



EOG Resources - Midland

Lea County, NM (NAD 27 NME)

Endurance 36 State Com

#704H

ST#1

Design: ST#1

PVA

06 September, 2016

HOBBS OCD
FEB 13 2017
RECEIVED



EOG Resources, Inc.

PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #704H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 25 @ 3360.0usft (H&P659)
Site:	Endurance 36 State Com	MD Reference:	KB = 25 @ 3360.0usft (H&P659)
Well:	#704H	North Reference:	Grid
Wellbore:	ST#1	Survey Calculation Method:	Minimum Curvature
Design:	ST#1	Database:	EDM 5000.1 Single User Db

Project	Lea County, NM (NAD 27 NME)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Endurance 36 State Com		
Site Position:		Northing:	365,036.00 usft
From:	Map	Easting:	749,506.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 0' 3.760 N
		Longitude:	103° 31' 42.470 W
		Grid Convergence:	0.43 °

Well	#704H		
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	ST#1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2015	8/24/2016	7.01
			Dip Angle
			(°)
			Field Strength
			(nT)
			47,894

Design	ST#1		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	12,721.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			359.37



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Survey Program Date 9/6/2016

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
192.0	12,721.0	Driltech MWD (OH)	MWD	MWD - Standard
12,759.0	19,940.0	INTR MWD #1 (ST#1)	EOG MWD+IFR1+MS	MWD + IFR1 + Multi-Station Correction

MD (usft)	Inc (")	Azi (grid_north_azim)	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
192.0	1.41	223.69	192.0	-1.7	-1.6	0.73	0.73	0.00	0.0	0.0
384.0	1.41	229.31	383.9	-5.0	-5.1	0.07	0.00	2.93	0.0	0.0
571.0	1.23	236.17	570.9	-7.6	-8.5	0.13	-0.10	3.67	0.0	0.0
754.0	1.58	218.59	753.8	-10.6	-11.7	0.30	0.19	-9.61	0.0	0.0
875.0	1.76	226.50	874.8	-13.2	-14.1	0.24	0.15	6.54	0.0	0.0
985.0	2.82	214.20	984.7	-16.6	-16.8	1.06	0.96	-11.18	0.0	0.0
1,151.0	2.46	203.12	1,150.5	-23.3	-20.5	0.38	-0.22	-6.67	0.0	0.0
1,245.0	2.46	209.80	1,244.4	-26.9	-22.3	0.30	0.00	7.11	0.0	0.0
1,338.0	2.64	199.96	1,337.3	-30.6	-24.0	0.51	0.19	-10.58	0.0	0.0
1,431.0	3.34	180.27	1,430.2	-35.4	-24.8	1.33	0.75	-21.17	0.0	0.0
1,524.0	3.52	181.68	1,523.0	-40.9	-24.9	0.21	0.19	1.52	0.0	0.0
1,617.0	3.52	181.68	1,615.9	-46.6	-25.0	0.00	0.00	0.00	0.0	0.0
1,711.0	3.70	176.76	1,709.7	-52.5	-24.9	0.38	0.19	-5.23	0.0	0.0
1,805.0	3.70	174.82	1,803.5	-58.6	-24.5	0.13	0.00	-2.06	0.0	0.0
1,898.0	3.87	175.53	1,896.3	-64.7	-24.0	0.19	0.18	0.76	0.0	0.0
1,992.0	3.87	176.40	1,990.1	-71.0	-23.5	0.06	0.00	0.93	0.0	0.0
2,086.0	4.05	178.51	2,083.8	-77.5	-23.2	0.25	0.19	2.24	0.0	0.0
2,180.0	3.70	180.10	2,177.6	-83.9	-23.2	0.39	-0.37	1.69	0.0	0.0
2,273.0	3.87	175.88	2,270.4	-90.0	-22.9	0.35	0.18	-4.54	0.0	0.0
2,366.0	3.70	176.40	2,363.2	-96.1	-22.5	0.19	-0.18	0.56	0.0	0.0



