

HOBBS OCC
SEP 20 2019
RECEIVED



EOG Resources - Midland

Lea County, NM (NAD 83 NME)
Dillon 31 Fed Com
#701H
OH

Design: OH

Midland PVA

22 July, 2019



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Dillon 31 Fed Com
 Well: #701H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #701H
 TVD Reference: KB = 25' @ 3481.0usft
 MD Reference: KB = 25' @ 3481.0usft
 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
 Geo Datum: North American Datum 1983
 Map Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

Site Dillon 31 Fed Com

Site Position:		Northing:	425,686.00 usft	Latitude:	32° 10' 3.262 N
From: Map		Easting:	797,851.00 usft	Longitude:	103° 30' 15.824 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.44 °

Well #701H

Well Position	+N-S	0.0 usft	Northing:	425,686.00 usft	Latitude:	32° 10' 3.262 N
	+E-W	0.0 usft	Easting:	797,851.00 usft	Longitude:	103° 30' 15.824 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,436.0 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	11/14/2018	6.76	60.00	47,766,50813419

Design OH

Audit Notes:		Phase:	ACTUAL	Tie On Depth:	0.0
Version:	1.0				
Vertical Section:		Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)
		0.0	0.0	0.0	351.84

Survey Program Date 7/22/2019

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
120.0	20,073.0	Total MWD #1 (OH)	MWD	OWSG MWD - Standard



Midland PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Dillon 31 Fed Cam
Well: #701H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #701H
TVD Reference: KB = 25' @ 3461.0usft
MD Reference: KB = 25' @ 3461.0usft
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)
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.0	0.0
120.0	0.00	0.00	120.0	0.0	0.0	0.00	0.00	0.00	0.0	0.0
162.0	0.50	319.70	162.0	0.1	-0.1	1.19	1.19	0.00	0.0	0.0
340.0	2.40	317.80	339.9	3.5	-3.1	1.07	1.07	-1.07	0.0	0.0
516.0	1.70	303.40	515.8	7.7	-7.8	0.49	-0.40	-8.18	0.0	0.0
575.0	0.80	256.70	574.8	8.0	-8.9	2.19	-1.53	-79.15	0.0	0.0
673.0	2.30	160.50	672.8	6.0	-8.9	2.57	1.53	-98.16	0.0	0.0
767.0	3.30	152.30	766.7	1.9	-7.0	1.14	1.06	-8.72	0.0	0.0
860.0	4.20	150.70	859.5	-3.5	-4.1	0.97	0.97	-1.72	0.0	0.0
953.0	4.10	147.90	952.2	-9.3	-0.7	0.24	-0.11	-3.01	0.0	0.0
1,046.0	4.00	143.40	1,045.0	-14.7	3.0	0.36	-0.11	-4.84	0.0	0.0
1,139.0	5.50	141.80	1,137.7	-20.8	7.7	1.62	1.61	-1.72	0.0	0.0
1,293.0	10.20	141.70	1,290.2	-37.3	20.7	3.05	3.05	-0.08	0.0	0.0
1,350.0	10.88	142.18	1,348.2	-45.4	27.1	0.82	0.81	0.84	-0.2	0.0
1,418.0	11.30	142.70	1,413.0	-55.7	35.0	0.95	0.94	0.76	-1.2	-0.2
1,511.0	9.90	141.80	1,504.4	-69.2	45.4	1.52	-1.51	-0.97	-3.5	0.6
1,606.0	7.80	145.60	1,598.3	-81.0	54.1	2.29	-2.21	4.00	-5.4	3.2
1,700.0	6.30	174.60	1,691.6	-91.4	58.2	4.05	-1.60	30.85	-3.4	6.8
1,785.0	6.00	201.00	1,786.1	-101.2	56.9	2.97	-0.32	27.79	-1.0	6.7
1,889.0	5.10	239.30	1,879.6	-107.9	51.6	3.97	-0.96	40.74	2.1	3.5
1,983.0	5.10	243.00	1,973.3	-111.9	44.3	0.35	0.00	3.94	2.5	0.1
2,078.0	5.10	243.70	2,067.9	-115.7	36.7	0.07	0.00	0.74	4.7	-1.3
2,172.0	7.00	258.10	2,161.4	-118.8	27.4	2.57	2.02	15.32	6.9	-3.7
2,268.0	10.00	260.30	2,254.3	-121.3	13.7	3.21	3.19	2.34	7.9	-4.9
2,361.0	10.80	261.70	2,347.8	-124.0	-3.2	0.88	0.84	1.47	7.1	-5.6
2,455.0	10.60	263.70	2,440.1	-128.2	-20.5	0.45	-0.21	2.13	5.7	-6.9
2,549.0	10.90	256.30	2,532.5	-129.3	-37.8	1.50	0.32	-7.87	5.3	-6.5



