



EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Colgrove 35 Fed Com

#701H

OH

Design: OH

Midland PVA

17 April, 2019



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #701H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3344.0usft
Site:	Colgrove 35 Fed Com	MD Reference:	KB = 25 @ 3344.0usft
Well:	#701H	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	Colgrove 35 Fed Com		
Site Position:		Northing:	364,902.00 usft
From:	Map	Easting:	785,291.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 0' 2.718 N
		Longitude:	103° 32' 46.899 W
		Grid Convergence:	0.42 °

Well	#701H		
Well Position	+N-S	0.0 usft	Northing:
	+E-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft		Wellhead Elevation:
			usft
			Latitude:
			Longitude:
			Ground Level:
			3,319.0 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
			Dip Angle
			(°)
			Field Strength
			(nT)
	IGRF2015	1/30/2019	6.75
			59.84
			47,642.40430410

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
			(°)
			359.74

Survey Program	Date 4/17/2019		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		Description
189.0	19,940.0	Drilltech MWD (OH)	MWD
			OWSG MWD - Standard



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Well:	#701H	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)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
189.0	1.32	111.46	189.0	-0.8	2.0	0.70	0.70	0.00	0.0	0.0	0.0
311.0	1.76	114.88	310.9	-2.1	5.0	0.37	0.36	2.80	0.0	0.0	0.0
483.0	2.46	99.06	482.8	-3.8	11.1	0.53	0.41	-9.20	0.0	0.0	0.0
572.0	2.81	101.79	571.7	-4.5	15.1	0.42	0.39	3.07	0.0	0.0	0.0
672.0	3.43	92.38	671.6	-5.2	20.5	0.80	0.82	-9.41	0.0	0.0	0.0
767.0	3.87	83.77	766.4	-4.9	26.5	0.74	0.46	-9.06	0.0	0.0	0.0
861.0	3.87	81.13	860.2	-4.1	32.8	0.19	0.00	-2.81	0.0	0.0	0.0
949.0	4.04	86.14	948.0	-3.4	38.8	0.44	0.19	5.89	-0.1	-0.3	-0.3
1,053.0	3.87	94.22	1,051.7	-3.4	46.0	0.56	-0.16	7.77	-0.5	-1.3	-1.3
1,148.0	1.93	109.43	1,146.6	-4.2	50.7	2.18	-2.04	16.01	-0.4	-3.0	-3.0
1,242.0	1.32	169.63	1,240.6	-5.8	52.4	1.82	-0.65	64.04	-4.6	-3.9	-3.9
1,337.0	1.67	199.87	1,335.5	-8.2	52.1	0.89	0.37	31.83	-9.5	-2.8	-2.8
1,431.0	1.58	196.70	1,429.5	-10.7	51.3	0.14	-0.10	-3.37	-12.5	-4.4	-4.4
1,526.0	1.58	200.57	1,524.5	-13.2	50.4	0.11	0.00	4.07	-15.4	-3.4	-3.4
1,621.0	1.49	211.03	1,619.4	-15.5	49.3	0.31	-0.09	11.01	-18.3	-0.3	-0.3
1,716.0	1.49	213.75	1,714.4	-17.6	48.0	0.07	0.00	2.86	-20.7	0.6	0.6
1,811.0	1.67	217.62	1,809.4	-19.7	46.5	0.22	0.19	4.07	-23.3	2.1	2.1
1,906.0	1.41	221.40	1,904.3	-21.7	44.9	0.29	-0.27	3.98	-25.6	3.7	3.7
2,000.0	1.41	221.49	1,998.3	-23.4	43.3	0.00	0.00	0.10	-27.9	3.7	3.7
2,095.0	1.41	225.53	2,093.3	-25.1	41.7	0.10	0.00	4.25	-29.8	5.8	5.8
2,190.0	1.67	175.26	2,188.2	-27.3	41.0	1.40	0.27	-52.92	-25.7	-20.2	-20.2
2,284.0	2.02	154.25	2,282.2	-30.1	41.8	0.80	0.37	-22.35	-19.7	-26.6	-26.6
2,379.0	2.20	146.78	2,377.1	-33.2	43.6	0.35	0.19	-7.86	-19.3	-31.1	-31.1
2,474.0	2.28	133.60	2,472.0	-36.0	45.9	0.55	0.09	-13.87	-15.3	-35.1	-35.1
2,569.0	2.02	158.03	2,567.0	-38.9	47.9	1.00	-0.28	25.72	-31.9	-24.9	-24.9
2,664.0	2.02	168.49	2,661.9	-42.1	48.9	0.39	0.00	11.01	-39.2	-18.3	-18.3



