

HOBBS OCD

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EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Caballo 23 Fed

#706H

OH

Design: OH

Midland PVA

10 March, 2019



Midland PVA

Company: EOG Resources - Midland Project: Lea County, NM (NAD 83 NME) Site: Caballo 23 Fed Well: #706H Wellbore: OH Design: OH		Local Co-ordinate Reference: Well #706H TVD Reference: KB = 25 @ 3367.0usft MD Reference: KB = 25 @ 3367.0usft 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 Caballo 23 Fed			
Site Position: From: Map Position Uncertainty: 0.0 usft		Northing: 404,499.00 usft Easting: 785,117.00 usft Grid Radius: 13-3/16" Latitude: 32° 6' 34.558 N Longitude: 103° 32' 45.566 W Grid Convergence: 0.42°	
Well #706H			
Well Position +N-S 0.0 usft +E-W 0.0 usft Position Uncertainty 0.0 usft		Northing: 404,503.00 usft Easting: 785,626.00 usft Wellhead Elevation: usft Latitude: 32° 6' 34.561 N Longitude: 103° 32' 39.647 W Ground Level: 3,342.0 usft	
Wellbore OH			
Magnetics			
Model Name	Sample Date	Declination (°)	Dip Angle (°)
IGRF2015	8/15/2018	8.61	59.95
Field Strength (nT) 47,754.26929003			
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)
	0.0	0.0	5.62
Survey Program			
Date 3/10/2019			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
188.0	20,010.0	Drilltech MWD (OH)	MWD
			Description
			OWSG MWD - Standard



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #706H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3367.0usft
Site:	Caballo 23 Fed	MD Reference:	KB = 25 @ 3367.0usft
Well:	#706H	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)		
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0.0
188.0	0.44	350.69	188.0	0.7	-0.1	0.23	0.23	0.00	-0.7	0.0		
217.0	0.26	295.49	217.0	0.9	-0.2	1.25	-0.62	-190.34	-0.5	-0.7		
390.0	0.35	344.80	390.0	1.5	-0.7	0.15	0.05	28.50	-1.7	0.3		
479.0	0.35	338.56	479.0	2.0	-0.9	0.04	0.00	-7.01	-2.2	0.1		
662.0	1.06	337.50	662.0	4.1	-1.7	0.39	0.39	-0.58	-4.5	0.0		
846.0	0.97	349.89	846.0	7.2	-2.6	0.13	-0.05	6.73	-7.6	1.3		
936.0	0.97	353.23	935.9	8.7	-2.9	0.06	0.00	3.71	-9.0	1.8		
1,027.0	1.58	103.27	1,026.9	9.2	-1.7	2.33	0.67	120.92	3.8	8.8		
1,162.0	3.78	115.67	1,161.8	6.9	4.1	1.68	1.63	9.19	-0.7	8.0		
1,306.0	4.22	109.43	1,305.4	3.0	13.4	0.43	0.31	-4.33	-6.6	7.2		
1,398.0	3.67	104.15	1,397.2	1.2	19.6	0.56	-0.38	-5.74	-11.9	6.3		
1,489.0	6.33	116.81	1,487.8	-1.9	27.0	2.96	2.70	13.91	-10.6	8.1		
1,584.0	9.67	111.71	1,581.9	-7.2	39.1	3.59	3.52	-5.37	-13.4	5.7		
1,679.0	10.64	112.33	1,675.4	-13.5	54.6	1.03	1.02	0.65	-17.3	4.7		
1,774.0	9.67	106.35	1,768.9	-19.0	70.4	1.51	-1.02	-6.29	-21.6	2.2		
1,869.0	6.95	93.87	1,862.9	-21.7	83.8	3.42	-2.86	-13.14	-22.6	-1.3		
1,963.0	7.03	97.30	1,956.2	-22.8	95.2	0.45	0.09	3.65	-21.6	2.5		
2,059.0	7.12	97.39	2,051.5	-24.3	106.9	0.09	0.09	0.08	-20.6	4.7		
2,154.0	6.95	94.31	2,145.8	-25.5	118.5	0.43	-0.18	-3.23	-19.9	6.1		
2,249.0	6.77	94.57	2,240.1	-26.4	129.8	0.19	-0.19	0.27	-16.6	9.0		
2,344.0	6.60	96.33	2,334.4	-27.4	140.8	0.28	-0.18	1.85	-16.6	12.1		
2,439.0	6.95	103.19	2,428.6	-29.3	151.8	0.93	0.37	7.22	-13.5	15.6		
2,534.0	7.39	112.33	2,523.0	-33.0	163.1	1.29	0.46	9.62	-9.9	17.2		
2,629.0	7.30	115.49	2,617.3	-37.9	174.2	0.44	-0.09	3.33	-6.4	16.2		
2,724.0	7.21	114.08	2,711.5	-42.9	185.1	0.21	-0.09	-1.46	-8.0	14.3		
2,818.0	7.03	111.97	2,804.8	-47.5	195.8	0.34	-0.19	-2.24	-7.5	12.6		



