

HOBBS OCD

JUN 13 2019

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EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Caballo 23 Fed

#705H

OH

Design: OH

Midland PVA

26 March, 2019



Midland PVA

Company:	EOG Resources - Midland			Local Co-ordinate Reference:	Well #705H
Project:	Lea County, NM (NAD 83 NME)			TVD Reference:	KB = 25 @ 3367.0usft
Site:	Caballo 23 Fed			MD Reference:	KB = 25 @ 3367.0usft
Well:	#705H			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	Caballo 23 Fed				
Site Position:		Northing:	404,499.00 usft	Latitude:	32° 6' 34.558 N
From:	Map	Easting:	785,117.00 usft	Longitude:	103° 32' 45.566 W
Position Uncertainty:	0.0 usft	Slot Radius:	15-3/16 "	Grid Convergence:	0.42 °

Well	#705H				
Well Position	+N-S	0.0 usft	Northing:	404,503.00 usft	Latitude:
	+E-W	0.0 usft	Easting:	785,593.00 usft	Longitude:
Position Uncertainty	0.0 usft		Wellhead Elevation:	usft	Ground Level:
					3,342.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	8/15/2018	6.61	59.95	47,754.25836828

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	1.11	

Survey Program	Date	3/26/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
156.0	19,970.0	Driftech MWD (OH)	MWD	OWSG MWD - Standard



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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	0.0	0.0	0.0
158.0	0.44	289.25	158.0	0.2	-0.6	0.28	0.28	0.00	-0.6	0.0	0.0
273.0	0.79	292.06	273.0	0.6	-1.7	0.31	0.30	2.44	-1.8	0.1	0.1
390.0	0.97	283.54	390.0	1.2	-3.4	0.19	0.15	-7.28	-3.6	-0.3	-0.3
449.0	1.14	289.60	449.0	1.5	-4.5	0.34	0.29	10.27	-4.7	0.1	0.1
568.0	1.32	281.87	567.9	2.2	-6.9	0.21	0.15	-6.50	-7.2	-0.7	-0.7
754.0	2.02	292.50	753.9	3.9	-12.1	0.41	0.38	5.72	-12.6	1.0	1.0
846.0	2.11	296.72	845.8	5.2	-15.1	0.19	0.10	4.59	-15.8	2.1	2.1
938.0	1.06	343.21	935.8	6.8	-16.8	1.76	-1.17	51.66	-11.3	14.1	14.1
1,027.0	0.70	30.50	1,026.8	8.1	-16.7	0.86	-0.40	51.97	1.5	18.5	18.5
1,162.0	1.67	89.76	1,161.7	8.5	-14.4	1.16	0.72	51.30	15.6	5.9	5.9
1,333.0	2.64	90.71	1,332.6	8.0	-8.0	0.60	0.57	-5.29	8.1	7.6	7.6
1,428.0	2.11	98.00	1,427.5	7.7	-4.1	0.64	-0.56	7.67	5.1	7.1	7.1
1,523.0	1.76	98.62	1,522.5	7.2	-0.9	0.37	-0.37	0.65	2.0	7.0	7.0
1,618.0	2.02	91.23	1,617.4	7.0	2.2	0.37	0.27	-7.76	-2.1	7.0	7.0
1,713.0	1.85	88.51	1,712.4	7.0	5.4	0.20	-0.18	-2.88	-5.6	6.9	6.9
1,808.0	1.58	86.84	1,807.3	7.1	8.3	0.29	-0.28	-1.76	-6.6	6.6	6.6
1,902.0	1.49	80.07	1,901.3	7.4	10.8	0.22	-0.10	-7.20	-11.9	5.4	5.4
1,997.0	1.32	83.59	1,996.3	7.7	13.1	0.20	-0.18	3.71	-13.8	6.2	6.2
2,092.0	1.49	76.12	2,091.2	8.1	15.3	0.26	0.18	-7.86	-16.9	4.2	4.2
2,187.0	1.76	73.21	2,186.2	8.9	17.9	0.30	0.28	-3.06	-19.7	3.3	3.3
2,282.0	1.41	69.35	2,281.2	9.7	20.4	0.38	-0.37	-4.06	-22.5	1.9	1.9
2,377.0	1.58	69.70	2,376.1	10.6	22.8	0.16	0.18	0.37	-25.0	2.0	2.0
2,471.0	1.49	65.74	2,470.1	11.5	25.1	0.15	-0.10	-4.21	-27.6	0.2	0.2
2,566.0	1.32	60.38	2,565.1	12.6	27.2	0.23	-0.18	-5.64	-29.8	-2.5	-2.5
2,662.0	1.41	57.39	2,661.0	13.7	29.1	0.12	0.09	-3.11	-31.9	-4.1	-4.1
2,756.0	3.17	152.32	2,755.0	12.1	31.3	3.81	1.87	100.99	-3.8	33.3	33.3