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 Database: EDM 5000.14

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLag (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
2,758.0	1.85	152.23	2,755.9	-45.0	49.9	0.81	-0.18	-17.30	-35.6	-29.1	
2,853.0	2.11	123.40	2,850.8	-47.4	52.1	1.07	0.27	-30.35	-20.3	-43.4	
2,947.0	1.93	160.05	2,944.8	-49.8	54.1	1.38	-0.19	38.99	-45.1	-21.7	
3,042.0	1.85	134.74	3,039.7	-52.4	55.7	0.88	-0.08	-26.84	-34.5	-39.5	
3,137.0	2.55	137.29	3,134.6	-55.0	58.2	0.74	0.74	2.68	-39.9	-37.9	
3,232.0	2.99	122.70	3,229.5	-57.9	61.8	0.87	0.46	-15.36	-33.5	-47.3	
3,326.0	2.64	127.18	3,323.4	-60.5	65.6	0.44	-0.37	4.77	-41.7	-44.3	
3,421.0	2.11	151.88	3,418.3	-63.4	68.1	1.20	-0.56	28.00	-60.2	-21.9	
3,516.0	1.76	158.03	3,513.3	-66.3	69.5	0.43	-0.37	6.47	-65.4	-15.1	
3,610.0	1.06	73.57	3,607.3	-67.4	70.9	2.09	-0.74	-89.85	7.7	-68.0	
3,705.0	3.61	28.74	3,702.2	-64.5	73.1	3.11	2.68	-47.19	49.7	-43.4	
3,800.0	5.72	28.39	3,796.9	-57.7	76.8	2.22	2.22	-0.37	42.2	-43.2	
3,894.0	5.54	37.53	3,890.4	-50.0	81.8	0.97	-0.19	9.72	25.7	-48.6	
3,989.0	5.72	34.46	3,985.0	-42.5	87.3	0.37	0.19	-3.23	18.9	-47.4	
4,083.0	5.19	31.64	4,078.5	-35.0	92.2	0.63	-0.56	-3.00	12.3	-46.6	
4,178.0	1.32	19.34	4,173.4	-30.3	94.8	4.12	-4.07	-12.95	18.7	-43.8	
4,273.0	1.41	260.16	4,268.3	-29.5	94.0	2.48	0.09	-125.45	29.4	35.0	
4,367.0	0.53	282.22	4,362.3	-29.6	92.4	1.00	-0.94	23.47	38.9	21.8	
4,462.0	0.97	200.83	4,457.3	-30.2	91.7	1.09	0.46	-85.67	-16.6	41.3	
4,557.0	3.61	191.25	4,552.2	-33.9	90.9	2.80	2.78	-10.08	-27.0	37.8	
4,651.0	5.45	187.12	4,645.9	-41.2	89.7	1.99	1.98	-4.39	-37.0	35.6	
4,746.0	7.47	184.75	4,740.3	-51.8	88.7	2.14	2.13	-2.49	-49.1	34.0	
4,841.0	8.71	176.31	4,834.4	-65.2	88.6	1.80	1.31	-8.88	-66.9	25.6	
4,935.0	9.32	185.10	4,927.2	-78.9	88.4	1.60	0.65	9.35	-76.4	36.7	
5,030.0	8.79	189.78	5,021.0	-94.7	86.5	0.95	-0.56	4.91	-85.0	43.0	
5,125.0	8.00	190.02	5,115.0	-108.4	84.1	0.83	-0.83	0.27	-92.4	42.7	
5,219.0	8.79	185.29	5,208.0	-121.7	81.1	1.17	0.84	5.61	-92.4	49.9	