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Dillon 31 Fed Com
 Well: #701H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #701H
 TVD Reference: KB = 25' @ 3461.0usft
 MD Reference: KB = 25' @ 3461.0usft
 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)	Bulld ("/100usft)	Turn ("/100usft)	High to Plan (usft)	Right to Plan (usft)
2,643.0	10.90	256.00	2,624.8	-133.5	-55.0	0.08	0.00	-0.32	3.9	-5.6
2,738.0	10.50	257.50	2,718.1	-137.6	-72.2	0.51	-0.42	1.58	2.6	-5.1
2,832.0	9.90	258.00	2,810.7	-141.1	-88.4	0.65	-0.64	0.53	2.2	-4.7
2,927.0	9.40	259.40	2,904.3	-144.2	-104.1	0.58	-0.53	1.47	2.7	-4.7
3,021.0	10.50	254.10	2,996.9	-148.0	-119.8	1.52	1.17	-5.64	3.1	-3.8
3,116.0	10.30	252.50	3,090.3	-152.9	-136.3	0.37	-0.21	-1.68	2.5	-2.0
3,211.0	9.30	253.70	3,184.0	-157.6	-151.7	1.07	-1.05	1.28	2.7	-0.4
3,305.0	8.90	252.70	3,278.8	-161.9	-166.0	0.46	-0.43	-1.06	4.1	1.3
3,399.0	9.30	264.90	3,369.6	-164.8	-180.5	2.09	0.43	12.98	5.8	0.3
3,494.0	9.70	264.30	3,463.3	-166.2	-196.1	0.43	0.42	-0.63	6.6	-1.3
3,588.0	10.90	257.30	3,555.8	-169.0	-212.6	1.84	1.28	-7.45	6.2	-0.9
3,683.0	11.10	258.10	3,649.0	-172.8	-230.4	0.26	0.21	0.84	4.6	-0.6
3,777.0	10.90	259.90	3,741.3	-176.3	-248.0	0.42	-0.21	1.91	2.9	-0.8
3,872.0	10.90	264.30	3,834.6	-178.7	-265.7	0.88	0.00	4.63	1.3	-1.8
3,966.0	10.80	267.60	3,926.9	-180.0	-283.4	0.67	-0.11	3.51	-0.4	-3.8
4,061.0	11.10	271.60	4,020.2	-180.1	-301.4	0.86	0.32	4.21	-2.6	-6.8
4,155.0	11.60	264.60	4,112.4	-180.7	-319.9	1.56	0.53	-7.45	-4.0	-8.7
4,250.0	11.80	261.00	4,205.4	-183.1	-339.0	0.80	0.21	-3.79	-6.2	-11.1
4,344.0	10.80	257.40	4,297.6	-186.6	-357.1	1.30	-1.06	-3.83	-7.8	-11.6
4,438.0	10.70	262.10	4,389.9	-189.7	-374.3	0.94	-0.11	5.00	-9.7	-11.1
4,532.0	9.30	259.70	4,482.5	-192.3	-390.4	1.55	-1.49	-2.55	-9.2	-12.1
4,626.0	7.40	254.90	4,575.5	-195.2	-403.7	2.15	-2.02	-5.11	-5.5	-12.3
4,721.0	7.30	260.50	4,669.7	-197.8	-415.6	0.76	-0.11	5.89	-2.3	-11.5
4,815.0	7.30	251.10	4,762.9	-200.7	-427.1	1.27	0.00	-10.00	4.0	-10.5
4,910.0	6.20	233.60	4,857.3	-205.7	-437.0	2.44	-1.16	-18.42	11.0	-3.5
5,004.0	7.20	229.20	4,950.7	-212.6	-445.5	1.20	1.06	-4.68	14.5	5.0
5,099.0	9.10	248.80	5,044.7	-219.2	-457.0	3.52	2.00	20.63	18.5	4.8



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Dillon 31 Fed Com
 Well: #701H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #701H
 TVD Reference: KB = 25' @ 3461.0usft
 MD Reference: KB = 25' @ 3461.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