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Design:	OH					Database:	EDM 5000.14				

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2,851.0	3.08	149.77	2,849.8	7.5	33.8	0.17	-0.09	-2.68	-10.5	33.0	
2,946.0	2.89	148.25	2,944.7	3.3	36.5	0.22	-0.09	-3.71	-17.5	32.2	
3,041.0	5.01	173.50	3,039.5	-2.9	38.3	2.86	2.13	28.68	-7.0	37.6	
3,136.0	4.84	166.20	3,134.1	-10.9	39.7	0.68	-0.18	-7.68	-17.2	34.6	
3,232.0	4.84	151.88	3,228.8	-18.4	42.6	1.26	0.00	-14.92	-27.2	27.2	
3,328.0	5.36	145.55	3,323.4	-25.5	47.0	0.81	0.55	-6.73	-29.3	22.6	
3,421.0	4.57	141.15	3,418.1	-32.2	51.9	0.92	-0.83	-4.63	-29.2	20.3	
3,516.0	4.22	137.02	3,512.8	-37.7	56.6	0.50	-0.37	-4.35	-28.0	18.6	
3,611.0	3.96	142.56	3,607.5	-42.8	61.0	0.50	-0.27	5.83	-22.9	21.3	
3,706.0	4.48	144.93	3,702.3	-48.5	65.1	0.58	0.55	2.49	-19.1	21.7	
3,801.0	4.66	148.71	3,797.0	-54.8	69.3	0.37	0.19	3.88	-15.3	21.8	
3,896.0	3.96	143.62	3,891.7	-60.7	73.2	0.84	-0.74	-5.36	-14.4	19.7	
3,991.0	5.10	141.51	3,986.4	-66.7	77.8	1.21	1.20	-2.22	-12.7	18.9	
4,086.0	5.60	140.28	4,081.0	-73.7	83.5	0.75	0.74	-1.29	-12.2	18.7	
4,181.0	5.63	144.41	4,175.5	-81.2	89.2	0.47	-0.18	4.35	-10.3	19.4	
4,276.0	5.36	141.68	4,270.1	-88.4	94.7	0.40	-0.28	-2.87	-10.4	18.5	
4,371.0	6.07	140.54	4,364.6	-95.8	100.7	0.76	0.75	-1.20	-10.3	18.4	
4,466.0	6.16	139.22	4,459.1	-103.5	107.2	0.18	0.09	-1.39	-10.9	18.4	
4,561.0	6.07	140.01	4,553.5	-111.2	113.7	0.13	-0.09	0.63	-10.8	18.8	
4,656.0	7.21	133.24	4,647.9	-119.2	121.3	1.45	1.20	-7.13	-14.1	18.2	
4,750.0	8.62	129.90	4,741.0	-127.7	131.0	1.58	1.50	-3.55	-18.4	18.9	
4,845.0	8.62	133.24	4,834.9	-137.2	141.7	0.53	0.00	3.52	-21.7	21.8	
4,940.0	7.03	134.39	4,929.0	-146.1	151.0	1.68	-1.67	1.21	-24.4	23.5	
5,035.0	6.16	137.29	5,023.4	-153.9	158.6	0.98	-0.92	3.05	-24.2	25.7	
5,130.0	5.36	136.23	5,117.9	-160.9	165.1	0.85	-0.84	-1.12	-24.3	26.0	
5,224.0	5.36	133.42	5,211.5	-167.1	171.4	0.28	0.00	-2.99	-24.6	25.9	
5,319.0	5.36	130.96	5,306.1	-173.0	177.9	0.24	0.00	-2.59	-24.8	26.4	