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Survey											
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5,314.0	9.41	195.91	5,301.8	-136.2	77.0	0.68	0.65	0.65	-94.3	48.5	
5,408.0	9.67	195.29	5,394.5	-151.2	72.8	0.30	0.28	-0.66	-95.8	44.9	
5,503.0	9.85	195.91	5,488.2	-166.7	68.5	0.22	0.19	0.65	-96.7	43.3	
5,597.0	10.02	195.29	5,580.7	-182.3	64.1	0.21	0.18	-0.66	-98.7	39.6	
5,692.0	9.76	194.50	5,674.3	-198.1	59.9	0.31	-0.27	-0.83	-100.8	35.8	
5,787.0	9.67	193.71	5,768.0	-213.7	56.0	0.17	-0.09	-0.83	-102.4	32.1	
5,882.0	9.85	193.54	5,861.8	-229.3	52.2	0.19	0.19	-0.18	-103.8	29.7	
5,978.0	9.94	192.92	5,954.2	-245.0	48.5	0.15	0.10	-0.66	-105.5	26.5	
6,071.0	9.94	190.81	6,047.8	-261.1	45.2	0.38	0.00	-2.22	-107.9	21.0	
6,166.0	9.23	189.23	6,141.4	-276.7	42.4	0.80	-0.75	-1.66	-109.3	16.8	
6,260.0	7.56	186.61	6,234.4	-290.0	39.4	2.11	-1.78	7.85	-105.3	28.6	
6,355.0	6.60	190.37	6,328.7	-301.4	36.7	1.29	-1.01	-6.57	-104.5	15.2	
6,449.0	5.01	196.35	6,422.2	-310.6	34.5	1.81	-1.69	6.36	-97.2	23.7	
6,544.0	2.90	211.47	6,517.0	-316.7	32.1	2.46	-2.22	15.92	-80.5	42.6	
6,639.0	2.81	207.07	6,611.9	-320.8	29.8	0.25	-0.09	-4.63	-74.3	30.6	
6,734.0	1.76	228.08	6,706.8	-323.8	27.7	1.40	-1.11	22.12	-50.9	45.8	
6,829.0	1.06	253.65	6,801.8	-325.1	25.7	0.97	-0.74	26.92	-22.7	50.0	
6,923.0	1.32	244.51	6,895.8	-325.6	23.9	0.34	0.28	-9.72	-24.7	32.9	
7,018.0	1.58	248.03	6,990.7	-326.7	21.7	0.29	0.27	3.71	-18.1	21.0	
7,113.0	1.41	251.46	7,085.7	-327.6	19.4	0.20	-0.18	3.61	-13.1	8.4	
7,207.0	2.02	231.07	7,179.7	-329.0	17.0	0.91	0.65	-21.69	-7.5	-7.6	
7,302.0	1.87	234.32	7,274.6	-330.9	14.6	0.38	-0.37	3.42	-1.2	-18.3	
7,396.0	1.85	232.65	7,368.6	-332.6	12.3	0.20	0.19	-1.78	5.3	-27.9	
7,491.0	1.67	235.02	7,463.5	-334.3	9.9	0.20	-0.19	2.49	7.7	-35.7	
7,586.0	1.41	229.92	7,558.5	-335.9	7.9	0.31	-0.27	-5.37	13.2	-39.7	
7,680.0	0.88	340.14	7,652.5	-335.9	6.8	2.02	-0.56	117.26	-45.4	0.9	
7,775.0	1.06	275.89	7,747.5	-335.1	5.6	1.10	0.19	-67.63	-21.8	-41.8	