Midland PVA

Company: EOG Resources - Midland
Project: Lea County, NM (HAD 83 NME)
Site: Caballo 23 Fed
Well: #706H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #706H
TVD Reference: KB = 25 @ 3367.0ush
MD Reference: KB = 25 @ 3367.0ush
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.14

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EAW (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
2,813.0	6.77	111.71	2,899.1	-51.7	206.4	0.26	-0.27	-0.27	-6.1	11.5	
3,008.0	6.68	113.56	2,993.4	-56.0	216.6	0.25	-0.09	1.95	-4.1	10.4	
3,103.0	6.77	110.39	3,067.8	-60.1	227.0	0.40	0.09	-3.34	-3.0	9.1	
3,198.0	7.21	105.65	3,182.1	-63.7	238.0	0.76	0.46	-4.99	-2.4	8.7	
3,292.0	7.39	101.16	3,275.3	-66.5	249.6	0.64	0.19	-4.78	-2.3	9.3	
3,387.0	7.39	102.48	3,369.5	-69.0	261.5	0.18	0.00	1.39	-1.5	10.5	
3,482.0	7.39	97.47	3,463.7	-71.1	273.5	0.68	0.00	-5.27	-1.9	12.0	
3,672.0	6.60	100.37	3,652.3	-74.6	296.4	0.46	-0.42	1.53	1.1	15.7	
3,767.0	6.42	103.10	3,746.7	-76.8	306.9	0.38	-0.19	2.87	3.9	16.7	
3,862.0	6.16	100.81	3,841.1	-79.0	317.1	0.36	-0.27	-2.41	5.6	18.0	
3,957.0	6.18	102.75	3,935.4	-81.4	328.7	2.14	2.13	2.04	7.2	19.0	
4,052.0	6.09	103.27	4,029.4	-84.6	341.8	0.12	-0.09	0.55	6.7	19.8	
4,147.0	7.74	102.31	4,123.5	-87.4	354.6	0.39	-0.37	-1.01	6.1	20.9	
4,242.0	7.63	106.63	4,217.7	-90.6	367.0	0.91	0.09	6.65	6.4	20.4	
4,337.0	8.44	112.24	4,311.7	-95.5	379.5	0.84	0.64	3.80	9.0	19.1	
4,432.0	9.15	109.95	4,405.6	-100.7	393.1	0.63	0.75	-2.41	6.5	18.5	
4,527.0	8.88	111.71	4,499.4	-106.0	407.0	0.41	-0.28	1.85	5.0	17.5	
4,622.0	8.71	111.10	4,593.3	-111.3	420.5	0.20	-0.18	-0.64	3.1	16.5	
4,717.0	9.32	111.80	4,687.1	-116.7	434.4	0.65	0.64	0.74	1.2	15.5	
4,812.0	10.20	115.84	4,780.7	-123.3	449.1	1.17	0.93	4.25	-1.2	14.0	
4,907.0	8.27	117.69	4,874.5	-130.1	462.7	2.06	-2.03	1.95	-3.4	11.9	
5,002.0	7.47	114.28	4,968.6	-135.8	474.4	0.98	-0.64	-3.61	-4.3	9.7	
5,097.0	6.77	113.56	5,062.9	-140.6	485.2	0.74	-0.74	-0.74	-3.4	8.1	
5,192.0	6.51	110.39	5,157.2	-144.7	495.3	0.47	-0.27	-3.34	-2.0	6.8	
5,287.0	7.21	106.79	5,251.6	-148.3	506.1	0.88	0.74	-3.79	-0.9	6.4	
5,382.0	7.12	104.77	5,345.8	-151.5	517.5	0.28	-0.09	-2.13	-0.1	6.6	
5,476.0	7.47	104.94	5,439.1	-154.6	529.0	0.37	0.37	0.18	0.7	7.1	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #708H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3367.0usft
Site:	Caballo 23 Fed	MD Reference:	KB = 25 @ 3367.0usft
Well:	#706H	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)	
5,571.0	7.47	101.69	5,533.3	-157.4	541.1	0.44	0.00	-3.42	0.7		8.0
5,666.0	7.56	100.72	5,627.4	-159.9	553.2	0.16	0.09	-1.02	0.9		9.3
5,856.0	6.95	99.93	5,815.9	-164.2	576.8	0.33	-0.32	-0.42	2.3		12.3
5,951.0	7.65	103.27	5,910.1	-166.6	588.7	0.66	0.74	3.62	3.8		13.3
6,046.0	7.56	101.16	6,004.3	-169.3	600.9	0.31	-0.09	-2.22	3.5		14.6
6,140.0	7.21	102.92	6,097.5	-171.8	612.8	0.44	-0.37	1.87	4.6		15.5
6,235.0	6.61	99.67	6,191.9	-174.0	623.9	0.84	-0.74	-3.42	5.1		17.1
6,330.0	7.74	101.78	6,286.1	-176.2	635.5	1.32	1.29	2.22	6.7		18.3
6,425.0	6.62	103.54	6,380.1	-179.2	648.6	0.96	0.93	1.85	6.6		19.0
6,615.0	9.41	112.59	6,567.8	-188.5	678.8	0.85	0.42	4.76	5.4		17.5
6,709.0	9.58	112.77	6,660.5	-194.5	691.1	0.18	0.18	0.19	2.6		16.2
6,804.0	9.67	110.66	6,754.2	-200.4	705.9	0.38	0.09	-2.22	-1.1		15.2
6,899.0	9.94	108.34	6,847.8	-205.9	721.1	0.37	0.28	-1.39	-4.8		14.5
6,994.0	9.94	109.95	6,941.4	-211.4	736.5	0.11	0.00	0.64	-6.3		14.0
7,089.0	9.76	109.60	7,035.0	-216.9	751.8	0.20	-0.19	-0.37	-11.8		13.3
7,184.0	6.65	103.36	7,129.0	-220.9	765.0	3.10	-2.96	-6.57	-14.1		11.8
7,279.0	6.77	102.31	7,223.3	-223.5	776.1	0.23	-0.19	-1.11	-12.9		12.6
7,374.0	5.28	113.36	7,317.6	-226.4	785.6	1.98	-1.57	11.65	-7.3		14.5
7,468.0	3.08	108.99	7,411.5	-228.6	791.9	2.36	-2.34	-4.67	-3.6		13.1
7,563.0	1.32	144.23	7,506.4	-230.6	795.0	2.25	-1.85	37.09	8.3		9.1
7,658.0	1.06	161.02	7,601.4	-232.4	795.9	0.46	-0.27	17.67	11.9		2.2
7,754.0	1.41	158.73	7,697.4	-234.3	796.6	0.37	0.36	-2.39	11.2		0.8
7,849.0	1.32	160.31	7,792.4	-236.4	797.4	0.10	-0.09	1.66	9.0		0.4
7,944.0	1.41	149.50	7,887.3	-238.5	798.4	0.29	0.09	-11.38	6.5		1.9
8,038.0	1.58	161.02	7,981.3	-240.7	799.4	0.37	0.18	12.26	4.3		0.8
8,133.0	1.32	162.69	8,076.3	-243.0	800.1	0.28	-0.27	1.76	1.9		0.7
8,228.0	1.49	169.81	8,171.2	-245.2	800.7	0.26	0.18	7.49	-0.3		0.6



