



EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Caravan 28 State Com

#703H

OH

Design: OH

Midland PVA

16 January, 2019

HOBBS OCD
APR 12 2019
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Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Caravan 28 State Com
 Well: #703H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #703H
 TVD Reference: KB = 25 @ 3550.0usft
 MD Reference: KB = 25 @ 3550.0usft
 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	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Caravan 28 State Com		
Site Position:		Northing:	435,288.00 usft
From:	Map	Easting:	774,878.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 11' 39.963 N
		Longitude:	103° 34' 44.423 W
		Grid Convergence:	0.40 °

Well	#703H		
Well Position	+N-S	0.0 usft	Northing:
	+E-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft		Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2015	9/27/2018	6.62
			Dip Angle (°)
			60.02
			Field Strength (nT)
			47,787.35012685

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
Vertical Section:	Depth From (TVD)	+N-S (usft)	+E-W (usft)
	0.0	0.0	0.0
			Direction (°)
			178.15

Survey Program	Date 1/16/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
173.0	22,689.0	Drilltech MWD (OH)	MWD
			Description
			OWSG MWD - Standard



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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	
173.0	0.97	234.46	173.0	-0.9	-1.2	0.56	0.56	0.00	-1.5	0.0	
320.0	2.37	230.50	318.9	-3.5	-4.5	0.98	0.95	-2.69	-5.7	-0.2	
505.0	3.43	223.12	504.7	-10.0	-11.3	0.81	0.57	-3.99	-15.0	-1.4	
693.0	1.76	208.71	692.5	-16.6	-16.5	0.95	-0.89	-7.66	-22.5	-6.5	
880.0	1.93	182.34	879.4	-22.3	-18.0	0.46	0.09	-14.10	-23.0	-17.1	
1,066.0	0.70	75.73	1,065.4	-25.1	-17.1	1.20	-0.66	-57.32	22.7	-20.2	
1,238.0	0.35	47.69	1,237.4	-24.5	-15.6	0.25	-0.20	-16.30	28.1	-7.8	
1,429.0	0.26	325.43	1,428.4	-23.8	-15.5	0.21	-0.05	-43.07	10.8	26.2	
1,615.0	0.44	328.15	1,614.3	-22.8	-16.1	0.10	0.10	1.46	10.9	25.7	
1,801.0	0.44	332.90	1,800.3	-21.6	-16.8	0.02	0.00	2.55	11.6	24.8	
1,986.0	0.09	243.25	1,987.3	-21.0	-17.2	0.24	-0.19	-47.94	-24.8	11.0	
2,174.0	0.35	281.59	2,173.3	-20.9	-17.9	0.16	0.14	25.99	-9.0	26.0	
2,362.0	0.35	279.90	2,361.3	-20.5	-19.0	0.04	0.00	-8.22	-15.2	23.5	
2,547.0	0.35	290.97	2,546.3	-20.2	-20.1	0.04	0.00	5.98	-11.5	26.1	
2,733.0	0.44	325.69	2,732.3	-19.5	-21.0	0.13	0.05	18.67	4.2	28.3	
2,920.0	0.53	15.00	2,919.3	-18.0	-21.2	0.22	0.05	26.37	22.9	15.8	
3,107.0	0.88	52.61	3,106.3	-16.3	-19.8	0.30	0.19	20.11	25.7	-0.9	
3,294.0	1.49	70.63	3,293.3	-14.6	-16.4	0.38	0.33	9.64	20.3	-8.4	
3,481.0	0.44	94.27	3,480.2	-13.9	-13.4	0.59	-0.56	12.64	12.3	-14.8	
3,668.0	0.79	313.21	3,667.2	-13.1	-13.8	0.62	0.19	-75.43	-1.0	16.8	
3,855.0	2.29	356.98	3,854.2	-8.4	-14.7	0.96	0.80	23.41	7.7	15.2	
4,042.0	1.14	93.39	4,041.1	-4.8	-13.1	1.43	-0.61	51.56	12.8	-5.6	
4,230.0	3.98	44.61	4,228.9	-0.3	-6.7	1.77	1.50	-25.95	4.9	4.5	
4,416.0	6.16	47.43	4,414.2	11.0	5.2	1.19	1.18	1.52	-11.3	4.6	
4,603.0	6.95	7.70	4,600.0	29.0	14.1	2.41	0.42	-21.25	-30.6	-10.2	
4,790.0	4.22	44.44	4,788.2	45.2	20.5	2.34	-1.46	19.65	-46.5	17.1	