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7,870.0	1.32	320.71	7,842.4	-334.2	4.1	0.99	0.27	47.18	-46.7	-13.7		
7,965.0	1.14	302.96	7,937.4	-332.8	2.6	0.44	-0.19	-18.88	-42.2	-27.6		
8,060.0	1.58	288.28	8,032.4	-332.0	0.5	0.62	0.46	-17.58	-34.7	-38.9		
8,154.0	2.29	308.41	8,128.3	-330.4	-2.2	1.08	0.76	23.56	-49.9	-22.4		
8,249.0	1.32	188.09	8,221.3	-330.3	-3.8	3.33	-1.02	-126.85	44.4	-33.4		
8,344.0	1.85	171.83	8,316.3	-332.9	-3.8	0.73	0.56	-17.12	49.4	-20.0		
8,439.0	2.02	165.06	8,411.2	-336.1	-3.1	0.30	0.18	-7.13	48.2	-14.2		
8,534.0	2.11	185.94	8,506.2	-339.4	-2.3	0.10	0.09	0.93	44.8	-14.9		
8,628.0	2.37	184.09	8,600.1	-342.9	-1.3	0.29	0.28	-1.87	41.3	-13.5		
8,723.0	2.29	161.72	8,695.0	-346.6	-0.2	0.13	-0.08	-2.49	38.0	-11.9		
8,818.0	2.55	160.14	8,789.9	-350.4	1.1	0.28	0.27	-1.68	34.3	-10.9		
8,912.0	2.55	162.07	8,883.8	-354.4	2.5	0.09	0.00	2.05	29.7	-11.9		
9,007.0	2.46	165.41	8,978.7	-358.4	3.7	0.18	-0.09	3.52	24.8	-13.5		
9,102.0	2.46	172.53	9,073.7	-362.4	4.4	0.32	0.00	7.49	18.9	-16.2		
9,196.0	2.37	177.98	9,167.6	-366.3	4.8	0.28	-0.10	5.80	13.3	-17.8		
9,291.0	2.29	185.71	9,262.5	-370.1	4.8	0.34	-0.08	8.14	7.0	-19.1		
9,386.0	2.20	188.09	9,357.4	-373.8	4.2	0.14	-0.09	2.51	2.5	-19.3		
9,481.0	1.76	178.24	9,452.4	-377.1	4.0	0.58	-0.46	-10.37	2.5	-18.9		
9,575.0	1.49	184.75	9,546.3	-379.8	3.9	0.35	-0.29	6.93	-2.3	-18.9		
9,670.0	2.02	167.43	9,641.3	-382.6	4.2	0.78	0.56	-18.23	0.5	-19.1		
9,765.0	1.58	185.98	9,736.2	-385.6	4.4	0.76	-0.46	19.53	-8.5	-17.8		
9,860.0	0.35	289.69	9,831.2	-388.6	4.0	1.79	-1.29	109.17	-15.3	13.7		
9,955.0	0.62	87.89	9,926.2	-388.7	4.3	1.00	0.28	168.53	19.0	-7.0		
10,050.0	0.70	75.94	10,021.2	-388.5	5.3	0.17	0.08	-12.58	19.0	-3.0		
10,145.0	0.44	156.80	10,116.2	-388.7	6.0	0.81	-0.27	85.12	-0.4	-18.6		
10,239.0	0.79	220.96	10,210.2	-387.5	5.8	0.78	0.37	68.26	-17.7	-7.4		
10,334.0	1.32	242.23	10,305.2	-388.5	4.4	0.68	0.56	22.39	-20.9	-0.3		