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #706H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3367.0usft
Site:	Caballo 23 Fed	MD Reference:	KB = 25 @ 3367.0usft
Well:	#706H	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)	EAW (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
8,323.0	1.49	169.54	8,266.2	-247.6	801.1	0.01	0.00	-0.28	-2.8	0.6	
8,418.0	1.58	153.63	8,361.2	-250.0	801.9	0.46	0.09	-16.75	-5.4	-0.5	
8,512.0	1.41	158.38	8,455.1	-252.3	802.9	0.22	-0.18	5.05	-7.8	0.0	
8,607.0	1.32	164.80	8,550.1	-254.4	803.6	0.19	-0.09	6.76	-10.0	1.0	
8,702.0	1.32	161.19	8,645.1	-256.5	804.3	0.09	0.00	-3.80	-12.3	0.3	
8,797.0	1.67	166.47	8,740.1	-258.9	805.0	0.40	0.37	5.56	-14.7	1.6	
8,892.0	1.76	163.39	8,835.0	-261.6	805.7	0.14	0.09	-3.24	-17.6	0.7	
8,986.0	1.32	161.80	8,929.0	-264.0	806.4	0.47	-0.47	-1.59	-20.1	0.2	
9,081.0	1.41	153.55	9,024.0	-266.1	807.3	0.23	0.09	-6.79	-22.2	-2.9	
9,176.0	1.49	169.46	9,118.9	-268.4	808.0	0.43	0.08	16.75	-24.5	3.6	
9,271.0	1.14	165.59	9,213.9	-270.5	808.5	0.36	-0.37	-4.07	-26.8	1.9	
9,366.0	0.44	140.45	9,308.9	-271.7	809.0	0.81	-0.74	-26.46	-28.3	-10.1	
9,461.0	1.23	317.81	9,403.9	-271.2	808.5	1.76	0.63	186.69	25.2	11.3	
9,557.0	1.23	327.63	9,499.9	-269.6	807.3	0.22	0.00	10.44	24.7	6.9	
9,652.0	0.97	305.16	9,594.8	-268.3	806.1	0.53	-0.27	-23.86	18.4	15.5	
9,746.0	2.02	277.21	9,688.8	-267.6	803.8	1.33	1.12	-29.73	6.6	22.0	
9,841.0	2.65	270.09	9,783.7	-267.4	800.0	0.63	0.56	-7.49	0.0	22.4	
9,936.0	1.93	294.26	9,878.7	-266.7	796.4	1.18	-0.65	25.44	5.7	21.3	
10,031.0	2.20	274.22	9,973.6	-265.9	793.2	0.81	0.26	-21.09	-5.3	21.4	
10,126.0	2.37	283.01	10,068.6	-265.4	789.4	0.41	0.18	9.25	-5.7	22.2	
10,220.0	2.46	295.75	10,162.4	-264.1	785.7	0.58	0.10	13.55	-4.6	23.4	
10,315.0	1.85	320.54	10,257.4	-262.0	782.9	1.16	-0.64	26.09	2.3	24.0	
10,410.0	1.76	334.76	10,352.3	-259.5	781.3	0.46	-0.09	14.99	5.1	23.1	
10,504.0	1.67	318.25	10,446.3	-257.2	779.8	0.53	-0.10	-17.59	-4.4	23.2	
10,599.0	1.85	304.37	10,541.2	-255.3	777.6	0.49	0.19	-14.61	-12.7	21.1	
10,694.0	1.85	298.65	10,636.2	-253.7	775.0	0.19	0.00	-6.02	-17.8	19.8	
10,789.0	1.67	304.28	10,731.2	-252.1	772.5	0.26	-0.19	5.93	-16.7	21.4	