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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)
4,979.0	4.40	48.28	4,974.7	55.1	30.6	0.12	0.10	0.97	-58.0	17.1
5,165.0	8.33	21.08	5,159.9	69.6	39.4	1.61	1.04	-13.58	-62.3	-15.1
5,354.0	8.71	7.26	5,347.2	93.6	45.0	1.57	1.26	-7.30	-54.2	-30.7
5,541.0	12.31	1.28	5,531.1	127.5	47.2	2.01	1.93	-3.20	-47.7	-31.8
5,727.0	12.22	2.78	5,712.8	167.0	48.6	0.18	-0.05	0.81	-49.7	-25.3
5,914.0	12.93	2.60	5,895.3	207.7	50.5	0.38	0.38	-0.10	-51.8	-20.5
6,101.0	12.05	5.15	6,077.9	248.0	53.2	0.56	-0.47	1.38	-54.4	-14.1
6,289.0	11.43	6.91	6,262.0	288.1	57.2	0.38	-0.33	0.94	-54.0	-9.8
6,476.0	10.73	3.66	6,445.5	321.8	60.5	0.50	-0.37	-1.74	-50.6	-9.6
6,664.0	10.82	1.90	6,630.2	356.9	62.2	0.18	0.05	-0.94	-46.6	-8.2
6,851.0	10.64	1.37	6,813.8	391.7	63.2	0.11	-0.10	-0.26	-42.9	-1.0
7,038.0	6.86	20.36	6,998.7	419.5	67.5	2.52	-2.02	10.16	-31.1	11.6
7,225.0	1.08	26.16	7,185.2	431.5	72.2	3.11	-3.10	3.10	-15.5	8.0
7,412.0	0.88	7.44	7,372.2	434.5	73.1	0.19	-0.10	-10.01	-4.2	2.7
7,599.0	1.08	330.98	7,559.2	437.4	72.5	0.34	0.10	-19.51	-4.7	1.4
7,787.0	0.88	294.40	7,747.1	439.6	70.3	0.34	-0.10	-19.45	-7.5	-2.7
7,974.0	1.08	260.03	7,934.1	439.8	67.3	0.32	0.10	-18.38	-7.5	-7.3
8,161.0	1.14	223.82	8,121.1	438.2	64.3	0.37	0.04	-19.38	-5.0	-11.3
8,349.0	1.67	230.50	8,309.0	435.1	60.9	0.29	0.28	3.55	-10.9	-10.5
8,536.0	2.02	220.92	8,495.9	430.9	56.7	0.25	0.19	-5.12	-15.0	-12.6
8,723.0	2.29	222.88	8,682.8	425.7	52.0	0.15	0.14	1.04	-22.5	-12.0
8,909.0	2.46	226.72	8,868.6	420.2	46.5	0.13	0.09	2.08	-30.9	-10.2
9,096.0	2.02	231.91	9,055.5	415.4	41.0	0.26	-0.24	2.78	-39.0	-7.0
9,282.0	0.88	188.32	9,241.4	412.0	38.2	0.81	-0.61	-23.44	-27.3	-34.2
9,469.0	1.08	135.23	9,428.4	409.3	39.2	0.47	0.10	-28.39	8.4	-43.5
9,655.0	0.09	11.66	9,614.4	408.3	40.5	0.60	-0.52	-66.44	32.4	29.6
9,842.0	1.14	1.64	9,801.4	410.3	40.6	0.56	0.56	-5.38	24.7	34.8