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10,428.0	2.48	248.47	10,398.1	-389.8	1.5	1.23	1.21	6.84	-23.9		2.1
10,523.0	0.97	184.71	10,494.1	-391.3	-0.2	2.68	-1.57	-88.17	-5.7		-25.6
10,618.0	1.93	181.46	10,589.1	-393.6	0.6	1.01	1.01	-3.42	-6.7		-25.9
10,713.0	1.32	48.34	10,684.0	-394.4	1.9	2.88	-0.64	-119.07	26.0		2.6
10,807.0	4.40	10.64	10,777.9	-390.1	3.4	3.67	3.28	-40.11	14.5		17.3
10,902.0	3.87	5.71	10,872.7	-383.3	4.4	0.87	-0.56	-5.19	6.2		18.1
10,997.0	3.08	4.66	10,967.5	-377.6	4.9	0.83	-0.83	-1.11	0.1		18.2
11,092.0	2.73	2.29	11,062.4	-372.8	5.2	0.39	-0.37	-2.49	-5.5		18.1
11,187.0	0.88	358.24	11,157.3	-369.8	5.2	1.95	-1.85	-4.26	-9.7		17.5
11,281.0	0.53	187.56	11,251.3	-369.5	5.2	1.50	-0.37	-181.57	7.1		-18.9
11,375.0	1.41	182.78	11,345.3	-371.0	5.5	1.02	0.94	-26.36	12.8		-14.4
11,470.0	1.93	169.89	11,440.3	-373.7	6.1	0.59	0.55	7.48	8.1		-15.7
11,565.0	1.32	176.84	11,535.2	-376.4	6.4	0.67	-0.64	7.32	3.5		-16.4
11,659.0	1.32	208.57	11,629.2	-378.4	6.0	0.77	0.00	33.76	-7.7		-15.2
11,754.0	1.32	221.31	11,724.2	-380.2	4.7	0.31	0.00	13.41	-13.0		-12.9
11,848.0	0.79	25.05	11,856.2	-380.5	4.1	1.58	-0.40	124.05	9.4		16.5
11,942.0	1.06	62.93	11,952.2	-379.5	5.2	0.68	0.28	39.46	16.1		7.6
12,036.0	3.52	18.79	12,046.1	-378.4	6.8	3.07	2.82	-48.09	8.2		14.4
12,130.0	13.98	13.71	12,139.8	-382.4	10.3	11.02	11.01	-3.24	16.6		8.9
12,224.0	18.61	14.77	12,184.8	-349.2	13.7	12.00	11.98	2.26	21.3		4.1
12,318.0	24.45	14.06	12,228.4	-332.2	18.1	10.31	10.30	-1.51	25.9		-1.0
12,412.0	41.06	10.11	12,308.0	-282.0	28.4	17.82	17.48	-4.16	31.4		-10.5
12,506.0	49.59	5.63	12,341.7	-248.3	33.0	18.96	17.77	-9.33	31.2		-13.2
12,600.0	57.68	3.87	12,369.6	-210.6	36.1	17.47	17.21	-3.74	28.2		-15.6
12,694.0	64.63	2.64	12,388.9	-175.6	38.1	17.58	17.37	-3.07	23.9		-17.3
12,788.0	72.19	358.42	12,408.1	-124.5	38.5	15.48	13.75	-7.67	18.4		-17.3
12,882.0	73.42	357.63	12,423.3	-78.7	36.9	3.01	2.58	-1.65	10.8		-16.0



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Colgrove 35 Fed Corn
 Well: #701H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #701H
 TVD Reference: KB = 25 @ 3344.0usft
 MD Reference: KB = 25 @ 3344.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

Survey												
MD (usft)	Inc (°)	Asd (azimuth) (°)	TVD (usft)	NIS (usft)	EW (usft)	DLag (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)		
12,645.0	78.26	357.28	12,434.8	-33.2	34.9	10.32	10.30	-0.74	7.2	-14.4		
12,693.0	84.06	356.75	12,442.2	14.2	32.4	12.13	12.08	-1.10	3.7	-12.3		
12,740.0	85.74	355.96	12,446.3	60.9	29.4	3.95	3.57	-1.68	1.9	-9.6		
12,786.0	89.43	356.93	12,448.4	108.7	26.5	7.95	7.69	2.02	2.4	-7.0		
12,834.0	92.07	358.51	12,447.8	154.7	24.8	6.89	5.74	3.43	1.8	-5.5		
12,928.0	90.84	359.65	12,445.4	248.6	23.1	1.78	-1.31	1.21	-0.6	-4.7		
13,023.0	90.04	359.21	12,444.6	343.6	22.2	0.96	-0.84	-0.46	-1.3	-4.5		
13,118.0	89.78	358.51	12,444.8	438.6	20.3	0.79	-0.27	-0.74	-1.2	-3.3		
13,212.0	89.34	357.28	12,445.5	532.6	16.8	1.39	-0.47	-1.31	-0.5	-0.5		
13,306.0	90.22	357.80	12,445.9	626.5	12.8	1.09	0.94	0.55	-0.1	2.8		
13,401.0	91.71	358.51	12,444.3	721.4	9.7	1.74	1.57	0.75	-1.7	5.2		
13,496.0	91.10	1.50	12,441.9	816.4	9.7	3.21	-0.64	3.15	-4.0	4.5		
13,591.0	92.07	1.78	12,439.3	911.3	12.4	1.06	1.02	0.27	-8.7	1.1		
13,686.0	90.48	1.41	12,437.2	1,006.2	15.1	1.71	-1.67	-0.37	-8.8	-2.2		
13,780.0	89.78	0.62	12,437.0	1,100.2	16.7	1.12	-0.74	-0.84	-9.0	-4.6		
13,875.0	88.37	1.14	12,438.5	1,195.2	18.2	1.58	-1.48	0.55	-7.5	-6.7		
13,970.0	88.55	1.58	12,441.1	1,290.1	20.5	0.50	0.19	0.46	-4.9	-9.7		
14,064.0	88.81	1.50	12,443.2	1,384.1	23.0	0.29	0.28	-0.09	-2.8	-12.9		
14,158.0	90.31	2.55	12,444.0	1,478.0	26.3	1.95	1.60	1.12	-2.0	-16.9		
14,253.0	89.87	0.62	12,443.8	1,572.9	28.9	2.08	-0.46	-2.03	-2.2	-20.2		
14,347.0	89.78	0.09	12,444.1	1,668.9	29.5	0.57	-0.10	-0.56	-1.9	-21.5		
14,442.0	91.19	1.06	12,443.3	1,761.9	30.5	1.80	1.48	1.02	-2.7	-23.2		
14,537.0	89.78	1.41	12,442.5	1,856.9	32.5	1.53	-1.48	0.37	-3.5	-25.9		
14,632.0	89.78	0.27	12,442.8	1,951.9	33.9	1.20	0.00	-1.20	-3.2	-28.0		
14,727.0	87.41	357.01	12,445.2	2,046.8	31.6	4.24	-2.49	-3.43	-0.8	-26.4		
14,822.0	89.52	356.66	12,447.7	2,141.6	26.4	2.25	2.22	-0.37	1.6	-21.9		
14,917.0	91.89	357.72	12,446.6	2,236.5	21.7	2.73	2.49	1.12	0.3	-17.9		