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5,414.0	5.80	145.90	5,400.6	-179.9	184.0	1.59	0.46	15.73	-16.4		32.2
5,509.0	6.51	148.19	5,495.1	-188.5	189.5	0.79	0.75	2.41	-15.4		31.8
5,604.0	6.51	145.37	5,589.5	-197.5	185.4	0.34	0.00	-2.97	-17.8		30.0
5,699.0	6.16	144.93	5,683.9	-206.1	201.4	0.37	-0.37	-0.46	-18.6		29.2
5,794.0	6.07	142.47	5,778.4	-214.2	207.4	0.29	-0.09	-2.59	-20.0		28.0
5,889.0	5.89	143.97	5,872.8	-222.2	213.3	0.25	-0.19	1.58	-19.3		28.1
5,983.0	4.57	140.89	5,966.5	-229.0	218.5	1.44	-1.40	-3.28	-19.5		26.9
6,078.0	3.78	142.38	6,061.2	-234.4	222.8	0.84	-0.83	1.57	-15.9		27.3
6,173.0	2.11	169.19	6,156.1	-238.6	225.0	2.23	-1.76	28.22	0.3		29.3
6,268.0	1.76	169.37	6,251.0	-241.7	225.6	0.37	-0.37	0.19	1.2		27.2
6,363.0	0.53	166.29	6,346.0	-243.6	226.0	1.30	-1.29	-3.24	-0.9		26.6
6,458.0	1.06	12.48	6,441.0	-243.2	226.3	1.64	0.56	-161.91	-11.4		-24.4
6,553.0	1.06	5.45	6,536.0	-241.4	226.6	0.14	0.00	-7.40	-10.1		-25.7
6,647.0	0.88	12.66	6,630.0	-239.9	226.8	0.23	-0.19	7.67	-14.8		-24.2
6,743.0	0.68	7.74	6,726.0	-238.4	227.1	0.08	0.00	-5.12	-14.1		-25.4
6,838.0	0.78	3.96	6,820.9	-237.0	227.2	0.11	-0.09	-3.98	-13.8		-26.3
6,933.0	0.70	354.11	6,915.9	-235.6	227.2	0.16	-0.09	-10.37	-10.3		-28.4
7,028.0	0.62	339.35	7,010.9	-234.7	227.0	0.20	-0.08	-15.54	-3.8		-30.3
7,123.0	0.53	333.72	7,105.9	-233.8	226.6	0.11	-0.09	-5.93	-1.8		-30.6
7,217.0	0.62	347.79	7,199.9	-233.0	226.3	0.16	0.10	14.97	-10.1		-29.1
7,312.0	0.70	343.57	7,294.9	-231.9	226.0	0.10	0.08	-4.44	-9.0		-29.8
7,407.0	0.62	349.10	7,389.9	-230.9	225.8	0.11	-0.08	5.82	-12.9		-28.7
7,502.0	0.70	333.37	7,484.9	-229.8	225.4	0.21	0.08	-16.56	-5.7		-31.3
7,596.0	0.62	331.35	7,579.9	-228.9	224.9	0.09	-0.09	-2.15	-5.7		-31.5
7,691.0	0.44	339.52	7,673.9	-228.1	224.5	0.21	-0.19	6.60	-11.0		-30.3
7,786.0	0.53	319.22	7,768.9	-227.4	224.1	0.20	0.09	-21.37	-0.6		-32.4
7,881.0	0.18	297.34	7,863.9	-227.0	223.7	0.39	-0.37	-23.03	11.0		-30.4