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10,030.0	0.97	277.52	9,989.4	412.3	39.0	0.75	-0.09	-44.74	-33.8	26.3
10,217.0	1.23	251.60	10,176.3	411.9	35.6	0.30	0.14	-13.86	-45.3	8.2
10,404.0	1.23	249.66	10,363.3	410.6	31.8	0.02	0.00	-1.04	-49.6	6.6
10,592.0	2.11	53.49	10,551.3	411.8	32.7	1.76	0.47	87.14	48.0	8.1
10,779.0	1.23	83.20	10,738.2	414.2	37.4	0.65	-0.47	15.89	40.6	-15.1
10,966.0	1.32	86.54	10,925.1	414.6	41.6	0.06	0.05	1.79	35.5	-17.3
11,153.0	0.26	21.68	11,112.1	415.1	43.9	0.66	-0.57	-34.68	29.4	22.9
11,340.0	0.62	209.76	11,299.1	414.6	43.5	0.47	0.19	-91.94	-32.9	-18.6
11,528.0	2.90	224.61	11,487.0	410.4	39.7	1.23	1.21	7.90	-42.3	-9.3
11,714.0	3.87	229.27	11,672.7	402.9	31.6	0.54	0.52	2.51	-53.9	-5.4
11,832.0	3.78	226.11	11,790.4	397.6	25.8	0.19	-0.08	-2.68	-61.4	-8.6
11,926.0	3.87	167.31	11,884.2	392.4	24.3	3.99	0.10	-62.55	-29.2	-59.6
12,020.0	4.13	157.20	11,978.0	386.2	26.3	0.80	0.28	-10.76	-24.8	-64.4
12,049.0	5.24	155.72	12,006.9	384.0	27.2	3.86	3.83	-5.10	-25.4	-65.0
FTP Crossing 12049.0' MD; 12006.9' TVD; 384.0'; 27.2'; 5.24'										
12,072.0	6.12	154.83	12,029.8	381.9	28.2	3.86	3.84	-3.44	-25.9	-64.8
KOP 12072.0' MD; 12029.8' TVD; 381.9'; 28.2'; 6.12'										
12,114.0	7.74	153.95	12,071.5	377.3	30.4	3.86	3.85	-2.33	-25.2	-62.9
12,161.0	17.76	161.07	12,117.3	367.7	34.1	21.54	21.32	15.15	-33.5	-55.1
12,207.0	23.92	160.98	12,160.3	352.2	39.4	13.39	13.39	-0.20	-36.0	-49.8
12,254.0	31.66	167.40	12,201.8	331.2	45.2	17.64	16.47	13.66	-43.5	-40.1
12,301.0	32.10	165.90	12,241.7	307.0	50.9	1.93	0.94	-3.19	-43.6	-35.0
12,348.0	36.67	170.56	12,280.5	281.0	56.3	11.21	9.72	9.91	-43.3	-26.1
12,395.0	36.76	170.39	12,318.2	253.3	60.9	0.29	0.19	-0.36	-37.4	-20.9
12,441.0	39.31	170.56	12,354.4	225.4	65.6	5.55	5.54	0.37	-28.2	-15.0
12,489.0	42.74	172.78	12,390.6	194.2	70.2	7.75	7.15	4.58	-16.4	-8.9
12,536.0	48.98	174.96	12,423.3	160.7	73.8	13.69	13.28	4.68	-4.0	-4.4