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Colgrove 35 Fed Com
 Well: #701H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #701H
 TVD Reference: KB = 25 @ 3344.0usft
 MD Reference: KB = 25 @ 3344.0usft
 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)	DLag (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
15,012.0	89.60	357.37	12,445.3	2,331.4	17.7	2.44	-2.41	-0.37	-1.0	-14.6	
15,106.0	89.16	356.66	12,446.3	2,425.3	12.8	0.89	-0.47	-0.76	-0.1	-10.3	
15,201.0	91.01	358.77	12,446.2	2,520.2	9.0	2.95	1.95	2.22	-0.3	-7.3	
15,286.0	90.13	358.60	12,445.3	2,615.2	6.8	0.94	-0.93	-0.18	-1.4	-5.8	
15,390.0	91.10	358.42	12,444.2	2,709.1	4.4	1.05	1.03	-0.19	-2.5	-4.0	
15,485.0	92.07	358.95	12,441.6	2,804.1	2.2	1.16	1.02	0.56	-5.2	-2.5	
15,580.0	88.81	358.77	12,440.9	2,899.0	0.3	3.44	-3.43	-0.19	-6.0	-1.3	
15,674.0	89.08	359.04	12,442.6	2,993.0	-1.5	0.41	0.29	0.29	-4.4	-0.2	
15,769.0	89.96	358.68	12,443.4	3,088.0	-3.4	1.00	0.93	-0.38	-3.7	1.0	
15,864.0	91.89	359.21	12,441.9	3,182.9	-5.1	2.11	2.03	0.56	-5.3	2.0	
15,958.0	90.84	0.53	12,439.6	3,276.9	-5.3	1.79	-1.12	1.40	-7.6	1.5	
16,053.0	88.55	0.27	12,440.1	3,371.9	-4.7	2.43	-2.41	-0.27	-7.2	0.2	
16,148.0	90.75	1.85	12,440.7	3,466.9	-2.9	2.85	2.32	1.66	-6.7	-2.3	
16,242.0	87.49	2.99	12,442.2	3,560.8	1.0	3.67	-3.47	1.21	-5.4	-6.9	
16,337.0	87.41	1.76	12,446.4	3,655.6	5.0	1.30	-0.08	-1.29	-1.3	-11.6	
16,431.0	89.96	359.83	12,448.6	3,749.5	6.3	3.40	2.71	-2.05	0.8	-13.5	
16,525.0	90.04	358.95	12,448.6	3,843.5	5.3	0.94	0.09	-0.94	0.7	-13.2	
16,620.0	91.01	359.21	12,447.7	3,938.5	3.8	1.06	1.02	0.27	-0.3	-12.4	
16,715.0	89.69	359.56	12,447.1	4,033.5	2.7	1.44	-1.39	0.37	-0.9	-12.1	
16,810.0	91.63	359.21	12,446.0	4,128.5	1.7	2.08	2.04	-0.37	-2.0	-11.8	
16,905.0	91.45	359.47	12,443.5	4,223.4	0.6	0.33	-0.19	0.27	-4.5	-11.4	
16,999.0	89.60	359.30	12,442.6	4,317.4	-0.4	1.98	-1.97	-0.18	-5.4	-11.0	
17,094.0	89.78	359.83	12,443.1	4,412.4	-1.1	0.59	0.19	0.56	-4.9	-11.0	
17,189.0	90.13	359.39	12,443.2	4,507.4	-1.8	0.59	0.37	-0.46	-4.8	-11.1	
17,283.0	89.60	359.12	12,443.4	4,601.4	-3.0	0.63	-0.56	-0.29	-4.8	-10.5	
17,378.0	91.54	359.91	12,442.5	4,696.4	-3.8	2.20	2.04	0.83	-5.5	-10.4	
17,472.0	90.82	0.53	12,440.4	4,790.4	-3.4	0.93	-0.66	0.66	-7.6	-11.5	