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7,976.0	0.26	212.17	7,958.9	-227.1	223.5	0.32	0.08	-89.65	31.0		8.2
8,070.0	0.53	201.80	8,052.9	-227.7	223.2	0.30	0.29	-11.03	28.4		13.6
8,165.0	0.79	189.41	8,147.9	-228.8	222.9	0.31	0.27	-13.04	23.7		19.3
8,261.0	0.97	185.63	8,243.9	-230.2	222.7	0.20	0.19	-3.94	20.9		20.8
8,355.0	0.79	154.25	8,337.9	-231.6	222.9	0.54	-0.19	-33.38	5.7		28.2
8,451.0	0.79	149.59	8,433.9	-232.8	223.5	0.07	0.00	-4.85	2.1		28.5
8,546.0	0.53	152.84	8,528.8	-233.7	224.1	0.28	-0.27	3.42	2.6		28.4
8,641.0	0.53	168.14	8,623.8	-234.5	224.4	0.15	0.00	16.11	9.1		26.8
8,738.0	0.53	166.20	8,718.8	-235.4	224.6	0.02	0.00	-2.04	7.4		27.1
8,830.0	0.62	148.80	8,812.8	-236.3	224.9	0.21	0.10	-18.51	-2.0		27.9
8,925.0	0.79	151.61	8,907.8	-237.3	225.5	0.18	0.18	2.96	-1.8		28.0
9,020.0	0.88	158.38	9,002.8	-238.5	226.1	0.14	0.09	7.13	0.1		28.1
9,115.0	0.62	135.71	9,097.8	-239.6	226.7	0.41	-0.27	-23.66	-11.9		25.7
9,210.0	0.88	152.05	9,192.8	-240.6	227.4	0.35	0.27	17.20	-5.4		28.2
9,304.0	1.41	238.71	9,286.8	-241.6	226.8	1.72	0.56	82.19	26.6		7.8
9,399.0	1.06	241.26	9,381.8	-242.8	225.0	0.37	-0.37	2.68	24.9		6.6
9,494.0	0.97	235.29	9,476.7	-243.7	223.6	0.15	-0.08	-6.28	22.4		9.1
9,589.0	1.23	256.91	9,571.7	-244.4	221.9	0.51	0.27	22.76	22.4		0.5
9,683.0	1.41	272.55	9,665.7	-244.6	219.8	0.43	0.19	16.84	19.6		-5.3
9,778.0	1.76	267.19	9,760.7	-244.6	217.1	0.40	0.37	-5.64	17.3		-3.5
9,873.0	2.02	276.88	9,855.8	-244.5	214.0	0.43	0.27	9.99	13.4		-6.1
9,968.0	2.02	257.87	9,950.8	-244.6	210.7	0.69	0.00	-19.80	11.4		-2.0
10,062.0	2.37	240.29	10,044.5	-246.0	207.4	0.80	0.37	-18.70	8.0		1.0
10,157.0	1.76	239.50	10,139.4	-247.7	204.5	0.64	-0.64	-0.83	4.5		1.1
10,252.0	1.93	242.23	10,234.4	-249.2	201.8	0.20	0.18	2.87	1.5		1.0
10,347.0	1.49	196.53	10,329.3	-251.1	200.0	1.46	-0.46	-48.11	-2.0		0.6
10,441.0	0.88	214.81	10,423.3	-252.9	199.3	0.76	-0.65	19.45	-3.6		1.6



