

HOBBS OCD
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EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Mamba 30 State Com

#742H

OH

Design: OH

Midland PVA

11 February, 2019



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #742H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3581.0usft
Site:	Mamba 30 State Com	MD Reference:	KB = 25 @ 3581.0usft
Well:	#742H	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	Mamba 30 State Com		
Site Position:		Northing:	430,807.00 usft
From:	Map	Easting:	767,053.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 10' 58.143 N
		Longitude:	103° 36' 13.509 W
		Grid Convergence:	0.39 °

Well	#742H		
Well Position	+N-S	0.0 usft	Northing:
	+E-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 11' 0.097 N
		Longitude:	103° 37' 4.746 W
		Ground Level:	3,558.0 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
	IGRF2015	9/19/2018	6.84
			Dip Angle
			80.00
			Field Strength
			47,778.90175999

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
Vertical Section:		Tie On Depth:	0.0
	Depth From (TVD)	+N-S	+E-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			0.71

Survey Program	Date 2/11/2019		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
142.0	17,827.0	Drilltech MWD (OH)	MWD
			Description
			CWSG MWD - Standard



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 TVD Reference: KB = 25 @ 3581.0usft
 MD Reference: KB = 25 @ 3581.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	NS (usft)	EW (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
142.0	0.18	140.88	142.0	-0.2	0.1	0.13	0.13	0.00	0.0	0.0
228.0	0.26	190.49	228.0	-0.5	0.2	0.23	0.09	57.94	0.0	0.0
317.0	0.35	223.54	317.0	-0.9	0.0	0.22	0.10	37.13	0.0	0.0
494.0	0.26	227.41	494.0	-1.5	-0.7	0.05	-0.05	2.19	0.0	0.0
587.0	0.35	237.34	587.0	-1.8	-1.1	0.11	0.10	10.68	0.0	0.0
682.0	0.53	255.44	682.0	-2.1	-1.8	0.24	0.19	19.05	0.0	0.0
777.0	0.62	258.59	777.0	-2.3	-2.7	0.10	0.09	1.21	0.0	0.0
966.0	0.79	254.74	966.0	-2.9	-4.8	0.09	0.09	-0.98	0.0	0.0
1,061.0	0.62	160.43	1,061.0	-3.6	-5.4	1.09	-0.18	-89.27	0.0	0.0
1,184.0	1.14	149.89	1,184.0	-5.2	-4.6	0.44	0.42	-8.57	0.0	0.0
1,331.0	0.88	136.44	1,330.9	-7.3	-3.1	0.24	-0.16	-9.15	0.0	0.0
1,427.0	0.53	142.86	1,426.9	-8.2	-2.3	0.37	-0.36	6.69	0.0	0.0
1,522.0	0.62	109.63	1,521.9	-8.7	-1.5	0.36	0.09	-34.98	0.0	0.0
1,616.0	0.88	129.06	1,615.9	-9.4	-0.5	0.38	0.28	20.67	0.0	0.0
1,711.0	0.97	128.27	1,710.9	-10.3	0.7	0.10	0.09	-0.83	0.0	0.0
1,807.0	0.97	123.52	1,806.9	-11.3	2.0	0.08	0.00	-4.95	0.0	0.0
1,901.0	1.14	138.02	1,900.9	-12.4	3.3	0.34	0.18	15.43	0.0	0.0
1,996.0	0.79	155.78	1,995.9	-13.7	4.2	0.48	-0.37	18.69	0.0	0.0
2,091.0	0.88	155.16	2,090.8	-15.0	4.8	0.10	0.09	-0.65	0.0	0.0
2,186.0	0.88	160.79	2,185.8	-16.3	5.3	0.09	0.00	5.93	0.0	0.0
2,281.0	0.62	158.24	2,280.8	-17.5	5.8	0.28	-0.27	-2.68	0.0	0.0
2,376.0	0.62	165.97	2,375.8	-18.5	6.1	0.09	0.00	8.14	0.0	0.0
2,471.0	0.62	158.06	2,470.8	-19.4	6.4	0.08	0.00	-8.33	0.0	0.0
2,566.0	0.97	155.95	2,565.8	-20.6	6.9	0.37	0.37	-2.22	0.0	0.0
2,660.0	0.88	154.37	2,659.8	-22.0	7.6	0.10	-0.10	-1.68	0.0	0.0
2,755.0	1.58	189.55	2,754.8	-23.9	7.4	1.21	0.74	47.56	0.0	0.0



