	0.00	12022.5	516.0	153.0	0.00	0.00	-511.5	
7	12800.1	90.00	179.63	12500.0	38.6	158.1	12.00	179.63	-34.2	TGT#1(GD 16 FC #704H)
8	14534.7	90.00	179.63	12500.0	-1996.0	159.2	0.00	0.00	2000.0	
9	14859.3	90.49	179.63	12499.9	-2020.5	159.3	2.00	0.00	2024.5	
10	16835.3	90.49	179.63	12483.0	-3996.5	182.1	0.00	0.00	4000.0	TGT#2(GD 16 FC #704H)
11	16841.2	90.37	179.63	12483.0	-4002.4	182.1	2.00	-180.00	4005.9	
12	18835.8	90.37	179.63	12470.0	-5996.9	195.0	0.00	0.00	6000.0	TGT#3(GD 16 FC #704H)
13	18863.4	90.92	179.63	12469.7	-6024.5	195.1	2.00	0.00	6027.6	
14	20084.1	90.92	179.63	12450.0	-7245.0	203.0	0.00	0.00	7247.8	PBHL(GD 16 FC #704H)

CASING DETAILS

No casing data is available

WELLBORE TAPES DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
Brushy Top(GD 16 FC #704H)	7630.6	516.0	153.0	411207.00	774488.00
PBHL(GD 16 FC #704H)	12450.0	-7245.0	203.0	404248.00	774519.00
TGT#1(GD 16 FC #704H)	12470.0	-5996.9	185.0	405484.10	774528.98
TGT#2(GD 16 FC #704H)	12483.0	-3996.5	182.1	407484.00	774537.07
TGT#3(GD 16 FC #704H)	12500.0	-600.0	153.0	411857.00	774468.00
TGT#4(GD 16 FC #704H)	12500.0	-1996.0	163.2	409485.00	774484.18