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 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
2,460.0	4.05	176.23	2,457.0	-102.5	-22.1	0.37	0.37	-0.18	0.0	0.0	
2,553.0	4.05	171.31	2,549.8	-109.0	-21.4	0.37	0.00	-5.29	0.0	0.0	
2,647.0	4.22	168.32	2,643.5	-115.7	-20.2	0.29	0.18	-3.18	0.0	0.0	
2,741.0	2.99	174.65	2,737.3	-121.5	-19.3	1.37	-1.31	6.73	0.0	0.0	
2,836.0	2.46	177.99	2,832.2	-126.0	-19.0	0.58	-0.56	3.52	0.0	0.0	
2,930.0	2.64	174.30	2,926.1	-130.2	-18.7	0.26	0.19	-3.93	0.0	0.0	
3,025.0	2.64	169.37	3,021.0	-134.5	-18.1	0.24	0.00	-5.19	0.0	0.0	
3,121.0	3.17	161.29	3,116.9	-139.2	-16.8	0.70	0.55	-8.42	0.0	0.0	
3,215.0	3.34	153.38	3,210.8	-144.1	-14.8	0.51	0.18	-8.41	0.0	0.0	
3,309.0	3.17	155.66	3,304.6	-148.9	-12.5	0.23	-0.18	2.43	0.0	0.0	
3,404.0	2.99	161.11	3,399.5	-153.6	-10.6	0.36	-0.19	5.74	0.0	0.0	
3,499.0	3.34	161.99	3,494.3	-158.6	-8.9	0.37	0.37	0.93	0.0	0.0	
3,594.0	2.99	167.79	3,589.2	-163.7	-7.5	0.50	-0.37	6.11	0.0	0.0	
3,688.0	2.64	158.65	3,683.1	-168.1	-6.2	0.60	-0.37	-9.72	0.0	0.0	
3,781.0	2.99	142.65	3,776.0	-172.0	-4.0	0.92	0.38	-17.20	0.0	0.0	
3,875.0	3.34	125.43	3,869.8	-175.5	-0.3	1.07	0.37	-18.32	0.0	0.0	
3,969.0	3.34	116.46	3,963.7	-178.3	4.4	0.56	0.00	-9.54	0.0	0.0	
4,062.0	4.22	148.10	4,056.5	-182.5	8.7	2.39	0.95	34.02	0.0	0.0	
4,155.0	4.93	153.73	4,149.2	-188.9	12.2	0.90	0.76	6.05	0.0	0.0	
4,248.0	4.40	152.67	4,241.9	-195.7	15.6	0.58	-0.57	-1.14	0.0	0.0	
4,342.0	3.87	154.08	4,335.6	-201.8	18.7	0.57	-0.56	1.50	0.0	0.0	
4,436.0	3.70	157.95	4,429.4	-207.4	21.2	0.33	-0.18	4.12	0.0	0.0	
4,530.0	3.87	146.17	4,523.2	-212.9	24.1	0.85	0.18	-12.53	0.0	0.0	
4,624.0	4.40	139.84	4,617.0	-218.3	28.2	0.74	0.56	-6.73	0.0	0.0	
4,718.0	4.05	142.13	4,710.7	-223.6	32.6	0.41	-0.37	2.44	0.0	0.0	
4,811.0	4.22	141.42	4,803.5	-228.9	36.7	0.19	0.18	-0.76	0.0	0.0	
4,904.0	4.57	142.83	4,896.2	-234.5	41.1	0.39	0.38	1.52	0.0	0.0	



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North Reference: Grid
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Survey

MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
4,999.0	4.75	149.16	4,990.9	-240.9	45.4	0.57	0.19	6.66	0.0	0.0
5,092.0	3.87	173.77	5,083.6	-247.3	47.7	2.18	-0.95	26.46	0.0	0.0
5,186.0	3.87	195.04	5,177.4	-253.6	47.2	1.52	0.00	22.63	0.0	0.0
5,280.0	3.34	193.63	5,271.2	-259.3	45.8	0.57	-0.56	-1.50	0.0	0.0
5,374.0	3.52	189.76	5,365.1	-264.8	44.6	0.31	0.19	-4.12	0.0	0.0
5,467.0	3.17	197.32	5,457.9	-270.1	43.4	0.60	-0.38	8.13	0.0	0.0
5,560.0	2.99	201.37	5,550.8	-274.8	41.7	0.30	-0.19	4.35	0.0	0.0
5,654.0	2.99	209.63	5,644.6	-279.2	39.6	0.46	0.00	8.79	0.0	0.0
5,747.0	2.99	210.68	5,737.5	-283.4	37.2	0.06	0.00	1.13	0.0	0.0
5,840.0	2.64	212.97	5,830.4	-287.3	34.8	0.40	-0.38	2.46	0.0	0.0
5,935.0	2.11	209.10	5,925.3	-290.6	32.7	0.58	-0.56	-4.07	0.0	0.0
6,029.0	2.46	210.51	6,019.2	-293.9	30.9	0.38	0.37	1.50	0.0	0.0
6,215.0	1.76	204.18	6,205.1	-299.9	27.7	0.40	-0.38	-3.40	0.0	0.0
6,308.0	1.76	220.17	6,298.1	-302.3	26.2	0.53	0.00	17.19	0.0	0.0
6,401.0	1.41	220.53	6,391.0	-304.3	24.5	0.38	-0.38	0.39	0.0	0.0
6,495.0	1.41	212.09	6,485.0	-306.1	23.1	0.22	0.00	-8.98	0.0	0.0
6,588.0	1.41	215.25	6,578.0	-308.0	21.9	0.08	0.00	3.40	0.0	0.0
6,682.0	1.41	214.55	6,671.9	-309.9	20.6	0.02	0.00	-0.74	0.0	0.0
6,776.0	1.41	227.21	6,765.9	-311.7	19.1	0.33	0.00	13.47	0.0	0.0
6,869.0	1.41	220.88	6,858.9	-313.3	17.5	0.17	0.00	-6.81	0.0	0.0
6,962.0	1.58	224.74	6,951.9	-315.1	15.8	0.21	0.18	4.15	0.0	0.0
7,055.0	1.41	224.22	7,044.8	-316.8	14.1	0.18	-0.18	-0.56	0.0	0.0
7,149.0	1.41	229.14	7,138.8	-318.4	12.4	0.13	0.00	5.23	0.0	0.0
7,243.0	1.58	214.02	7,232.8	-320.2	10.8	0.46	0.18	-16.09	0.0	0.0
7,337.0	1.23	215.25	7,326.7	-322.1	9.5	0.37	-0.37	1.31	0.0	0.0
7,431.0	0.53	317.73	7,420.7	-322.6	8.6	1.53	-0.74	109.02	0.0	0.0
7,524.0	0.70	11.35	7,513.7	-321.8	8.5	0.62	0.18	57.66	0.0	0.0



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7,618.0	0.88	9.76	7,607.7	-320.5	8.7	0.19	0.19	-1.69	0.0	0.0
7,712.0	0.35	234.41	7,701.7	-319.9	8.6	1.23	-0.56	-143.99	0.0	0.0
7,806.0	0.88	230.02	7,795.7	-320.6	7.8	0.57	0.56	-4.67	0.0	0.0
7,900.0	1.94	202.60	7,889.7	-322.5	6.6	1.31	1.13	-29.17	0.0	0.0
7,994.0	1.76	220.88	7,983.6	-325.1	5.1	0.65	-0.19	19.45	0.0	0.0
8,078.0	1.76	213.67	8,067.6	-327.1	3.5	0.26	0.00	-8.58	0.0	0.0
8,172.0	1.76	212.97	8,161.5	-329.5	1.9	0.02	0.00	-0.74	0.0	0.0
8,266.0	2.29	262.19	8,255.5	-331.0	-0.7	1.87	0.56	52.36	0.0	0.0
8,360.0	2.29	261.31	8,349.4	-331.5	-4.4	0.04	0.00	-0.94	0.0	0.0
8,454.0	2.46	257.26	8,443.3	-332.3	-8.2	0.25	0.18	-4.31	0.0	0.0
8,548.0	2.99	290.49	8,537.2	-331.9	-12.5	1.74	0.56	35.35	0.0	0.0
8,643.0	2.99	292.60	8,632.1	-330.0	-17.1	0.12	0.00	2.22	0.0	0.0
8,737.0	2.82	286.09	8,726.0	-328.4	-21.6	0.39	-0.18	-6.93	0.0	0.0
8,831.0	2.64	280.12	8,819.9	-327.4	-26.0	0.36	-0.19	-6.35	0.0	0.0
8,925.0	2.64	278.89	8,913.8	-326.7	-30.2	0.06	0.00	-1.31	0.0	0.0
9,018.0	2.46	276.78	9,006.7	-326.1	-34.3	0.22	-0.19	-2.27	0.0	0.0
9,112.0	2.29	275.19	9,100.6	-325.7	-38.2	0.19	-0.18	-1.69	0.0	0.0
9,206.0	1.23	305.96	9,194.6	-325.0	-40.9	1.47	-1.13	32.73	0.0	0.0
9,301.0	1.23	315.98	9,289.5	-323.6	-42.4	0.23	0.00	10.55	0.0	0.0
9,394.0	0.88	306.83	9,382.5	-322.5	-43.7	0.42	-0.38	-9.84	0.0	0.0
9,489.0	0.70	282.75	9,477.5	-321.9	-44.8	0.39	-0.19	-25.35	0.0	0.0
9,583.0	0.53	229.84	9,571.5	-322.1	-45.7	0.60	-0.18	-56.29	0.0	0.0
9,676.0	0.70	189.41	9,664.5	-322.9	-46.1	0.49	0.18	-43.47	0.0	0.0
9,769.0	0.88	180.45	9,757.5	-324.2	-46.2	0.23	0.19	-9.63	0.0	0.0
9,863.0	1.23	184.14	9,851.5	-325.9	-46.3	0.38	0.37	3.93	0.0	0.0
9,957.0	1.06	310.17	9,945.5	-326.4	-47.1	2.17	-0.18	134.07	0.0	0.0
10,051.0	1.58	312.81	10,039.5	-324.9	-48.7	0.56	0.55	2.81	0.0	0.0