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12,583.0	53.99	176.10	12,452.6	124.0	76.6	10.83	10.66	2.43	8.5	-1.4
12,636.0	63.05	175.92	12,480.2	79.0	79.8	17.10	17.09	-0.34	21.6	1.7
12,659.0	70.87	177.24	12,489.2	57.9	81.0	34.41	34.00	5.74	25.7	2.6
12,774.0	91.80	180.67	12,508.5	-55.1	83.0	18.43	18.20	2.98	32.6	3.6
12,982.0	90.48	176.19	12,502.7	-243.0	88.1	2.48	-0.70	-2.38	29.2	7.4
13,150.0	90.57	174.17	12,501.0	-430.3	103.9	1.08	0.05	-1.07	27.9	21.9
13,236.0	90.48	174.43	12,500.2	-515.9	112.5	0.32	-0.10	0.30	27.3	29.8
13,330.0	91.19	176.54	12,498.9	-609.6	119.9	2.37	0.76	2.24	26.1	36.6
13,423.0	91.63	179.44	12,496.6	-702.5	123.1	3.15	0.47	3.12	23.9	39.2
13,517.0	89.87	180.58	12,495.3	-796.5	123.1	2.23	-1.87	1.21	22.8	38.6
13,610.0	88.43	181.37	12,485.9	-889.4	121.5	0.97	-0.47	0.85	23.6	38.3
13,704.0	88.69	181.11	12,486.6	-963.4	119.5	0.39	0.28	-0.28	24.5	33.7
13,798.0	90.22	180.85	12,486.7	-1,077.4	117.9	0.63	0.56	-0.28	24.7	31.4
13,891.0	90.48	179.53	12,486.1	-1,170.4	117.6	1.45	0.28	-1.42	24.0	30.5
13,984.0	91.01	179.18	12,484.9	-1,263.4	118.6	0.68	0.57	-0.38	22.7	30.9
14,078.0	90.40	181.02	12,493.8	-1,357.4	118.5	2.06	-0.65	1.96	21.4	30.0
14,173.0	91.01	182.34	12,492.6	-1,452.3	115.7	1.53	0.64	1.39	20.1	28.6
14,266.0	91.45	182.25	12,490.8	-1,545.2	111.9	0.48	0.47	-0.10	17.9	22.2
14,359.0	90.22	181.20	12,489.2	-1,638.2	109.1	1.74	-1.32	-1.13	16.4	18.8
14,453.0	91.54	181.55	12,487.8	-1,732.1	108.9	1.45	1.40	0.37	14.8	15.9
14,546.0	89.87	182.16	12,486.7	-1,825.1	103.9	1.91	-1.80	0.66	13.6	12.2
14,640.0	90.92	182.25	12,486.0	-1,919.0	100.3	1.12	1.12	0.10	12.8	8.0
14,733.0	89.25	182.78	12,485.9	-2,011.9	96.2	1.88	-1.80	0.57	12.5	3.2
14,827.0	90.22	182.43	12,486.3	-2,105.8	91.9	1.10	1.03	-0.37	12.8	-1.7
14,921.0	89.16	180.41	12,486.8	-2,199.8	89.6	2.43	-1.13	-2.15	13.2	-4.7
15,015.0	89.43	179.09	12,488.0	-2,293.8	80.0	1.43	0.29	-1.40	14.2	-4.9
15,108.0	89.87	179.00	12,488.5	-2,386.7	91.5	0.48	0.47	-0.10	14.6	-4.0



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15,202.0	89.60	180.32	12,489.0	-2,480.7	92.1	1.43	-0.29	1.40	15.1	-4.1
15,295.0	88.90	180.32	12,490.2	-2,573.7	91.6	0.75	-0.75	0.00	16.6	-5.3
15,389.0	88.37	179.97	12,492.4	-2,667.7	91.3	0.88	-0.56	-0.37	19.2	-6.1
15,483.0	88.29	178.38	12,495.2	-2,761.7	92.7	1.69	-0.09	-1.69	22.3	-5.4
15,576.0	90.48	177.94	12,496.2	-2,854.6	95.7	2.40	2.35	-0.47	23.6	-3.1
15,670.0	91.54	177.24	12,494.5	-2,948.5	99.6	1.35	1.13	-0.74	22.2	0.2
15,763.0	91.63	177.24	12,491.9	-3,041.3	104.1	0.10	0.10	0.00	20.0	4.0
15,856.0	91.71	177.59	12,489.2	-3,134.2	108.3	0.39	0.09	0.38	17.4	7.6
15,949.0	90.75	178.74	12,487.2	-3,227.1	111.3	1.61	-1.03	1.24	15.5	9.9
16,043.0	91.45	179.88	12,485.4	-3,321.1	112.4	1.42	0.74	1.21	13.9	10.4
16,137.0	90.40	181.90	12,483.9	-3,415.1	110.9	2.42	-1.12	2.15	12.5	8.3
16,230.0	89.25	182.43	12,484.2	-3,508.0	107.4	1.36	-1.24	0.57	12.9	4.1
16,323.0	88.97	182.51	12,487.3	-3,600.9	103.4	2.45	-2.45	0.09	16.1	-0.5
16,417.0	89.16	182.16	12,490.4	-3,694.7	99.6	2.36	2.33	-0.37	19.4	-5.0
16,510.0	89.34	182.16	12,491.6	-3,787.7	96.1	0.19	0.19	0.00	20.8	-9.1
16,604.0	89.87	181.99	12,492.3	-3,881.6	92.7	0.59	0.56	-0.18	21.6	-13.2
16,698.0	89.25	181.46	12,493.0	-3,975.6	89.9	0.87	-0.66	-0.56	22.4	-16.7
16,792.0	89.78	180.23	12,493.8	-4,069.5	88.5	1.42	0.56	-1.31	23.4	-18.7
16,885.0	92.24	179.44	12,492.2	-4,162.5	88.7	2.78	2.65	-0.85	21.9	-19.1
16,979.0	92.24	179.26	12,488.5	-4,256.4	89.6	0.19	0.00	-0.19	18.3	-18.7
17,072.0	91.89	179.18	12,485.2	-4,349.4	91.1	0.39	-0.38	-0.09	15.1	-18.1
17,165.0	93.03	179.00	12,481.2	-4,442.3	92.6	1.24	1.23	-0.19	11.2	-17.2
17,259.0	91.45	179.35	12,477.5	-4,536.2	93.9	1.72	-1.68	0.37	7.7	-16.5
17,352.0	89.34	178.65	12,476.8	-4,629.2	95.5	2.39	-2.27	-0.75	7.2	-15.5
17,445.0	89.43	178.21	12,477.6	-4,722.1	98.1	0.48	0.10	-0.47	8.4	-13.6
17,539.0	90.75	178.74	12,477.7	-4,816.1	100.6	1.51	1.40	0.56	8.4	-11.8
17,597.0	88.55	178.56	12,478.0	-4,874.1	101.9	3.81	-3.79	-0.31	8.8	-10.8