Midland PVA

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Well:	#706H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
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10,894.0	2.02	325.20	10,826.1	-250.0	770.4	0.79	0.37	22.02	-12.8	27.2	
10,978.0	1.49	335.13	10,920.1	-247.5	768.9	0.85	-0.56	10.56	-10.8	29.2	
11,073.0	1.58	326.78	11,015.0	-245.3	767.7	0.25	0.09	-8.79	-17.4	27.2	
11,168.0	1.93	31.29	11,110.0	-242.8	767.6	2.00	0.37	67.91	14.9	26.6	
11,263.0	1.85	38.32	11,204.9	-240.3	769.6	0.26	-0.08	7.40	15.1	26.8	
11,357.0	0.70	59.77	11,298.9	-238.8	771.0	1.30	-1.22	22.62	21.9	19.9	
11,452.0	0.53	302.61	11,393.9	-238.3	771.2	1.11	-0.18	-123.33	-27.9	9.9	
11,547.0	0.62	250.93	11,488.9	-238.2	770.3	0.53	0.09	-54.40	-25.8	-16.1	
11,642.0	0.62	153.89	11,583.9	-238.8	770.1	0.88	0.00	-102.04	18.7	-24.2	
11,736.0	0.79	175.08	11,677.9	-239.9	770.3	0.33	0.18	22.44	7.6	-28.1	
11,870.0	1.08	199.69	11,811.9	-242.0	770.0	0.35	0.20	18.37	-7.3	-29.3	
11,965.0	0.87	216.48	11,906.9	-243.5	769.2	0.33	-0.09	17.67	-17.1	-25.7	
12,060.0	14.95	9.93	12,000.8	-232.0	770.9	16.68	14.72	161.53	-7.3	30.9	
12,155.0	28.12	6.77	12,089.7	-199.0	775.5	11.81	11.76	-3.33	-29.4	28.2	
12,249.0	33.85	2.20	12,171.0	-152.3	778.9	8.57	8.22	-4.86	-47.8	22.5	
12,344.0	40.54	4.75	12,246.7	-85.0	782.5	7.23	7.04	2.68	-54.9	20.2	
12,439.0	53.20	6.42	12,311.5	-26.1	789.3	13.39	13.33	1.76	-57.4	13.2	
12,533.0	58.48	1.76	12,364.3	51.4	794.8	6.95	5.62	-4.98	-54.0	3.9	
12,628.0	63.40	356.86	12,410.4	134.4	795.2	5.83	5.18	-3.05	-37.5	1.9	
12,723.0	71.84	359.39	12,446.6	222.1	793.8	8.90	8.88	0.56	-12.3	2.7	
12,818.0	84.77	0.97	12,465.8	315.0	794.2	13.71	13.61	1.66	7.3	1.5	
12,913.0	92.86	0.09	12,467.7	409.9	795.0	8.57	8.52	-0.93	9.9	-0.1	
13,007.0	92.68	0.79	12,463.2	503.8	795.8	0.77	-0.19	0.74	6.0	-1.5	
13,102.0	89.34	358.95	12,461.5	598.7	795.5	4.01	-3.52	-1.94	4.9	-2.1	
13,197.0	90.04	0.27	12,462.0	693.7	794.9	1.57	0.74	1.39	6.1	-2.1	
13,291.0	90.66	2.20	12,461.5	787.7	796.9	2.16	0.66	2.05	6.1	-4.9	
13,386.0	88.72	359.12	12,462.0	882.7	798.0	3.63	-2.04	-3.24	7.3	-6.7	