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 Wellbore: OH
 Design: OH

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 TVD Reference: KB = 25 @ 3581.0usft
 MD Reference: KB = 25 @ 3581.0usft
 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)		
2,850.0	4.04	203.06	2,849.7	-28.2	5.7	2.59	2.59	3.89	0.0	0.0		
2,945.0	5.45	188.75	2,944.3	-35.6	2.9	1.53	1.48	-4.54	0.0	0.0		
3,039.0	5.54	203.78	3,037.9	-44.0	-0.3	0.52	0.10	5.33	0.0	0.0		
3,134.0	5.72	202.82	3,132.4	-52.5	-4.0	0.22	0.19	-1.20	0.0	0.0		
3,229.0	6.16	193.74	3,226.9	-61.8	-7.0	1.07	0.46	-8.35	0.0	0.0		
3,324.0	6.66	185.04	3,321.3	-72.5	-8.8	1.27	0.74	-9.16	0.0	0.0		
3,419.0	5.98	171.88	3,415.7	-83.0	-8.5	1.80	-0.93	-13.87	0.0	0.0		
3,514.0	5.54	167.73	3,510.2	-92.4	-6.9	0.64	-0.46	-4.35	0.0	0.0		
3,609.0	5.28	170.45	3,604.8	-101.2	-5.2	0.38	-0.27	2.86	0.0	0.0		
3,704.0	4.66	169.66	3,699.5	-109.3	-3.8	0.66	-0.65	-0.83	0.0	0.0		
3,799.0	3.69	156.66	3,794.2	-115.9	-1.9	1.42	-1.02	-13.68	0.0	0.0		
3,894.0	3.52	153.58	3,889.0	-121.3	0.7	0.27	-0.18	-3.24	0.0	0.0		
3,989.0	3.08	161.23	3,983.9	-126.3	2.8	0.65	-0.46	8.05	0.0	0.0		
4,084.0	4.75	174.32	4,078.6	-132.7	4.0	1.98	1.76	13.78	0.0	0.0		
4,179.0	4.75	176.61	4,173.3	-140.5	4.6	0.20	0.00	2.41	0.0	0.0		
4,274.0	4.92	163.42	4,268.0	-148.3	6.0	1.18	0.18	-13.86	0.0	0.0		
4,368.0	5.89	154.28	4,361.6	-156.5	9.2	1.38	1.03	-9.72	0.0	0.0		
4,463.0	5.80	155.60	4,456.1	-165.3	13.3	0.17	-0.09	1.39	0.0	0.0		
4,558.0	6.60	155.07	4,550.5	-174.6	17.6	0.84	0.84	-0.56	0.0	0.0		
4,653.0	7.56	152.17	4,644.8	-185.1	22.8	1.08	1.01	-3.05	0.0	0.0		
4,748.0	8.62	164.13	4,738.8	-197.5	27.7	2.09	1.12	12.59	0.0	0.0		
4,843.0	7.83	167.64	4,832.9	-210.7	31.0	0.98	-0.83	3.69	0.0	0.0		
4,938.0	7.39	166.94	4,927.0	-222.9	33.8	0.47	-0.46	-0.74	0.0	0.0		
5,033.0	6.51	168.76	5,021.3	-234.1	36.4	0.93	-0.93	-0.19	0.0	0.0		
5,128.0	8.00	175.29	5,115.6	-246.0	38.2	1.93	1.57	8.98	0.0	0.0		
5,223.0	8.71	179.68	5,209.6	-259.7	38.8	1.00	0.75	4.62	0.0	0.0		
5,318.0	8.71	179.77	5,303.5	-274.1	38.9	0.01	0.00	0.09	0.0	0.0		