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Caravan 28 State Com
 Well: #703H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #703H
 TVD Reference: KB = 25 @ 3550.0usft
 MD Reference: KB = 25 @ 3550.0usft
 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)
17,632.0	88.81	178.65	12,478.9	-4,909.0	102.8	0.79	0.74	0.26	9.7	-10.2
17,726.0	88.55	179.00	12,481.0	-5,003.0	104.7	0.46	-0.28	0.37	12.0	-8.9
17,820.0	88.35	178.82	12,485.2	-5,096.9	106.5	2.35	-2.34	-0.19	16.3	-7.8
17,914.0	83.88	180.41	12,493.1	-5,190.5	107.1	3.03	-2.52	1.69	24.3	-7.9
18,007.0	86.53	179.88	12,500.8	-5,283.2	108.9	2.80	2.74	-0.57	32.2	-8.7
18,118.0	89.16	179.70	12,505.0	-5,394.1	107.3	2.37	2.37	-0.16	36.5	-9.0
18,195.0	89.43	179.35	12,505.9	-5,471.1	108.0	0.57	0.35	-0.45	37.6	-8.9
18,289.0	91.36	180.14	12,505.3	-5,565.1	108.4	2.22	2.05	0.84	37.1	-9.2
18,382.0	90.75	179.09	12,503.6	-5,658.1	109.0	1.31	-0.66	-1.13	35.5	-9.2
18,475.0	92.15	179.35	12,501.2	-5,751.0	110.3	1.53	1.51	0.28	33.3	-8.6
18,570.0	91.80	178.35	12,498.0	-5,846.0	111.3	0.37	-0.37	0.00	30.1	-8.2
18,663.0	89.87	179.70	12,496.6	-5,939.0	112.1	2.11	-2.08	0.38	28.9	-8.0
18,757.0	90.48	180.32	12,496.3	-6,033.0	112.1	0.93	0.65	0.66	28.8	-8.7
18,850.0	89.43	179.97	12,496.4	-6,126.0	111.9	1.19	-1.13	-0.38	29.0	-8.6
18,943.0	90.04	179.70	12,496.8	-6,219.0	112.1	0.72	0.68	-0.29	29.6	-8.9
19,037.0	90.66	179.97	12,498.2	-6,313.0	112.4	0.72	0.66	0.29	29.1	-10.3
19,130.0	88.98	179.35	12,496.5	-6,405.9	112.9	1.92	-1.80	-0.67	29.5	-10.4
19,224.0	89.52	179.18	12,497.7	-6,498.9	114.2	0.59	0.56	-0.18	30.7	-9.9
19,317.0	90.31	179.70	12,497.9	-6,592.9	115.1	1.02	0.85	0.56	30.7	-8.6
19,430.0	90.13	180.76	12,497.4	-6,705.9	114.6	0.95	-0.16	0.94	30.2	-10.8
19,505.0	95.14	181.72	12,494.0	-6,780.8	113.0	6.80	6.68	1.28	26.7	-13.0
19,589.0	91.98	180.23	12,488.2	-6,874.6	111.4	3.72	-3.36	-1.59	20.8	-15.2
19,692.0	90.22	181.84	12,488.4	-6,967.6	109.9	2.42	-1.89	1.52	18.9	-17.4
19,785.0	89.86	181.81	12,486.2	-7,060.5	107.1	0.33	-0.28	0.18	18.7	-20.8
19,879.0	88.99	179.09	12,487.1	-7,154.5	106.3	3.07	-1.03	-2.89	19.5	-22.2
19,972.0	89.96	178.82	12,487.9	-7,247.5	108.0	1.08	1.04	-0.29	20.2	-21.2
20,066.0	90.04	178.03	12,487.9	-7,341.4	110.6	0.84	0.09	-0.84	20.2	-19.2