Midland PVA

Company: EOG Resources - Midland Project: Lea County, NM (NAD 83 NME) Site: Caballo 23 Fed Well: #706H Wellbore: OH Design: OH			Local Co-ordinate Reference: Well #706H TVD Reference: KB = 25 @ 3367.0usft MD Reference: KB = 25 @ 3367.0usft 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)	
13,502.0	91.54	1.32	12,461.7	988.6	798.5	3.08	2.43	1.90	7.8	-8.1	
13,597.0	88.37	0.18	12,461.8	1,083.6	799.7	3.55	-3.34	-1.20	8.5	-10.1	
13,691.0	89.96	1.14	12,463.2	1,187.6	800.8	1.98	1.69	1.02	10.4	-11.9	
13,786.0	88.87	0.82	12,463.3	1,282.6	802.2	0.56	-0.09	-0.55	11.2	-14.0	
13,881.0	91.10	2.81	12,462.5	1,377.5	805.1	2.64	1.29	2.31	11.1	-17.6	
13,976.0	90.22	0.53	12,461.4	1,472.5	807.9	2.57	-0.93	-2.40	10.6	-21.1	
14,071.0	89.25	358.68	12,461.8	1,567.5	807.2	2.20	-1.02	-1.85	11.6	-21.2	
14,165.0	89.89	357.63	12,462.7	1,661.4	804.2	1.21	0.47	-1.12	13.1	-18.9	
14,260.0	90.66	357.80	12,462.4	1,756.3	800.4	1.04	1.02	0.18	13.4	-15.9	
14,355.0	90.92	357.54	12,461.1	1,851.3	796.5	0.39	0.27	-0.27	12.7	-12.7	
14,450.0	92.51	357.10	12,458.3	1,946.1	782.1	1.74	1.67	-0.46	10.4	-9.0	
14,545.0	91.01	359.74	12,455.3	2,041.0	789.5	3.19	-1.58	2.78	7.9	-7.1	
14,640.0	90.31	359.47	12,454.2	2,136.0	788.8	0.79	-0.74	-0.28	7.1	-7.2	
14,735.0	87.49	359.81	12,456.1	2,231.0	788.3	3.00	-2.97	0.46	9.3	-7.4	
14,830.0	90.22	359.12	12,458.0	2,325.9	787.5	2.99	2.67	-0.63	11.6	-7.4	
14,925.0	91.98	359.74	12,456.1	2,420.9	786.5	1.96	1.85	0.65	10.1	-7.2	
15,020.0	92.59	359.47	12,452.4	2,515.8	785.9	0.70	0.64	-0.28	6.7	-7.2	
15,115.0	91.80	359.04	12,448.7	2,610.8	784.7	0.95	-0.83	-0.45	3.4	-6.7	
15,209.0	87.76	357.72	12,449.1	2,704.7	782.0	4.52	-4.30	-1.40	4.1	-4.8	
15,304.0	86.70	358.16	12,453.7	2,799.5	778.6	1.21	-1.12	0.46	9.1	-2.1	
15,399.0	89.96	359.74	12,456.4	2,894.5	776.9	3.81	3.43	1.66	12.2	-1.1	
15,494.0	92.95	358.68	12,454.0	2,989.4	775.5	3.34	3.15	-1.12	10.2	-0.5	
15,588.0	89.87	359.04	12,451.7	3,083.3	773.7	3.30	-3.28	0.38	6.2	0.6	
15,683.0	91.63	359.74	12,450.5	3,178.3	772.7	1.99	1.85	0.74	7.3	0.9	
15,777.0	91.63	0.44	12,447.8	3,272.3	772.6	0.74	0.00	0.74	5.0	0.0	
15,872.0	89.25	358.51	12,447.1	3,367.3	771.9	3.23	-2.51	-2.03	4.6	0.1	
15,967.0	89.78	359.12	12,447.9	3,462.2	770.0	0.85	0.56	0.64	5.8	1.4	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #706H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3367.0usft