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Well:	#742H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (ush)	Inc (°)	Asl (azimuth) (°)	TVD (ush)	N/S (ush)	EW (ush)	DLag (°/100ush)	Build (°/100ush)	Turn (°/100ush)	High to Plan (ush)	Right to Plan (ush)	
5,412.0	10.84	180.12	5,398.1	-289.0	38.9	2.05	2.05	0.37	0.0	0.0	
5,507.0	12.68	175.46	5,489.2	-308.1	39.7	2.34	2.13	-4.91	0.0	0.0	
5,602.0	13.01	175.20	5,581.8	-330.1	41.4	0.37	0.37	-0.27	0.0	0.0	
5,697.0	13.19	173.44	5,674.3	-351.5	43.5	0.46	0.19	-1.85	0.0	0.0	
5,792.0	13.37	172.30	5,766.8	-373.2	46.2	0.33	0.19	-1.20	0.0	0.0	
5,887.0	12.93	170.37	5,859.3	-394.5	49.5	0.65	-0.46	-2.03	0.0	0.0	
5,982.0	12.40	169.66	5,952.0	-415.1	53.1	0.58	-0.56	-0.75	0.0	0.0	
6,077.0	12.22	168.96	6,044.8	-435.0	56.8	0.25	-0.19	-0.74	0.0	0.0	
6,172.0	12.13	168.17	6,137.7	-454.6	60.8	0.20	-0.09	-0.83	0.0	0.0	
6,267.0	11.70	167.03	6,230.6	-473.7	65.0	0.52	-0.45	-1.20	0.0	0.0	
6,361.0	11.96	166.85	6,322.6	-492.5	69.4	0.28	0.28	-0.19	0.0	0.0	
6,456.0	12.05	164.48	6,415.5	-511.7	74.3	0.53	0.09	-2.49	0.0	0.0	
6,551.0	12.05	175.46	6,508.5	-531.1	77.7	2.41	0.00	11.56	0.0	0.0	
6,646.0	11.78	182.90	6,601.4	-550.3	81.3	2.74	-0.28	-13.22	0.0	0.0	
6,741.0	11.43	183.88	6,694.5	-568.6	86.8	0.42	-0.37	1.01	0.0	0.0	
6,836.0	9.06	181.84	6,788.0	-584.7	91.8	2.52	-2.49	-2.13	0.0	0.0	
6,930.0	6.86	159.91	6,881.1	-597.0	96.0	2.36	-2.34	-2.05	0.0	0.0	
7,025.0	5.10	158.32	6,975.5	-606.3	99.5	1.86	-1.85	-1.67	0.0	0.0	
7,120.0	3.61	161.66	7,070.3	-613.0	102.0	1.59	-1.57	3.52	0.0	0.0	
7,215.0	2.02	179.77	7,165.1	-617.6	103.0	1.90	-1.67	19.06	0.0	0.0	
7,309.0	1.23	202.38	7,259.1	-620.1	102.6	1.07	-0.84	24.03	0.0	0.0	
7,404.0	1.06	197.08	7,354.1	-621.9	101.9	0.21	-0.18	-5.56	0.0	0.0	
7,499.0	1.14	184.34	7,449.1	-623.7	101.6	0.27	0.08	-13.41	0.0	0.0	
7,594.0	1.14	189.63	7,544.0	-625.5	101.2	0.32	0.00	16.09	0.0	0.0	
7,689.0	0.79	183.33	7,639.0	-627.1	101.1	0.72	-0.37	-38.21	0.0	0.0	
7,784.0	0.44	138.46	7,734.0	-628.0	101.5	0.46	-0.37	-28.18	0.0	0.0	
7,879.0	0.44	173.35	7,829.0	-628.6	101.8	0.28	0.00	38.73	0.0	0.0	