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10,536.0	0.62	262.18	10,518.3	-253.5	188.3	0.68	-0.27	49.86	-2.3	4.3	
10,631.0	1.06	185.71	10,613.3	-254.5	187.7	1.15	0.46	-80.49	-5.7	-1.7	
10,726.0	1.06	251.90	10,708.3	-255.6	186.8	1.22	0.00	69.67	-5.1	5.3	
10,821.0	1.41	259.89	10,803.3	-256.1	184.8	0.41	0.37	8.41	-6.3	6.1	
10,916.0	1.49	239.15	10,898.2	-256.9	182.6	0.56	0.08	-21.83	-10.4	3.0	
11,010.0	1.85	253.92	10,992.2	-258.0	190.1	0.59	0.38	15.71	-12.0	5.9	
11,105.0	2.20	275.10	11,087.1	-258.2	186.8	0.86	0.37	22.29	-12.3	10.4	
11,199.0	2.46	285.12	11,181.1	-257.6	183.1	0.51	0.28	10.66	-14.1	12.7	
11,294.0	1.93	278.09	11,276.0	-256.8	179.5	0.82	-0.56	-7.40	-19.2	10.8	
11,484.0	2.11	255.50	11,465.9	-257.2	173.0	0.43	0.09	-11.89	-28.2	1.2	
11,578.0	1.93	251.63	11,560.8	-258.2	169.8	0.24	-0.19	-4.07	-31.6	-0.8	
11,685.0	1.32	267.37	11,666.8	-258.8	166.8	0.71	-0.58	14.85	-33.6	8.3	
11,807.0	0.82	248.28	11,788.8	-259.1	164.8	0.82	-0.57	-15.64	-36.4	-3.8	
11,902.0	0.18	38.59	11,883.8	-259.2	164.4	0.82	-0.46	158.21	30.1	21.5	
11,997.0	6.24	15.12	11,978.8	-254.1	165.9	6.40	6.38	-24.71	13.7	31.8	
12,092.0	21.19	10.46	12,070.6	-232.1	170.4	15.77	15.74	-4.91	-2.5	30.4	
12,186.0	36.49	6.77	12,152.7	-187.3	176.8	16.36	16.28	-3.93	-23.6	25.9	
12,281.0	43.26	7.56	12,225.6	-126.9	184.4	7.15	7.13	0.63	-42.4	19.7	
12,376.0	49.07	4.31	12,291.3	-58.8	191.4	6.59	6.12	-3.42	-51.9	10.1	
12,470.0	60.85	359.39	12,345.2	17.9	193.6	13.24	12.53	-5.23	-54.2	4.4	
12,565.0	67.01	356.33	12,387.0	103.2	191.9	6.56	6.48	-1.12	-49.8	5.3	
12,660.0	71.31	359.65	12,420.8	192.0	190.4	4.71	4.53	1.39	-33.2	6.7	
12,754.0	77.38	1.41	12,446.1	282.4	191.2	6.70	6.46	1.87	-9.2	5.1	
12,848.0	86.68	0.27	12,459.0	375.4	182.6	10.18	10.11	-1.21	3.9	3.0	
12,942.0	87.23	0.18	12,463.8	489.3	193.0	0.38	0.37	-0.10	9.0	2.0	
13,037.0	90.92	0.88	12,465.3	564.3	183.8	3.95	3.88	0.74	10.7	0.4	
13,132.0	91.71	0.44	12,463.2	659.2	184.9	0.95	0.83	-0.46	8.8	-1.4	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #705H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3367.0usft
Site:	Caballo 23 Fed	MD Reference:	KB = 25 @ 3367.0usft
Well:	#705H	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)	
13,227.0	91.10	359.91	12,460.8	754.2	195.2	0.85	-0.64	-0.56	6.7	-2.3	
13,322.0	89.25	359.83	12,460.5	849.2	195.0	1.95	-1.95	-0.08	6.7	-2.8	
13,417.0	90.04	0.62	12,461.1	944.2	195.4	1.18	0.83	0.83	7.5	-3.8	
13,512.0	88.81	0.70	12,462.1	1,039.2	198.5	1.30	-1.29	0.08	8.7	-5.6	
13,607.0	89.16	0.53	12,463.8	1,134.2	197.5	0.41	0.37	-0.18	10.6	-7.3	
13,702.0	90.48	1.06	12,464.1	1,229.1	198.8	1.80	1.39	0.56	11.2	-9.3	
13,797.0	88.29	1.06	12,465.1	1,324.1	200.6	2.31	-2.31	0.00	12.4	-11.7	
13,892.0	88.29	358.77	12,467.9	1,419.1	200.4	2.41	0.00	-2.41	15.5	-12.2	
13,988.0	89.60	358.51	12,469.6	1,513.0	198.2	1.42	1.39	-0.28	17.5	-10.7	
14,081.0	90.84	358.60	12,469.3	1,608.0	195.8	1.31	1.31	0.09	17.4	-9.0	
14,176.0	91.36	359.56	12,467.5	1,703.0	194.3	1.15	0.55	1.01	15.8	-8.1	
14,271.0	88.99	0.44	12,467.2	1,797.9	194.3	2.66	-2.49	0.93	15.7	-8.8	
14,365.0	88.99	0.44	12,468.8	1,891.9	195.0	0.00	0.00	0.00	17.8	-10.2	
14,460.0	88.81	0.97	12,470.6	1,986.9	198.2	0.59	-0.19	0.56	19.7	-12.0	
14,555.0	89.34	0.79	12,472.2	2,081.9	197.6	0.59	0.56	-0.19	21.7	-14.1	
14,650.0	90.92	1.85	12,472.0	2,176.9	199.8	2.00	1.66	1.12	22.0	-17.0	
14,744.0	91.01	359.91	12,470.4	2,270.8	201.2	2.07	0.10	-2.06	20.8	-19.1	
14,839.0	88.55	357.63	12,470.7	2,365.8	199.2	3.53	-2.59	-2.40	21.6	-17.7	
14,934.0	91.10	359.04	12,471.0	2,460.7	196.5	3.07	2.66	1.48	22.4	-15.7	
15,028.0	91.01	358.60	12,469.3	2,554.7	194.5	0.48	-0.10	-0.47	21.1	-14.4	
15,123.0	88.99	357.72	12,469.3	2,649.6	191.5	2.32	-2.13	-0.93	21.6	-12.0	
15,218.0	89.52	357.10	12,470.5	2,744.5	187.2	0.86	0.56	-0.65	23.2	-8.4	
15,313.0	90.31	358.68	12,470.7	2,839.5	183.7	1.86	0.83	1.66	23.8	-5.6	
15,408.0	89.96	358.68	12,470.5	2,934.4	181.5	0.37	-0.37	0.00	24.1	-4.0	
15,502.0	88.72	358.07	12,471.5	3,029.4	178.8	1.47	-1.32	-0.65	25.6	-2.0	
15,597.0	89.69	357.19	12,472.9	3,123.3	174.9	1.38	1.02	-0.93	27.4	1.2	
15,692.0	90.92	358.24	12,472.4	3,218.2	171.1	1.70	1.29	1.11	27.3	4.3	