Site:	Caballo 23 Fed	MD Reference:	KB = 25 @ 3367.0usft
Well:	#706H	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)	
16,082.0	89.52	359.74	12,448.5	3,557.2	769.0	0.71	-0.27	0.65	6.8	1.6	
16,158.0	89.96	359.39	12,448.9	3,651.2	768.3	0.80	0.47	-0.37	7.5	1.8	
16,251.0	91.01	0.27	12,448.1	3,746.2	768.0	1.44	1.11	0.93	7.1	1.1	
16,346.0	89.16	0.53	12,447.9	3,841.2	768.7	1.97	-1.95	0.27	7.3	-0.3	
16,441.0	88.43	1.85	12,449.1	3,936.2	770.7	1.42	0.28	1.39	6.8	-3.0	
16,536.0	91.10	1.76	12,448.7	4,031.1	773.7	1.76	1.76	-0.09	8.7	-6.7	
16,631.0	92.15	0.27	12,448.0	4,126.1	775.3	1.62	1.11	-1.57	6.0	-6.1	
16,725.0	89.08	358.95	12,443.0	4,220.1	774.7	3.55	-3.27	-1.40	5.0	-9.2	
16,820.0	86.70	357.89	12,448.5	4,315.0	772.1	2.74	-2.51	-1.12	6.5	-7.3	
16,915.0	87.14	356.93	12,453.6	4,409.7	767.8	1.11	0.46	-1.01	13.6	-3.8	
17,009.0	89.96	356.66	12,455.9	4,503.5	762.5	3.01	3.00	-0.28	16.0	0.7	
17,104.0	91.45	358.07	12,454.8	4,598.4	758.2	2.16	1.57	1.48	14.8	4.4	
17,199.0	92.15	358.77	12,451.8	4,693.3	755.6	1.04	0.74	0.74	11.8	6.3	
17,294.0	91.71	359.30	12,448.6	4,788.3	754.0	0.72	-0.46	0.56	6.6	7.1	
17,389.0	89.96	358.42	12,447.2	4,883.2	752.1	2.06	-1.84	-0.93	7.2	8.3	
17,484.0	91.10	358.60	12,446.3	4,978.2	749.6	1.21	1.20	0.19	6.3	10.0	
17,578.0	89.25	2.81	12,446.0	5,073.2	750.8	4.84	-1.85	4.43	6.1	8.1	
17,673.0	89.96	3.08	12,446.7	5,167.0	755.6	0.81	0.76	0.29	6.7	2.6	
17,768.0	89.34	2.37	12,447.3	5,261.9	760.1	0.99	-0.65	-0.75	7.3	-2.7	
17,862.0	89.78	0.35	12,448.0	5,355.9	762.3	2.20	0.47	-2.15	8.0	-5.6	
17,957.0	88.90	359.83	12,449.1	5,450.9	762.5	1.08	-0.93	-0.55	9.1	-6.5	
18,052.0	88.61	0.27	12,451.0	5,545.9	762.6	0.47	-0.09	0.46	11.0	-7.3	
18,147.0	89.16	0.18	12,452.7	5,640.8	763.0	0.36	0.37	-0.08	12.7	-6.5	
18,242.0	91.71	359.83	12,451.9	5,735.8	763.0	2.71	2.68	-0.37	11.9	-9.2	
18,337.0	90.84	359.83	12,449.8	5,830.8	762.7	0.92	-0.92	0.00	9.9	-9.8	
18,432.0	89.43	358.77	12,449.6	5,925.8	761.5	1.66	-1.48	-1.12	9.9	-9.2	
18,527.0	89.87	359.12	12,450.2	6,020.8	759.8	0.59	0.48	0.37	10.7	-8.2	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #706H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3367.0usft
Site:	Cabello 23 Fed	MD Reference:	KB = 25 @ 3367.0usft
Well:	#706H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