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7,973.0	0.53	174.87	7,923.0	-629.4	101.9	0.10	0.10	1.40	0.0	0.0	
8,068.0	0.79	177.66	8,018.0	-630.5	102.0	0.28	0.27	3.15	0.0	0.0	
8,163.0	0.44	171.16	8,113.0	-631.5	102.0	0.38	-0.37	-8.84	0.0	0.0	
8,258.0	0.26	349.58	8,208.0	-631.6	102.1	0.74	-0.19	187.81	0.0	0.0	
8,353.0	1.14	183.66	8,303.0	-632.4	101.8	1.45	0.93	-184.13	0.0	0.0	
8,448.0	1.67	218.62	8,398.0	-634.4	100.7	0.84	0.56	26.27	0.0	0.0	
8,543.0	1.41	213.43	8,492.9	-638.4	99.2	0.31	-0.27	-5.46	0.0	0.0	
8,638.0	1.41	226.53	8,587.9	-638.2	97.7	0.34	0.00	13.79	0.0	0.0	
8,733.0	1.58	244.26	8,682.9	-639.6	95.7	0.52	0.18	18.68	0.0	0.0	
8,828.0	0.62	285.68	8,777.9	-640.0	94.0	1.25	-1.01	43.58	0.0	0.0	
8,922.0	1.06	271.28	8,871.9	-639.8	92.6	0.52	0.47	-15.34	0.0	0.0	
9,018.0	1.06	258.87	8,967.8	-640.0	90.9	0.24	0.00	-12.91	0.0	0.0	
9,113.0	1.76	247.62	9,062.8	-640.7	88.7	0.79	0.74	-11.84	0.0	0.0	
9,208.0	2.29	242.52	9,157.8	-642.1	85.6	0.59	0.56	-5.37	0.0	0.0	
9,303.0	1.93	255.97	9,252.7	-643.4	82.4	0.64	-0.38	14.16	0.0	0.0	
9,398.0	2.29	254.92	9,347.6	-644.3	79.0	0.38	0.38	-1.11	0.0	0.0	
9,493.0	1.85	244.61	9,442.6	-645.4	75.8	0.60	-0.46	-10.64	0.0	0.0	
9,588.0	1.67	234.97	9,537.5	-646.9	73.3	0.37	-0.19	-10.36	0.0	0.0	
9,683.0	1.67	231.71	9,632.5	-648.5	71.1	0.10	0.00	-3.43	0.0	0.0	
9,777.0	1.67	249.38	9,728.4	-649.9	68.7	0.55	0.00	18.80	0.0	0.0	
9,872.0	1.32	259.66	9,821.4	-650.5	66.3	0.46	-0.37	10.82	0.0	0.0	
9,967.0	1.06	264.06	9,916.4	-650.8	64.4	0.29	-0.27	4.63	0.0	0.0	
10,061.0	1.23	274.69	10,010.4	-650.8	62.5	0.29	0.18	11.31	0.0	0.0	
10,156.0	2.29	267.22	10,105.3	-650.9	59.6	1.14	1.12	-7.86	0.0	0.0	
10,251.0	0.88	221.34	10,200.3	-651.5	57.2	1.89	-1.48	-48.29	0.0	0.0	
10,346.0	2.37	122.38	10,295.3	-653.1	58.4	2.79	1.57	-104.17	0.0	0.0	
10,441.0	2.29	119.04	10,390.2	-655.1	61.7	0.17	-0.08	-3.52	0.0	0.0	