Midland PVA

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 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

Survey											
MD (usft)	Inc (°)	Asd (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
17,567.0	89.08	0.00	12,440.4	4,885.4	-3.0	2.02	-1.94	-0.56	-7.6	-12.6	
17,661.0	88.81	359.56	12,442.2	4,979.3	-3.3	0.55	-0.29	-0.47	-5.8	-12.9	
17,756.0	89.52	359.83	12,443.6	5,074.3	-3.6	0.80	0.75	0.28	-4.4	-13.1	
17,850.0	90.13	359.74	12,443.8	5,168.3	-4.2	0.66	0.65	-0.10	-4.2	-13.5	
17,945.0	90.48	359.83	12,443.3	5,263.3	-4.6	0.38	0.37	0.09	-4.7	-13.8	
18,039.0	91.10	0.70	12,442.0	5,357.3	-4.1	1.14	0.68	0.93	-6.0	-14.9	
18,134.0	89.60	0.44	12,441.5	5,452.3	-3.2	1.60	-1.58	-0.27	-6.5	-16.6	
18,229.0	90.04	0.53	12,441.8	5,547.3	-2.4	0.47	0.46	0.09	-6.2	-18.1	
18,324.0	90.57	359.74	12,441.3	5,642.3	-2.1	1.00	0.56	-0.83	-6.7	-19.0	
18,418.0	89.08	359.91	12,441.5	5,736.3	-2.4	1.60	-1.59	0.18	-6.5	-19.4	
18,513.0	89.60	359.39	12,442.6	5,831.3	-3.0	0.77	0.55	-0.55	-5.4	-19.5	
18,608.0	90.40	359.56	12,442.6	5,926.3	-3.9	0.86	0.84	0.18	-5.4	-19.3	
18,703.0	89.52	359.83	12,442.7	6,021.3	-4.4	0.97	-0.93	0.28	-5.3	-19.5	
18,797.0	89.96	359.91	12,443.1	6,115.3	-4.6	0.48	0.47	0.09	-4.9	-20.0	
18,892.0	90.66	359.65	12,442.6	6,210.3	-5.0	0.79	0.74	-0.27	-5.4	-20.3	
18,987.0	89.96	358.77	12,442.1	6,305.3	-6.3	1.18	-0.74	-0.93	-5.9	-19.7	
19,081.0	90.31	358.86	12,441.9	6,399.2	-6.2	0.38	0.37	0.10	-6.1	-18.5	
19,176.0	89.60	358.95	12,442.0	6,494.2	-10.0	0.75	-0.75	0.09	-6.0	-17.4	
19,271.0	89.52	359.04	12,442.7	6,589.2	-11.7	0.13	-0.08	0.09	-5.3	-16.4	
19,365.0	89.52	358.68	12,443.5	6,683.2	-13.6	0.38	0.00	-0.38	-4.5	-15.2	
19,460.0	89.69	359.12	12,444.1	6,778.2	-15.4	0.60	0.18	0.46	-3.9	-14.1	
19,555.0	89.96	359.47	12,444.4	6,873.2	-16.6	0.47	0.28	0.37	-3.6	-13.6	
19,650.0	90.57	0.00	12,444.0	6,968.2	-17.0	0.85	0.64	0.56	-4.0	-13.9	
19,745.0	91.28	359.91	12,442.4	7,063.1	-17.1	0.75	0.75	-0.09	-5.8	-14.5	
19,840.0	91.28	359.91	12,438.1	7,258.1	-17.4	0.00	0.00	0.00	-9.9	-15.6	