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Caballo 23 Fed
 Well: #705H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #705H
 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)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
15,787.0	88.43	358.16	12,472.1	3,313.2	168.1	1.57	-1.57	-0.08	27.5	6.6	
15,881.0	90.57	359.04	12,472.1	3,407.1	165.8	1.53	1.21	0.94	27.9	8.3	
15,976.0	91.36	359.21	12,470.5	3,502.1	164.4	0.85	0.83	0.18	26.8	9.0	
16,071.0	91.01	359.30	12,468.5	3,597.1	163.1	0.38	-0.37	0.09	25.3	9.6	
16,166.0	90.84	1.58	12,467.0	3,692.1	163.9	2.41	-0.18	2.40	24.2	8.2	
16,260.0	89.87	2.84	12,466.4	3,786.0	167.3	1.53	-1.03	1.13	24.1	4.1	
16,355.0	90.13	2.84	12,466.4	3,880.8	171.7	0.27	0.27	0.00	24.5	-1.0	
16,450.0	89.87	0.97	12,466.4	3,975.9	174.7	1.78	-0.27	-1.76	25.0	-4.8	
16,545.0	89.34	359.21	12,467.0	4,070.8	174.8	1.93	-0.56	-1.85	26.1	-5.5	
16,640.0	89.34	359.04	12,468.1	4,165.8	173.4	0.18	0.00	-0.18	27.7	-4.7	
16,734.0	89.43	0.18	12,469.1	4,259.8	172.8	1.22	0.10	1.21	28.3	-4.7	
16,829.0	88.99	359.91	12,470.5	4,354.8	172.8	0.54	-0.46	-0.28	31.1	-5.5	
16,924.0	90.75	0.35	12,470.7	4,449.8	173.0	1.91	1.85	0.46	31.9	-6.3	
17,018.0	92.07	0.62	12,468.4	4,543.8	173.8	1.43	1.40	0.29	30.1	-7.8	
17,113.0	92.24	359.91	12,464.8	4,638.7	174.3	0.77	0.18	-0.75	27.1	-8.9	
17,208.0	91.80	1.14	12,461.4	4,733.6	175.2	1.37	-0.46	1.29	24.3	-10.5	
17,303.0	90.22	0.09	12,459.8	4,828.6	176.2	2.00	-1.68	-1.11	23.1	-12.1	
17,398.0	88.65	0.09	12,460.8	4,923.6	176.3	1.76	-1.76	0.00	24.7	-13.0	
17,493.0	88.16	0.35	12,462.7	5,018.6	176.7	0.70	0.84	0.27	27.1	-14.0	
17,588.0	89.16	358.77	12,464.1	5,113.6	176.0	1.66	0.00	-1.66	29.0	-14.0	
17,683.0	90.75	359.91	12,464.1	5,208.6	174.9	2.06	1.67	1.20	28.8	-13.5	
17,778.0	91.89	359.47	12,462.0	5,303.5	174.3	1.29	1.20	-0.46	28.0	-13.7	
17,872.0	91.36	0.00	12,459.3	5,397.5	173.9	0.80	-0.56	0.56	25.9	-13.9	
17,967.0	90.75	359.21	12,457.5	5,492.5	173.3	1.05	-0.64	-0.63	24.6	-13.9	
18,062.0	89.25	359.12	12,457.5	5,587.5	171.9	1.58	-1.58	-0.09	25.2	-13.2	
18,157.0	90.22	359.04	12,458.0	5,682.4	170.3	1.02	1.02	-0.08	26.2	-12.4	
18,251.0	90.04	358.86	12,457.8	5,776.4	168.6	0.27	-0.19	-0.19	26.5	-11.3	