Survey

MD (usft)	Inc (°)	Asl (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLeg (°/100usft)	Bulld (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
5,193.0	10.30	264.00	5,137.4	-222.7	-472.3	3.00	1.28	16.17	20.0	0.5
5,288.0	9.40	265.00	5,231.0	-224.3	-488.5	0.98	-0.95	1.05	22.4	0.1
5,382.0	9.40	270.10	5,323.7	-225.0	-503.8	0.89	0.00	5.43	27.3	-1.8
5,477.0	10.70	275.80	5,417.3	-224.0	-520.4	1.72	1.37	6.00	31.0	-6.4
5,571.0	11.00	276.60	5,508.6	-222.1	-537.9	0.36	0.32	0.85	33.4	-9.8
5,668.0	11.60	277.20	5,602.7	-219.9	-556.4	0.64	0.63	0.63	35.1	-13.0
5,760.0	12.70	275.90	5,694.6	-217.7	-576.1	1.21	1.17	-1.38	35.8	-15.2
5,854.0	12.80	276.40	5,786.3	-215.4	-596.7	0.16	0.11	0.53	35.1	-18.2
5,949.0	12.40	276.20	5,879.0	-213.2	-617.3	0.42	-0.42	-0.21	34.8	-21.0
6,043.0	13.10	271.80	5,970.7	-211.7	-638.0	1.27	0.74	-4.68	35.9	-20.3
6,137.0	13.40	268.20	6,062.2	-211.7	-659.5	0.93	0.32	-3.63	35.8	-18.7
6,232.0	12.20	268.20	6,154.8	-212.4	-680.6	1.26	-1.26	0.00	35.4	-18.7
6,326.0	11.30	267.50	6,246.9	-213.1	-699.7	0.97	-0.96	-0.74	36.8	-18.1
6,421.0	11.40	266.70	6,340.0	-214.1	-718.4	0.20	0.11	-0.84	39.0	-17.2
6,515.0	11.40	266.00	6,432.2	-215.2	-736.9	0.15	0.00	-0.74	41.0	-16.0
6,609.0	10.80	265.60	6,524.4	-216.6	-754.9	0.64	-0.64	-0.43	43.4	-14.8
6,703.0	11.10	264.40	6,616.7	-218.1	-772.7	0.40	0.32	-1.28	46.2	-12.7
6,798.0	12.00	263.70	6,709.8	-220.1	-791.7	0.96	0.95	-0.74	47.9	-10.6
6,892.0	13.50	265.90	6,801.4	-222.0	-812.3	1.68	1.60	2.34	47.1	-11.2
6,986.0	13.70	265.70	6,892.8	-223.6	-834.4	0.22	0.21	-0.21	45.3	-10.1
7,080.0	13.30	265.40	6,984.2	-225.3	-856.2	0.43	-0.43	-0.32	43.7	-8.9
7,175.0	13.10	264.70	7,076.7	-227.1	-877.8	0.27	-0.21	-0.74	42.6	-7.2
7,269.0	12.00	267.00	7,168.5	-228.6	-898.2	1.29	-1.17	2.45	42.3	-8.0
7,363.0	11.60	267.20	7,260.5	-228.6	-917.4	0.43	-0.43	0.21	42.6	-7.7
7,458.0	11.20	266.30	7,353.6	-230.7	-936.2	0.46	-0.42	-0.95	40.7	-6.6
7,552.0	8.40	266.40	7,446.2	-231.5	-952.1	3.00	-2.98	2.23	38.0	-7.8
7,646.0	4.40	280.90	7,539.6	-231.0	-962.5	4.48	-4.26	13.30	35.3	-16.6



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Dillon 31 Fed Com
 Well: #701H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #701H
 TVD Reference: KB = 25' @ 3461.0usft
 MD Reference: KB = 25' @ 3461.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLog (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
7,741.0	2.00	296.80	7,634.5	-229.5	-987.6	2.67	-2.53	16.74	30.7	-28.2
7,835.0	0.80	237.20	7,728.4	-229.1	-969.6	1.85	-1.28	-63.40	42.0	13.0
7,929.0	1.00	216.80	7,822.4	-230.2	-970.7	0.40	0.21	-21.70	34.0	27.4
8,024.0	0.80	208.80	7,917.4	-231.4	-971.5	0.25	-0.21	-8.42	28.4	31.8
8,118.0	0.80	211.10	8,011.4	-232.6	-972.2	0.11	0.11	2.45	28.3	30.6
8,212.0	0.80	211.50	8,105.4	-233.9	-972.9	0.01	0.00	0.43	27.0	30.4
8,306.0	0.80	211.80	8,199.4	-235.1	-973.7	0.01	0.00	0.32	25.7	30.3
8,401.0	1.10	205.90	8,294.4	-236.6	-974.5	0.24	0.21	-6.21	20.8	32.7
8,495.0	1.00	202.30	8,388.3	-238.2	-975.2	0.13	-0.11	-3.83	17.0	33.9
8,589.0	1.00	212.30	8,482.3	-239.6	-976.0	0.19	0.00	10.64	21.0	30.6
8,684.0	1.10	222.90	8,577.3	-241.0	-977.0	0.23	0.11	11.16	24.5	26.3
8,779.0	1.20	237.90	8,672.3	-242.2	-978.5	0.33	0.11	15.79	28.6	19.3
8,873.0	1.30	232.40	8,766.3	-243.3	-980.2	0.17	0.11	-5.85	24.6	21.9
8,967.0	1.40	239.60	8,860.2	-244.6	-982.0	0.21	0.11	7.66	24.9	18.8
9,062.0	1.40	233.90	8,955.2	-245.8	-983.9	0.15	0.00	-6.00	20.6	21.0
9,156.0	1.20	223.40	9,049.2	-247.2	-985.5	0.33	-0.21	-11.17	14.3	24.2
9,251.0	1.10	213.20	9,144.2	-248.7	-986.7	0.24	-0.11	-10.74	7.9	26.2
9,345.0	1.00	216.70	9,238.2	-250.1	-987.7	0.13	-0.11	3.72	7.8	25.7
9,440.0	1.00	238.40	9,333.1	-251.2	-988.9	0.40	0.00	22.84	15.1	21.3
9,535.0	0.70	256.80	9,428.1	-251.8	-990.2	0.42	-0.32	19.37	19.7	15.7
9,630.0	1.00	271.90	9,523.1	-251.9	-991.6	0.39	0.32	15.89	21.8	10.2
9,725.0	0.80	266.90	9,618.1	-251.9	-993.2	0.12	-0.11	-3.16	19.6	11.3
9,819.0	1.30	240.50	9,712.1	-252.4	-994.8	0.71	0.43	-30.21	10.2	18.9
9,913.0	1.00	254.80	9,806.1	-253.2	-996.5	0.44	-0.32	15.21	12.7	16.1
10,007.0	0.80	267.50	9,900.1	-253.4	-998.0	0.30	-0.21	13.51	14.5	13.1
10,101.0	0.30	281.60	9,994.1	-253.5	-998.9	0.53	-0.53	-8.28	12.1	14.4
10,196.0	0.20	197.90	10,089.1	-253.7	-999.2	0.29	-0.11	-67.05	-7.8	17.0