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10,536.0	2.11	129.23	10,485.1	-657.1	64.7	0.45	-0.19	10.73	0.0	0.0	
10,631.0	0.97	134.59	10,580.1	-658.8	66.7	1.21	-1.20	5.64	0.0	0.0	
10,726.0	0.44	185.83	10,675.1	-659.7	67.2	0.82	-0.56	53.94	0.0	0.0	
10,820.0	1.06	201.22	10,769.1	-660.9	68.8	0.69	0.66	18.37	0.0	0.0	
10,915.0	1.14	197.52	10,864.0	-662.6	68.2	0.11	0.08	-3.89	0.0	0.0	
11,010.0	1.41	208.86	10,959.0	-664.5	65.4	0.39	0.28	11.94	0.0	0.0	
11,105.0	1.76	197.88	11,054.0	-666.9	64.4	0.49	0.37	-11.56	0.0	0.0	
11,200.0	1.49	165.27	11,148.9	-669.5	64.2	1.00	-0.28	-34.33	0.0	0.0	
11,295.0	1.67	167.64	11,243.9	-672.0	64.9	0.20	0.19	2.49	0.0	0.0	
11,390.0	1.23	154.37	11,338.9	-674.3	65.6	0.58	-0.46	-13.97	0.0	0.0	
11,485.0	1.23	185.66	11,433.9	-676.3	65.9	0.70	0.00	32.94	0.0	0.0	
11,580.0	1.06	191.81	11,528.8	-678.1	65.6	0.22	-0.18	6.47	0.0	0.0	
11,675.0	1.49	207.90	11,623.8	-680.1	64.9	0.58	0.45	16.94	0.0	0.0	
11,770.0	1.76	205.35	11,718.8	-682.5	63.7	0.29	0.28	-2.68	0.0	0.0	
11,816.0	1.58	209.92	11,764.8	-683.7	63.1	0.49	-0.39	9.93	0.0	0.0	
11,870.0	1.58	197.61	11,818.7	-685.0	62.5	0.63	0.00	-22.80	0.0	0.2	
11,964.0	1.14	189.97	11,912.7	-687.2	61.9	0.51	-0.47	-8.13	-0.2	0.7	
12,059.0	1.14	202.27	12,007.7	-689.0	61.4	0.26	0.00	12.95	-1.7	1.0	
12,154.0	1.23	193.66	12,102.7	-690.9	60.8	0.21	0.09	-9.06	-3.8	0.6	
12,249.0	1.58	200.34	12,197.6	-693.1	60.1	0.41	0.37	7.03	-8.1	1.1	
12,344.0	1.23	212.11	12,292.6	-695.2	59.1	0.48	-0.37	12.39	-8.0	2.6	
12,439.0	7.03	0.91	12,387.4	-690.2	58.7	8.53	6.11	156.63	3.3	2.5	
12,534.0	27.79	2.41	12,477.6	-692.0	59.7	21.86	21.85	1.58	-15.9	2.5	
12,581.0	37.20	2.58	12,517.1	-638.8	60.8	20.02	20.02	0.36	-31.9	2.6	
12,629.0	37.20	3.37	12,555.4	-607.8	62.3	1.00	0.00	1.65	-48.2	2.7	
12,676.0	39.75	3.81	12,592.2	-578.6	64.1	5.46	5.43	0.94	-61.3	2.5	
12,724.0	40.27	4.78	12,628.9	-547.8	66.4	1.69	1.08	2.02	-71.8	2.4	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #742H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3581.0usft
Site:	Mamba 30 State Com	MD Reference:	KB = 25 @ 3581.0usft
Well:	#742H	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)	
12,771.0	41.50	3.90	12,664.5	-517.2	68.8	2.89	2.62	-1.87	-78.5	0.1	
12,818.0	44.32	2.93	12,698.9	-485.2	70.7	6.16	6.00	-2.06	-82.4	-1.9	
12,863.0	47.57	359.24	12,730.2	-452.9	71.3	9.32	7.22	-8.20	-84.1	-5.3	
12,914.0	47.40	359.51	12,764.7	-415.3	70.8	0.51	-0.33	0.53	-82.7	-3.1	
12,961.0	50.91	358.72	12,795.4	-378.8	70.3	7.58	7.47	-1.68	-78.1	-1.8	
13,008.0	54.26	0.56	12,823.9	-342.4	70.1	7.78	7.13	3.91	-71.8	1.4	
13,055.0	54.61	1.79	12,851.3	-304.2	70.8	2.26	0.74	2.62	-62.8	2.6	
13,103.0	61.11	1.26	12,876.8	-263.6	71.9	13.57	13.54	-1.10	-52.1	2.7	
13,150.0	66.74	1.62	12,897.4	-221.4	73.0	12.00	11.98	0.77	-42.4	3.1	
13,198.0	71.23	3.20	12,914.7	-176.7	74.9	9.85	9.35	3.29	-32.5	2.7	
13,245.0	74.39	2.41	12,928.5	-131.8	77.1	6.91	6.72	-1.68	-21.9	1.9	
13,293.0	78.79	0.56	12,939.7	-85.2	78.3	9.90	9.17	-3.85	-10.9	2.0	
13,340.0	83.01	1.09	12,947.1	-38.8	78.9	9.05	8.98	1.13	-3.3	2.0	
13,388.0	89.25	0.91	12,950.3	9.1	79.8	13.01	13.00	-0.37	0.2	1.1	
13,483.0	91.71	1.00	12,949.6	104.1	81.4	2.59	2.59	0.09	-0.1	-1.0	
13,506.0	92.24	0.83	12,948.8	127.0	81.7	2.42	2.30	-0.74	-0.8	-1.5	
13,601.0	88.99	0.83	12,947.7	222.0	83.1	3.42	-3.42	0.00	-1.4	-3.5	
13,696.0	87.85	0.83	12,950.4	317.0	84.5	1.20	-1.20	0.00	1.7	-5.4	
13,780.0	87.93	0.39	12,953.8	410.8	85.5	0.48	0.09	-0.47	5.7	-8.9	
13,885.0	89.25	359.33	12,956.2	505.9	85.3	1.78	1.39	-1.12	8.5	-7.3	
13,980.0	90.22	358.18	12,958.8	600.8	83.2	1.58	1.02	-1.20	9.4	-5.8	
14,075.0	91.54	358.88	12,955.1	695.8	80.9	1.62	1.39	0.83	8.4	-4.0	
14,170.0	90.13	358.63	12,953.8	790.8	78.9	1.53	-1.48	-0.37	7.5	-2.5	
14,265.0	89.60	358.98	12,954.0	885.7	76.9	0.67	-0.56	0.37	8.2	-1.1	
14,360.0	90.13	358.63	12,954.2	980.7	74.9	0.67	0.56	-0.37	8.9	0.3	
14,455.0	89.34	358.98	12,954.6	1,075.7	72.9	0.91	-0.83	0.37	9.8	1.7	
14,550.0	89.60	357.66	12,955.5	1,170.7	70.1	1.42	0.27	-1.39	11.1	4.0	