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Caballo 23 Fed
 Well: #705H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #705H
 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)	EAW (usft)	DLag (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
18,346.0	80.48	359.74	12,457.3	5,871.4	167.5	1.04	0.46	0.93	26.4	-10.8	
18,441.0	89.52	358.42	12,457.3	5,966.4	165.9	1.72	-1.01	-1.39	26.5	-10.0	
18,536.0	91.01	357.80	12,456.9	6,061.3	162.8	1.70	1.57	-0.65	26.2	-7.5	
18,631.0	90.48	358.07	12,455.7	6,156.3	159.4	0.63	-0.56	0.28	25.1	-4.8	
18,727.0	89.80	358.24	12,455.6	6,252.2	156.3	0.93	-0.92	0.18	25.1	-2.4	
18,822.0	90.40	358.60	12,455.6	6,347.2	153.7	0.92	0.84	0.38	25.2	-0.4	
18,916.0	89.52	357.19	12,455.7	6,441.1	150.2	1.77	-0.94	-1.50	25.4	2.4	
19,011.0	88.99	356.31	12,456.9	6,536.0	144.6	1.08	-0.56	-0.93	26.6	7.1	
19,106.0	91.01	357.63	12,456.9	6,630.8	139.8	2.54	2.13	1.39	26.9	11.4	
19,201.0	91.45	358.68	12,454.9	6,725.7	138.8	1.20	0.46	1.11	24.9	13.8	
19,296.0	92.15	0.53	12,451.9	6,820.7	136.1	2.08	0.74	1.95	22.1	13.6	
19,391.0	91.01	0.62	12,449.3	6,915.6	137.1	1.20	-1.20	0.09	19.6	12.2	
19,486.0	89.08	359.12	12,449.2	7,010.6	136.8	2.57	-2.03	-1.58	19.6	11.7	
19,581.0	89.25	358.68	12,450.6	7,105.6	135.0	0.50	0.18	-0.46	21.1	12.9	
19,676.0	90.57	359.65	12,450.7	7,200.6	133.6	1.72	1.39	1.02	21.3	13.6	
19,771.0	89.25	356.84	12,450.9	7,295.5	130.7	3.27	-1.39	-2.96	21.6	15.8	
19,865.0	88.90	354.29	12,452.4	7,389.2	123.5	2.74	-0.37	-2.71	23.3	22.4	
19,905.0	89.08	354.36	12,453.1	7,429.0	119.5	0.50	0.45	0.22	24.0	26.1	
19,970.0	89.08	354.36	12,454.1	7,493.7	113.1	0.00	0.00	0.00	25.1	32.0	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #705H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3367.0usft
Site:	Cabello 23 Fed	MD Reference:	KB = 25 @ 3367.0usft
Well:	#705H	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)	
11,951.0	11,932.7	-257.7	164.9	KOP, MD:11951.0', TVD:11932.7', N/S:-257.7', E/W:164.9', INC:3.30
12,165.4	12,135.8	-199.0	175.4	FTP Crossing, MD:12165.4', TVD:12135.8', N/S:-199.0', E/W:175.4', INC:3.13
18,905.0	12,453.1	7,429.0	118.5	Last MWD Survey (MD=18905.0')
19,970.0	12,454.1	7,493.7	113.1	Projection to Bit (MD=19970.0')

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

Caballo 23 Fed #705H

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: #705H

KB = 25 @ 3357.0usft 3342.0
Northing 404503.00 Easting 785583.00 Latitude 32° 6' 34.563 N Longitude 103° 32' 40.031 W