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Dillon 31 Fed Com
 Well: #701H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #701H
 TVD Reference: KB = 25' @ 3481.0usft
 MD Reference: KB = 25' @ 3481.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 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)
10,281.0	0.70	225.90	10,184.1	-254.2	-999.8	0.56	0.53	29.47	0.4	18.8
10,384.0	0.80	201.20	10,277.0	-255.2	-1,000.3	0.36	0.11	-26.58	-8.7	17.0
10,478.0	1.40	210.70	10,372.0	-258.8	-1,001.1	0.66	0.63	10.00	-7.6	18.3
10,573.0	1.30	299.10	10,468.0	-257.3	-1,002.6	2.00	-0.11	94.04	17.0	9.2
10,667.0	1.00	304.60	10,560.0	-256.3	-1,004.2	0.34	-0.32	5.85	15.9	7.7
10,762.0	0.60	308.30	10,655.0	-255.6	-1,005.3	0.42	-0.42	3.89	15.1	6.7
10,858.0	1.10	301.00	10,749.0	-254.8	-1,006.5	0.54	0.53	-7.77	12.7	8.5
10,951.0	0.80	298.90	10,844.0	-254.0	-1,007.8	0.32	-0.32	-2.21	10.8	8.9
11,045.0	1.30	9.90	10,937.9	-252.6	-1,008.2	1.37	0.53	75.53	10.6	-8.7
11,139.0	1.20	29.00	11,031.9	-250.7	-1,007.8	0.45	-0.11	20.32	5.9	-9.5
11,234.0	2.10	56.90	11,126.9	-248.9	-1,005.6	1.24	0.95	29.37	-1.9	-10.6
11,329.0	1.80	74.20	11,221.8	-247.5	-1,002.7	0.69	-0.32	18.21	-8.1	-9.1
11,423.0	2.60	101.00	11,315.8	-247.6	-999.2	1.36	0.85	28.51	-14.8	-3.8
11,517.0	1.60	118.80	11,409.7	-248.6	-996.0	1.26	-1.06	16.94	-18.6	1.5
11,611.0	3.00	148.70	11,503.6	-251.3	-993.6	1.91	1.49	31.81	-18.9	11.3
11,706.0	3.20	181.40	11,598.5	-256.1	-992.3	1.85	0.21	34.42	-14.6	21.0
11,800.0	2.60	184.70	11,682.4	-260.8	-992.6	0.66	-0.64	3.51	-18.1	22.0
11,844.0	2.60	182.00	11,736.3	-262.8	-992.7	0.28	0.00	-6.14	-21.1	21.1
11,884.0	3.04	186.89	11,778.3	-264.8	-992.8	1.26	1.10	12.47	-21.2	22.9
11,933.0	3.60	191.40	11,825.2	-267.6	-993.3	1.26	1.14	9.00	-22.2	24.6
12,017.0	2.42	210.55	11,909.1	-271.7	-994.7	1.83	-1.40	22.80	-17.1	31.3
12,028.0	2.30	214.40	11,920.1	-272.1	-995.0	1.81	-1.09	35.00	-15.5	32.4
12,122.0	13.80	355.70	12,013.3	-262.4	-998.9	16.66	12.23	150.32	27.1	-14.2
12,216.0	27.60	356.30	12,101.0	-228.3	-999.1	14.68	14.68	0.64	14.5	-13.3
12,263.0	37.00	354.20	12,140.7	-204.3	-1,001.3	20.14	20.00	-4.47	5.7	-11.7
12,310.0	38.70	353.30	12,177.8	-175.7	-1,004.4	3.80	3.62	-1.91	-3.2	-9.4
12,405.0	42.50	352.60	12,248.9	-114.3	-1,012.0	4.03	4.00	-0.74	-12.4	-3.2