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Mamba 30 State Com
 Well: #742H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #742H
 TVD Reference: KB = 25 @ 3581.0usft
 MD Reference: KB = 25 @ 3581.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

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)
14,645.0	91.63	358.45	12,954.5	1,265.6	66.9	2.29	2.14	0.83	10.6	6.6
14,740.0	91.28	357.66	12,952.1	1,360.5	63.7	0.91	-0.37	-0.83	8.6	9.3
14,835.0	91.71	359.66	12,949.6	1,455.4	61.6	2.36	0.45	2.32	6.6	10.8
14,930.0	91.19	0.65	12,947.2	1,550.4	62.1	1.00	-0.55	0.83	4.4	9.9
15,025.0	90.82	1.35	12,945.5	1,645.4	63.7	0.79	-0.28	0.74	2.8	7.6
15,120.0	90.66	1.18	12,944.1	1,740.3	65.8	0.33	-0.27	-0.18	1.7	5.0
15,214.0	90.92	1.62	12,942.6	1,834.3	68.1	0.54	0.28	0.47	0.6	2.1
15,309.0	90.92	1.62	12,941.3	1,929.3	70.8	0.00	0.00	0.00	-0.8	-1.1
15,404.0	90.66	2.49	12,940.0	2,024.2	74.2	0.96	-0.27	0.92	-1.9	-5.1
15,499.0	90.92	2.14	12,938.7	2,119.1	78.0	0.46	0.27	-0.37	-3.0	-8.4
15,594.0	90.66	1.00	12,937.4	2,214.1	80.6	1.23	-0.27	-1.20	-4.2	-12.6
15,688.0	87.14	358.80	12,939.2	2,308.0	80.5	4.42	-3.74	-2.34	-2.2	-13.0
15,783.0	87.32	358.66	12,943.6	2,402.9	78.6	0.27	0.19	0.19	2.6	-11.7
15,878.0	89.78	359.59	12,946.2	2,497.8	77.5	2.67	2.59	0.64	5.2	-11.1
15,973.0	90.57	359.42	12,945.9	2,592.8	76.6	0.85	0.83	-0.18	5.0	-10.8
16,068.0	90.04	359.51	12,945.4	2,687.8	75.7	0.57	-0.56	0.09	4.7	-10.5
16,163.0	90.92	358.66	12,944.6	2,782.8	74.5	1.08	0.93	-0.56	4.1	-9.6
16,258.0	91.36	358.54	12,942.7	2,877.8	72.4	0.65	0.46	-0.46	2.4	-8.3
16,353.0	90.92	359.16	12,940.8	2,972.7	70.5	0.80	-0.46	0.65	0.7	-6.9
16,448.0	88.72	357.31	12,941.1	3,067.7	67.6	3.03	-2.32	-1.95	1.1	-4.5
16,543.0	88.55	357.40	12,943.4	3,162.6	63.2	0.20	-0.18	0.09	3.2	-0.7
16,637.0	90.48	357.13	12,944.2	3,256.4	58.7	2.07	2.05	-0.29	3.9	3.2
16,732.0	90.31	357.66	12,943.5	3,351.3	54.4	0.59	-0.18	0.56	3.1	7.0
16,827.0	90.13	357.57	12,943.2	3,446.3	50.5	0.21	-0.19	-0.09	2.6	10.4
16,922.0	92.07	359.24	12,941.3	3,541.2	47.8	2.69	2.04	1.78	0.7	12.5
17,017.0	92.68	0.30	12,937.4	3,636.1	47.4	1.29	0.64	1.12	-3.4	12.3
17,112.0	90.57	0.56	12,934.7	3,731.1	48.2	2.24	-2.22	0.27	-6.3	11.1