Midland PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Colgrove 35 Fed Com
Well: #701H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #701H
TVD Reference: KB = 25 @ 3344.0usft
MD Reference: KB = 25 @ 3344.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.14

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
12,040.0	12,010.1	-378.1	6.1	KOP, MD:12040.0', TVD:12010.1', N/S:-378.1', E/W:6.1', INC:2.47
12,272.7	12,235.4	-329.0	18.9	FTP Crossing, MD:12272.7', TVD:12235.4', N/S:-329.0', E/W:18.9', INC:25.79
19,745.0	12,442.4	7,063.1	-17.1	Last MWD Survey (MD=19745.0')
19,940.0	12,438.1	7,258.1	-17.4	Projection to Bit (MD=19940.0')

Checked By: _____

Approved By: _____

Date: _____



Lea County, NM (NAD 83 NME)

Colgrove 35 Fed Com #701H

Plan #2

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 @ 3344.0' surf 3318.0
Northing 365141.00 Easting 783984.00
Latitude 32° 0' 5.178" N Longitude 103° 33' 2.288" W

To convert a Magnetic Direction to a Grid Direction, Add 6.34°
To convert a Magnetic Direction to a True Direction, Add 6.79° East
To convert a True Direction to a Grid Direction, Subtract 6.41°

SECTION DETAILS

	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSeet	Target
1	881.0	3.87	81.13	880.2	-4.1	32.8	0.00	0.00	-4.2	
2	1061.0	3.87	81.13	1059.7	-2.0	46.1	0.00	0.00	-2.2	
3	1448.0	0.00	0.00	1448.4	0.0	59.0	1.00	-180.00	-0.3	
4	4881.6	0.00	0.00	4880.0	0.0	59.0	0.00	0.00	-0.3	
5	5336.3	9.09	185.43	5332.8	-35.9	55.6	2.00	185.43	-36.1	
6	7289.2	8.09	185.43	7281.2	-343.1	26.4	0.00	0.00	-343.3	
7	7743.9	0.00	0.00	7714.0	-379.0	23.0	2.00	180.00	-379.1	Brushy Top(Colgrove 35 FC #701H)
8	11998.4	0.00	0.00	11988.5	-379.0	23.0	0.00	0.00	-379.1	
9	12748.4	90.00	359.58	12446.0	98.4	19.5	12.00	359.58	98.4	
10	14650.0	90.00	359.58	12446.0	2000.0	5.6	0.00	0.00	2000.0	TGT#1(Colgrove 35 FC #701H)
11	14652.9	89.94	359.58	12446.0	2002.8	5.5	2.00	180.00	2002.8	
12	16650.1	89.94	359.58	12448.0	4000.0	-8.1	0.00	0.00	4000.0	TGT#2(Colgrove 35 FC #701H)
13	16653.0	90.00	359.58	12448.0	4002.9	-8.1	2.00	0.00	4002.9	
14	19909.2	90.00	359.58	12448.0	7259.0	-33.0	0.00	0.00	7259.1	PBHL(Colgrove 35 FC #701H)

CASING DETAILS

No casing data is available

WELLBORE TAPPIER DETAILS (MAP COORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
Brushy Top(Colgrove 35 FC #701H)	7714.0	-379.0	23.0	364782.00	783987.00
TGT#1(Colgrove 35 FC #701H)	12448.0	2000.0	5.6	367141.00	783983.00
TGT#2(Colgrove 35 FC #701H)	12448.0	4000.0	-8.1	367141.00	783984.00
PBHL(Colgrove 35 FC #701H)	12448.0	7259.0	-33.0	372400.00	783981.00
FTP(Colgrove 35 FC #701H)	12448.0	-329.0	23.0	364812.00	783987.00