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Dillon 31 Fed Com
 Well: #701H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #701H
 TVD Reference: KB = 25' @ 3461.0usft
 MD Reference: KB = 25' @ 3461.0usft
 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)
12,489.0	48.10	354.60	12,317.2	-49.1	-1,019.3	4.11	3.83	2.13	-8.6	4.3
12,548.0	52.50	357.80	12,347.8	-13.6	-1,021.6	14.56	13.82	6.81	-3.5	6.7
12,594.0	56.60	358.70	12,375.6	25.5	-1,022.8	8.68	8.54	1.87	2.0	7.6
12,688.0	69.60	357.90	12,418.1	109.1	-1,025.3	13.85	13.83	-0.85	12.3	9.5
12,782.0	88.50	1.60	12,435.9	201.0	-1,025.6	20.47	20.11	3.94	14.7	8.9
12,877.0	99.60	2.10	12,429.2	295.5	-1,022.6	11.70	11.68	0.53	7.5	5.1
12,927.0	93.60	1.30	12,423.4	345.1	-1,021.1	12.10	-12.00	-1.60	2.5	3.2
12,971.0	93.60	0.60	12,420.6	389.1	-1,020.4	1.59	0.00	-1.59	0.3	2.1
13,066.0	89.50	0.20	12,418.1	484.0	-1,019.7	4.34	-4.32	-0.42	-0.8	0.6
13,160.0	88.00	359.00	12,420.1	578.0	-1,020.4	2.04	-1.60	-1.28	2.6	0.5
13,254.0	88.00	358.00	12,423.4	671.9	-1,022.8	1.06	0.00	-1.06	7.0	2.2
13,348.0	91.00	359.50	12,424.2	765.8	-1,024.9	3.57	3.19	1.60	8.8	3.4
13,442.0	92.00	358.90	12,421.8	859.8	-1,026.2	1.24	1.06	-0.64	7.3	4.0
13,537.0	91.30	0.80	12,419.0	954.7	-1,026.4	2.13	-0.74	2.00	5.5	3.4
13,631.0	91.10	2.50	12,417.1	1,048.7	-1,023.7	1.82	-0.21	1.81	4.5	-0.1
13,728.0	87.40	2.40	12,418.3	1,145.6	-1,019.6	3.82	-3.81	-0.10	6.8	-5.0
13,822.0	87.40	2.00	12,422.6	1,239.4	-1,016.0	0.43	0.00	-0.43	12.0	-9.4
13,916.0	90.70	2.20	12,424.2	1,333.3	-1,012.5	3.52	3.51	0.21	14.5	-13.6
14,011.0	92.00	2.00	12,421.9	1,428.2	-1,009.1	1.38	1.37	-0.21	13.3	-17.9
14,105.0	91.30	0.70	12,419.2	1,522.2	-1,006.8	1.57	-0.74	-1.38	11.5	-20.9
14,200.0	90.50	358.30	12,417.7	1,617.1	-1,007.7	2.66	-0.84	-2.53	11.1	-20.9
14,294.0	90.80	358.10	12,416.7	1,711.1	-1,010.6	0.38	0.32	-0.21	11.8	-18.7
14,388.0	91.00	358.30	12,415.2	1,805.0	-1,013.6	0.30	0.21	0.21	12.1	-16.6
14,482.0	89.60	358.20	12,414.7	1,899.0	-1,016.4	1.49	-1.49	-0.11	13.4	-14.5
14,577.0	90.10	358.60	12,414.9	1,993.9	-1,019.1	0.67	0.53	0.42	15.4	-12.6
14,671.0	90.50	358.30	12,414.4	2,087.9	-1,021.6	0.53	0.43	-0.32	16.7	-10.9
14,765.0	90.30	358.20	12,413.8	2,181.9	-1,024.5	0.24	-0.21	-0.11	17.8	-8.8