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Caravan 28 State Corn
 Well: #703H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #703H
 TVD Reference: KB = 25 @ 3550.0usft
 MD Reference: KB = 25 @ 3550.0usft
 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)
20,160.0	90.75	177.59	12,487.3	-7,435.4	114.2	0.89	0.78	-0.47	19.4	-16.3
20,253.0	90.48	177.59	12,488.3	-7,528.3	118.1	0.29	-0.29	0.00	18.4	-13.0
20,346.0	89.98	176.98	12,485.9	-7,821.2	122.5	0.86	-0.56	-0.66	17.9	-9.2
20,440.0	88.84	177.94	12,487.1	-7,715.1	126.7	1.74	-1.40	1.02	19.0	-5.7
20,535.0	89.16	178.56	12,488.9	-7,810.0	129.6	0.85	0.55	0.65	20.7	-3.5
20,628.0	91.71	179.53	12,488.2	-7,903.0	131.1	2.93	2.74	1.04	19.9	-2.6
20,722.0	90.75	179.35	12,488.2	-7,997.0	132.1	1.04	-1.02	-0.19	17.8	-2.3
20,816.0	89.25	179.61	12,488.2	-8,091.0	132.9	1.62	-1.60	0.28	17.8	-2.1
20,910.0	88.97	180.32	12,489.3	-8,184.9	133.0	2.54	-2.43	0.76	20.8	-2.7
21,003.0	86.53	180.67	12,494.6	-8,277.7	132.2	0.60	-0.47	0.38	26.0	-4.2
21,097.0	87.41	181.84	12,499.5	-8,371.6	130.3	1.39	0.94	1.03	30.9	-6.7
21,191.0	88.81	181.02	12,502.6	-8,465.5	128.1	1.63	1.49	-0.66	33.9	-9.5
21,284.0	90.04	178.47	12,503.6	-8,558.5	128.5	3.04	1.32	-2.74	34.8	-9.8
21,377.0	91.01	179.09	12,502.7	-8,651.5	130.5	1.24	1.04	0.87	33.8	-8.4
21,471.0	91.45	178.74	12,500.7	-8,745.4	132.3	0.60	0.47	-0.37	31.7	-7.3
21,565.0	92.42	178.82	12,497.5	-8,839.4	134.3	1.04	1.03	0.09	28.5	-6.0
21,658.0	91.01	177.51	12,494.7	-8,932.3	137.2	2.07	-1.52	-1.41	25.6	-3.6
21,752.0	89.08	178.38	12,494.7	-9,026.2	140.6	2.25	-2.05	0.83	25.5	-0.9
21,845.0	89.16	178.03	12,496.1	-9,119.1	143.5	0.39	0.09	-0.38	26.8	1.4
21,940.0	89.96	178.98	12,496.8	-9,214.0	147.7	1.39	0.84	-1.11	27.5	4.8
22,034.0	90.31	175.92	12,498.6	-9,307.9	153.5	1.19	0.37	-1.13	27.2	10.0
22,127.0	90.04	178.65	12,498.3	-9,400.7	157.9	2.95	-0.29	2.94	26.8	13.8
22,220.0	89.78	177.42	12,498.5	-9,493.7	161.1	1.35	-0.28	-1.32	26.9	16.3
22,314.0	90.22	179.35	12,498.5	-9,587.6	163.7	2.11	0.47	2.05	26.8	18.3
22,408.0	91.19	181.84	12,495.3	-9,681.6	162.9	2.65	1.03	2.44	25.5	16.9
22,519.0	90.57	181.46	12,493.6	-9,792.6	159.9	0.58	-0.56	-0.16	23.7	13.1



Midland PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Caravan 28 State Com
Well: #703H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #703H
TVD Reference: KB = 25 @ 3550.0usft
MD Reference: KB = 25 @ 3550.0usft
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)
22,598.0	88.72	181.55	12,494.1	-9,868.5	157.9	2.41	-2.40	0.12	24.2	10.5
Last MWD Survey (MD = 22598.0)										
22,689.0	88.72	181.55	12,498.2	-9,962.5	155.4	0.00	0.00	0.00	26.2	7.4
Projection to Bit (MD = 22689.0)										