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)
18,621.0	89.60	358.51	12,450.6	6,114.8	757.8	0.71	-0.29	-0.65	11.4	-7.0
18,717.0	91.19	359.91	12,450.0	6,210.7	756.5	2.21	1.66	1.46	10.9	-6.4
18,811.0	91.19	359.56	12,448.0	6,304.7	756.1	0.37	0.00	-0.37	9.2	-6.7
18,905.0	88.20	0.00	12,448.6	6,398.7	755.7	3.22	-3.18	0.47	9.9	-7.1
19,000.0	88.64	359.65	12,451.1	6,493.7	755.4	0.59	0.46	-0.37	12.8	-7.5
19,095.0	89.34	359.83	12,452.6	6,588.7	755.0	0.76	0.74	0.19	14.6	-7.8
19,190.0	90.31	0.35	12,453.1	6,683.7	755.1	1.16	1.02	0.55	15.2	-8.7
19,285.0	88.55	0.00	12,454.0	6,778.6	755.4	1.89	-1.85	-0.37	16.3	-9.7
19,380.0	89.69	1.67	12,455.5	6,873.6	756.8	2.13	1.20	1.76	18.0	-11.8
19,475.0	89.34	0.79	12,456.3	6,968.6	758.9	1.00	-0.37	-0.93	19.0	-14.6
19,570.0	90.31	1.58	12,456.6	7,063.6	760.8	1.32	1.02	0.83	19.5	-17.3
19,665.0	92.77	3.43	12,454.0	7,158.4	765.0	3.24	2.59	1.95	17.3	-22.1
19,760.0	92.59	359.56	12,449.6	7,253.3	767.4	4.07	-0.19	-4.07	13.0	-25.4
19,813.0	92.95	359.65	12,447.0	7,306.2	767.1	0.70	0.68	0.17	10.5	-25.4
20,010.0	92.95	359.65	12,436.9	7,502.9	765.9	0.00	0.00	0.00	0.9	-25.8