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Dillon 31 Fed Com
 Well: #701H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #701H
 TVD Reference: KB = 25' @ 3481.0usft
 MD Reference: KB = 25' @ 3481.0usft
 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)	Buile (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
14,859.0	93.20	0.70	12,410.9	2,275.8	-1,025.4	4.07	3.09	2.68	16.7	-8.7	
14,953.0	91.40	0.60	12,407.1	2,369.7	-1,024.4	1.92	-1.91	-0.11	14.7	-10.5	
15,047.0	88.70	356.10	12,407.1	2,463.6	-1,027.1	5.58	-2.87	-4.79	16.4	-8.6	
15,141.0	88.70	354.60	12,409.2	2,557.3	-1,034.7	1.60	0.00	-1.60	20.3	-1.8	
15,236.0	89.00	353.80	12,411.1	2,651.8	-1,044.3	0.90	0.32	-0.84	24.1	7.0	
15,330.0	88.30	352.70	12,413.3	2,745.1	-1,055.3	1.39	-0.74	-1.17	28.7	17.2	
15,425.0	93.10	351.40	12,412.2	2,839.2	-1,068.5	5.23	5.05	-1.37	30.4	29.3	
15,519.0	98.50	357.40	12,402.6	2,932.2	-1,077.6	8.56	5.74	6.38	23.2	38.0	
15,566.0	97.60	359.40	12,398.1	2,978.7	-1,078.9	4.63	-1.91	4.26	17.8	38.9	
15,614.0	94.20	359.40	12,391.1	3,026.4	-1,079.4	7.08	-7.08	0.00	14.2	39.0	
15,661.0	91.60	0.20	12,388.8	3,073.3	-1,079.6	5.79	-5.53	1.70	13.1	38.8	
15,709.0	90.90	1.80	12,387.7	3,121.3	-1,078.7	3.64	-1.46	3.33	13.4	37.5	
15,756.0	91.30	2.00	12,388.8	3,168.3	-1,077.2	0.95	0.85	0.43	13.8	35.6	
15,803.0	94.20	4.90	12,384.5	3,215.1	-1,074.3	8.72	6.17	6.17	12.6	32.4	
15,850.0	94.40	4.60	12,381.0	3,261.8	-1,070.5	0.77	0.43	-0.64	10.4	28.2	
15,897.0	93.40	4.10	12,377.8	3,308.6	-1,066.9	2.38	-2.13	-1.06	8.6	24.2	
15,992.0	89.40	3.20	12,375.5	3,403.4	-1,060.9	4.32	-4.21	-0.85	8.9	17.3	
16,086.0	90.90	1.30	12,375.3	3,497.3	-1,057.2	2.58	1.60	-2.02	11.2	12.8	
16,181.0	94.40	1.50	12,370.9	3,592.1	-1,054.8	3.69	3.68	0.21	9.4	9.7	
16,275.0	93.60	1.70	12,364.3	3,685.9	-1,052.2	0.88	-0.85	0.21	5.5	6.3	
16,396.0	87.70	0.60	12,362.9	3,806.8	-1,049.8	4.96	-4.88	-0.91	7.4	2.9	
16,490.0	88.30	359.80	12,366.2	3,900.7	-1,049.5	1.06	0.64	-0.85	13.3	1.8	
16,585.0	89.70	359.80	12,367.9	3,995.7	-1,049.8	1.47	1.47	0.00	17.5	1.3	
16,679.0	88.70	359.80	12,369.2	4,089.7	-1,050.1	1.06	-1.06	0.00	21.4	0.8	
16,773.0	90.40	359.10	12,369.9	4,183.7	-1,051.0	1.96	1.81	-0.74	24.5	1.0	
16,868.0	92.70	359.30	12,367.4	4,278.6	-1,052.4	2.43	2.42	0.21	24.2	1.5	
16,963.0	94.00	1.20	12,361.8	4,373.5	-1,052.0	2.42	1.37	2.00	20.9	0.3	



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Dillon 31 Fed Com
 Well: #701H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #701H
 TVD Reference: KB = 25' @ 3481.0ush
 ND Reference: KB = 25' @ 3481.0ush
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