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Mamba 30 State Com
 Well: #742H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #742H
 TVD Reference: KB = 25 @ 3581.0usft
 MD Reference: KB = 25 @ 3581.0usft
 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)	
17,207.0	89.16	359.86	12,934.9	3,826.1	48.5	1.66	-1.48	-0.74	-6.2	10.2	
17,302.0	90.04	359.88	12,835.6	3,921.1	48.1	0.95	0.93	-0.19	-5.6	10.0	
17,398.0	89.25	359.88	12,936.2	4,017.0	47.7	0.84	-0.82	0.19	-5.2	9.8	
17,493.0	87.93	359.07	12,938.5	4,112.0	46.9	1.62	-1.39	-0.83	-3.0	10.2	
17,588.0	86.97	357.22	12,942.8	4,208.9	43.8	2.19	-1.01	-1.95	1.1	12.7	
17,629.0	85.12	356.61	12,945.6	4,247.7	41.6	4.75	-4.51	-1.49	3.8	14.7	
17,627.0	85.12	356.61	12,962.4	4,444.6	29.9	0.00	0.00	0.00	20.3	25.2	

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/S (usft)	+E/W (usft)	
12,392.0	12,340.6	-694.3	58.7	KOP, MD:12392.0', TVD:12340.6', N/S:-694.3', E/W:58.7', INC:3.05
12,623.7	12,551.2	-611.0	62.1	FTP Crossing, MD:12623.7', TVD:12551.2', N/S:-611.0', E/W:62.1', INC:37.20
17,629.0	12,945.6	4,247.7	41.6	Projection to Bit (MD=17629.0')
17,627.0	12,962.4	4,444.6	29.9	Last MWD Survey (MD=17627.0')

Checked By: _____ Approved By: _____ Date: _____



Lea County, NM (NAD 83 NME)

Mamba 30 State Com #742H

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: #742H

KB = 25 @ 3581.0usft 3584.0
Northing 431177.00 Easting 762647.00 Longitude 32° 11' 0.097 N 103° 37' 4.748 W

To convert a Magnetic Direction to a Grid Direction, Add 8.43°
To convert a Magnetic Direction to a True Direction, Add 0.84° East
To convert a True Direction to a Grid Direction, Subtract 0.35°

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	Vsect	Target
1	11816.0	1.58	209.92	11764.8	-683.7	63.1	0.00	0.00	-682.8	
2	11916.0	1.58	209.92	11864.7	-686.1	61.7	0.00	0.00	-685.3	
3	11995.0	0.00	0.00	11943.7	-687.0	61.2	2.00	180.00	-686.2	
4	12429.1	0.00	0.00	12377.8	-687.0	61.2	0.00	0.00	-686.2	
5	13331.9	90.28	1.83	12950.8	-111.5	79.5	10.00	1.83	-110.6	
6	13440.1	90.28	359.67	12950.2	-3.4	80.9	2.00	-89.88	-2.4	
7	14893.7	90.28	359.67	12943.0	1450.2	72.5	0.00	0.00	1451.0	TGT#1(Mamba 30 State #742H)
8	14902.6	90.11	359.67	12943.0	1459.1	72.4	2.00	-180.00	1459.9	
9	16500.0	90.11	359.67	12940.0	3056.5	63.1	0.00	0.00	3057.0	TGT#2(Mamba 30 State #742H)
10	16509.5	89.92	359.67	12940.0	3065.9	63.1	2.00	180.00	3066.5	
11	17900.6	89.92	359.67	12942.0	4457.0	55.0	0.00	0.00	4457.3	PBHL (Mamba 30 State #742H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP COORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
TGT#1(Mamba 30 State #742H)	12943.0	1450.2	72.5	432627.25	762718.43
TGT#2(Mamba 30 State #742H)	12943.0	3056.5	63.1	434233.20	762715.18
PBHL (Mamba 30 State #742H)	12942.0	4457.0	55.0	435834.00	762702.00
Brushy Top(Mamba 30 State #742H)	7405.0	-481.0	84.0	430818.00	762731.00
FTP (Mamba 30 State #742H)	12950.0	-411.0	84.0	430568.00	762731.00