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/S (usft)	+E/W (usft)	
12,049.0	12,008.9	384.0	27.2	FTP Crossing 12049.0' MD; 12006.9' TVD; 384.0'; 27.2'; 5.24
12,072.0	12,029.8	381.9	28.2	KOP 12072.0' MD; 12029.8' TVD; 381.9'; 28.2'; 6.12
22,598.0	12,494.1	-9,868.5	157.9	Last MWD Survey (MD = 22598.0)
22,689.0	12,498.2	-9,962.5	155.4	Projection to Bit (MD = 22689.0)

Checked By: _____ Approved By: _____ Date: _____



Lea County, NM (NAD 83 NME)

Caravan 28 State Com #703H

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: #703H

3525.0

KB = 25 @ 3550.0ust
Northing 435327.00 Easting 773955.00 Latitude 32° 11' 40.357" N Longitude 103° 34' 52.385" W



Adjustments to Grid North
True North: 4.49°
Magnetic North: 9.42°
Magnetic Declination: 4.93°
Dip Angle: 66.83°
Date: 6/27/2016
User: KRP/WH

To convert a Magnetic Direction to a Grid Direction, Add 6.42°
To convert a Magnetic Direction to a True Direction, Add 9.42° East
To convert a True Direction to a Grid Direction, Subtract 0.40°

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/S	+E/W	Dieg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	4850.0	0.00	0.00	4850.0	0.0	0.0	0.00	0.00	0.0	
3	5449.6	11.99	9.83	5445.3	61.6	10.8	2.00	9.83	-61.4	
4	6968.2	11.99	9.83	6930.7	372.4	65.2	0.00	0.00	-371.4	
5	7567.9	0.00	0.00	7526.0	434.0	78.0	2.00	180.00	-432.8	Brushy Top(Caravan 28 State Com #703H)
6	12038.3	0.00	0.00	11996.4	434.0	78.0	0.00	0.00	-432.8	
7	12789.1	90.10	179.60	12473.9	-44.3	79.3	12.00	179.60	45.5	TGT#1(Caravan 28 State Com #703H)
8	13823.7	90.10	179.60	12472.0	-1078.8	96.5	0.00	0.00	1080.0	TGT#2(Caravan 28 State Com #703H)
9	13833.1	89.92	179.60	12472.0	-1068.2	86.5	2.00	-180.00	1089.4	TGT#3(Caravan 28 State Com #703H)
10	15183.7	89.92	179.60	12474.0	-2438.8	95.9	0.00	0.00	2440.0	TGT#4(Caravan 28 State Com #703H)
11	15197.9	90.20	179.60	12474.0	-2453.0	96.0	2.00	0.00	2454.2	
12	15768.7	90.20	179.60	12472.0	-3023.8	99.9	0.00	0.00	3025.0	
13	15774.4	90.08	179.60	12472.0	-3029.5	100.0	2.00	-180.00	3030.7	
14	19138.9	90.08	179.60	12467.0	-6393.9	123.3	0.00	0.00	6395.0	
15	19145.6	89.95	179.60	12467.0	-6400.8	123.3	2.00	-180.00	6401.7	
16	22708.1	89.95	179.60	12470.0	-9963.0	148.0	0.00	0.00	9964.1	PBHL (Caravan 28 State Com #703H)

WELLBORE YARDEY DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/S	+E/W	Northing	Easting
Brushy Top(Caravan 28 State Com #703H)	7526.0	434.0	78.0	435781.00	774071.00
TGT#1(Caravan 28 State Com #703H)	12473.9	-44.3	79.3	428933.10	774118.28
PDA1 (Caravan 28 State Com #703H)	12470.0	-963.0	148.0	425384.00	774143.00
TGT#2(Caravan 28 State Com #703H)	12472.0	-1078.8	86.5	434368.20	774081.49
TGT#3(Caravan 28 State Com #703H)	12472.0	-3023.8	99.9	422353.20	774094.96
PTP (Caravan 28 State Com #703H)	12474.0	-354.0	78.0	435711.00	774071.00
TGT#4(Caravan 28 State Com #703H)	12474.0	-632.8	95.9	422353.20	774095.39