Survey

MD (ush)	Inc (°)	Azi (azimuth) (°)	TVD (ush)	N/S (ush)	EW (ush)	DLeg (°/100ush)	Build (°/100ush)	Turn (°/100ush)	High to Plan (ush)	Right to Plan (ush)
17,057.0	94.90	1.80	12,354.5	4,467.1	-1,049.7	1.05	0.96	0.43	15.9	-2.8
17,151.0	92.40	0.60	12,348.5	4,560.9	-1,047.9	2.86	-2.66	-1.06	12.1	-5.4
17,248.0	90.40	0.40	12,348.2	4,655.9	-1,047.0	2.12	-2.11	-0.21	12.1	-7.0
17,341.0	89.50	0.40	12,346.3	4,750.9	-1,046.4	0.95	-0.95	0.00	14.4	-8.5
17,435.0	89.20	1.60	12,347.4	4,844.9	-1,044.7	1.32	-0.32	1.28	17.7	-10.9
17,529.0	89.80	2.70	12,348.2	4,938.8	-1,041.2	1.33	0.84	1.17	20.8	-15.2
17,623.0	90.20	359.00	12,348.2	5,032.8	-1,039.8	3.96	0.43	-3.94	23.0	-17.4
17,718.0	92.80	359.50	12,345.7	5,127.7	-1,041.1	2.79	2.74	0.53	22.8	-16.9
17,812.0	93.90	359.50	12,340.2	5,221.6	-1,041.9	1.17	1.17	0.00	19.6	-16.9
17,906.0	90.90	358.60	12,338.3	5,315.4	-1,043.4	3.33	-3.19	-0.96	17.9	-16.1
18,000.0	91.40	358.70	12,334.4	5,409.4	-1,045.6	0.54	0.53	0.11	18.2	-14.7
18,094.0	91.20	358.20	12,332.2	5,503.4	-1,047.4	0.57	-0.21	0.53	18.3	-13.8
18,189.0	92.30	356.80	12,329.3	5,598.3	-1,050.7	2.78	1.16	-2.53	17.7	-11.3
18,283.0	90.90	357.00	12,326.7	5,692.1	-1,055.8	1.50	-1.49	0.21	17.3	-7.0
18,377.0	91.90	356.90	12,324.4	5,785.9	-1,060.8	1.07	1.06	-0.11	17.3	-2.8
18,472.0	91.00	359.00	12,322.0	5,880.8	-1,064.2	2.40	-0.95	2.21	17.1	-0.2
18,566.0	90.20	357.60	12,321.0	5,974.8	-1,066.9	1.72	-0.85	-1.49	18.4	1.8
18,660.0	92.30	358.70	12,319.0	6,068.7	-1,070.0	2.52	2.23	1.17	18.6	4.1
18,755.0	92.40	359.10	12,315.1	6,163.6	-1,071.8	0.43	0.11	0.42	16.9	5.1
18,849.0	93.60	358.00	12,310.2	6,257.4	-1,074.2	1.73	1.28	-1.17	14.3	6.7
18,943.0	94.50	358.30	12,303.5	6,351.1	-1,077.2	1.01	0.96	0.32	9.9	9.0
19,038.0	93.30	359.10	12,297.1	6,445.9	-1,079.4	1.52	-1.26	0.84	5.7	10.3
19,132.0	91.60	0.40	12,293.0	6,539.8	-1,079.6	2.28	-1.81	1.38	3.9	9.9
19,226.0	90.80	1.00	12,291.1	6,633.6	-1,078.6	1.06	-0.85	0.64	4.2	8.0
19,321.0	93.20	0.10	12,287.8	6,728.7	-1,077.7	2.70	2.53	-0.95	4.6	6.3
19,415.0	93.40	0.60	12,282.4	6,822.5	-1,077.1	0.57	0.21	0.53	3.5	4.9
19,510.0	93.90	2.40	12,276.3	6,917.3	-1,074.6	1.96	0.53	1.89	1.8	1.7



Midland PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Dillon 31 Fed Com
Well: #701H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #701H
TVD Reference: KB = 25' @ 3461.0usft
MD Reference: KB = 25' @ 3461.0usft
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)	DLog ("/100usft)	Build ("/100usft)	Turn ("/100usft)	High to Plan (usft)	Right to Plan (usft)
19,586.0	93.20	1.30	12,271.6	6,993.1	-1,072.2	1.71	-0.92	-1.45	0.6	-1.4
19,660.0	91.20	1.30	12,268.0	7,087.0	-1,070.1	2.13	-2.13	0.00	1.3	-4.3
19,774.0	90.20	1.30	12,266.8	7,181.0	-1,067.9	1.06	-1.06	0.00	4.5	-7.3
19,869.0	90.70	1.30	12,266.1	7,276.0	-1,065.8	0.53	0.53	0.00	8.1	-10.2
19,963.0	90.00	1.10	12,265.5	7,369.9	-1,063.8	0.77	-0.74	-0.21	11.8	-13.0
20,020.0	90.20	1.60	12,265.4	7,426.9	-1,062.5	0.94	0.35	0.88	14.4	-14.8
20,073.0	90.60	2.10	12,265.1	7,479.9	-1,060.8	1.21	0.75	0.94	16.4	-16.9