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10,145.0	1.94	305.08	10,133.4	-323.1	-50.9	0.46	0.38	-8.22	0.0	0.0	
10,238.0	2.11	298.40	10,226.3	-321.4	-53.7	0.31	0.18	-7.18	0.0	0.0	
10,332.0	1.94	291.19	10,320.3	-320.0	-56.7	0.33	-0.18	-7.67	0.0	0.0	
10,425.0	2.46	295.58	10,413.2	-318.6	-60.0	0.59	0.56	4.72	0.0	0.0	
10,518.0	2.99	294.71	10,506.1	-316.7	-64.0	0.57	0.57	-0.94	0.0	0.0	
10,611.0	4.40	289.78	10,598.9	-314.5	-69.6	1.55	1.52	-5.30	0.0	0.0	
10,704.0	4.40	284.86	10,691.6	-312.4	-76.4	0.41	0.00	-5.29	0.0	0.0	
10,798.0	4.75	285.04	10,785.3	-310.4	-83.6	0.37	0.37	0.19	0.0	0.0	
10,891.0	5.10	282.58	10,878.0	-308.5	-91.4	0.44	0.38	-2.65	0.0	0.0	
10,984.0	5.98	282.23	10,970.6	-306.6	-100.1	0.95	0.95	-0.38	0.0	0.0	
11,077.0	5.98	280.99	11,063.1	-304.7	-109.6	0.14	0.00	-1.33	0.0	0.0	
11,139.0	5.81	278.01	11,124.7	-303.6	-115.9	0.56	-0.27	-4.81	0.0	0.0	
11,268.0	3.70	295.94	11,253.3	-300.9	-126.1	1.98	-1.64	13.90	0.0	0.0	
11,362.0	1.41	357.11	11,347.2	-298.4	-128.9	3.47	-2.44	65.07	0.0	0.0	
11,456.0	4.57	61.44	11,441.1	-295.4	-125.7	4.42	3.36	68.44	0.0	0.0	
11,549.0	3.52	51.95	11,533.8	-291.9	-120.2	1.34	-1.13	-10.20	0.0	0.0	
11,643.0	2.99	71.81	11,627.7	-289.4	-115.6	1.32	-0.56	21.13	0.0	0.0	
11,736.0	0.53	33.49	11,720.7	-288.3	-113.0	2.79	-2.65	-41.20	0.0	0.0	
11,830.0	2.82	106.97	11,814.6	-288.6	-110.6	2.89	2.44	78.17	0.0	0.0	
11,923.0	2.46	107.85	11,907.5	-289.8	-106.5	0.39	-0.39	0.95	0.0	0.0	
12,016.0	2.11	104.69	12,000.4	-290.9	-102.9	0.40	-0.38	-3.40	0.0	0.0	
12,109.0	2.46	111.89	12,093.4	-292.1	-99.4	0.49	0.38	7.74	0.0	0.0	
12,205.0	1.23	28.57	12,189.3	-291.9	-97.0	2.73	-1.28	-86.79	0.0	0.0	
12,252.0	8.27	3.44	12,236.1	-288.1	-96.6	15.27	14.98	-53.47	0.0	0.0	
12,299.0	15.84	5.37	12,282.1	-278.3	-95.8	16.13	16.11	4.11	0.0	0.0	
12,346.0	23.93	10.64	12,326.2	-262.6	-93.4	17.61	17.21	11.21	0.0	0.0	
12,392.0	31.67	13.10	12,366.9	-241.6	-88.9	17.01	16.83	5.35	0.0	0.0	