SECTION DETAILS

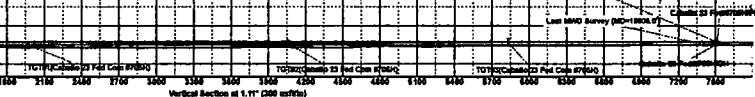
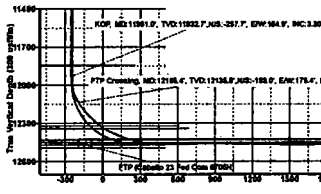
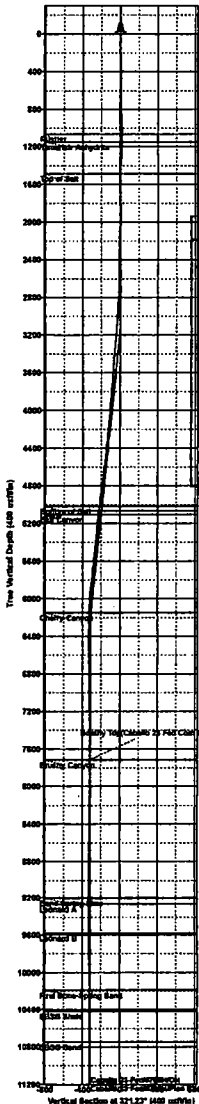
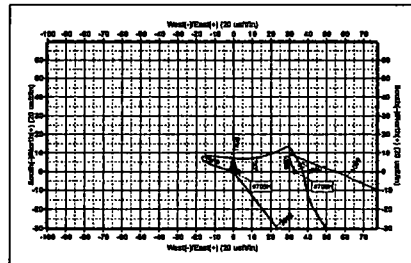
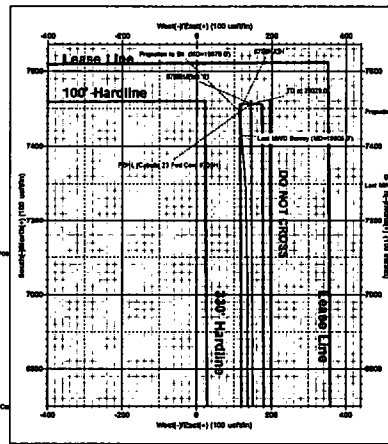
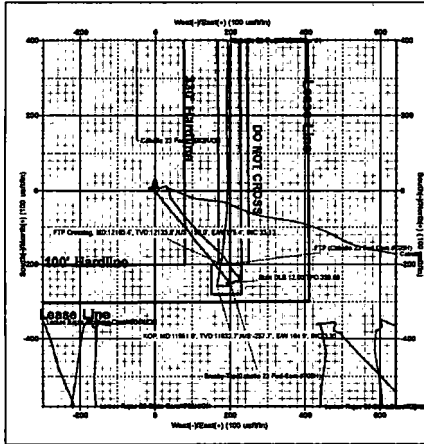
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	3000.0	0.00	0.00	3000.0	0.0	0.0	0.00	0.00	0.0	
3	3299.9	6.00	141.23	3299.3	-12.2	9.8	2.00	141.23	-12.0	
4	6056.3	6.00	141.23	6040.7	-236.8	190.2	0.00	0.00	-233.1	
5	6356.2	0.00	0.00	6340.0	-249.0	200.0	2.00	180.00	-245.1	
6	11994.2	0.00	0.00	11978.0	-249.0	200.0	0.00	0.00	-245.1	
7	12745.4	90.15	359.59	12455.5	229.7	186.6	12.00	359.59	233.4	
8	14485.6	90.15	359.59	12451.0	1969.8	184.3	0.00	0.00	1973.0	TGT#1(Caballo 23 Fed Com #705H)
9	14492.0	90.27	359.59	12451.0	1976.2	184.2	2.00	0.00	1979.4	
10	16573.4	90.27	359.59	12441.0	4057.5	169.5	0.00	0.00	4060.0	TGT#2(Caballo 23 Fed Com #705H)
11	16575.8	90.32	359.59	12441.0	4059.9	169.5	2.00	0.00	4062.5	
12	18344.0	90.32	359.59	12431.0	5828.1	156.9	0.00	0.00	5830.0	TGT#3(Caballo 23 Fed Com #705H)
13	18356.9	90.07	359.59	12431.0	5840.9	156.8	2.00	180.00	5842.9	
14	20029.0	90.07	359.59	12429.0	7513.0	145.0	0.00	0.00	7514.4	PBHL (Caballo 23 Fed Com #705H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
Brushy Top(Caballo 23 Fed Com #705H)	7713.0	-248.0	200.0	404254.00	785783.00
PBHL (Caballo 23 Fed Com #705H)	12429.0	7513.0	145.0	412016.00	785726.00
TGT#1(Caballo 23 Fed Com #705H)	12451.0	4057.5	169.5	410231.10	785749.84
TGT#2(Caballo 23 Fed Com #705H)	12441.0	4057.5	169.5	405880.50	785762.48
TGT#3(Caballo 23 Fed Com #705H)	12431.0	5828.1	156.9	406471.80	785777.28
FTP (Caballo 23 Fed Com #705H)	12458.0	-199.0	200.0	404304.00	785793.00



Lea County, NM (NAD 83 NME)
Caballo 23 Fed Com #705H
Plan #1