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/S (usft)	+E/W (usft)	
11,983.0	11,924.9	-243.3	769.1	KOP, MD:11983.0', TVD:11924.9', N/S:-243.3', E/W:769.1', INC:2.16
12,164.1	12,097.8	-195.0	775.9	FTP Crossing, MD:12164.1', TVD:12097.8', N/S:-195.0', E/W:775.9', INC:26.66
19,813.0	12,447.0	7,306.2	767.1	Last MWD Survey (MD=19813.0')
20,010.0	12,436.9	7,502.9	765.9	Projection to Bit (MD=20010.0')

Checked By: _____	Approved By: _____	Date: _____
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Lea County, NM (NAD 83 NME)

Caballo 23 Fed #706H

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: #706H

KB = 25 @ 3387.0usft 3342.0
Northing 404503.00 Easting 785426.00 Latitude 32° 6' 34.561 N Longitude 103° 32' 39.847 W

To convert a Magnetic Direction to a Grid Direction, Add 8.33°
To convert a Magnetic Direction to a True Direction, Add 8.81° East
To convert a True Direction to a Grid Direction, Subtract 0.42°

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dieg	TFace	VSeet	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	1588.6	7.77	107.03	1587.4	-7.7	25.2	2.00	107.03	-5.2	
4	7386.0	7.77	107.03	7331.6	-237.3	774.8	0.00	0.00	-180.2	
5	7774.6	0.00	0.00	7719.0	-245.0	800.0	2.00	180.00	-165.4	Brushy Top(Caballo 23 Fed Com #706H)
6	12037.1	0.00	0.00	11981.5	-245.0	800.0	0.00	0.00	-165.4	
7	12790.3	90.38	359.56	12459.0	235.6	796.3	12.00	359.56	312.5	TGT#1(Caballo 23 Fed Com #706H)
8	14460.2	90.38	359.56	12448.0	1905.4	783.4	0.00	0.00	1973.0	
9	14468.1	90.22	359.56	12448.0	1913.3	783.3	2.00	-180.00	1980.8	TGT#2(Caballo 23 Fed Com #706H)
10	16559.0	90.22	359.56	12440.0	4004.1	787.2	0.00	0.00	4060.0	
11	16569.9	90.00	359.56	12440.0	4015.0	787.1	2.00	-180.00	4070.9	
12	18338.9	90.00	359.56	12440.0	5784.0	753.4	0.00	0.00	5830.0	TGT#3(Caballo 23 Fed Com #706H)
13	18345.6	90.13	359.56	12440.0	5790.7	753.3	2.00	0.00	5836.6	
14	20072.0	90.13	359.56	12436.0	7517.0	740.0	0.00	0.00	7553.3	PBHL (Caballo 23 Fed Com #706H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP COORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
Brushy Top(Caballo 23 Fed Com #706H)	7719.0	-245.0	800.0	404226.00	785426.00
PBHL (Caballo 23 Fed Com #706H)	12436.0	7517.0	740.0	410200.00	788366.00
TGT#1(Caballo 23 Fed Com #706H)	12440.0	4004.1	787.2	408207.10	788355.18
TGT#2(Caballo 23 Fed Com #706H)	12440.0	5784.0	753.4	410207.00	788378.40
TGT#3(Caballo 23 Fed Com #706H)	12440.0	1905.4	783.4	408408.40	788409.38
FTP (Caballo 23 Fed Com #706H)	12441.0	-195.0	800.0	404308.00	788426.00