EOG Resources, Inc.

PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Endurance 36 State Com
Well: #704H
Wellbore: ST#1
Design: ST#1

Local Co-ordinate Reference: Well #704H
TVD Reference: KB = 25 @ 3360.0usft (H&P659)
MD Reference: KB = 25 @ 3360.0usft (H&P659)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
12,439.0	37.48	9.76	12,405.6	-215.5	-83.7	13.00	12.36	-7.11	0.0	0.0
12,486.0	40.29	12.40	12,442.2	-186.5	-78.0	6.94	5.98	5.62	0.0	0.0
12,533.0	45.75	9.24	12,476.5	-155.0	-72.0	12.49	11.62	-6.72	0.0	0.0
12,580.0	53.49	6.95	12,506.9	-119.6	-67.1	16.88	16.47	-4.87	0.0	0.0
12,627.0	60.70	6.78	12,532.5	-80.5	-62.3	15.34	15.34	-0.36	0.0	0.0
12,674.0	65.98	5.72	12,553.5	-38.7	-57.8	11.41	11.23	-2.26	0.0	0.0
12,721.0	72.32	3.79	12,570.3	5.0	-54.2	14.02	13.49	-4.11	0.0	0.0
12,759.0	76.80	359.70	12,580.4	41.6	-53.1	15.70	11.79	-10.76	0.8	0.9
12,790.0	77.80	354.60	12,587.2	71.8	-54.6	16.37	3.23	-16.45	3.1	3.2
12,821.0	81.50	351.80	12,592.8	102.1	-58.2	14.88	11.94	-9.03	5.0	6.9
12,852.0	86.10	351.00	12,596.1	132.5	-62.8	15.06	14.84	-2.58	4.2	10.9
12,884.0	89.80	350.20	12,597.3	164.1	-68.0	11.83	11.56	-2.50	2.8	14.6
12,915.0	91.00	349.80	12,597.0	194.6	-73.4	4.08	3.87	-1.29	2.0	17.8
12,946.0	91.20	349.30	12,596.4	225.1	-79.0	1.74	0.65	-1.61	2.6	20.4
12,977.0	91.90	348.70	12,595.6	255.5	-84.9	2.97	2.26	-1.94	3.4	23.1
13,008.0	92.90	347.90	12,594.3	285.8	-91.2	4.13	3.23	-2.58	3.8	26.2
13,040.0	93.30	350.30	12,592.6	317.2	-97.2	7.59	1.25	7.50	3.7	28.9
13,071.0	93.60	351.70	12,590.7	347.8	-102.1	4.61	0.97	4.52	3.4	30.6
13,102.0	93.10	352.30	12,588.9	378.4	-106.4	2.52	-1.61	1.94	3.2	31.7
13,133.0	91.80	353.60	12,587.6	409.2	-110.2	5.93	-4.19	4.19	3.1	32.9
13,165.0	92.10	353.60	12,586.5	440.9	-113.8	0.94	0.94	0.00	3.1	34.3
13,196.0	92.30	354.30	12,585.3	471.8	-117.0	2.35	0.65	2.26	2.6	36.2
13,227.0	92.30	356.60	12,584.1	502.6	-119.5	7.41	0.00	7.42	1.7	37.7
13,258.0	92.40	356.80	12,582.8	533.6	-121.3	0.72	0.32	0.65	0.6	39.2
13,290.0	92.80	356.80	12,581.3	565.5	-123.0	1.25	1.25	0.00	-0.8	40.8
13,321.0	92.30	357.00	12,580.0	596.4	-124.7	1.74	-1.61	0.65	-2.2	42.2
13,353.0	89.40	356.00	12,579.5	628.3	-126.7	9.59	-9.06	-3.12	-2.7	43.9