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
12,017.0	11,909.1	-271.7	-994.7	KOP, MD:12017.0', TVD:11909.1', N/S:-271.7', E/W:-994.7', INC:2.42
12,284.1	12,157.4	-191.6	-1,002.6	FTP Crossing, MD:12284.1', TVD:12157.4', N/S:-191.6', E/W:-1002.6', INC:37.7'
20,020.0	12,265.4	7,426.9	-1,062.5	Last MWD Survey (MD=20020.0')
20,073.0	12,265.1	7,479.9	-1,060.8	Projection to Bit (MD=20073.0')

Checked By: _____

Approved By: _____

Date: _____



Lea County, NM (NAD 83 NME)

Dillon 31 Fed Com #701H

Plan #3

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: #701H

KB = 25' @ 3481.0usft
Northing 425888.00 Easting 707851.00
Latitude 32° 10' 3.252 N Longitude 103° 30' 15.824 W

To convert a Magnetic Direction to a Grid Direction, Add 8.32°
To convert a Magnetic Direction to a True Direction, Add 8.78° East
To convert a True Direction to a Grid Direction, Subtract 0.44°

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Diag	TFace	Vsect	Target
1	1293.0	10.20	141.70	1290.2	-37.3	20.7	0.00	0.00	-39.9	
2	1404.6	10.20	141.70	1400.0	-52.8	33.0	0.00	0.00	-57.0	
3	2265.9	10.00	259.00	2254.4	-127.5	6.8	2.00	148.80	-127.1	
4	5155.4	10.00	259.00	5100.0	-223.2	-45.5	0.00	0.00	-152.0	
5	5310.0	12.51	268.30	5291.5	-228.3	-51.5	2.00	40.49	-150.8	
6	7291.8	12.51	268.30	7188.3	-239.0	-44.0	0.00	0.00	-102.4	
7	7917.4	0.00	0.00	7807.0	-241.0	-1013.0	2.00	180.00	-94.7	Brushy Top (Dillon 31 Fed Com #701H)
8	12055.4	0.00	0.00	11945.0	-241.0	-1013.0	0.00	0.00	-94.7	
9	12812.3	90.83	359.52	12422.4	243.4	-1017.1	12.00	359.52	358.3	
10	13185.4	90.83	359.52	12417.0	618.4	-1020.2	0.00	0.00	755.0	
11	13197.7	90.59	359.52	12416.8	628.7	-1020.3	2.00	180.00	767.2	TGT#1(Dillon 31 Fed Com #701H)
12	14181.2	90.59	359.52	12407.0	1592.1	-1028.4	0.00	0.00	1722.0	
13	14188.1	91.08	359.52	12406.8	1817.0	-1028.5	2.00	0.00	1746.7	TGT#2(Dillon 31 Fed Com #701H)
14	15223.9	91.08	359.52	12387.0	2654.8	-1037.3	0.00	0.00	2775.0	TGT#3(Dillon 31 Fed Com #701H)
15	18248.2	91.57	359.52	12386.4	2878.9	-1037.5	2.00	0.00	2798.1	
16	18687.6	91.57	359.52	12347.0	4117.7	-1049.5	0.00	0.00	4226.0	TGT#4(Dillon 31 Fed Com #701H)
17	18697.7	91.37	359.52	12348.7	4127.8	-1049.5	2.00	180.00	4235.0	
18	19200.9	91.37	359.52	12287.0	5830.2	-1070.8	0.00	0.00	8718.0	TGT#5(Dillon 31 Fed Com #701H)
19	19294.2	92.63	359.52	12284.8	5830.5	-1071.1	2.00	0.00	8777.7	
20	20086.6	92.63	359.52	12247.0	7515.0	-1078.0	0.00	0.00	7591.8	PBHL (Dillon 31 Fed Com #701H)

WELLSBORE TAPING DATA (MAP COORDINATES)

Run	TVD	+N-S	+E-W	Northing	Easting
AC TOT(Dillon 31 Fed Com #701H)	5292.8	-227.5	-571.8	425888.23	707879.32
Brushy Top (Dillon 31 Fed Com #701H)	7807.0	-241.0	-1013.0	425888.00	707851.00
PBHL (Dillon 31 Fed Com #701H)	12347.0	618.4	-1020.2	432914.80	707775.00
TGT#1(Dillon 31 Fed Com #701H)	12416.8	628.7	-1020.3	432914.80	707775.00
TGT#2(Dillon 31 Fed Com #701H)	12407.0	1592.1	-1028.4	432914.80	707775.00
TGT#3(Dillon 31 Fed Com #701H)	12387.0	2654.8	-1037.3	432914.80	707775.00
TGT#4(Dillon 31 Fed Com #701H)	12347.0	4117.7	-1049.5	432914.80	707775.00
TGT#5(Dillon 31 Fed Com #701H)	12287.0	5830.2	-1070.8	432914.80	707775.00
PBHL (Dillon 31 Fed Com #701H)	12247.0	7515.0	-1078.0	432914.80	707775.00