EOG Resources, Inc.
PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Endurance 36 State Com
Well: #704H
Wellbore: ST#1
Design: ST#1

Local Co-ordinate Reference: Well #704H
TVD Reference: KB = 25 @ 3360.0usft (H&P659)
MD Reference: KB = 25 @ 3360.0usft (H&P659)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
13,400.0	89.40	355.90	12,580.0	675.2	-130.0	0.21	0.00	-0.21	-2.1	46.9
13,447.0	89.10	358.10	12,580.6	722.1	-132.5	4.72	-0.64	4.68	-1.4	49.1
13,494.0	89.30	358.60	12,581.2	769.1	-133.8	1.15	0.43	1.06	-0.7	50.1
13,541.0	89.20	359.80	12,581.9	816.1	-134.5	2.56	-0.21	2.55	0.0	50.4
13,588.0	89.60	359.50	12,582.4	863.1	-134.7	1.06	0.85	-0.64	0.6	50.4
13,635.0	90.40	359.60	12,582.4	910.1	-135.1	1.72	1.70	0.21	0.6	50.4
13,682.0	91.00	359.70	12,581.8	957.1	-135.4	1.29	1.28	0.21	0.1	50.4
13,729.0	91.50	0.10	12,580.8	1,004.1	-135.5	1.36	1.06	0.85	-0.8	50.1
13,823.0	87.90	359.20	12,581.2	1,098.1	-136.1	3.95	-3.83	-0.96	-0.2	50.1
13,870.0	88.00	358.90	12,582.9	1,145.0	-136.8	0.67	0.21	-0.64	1.6	50.5
13,917.0	88.90	1.20	12,584.2	1,192.0	-136.8	5.25	1.91	4.89	3.0	50.1
13,964.0	89.60	1.90	12,584.8	1,239.0	-135.5	2.11	1.49	1.49	3.6	48.5
14,011.0	91.10	2.90	12,584.5	1,285.9	-133.6	3.84	3.19	2.13	3.4	46.2
14,058.0	90.80	2.50	12,583.7	1,332.9	-131.3	1.06	-0.64	-0.85	2.7	43.7
14,105.0	89.60	1.60	12,583.6	1,379.8	-129.7	3.19	-2.55	-1.91	2.6	41.7
14,150.0	89.80	1.60	12,583.8	1,424.8	-128.4	0.44	0.44	0.00	2.9	40.1
14,197.0	90.70	1.80	12,583.6	1,471.8	-127.0	1.96	1.91	0.43	2.8	38.4
14,292.0	91.20	2.70	12,582.0	1,566.7	-123.3	1.08	0.53	0.95	1.3	34.0
14,386.0	90.10	1.50	12,581.0	1,660.6	-119.8	1.73	-1.17	-1.28	0.4	29.9
14,479.0	90.20	1.80	12,580.7	1,753.6	-117.2	0.34	0.11	0.32	0.3	26.6
14,573.0	91.70	1.90	12,579.2	1,847.5	-114.1	1.60	1.60	0.11	-1.1	22.9
14,666.0	88.80	357.40	12,578.8	1,940.5	-114.7	5.76	-3.12	-4.84	-1.3	22.8
14,761.0	90.10	359.40	12,579.7	2,035.5	-117.3	2.51	1.37	2.11	-0.3	24.8
14,855.0	91.40	359.20	12,578.4	2,129.4	-118.5	1.40	1.38	-0.21	-1.6	25.3
14,948.0	93.70	1.20	12,574.3	2,222.3	-118.2	3.28	2.47	2.15	-5.9	24.3
15,041.0	91.60	0.50	12,570.0	2,315.2	-116.8	2.38	-2.26	-0.75	-10.2	22.3
15,135.0	86.70	358.40	12,571.4	2,409.2	-117.7	5.67	-5.21	-2.23	-8.9	22.5



EOG Resources, Inc.

PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Endurance 36 State Com
Well: #704H
Wellbore: ST#1
Design: ST#1

Local Co-ordinate Reference: Well #704H
TVD Reference: KB = 25 @ 3360.0usft (H&P659)
MD Reference: KB = 25 @ 3360.0usft (H&P659)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
15,229.0	87.50	359.80	12,576.2	2,503.0	-119.2	1.71	0.85	1.49	-4.2	23.3	
15,322.0	89.40	1.30	12,578.7	2,596.0	-118.3	2.60	2.04	1.61	-1.8	21.8	
15,415.0	91.10	1.30	12,578.3	2,689.0	-116.2	1.83	1.83	0.00	-2.3	19.0	
15,509.0	90.50	0.10	12,577.0	2,782.9	-115.0	1.43	-0.64	-1.28	-3.7	17.2	
15,602.0	89.20	0.10	12,577.2	2,875.9	-114.9	1.40	-1.40	0.00	-3.5	16.4	
15,696.0	90.40	0.90	12,577.5	2,969.9	-114.0	1.53	1.28	0.85	-3.2	14.9	
15,788.0	89.30	0.30	12,577.8	3,061.9	-113.1	1.36	-1.20	-0.65	-3.1	13.3	
15,882.0	90.20	2.60	12,578.2	3,155.9	-110.7	2.63	0.96	2.45	-2.7	10.2	
15,974.0	89.10	0.80	12,578.7	3,247.8	-108.0	2.29	-1.20	-1.96	-2.3	6.9	
16,069.0	88.70	358.80	12,580.6	3,342.8	-108.3	2.15	-0.42	-2.11	-0.5	6.5	
16,163.0	89.90	0.00	12,581.7	3,436.8	-109.3	1.81	1.28	1.28	0.6	6.8	
16,257.0	89.30	0.10	12,582.4	3,530.8	-109.2	0.65	-0.64	0.11	1.1	6.1	
16,351.0	89.90	357.70	12,583.0	3,624.8	-111.0	2.63	0.64	-2.55	1.7	7.2	
16,444.0	90.50	358.30	12,582.7	3,717.7	-114.3	0.91	0.65	0.65	1.3	9.8	
16,537.0	89.70	357.30	12,582.5	3,810.6	-117.8	1.38	-0.86	-1.08	1.1	12.7	
16,631.0	89.00	357.80	12,583.6	3,904.6	-121.8	0.92	-0.74	0.53	2.1	16.1	
16,725.0	88.50	358.40	12,585.7	3,998.5	-125.0	0.83	-0.53	0.64	4.0	18.5	
16,818.0	91.20	359.50	12,585.9	4,091.5	-126.7	3.13	2.90	1.18	4.2	19.6	
16,912.0	89.60	0.00	12,585.2	4,185.4	-127.1	1.78	-1.70	0.53	3.5	19.3	
17,005.0	87.60	1.80	12,587.5	4,278.4	-125.6	2.89	-2.15	1.94	5.7	17.2	
17,098.0	89.90	3.60	12,589.5	4,371.3	-121.2	3.14	2.47	1.94	7.7	12.2	
17,192.0	89.20	0.00	12,590.3	4,465.2	-118.3	3.90	-0.74	-3.83	8.3	8.6	
17,286.0	91.00	2.00	12,590.1	4,559.2	-116.6	2.86	1.91	2.13	8.0	6.3	
17,380.0	89.50	0.30	12,589.7	4,653.1	-114.8	2.41	-1.60	-1.81	7.5	3.7	
17,474.0	88.60	358.90	12,591.3	4,747.1	-115.4	1.77	-0.96	-1.49	8.9	3.7	
17,567.0	89.60	359.60	12,592.7	4,840.1	-116.6	1.31	1.08	0.75	10.2	4.3	
17,660.0	90.20	359.30	12,592.9	4,933.1	-117.5	0.72	0.65	-0.32	10.2	4.5	



EOG Resources, Inc.

PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #704H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 25 @ 3360.0usft (H&P659)
Site:	Endurance 36 State Com	MD Reference:	KB = 25 @ 3360.0usft (H&P659)
Well:	#704H	North Reference:	Grid
Wellbore:	ST#1	Survey Calculation Method:	Minimum Curvature
Design:	ST#1	Database:	EDM 5000.1 Single User Db

Survey										
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
17,754.0	90.90	357.80	12,592.0	5,027.1	-119.9	1.76	0.74	-1.60	9.2	6.2
17,848.0	90.50	357.90	12,590.8	5,121.0	-123.4	0.44	-0.43	0.11	7.9	9.1
17,941.0	90.80	358.10	12,589.8	5,213.9	-126.7	0.39	0.32	0.22	6.7	11.7
18,035.0	90.50	357.40	12,588.7	5,307.9	-130.4	0.81	-0.32	-0.74	5.5	14.7
18,129.0	89.90	356.80	12,588.4	5,401.7	-135.1	0.90	-0.64	-0.64	5.1	18.8
18,223.0	90.10	358.60	12,588.4	5,495.7	-138.9	1.93	0.21	1.91	4.9	21.9
18,316.0	88.10	358.90	12,589.8	5,588.6	-140.9	2.17	-2.15	0.32	6.2	23.3
18,410.0	88.40	359.90	12,592.7	5,682.6	-141.9	1.11	0.32	1.06	9.0	23.6
18,503.0	88.80	0.10	12,595.0	5,775.5	-141.9	0.48	0.43	0.22	11.1	23.0
18,597.0	90.00	0.60	12,596.0	5,869.5	-141.3	1.38	1.28	0.53	11.9	21.7
18,691.0	91.10	1.20	12,595.1	5,963.5	-139.8	1.33	1.17	0.64	10.9	19.6
18,785.0	90.60	359.90	12,593.7	6,057.5	-138.9	1.48	-0.53	-1.38	9.4	18.0
18,878.0	88.60	358.50	12,594.3	6,150.5	-140.2	2.63	-2.15	-1.51	9.9	18.7
18,972.0	88.80	358.10	12,596.5	6,244.4	-143.0	0.48	0.21	-0.43	11.9	20.8
19,066.0	89.60	357.70	12,597.8	6,338.3	-146.5	0.95	0.85	-0.43	13.1	23.6
19,160.0	91.30	358.80	12,597.0	6,432.3	-149.3	2.15	1.81	1.17	12.2	25.8
19,254.0	91.10	358.40	12,595.1	6,526.2	-151.6	0.48	-0.21	-0.43	10.1	27.4
19,348.0	90.00	357.80	12,594.2	6,620.2	-154.8	1.33	-1.17	-0.64	9.0	29.9
19,441.0	89.90	357.50	12,594.2	6,713.1	-158.6	0.34	-0.11	-0.32	9.0	33.0
19,536.0	90.10	357.40	12,594.2	6,808.0	-162.8	0.24	0.21	-0.11	8.8	36.6
19,630.0	89.70	355.90	12,594.4	6,901.8	-168.3	1.65	-0.43	-1.60	8.9	41.4
19,724.0	89.90	355.00	12,594.7	6,995.5	-175.7	0.98	0.21	-0.96	9.1	48.2
19,818.0	91.00	353.70	12,594.0	7,089.1	-185.0	1.81	1.17	-1.38	8.3	56.8
19,830.7	91.26	353.77	12,593.7	7,101.7	-186.4	2.11	2.03	0.58	8.1	58.1
HL Crossing, MD:19836.7', TVD:12593.6', N/S:7107.7', E/W:-187.0', INC:91.38										
19,887.0	92.40	354.10	12,592.0	7,157.7	-192.3	2.11	2.03	0.58	6.3	63.6
Last MWD Survey										



EOG Resources, Inc.

PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 27 NME)
 Site: Endurance 36 State Com
 Well: #704H
 Wellbore: ST#1
 Design: ST#1

Local Co-ordinate Reference: Well #704H
 TVD Reference: KB = 25 @ 3360.0usft (H&P659)
 MD Reference: KB = 25 @ 3360.0usft (H&P659)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.1 Single User Db

Survey										
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
19,940.0	92.40	354.10	12,589.7	7,210.3	-197.8	0.00	0.00	0.00	4.5	69.2
Projection To Bit										

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
19,830.7	12,593.7	7,101.7	-186.4	HL Crossing, MD:19836.7', TVD:12593.6', N/S:7107.7', E/W:-187.0', INC:91.38
19,887.0	12,592.0	7,157.7	-192.3	Last MWD Survey
19,940.0	12,589.7	7,210.3	-197.8	Projection To Bit

Checked By: _____ Approved By: _____ Date: _____