



HOBBS OCD
AUG 10 2018
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EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Fox 30 Fed Com

#602H

OH

Design: OH

Midland PVA

24 May, 2018





Midland PVA



Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #602H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	Kb = 25 @ 3349.0usft (H&P 647)
Site:	Fox 30 Fed Com	MD Reference:	Kb = 25 @ 3349.0usft (H&P 647)
Well:	#602H	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	Fox 30 Fed Com		
Site Position:		Northing:	401,193.00 usft
From:	Map	Easting:	797,271.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 6' 0.944 N
		Longitude:	103° 30' 24.557 W
		Grid Convergence:	0.44 °

Well	#602H		
Well Position	+N-S	0.0 usft	Northing:
	+E-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft		Wellhead Elevation:
			usft
			Latitude:
			Longitude:
			Ground Level:

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2015	12/6/2017	6.86
			Dip Angle
			(°)
			Field Strength
			(nT)
			59.95
			47,823.68109832

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N-S	+E-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			179.68



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Survey Program		Date	5/24/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
223.0	5,103.0	Integrity MWD (OH)	MWD	OWSG MWD - Standard	
5,185.0	19,897.0	Newsco MWD (OH)	MWD	OWSG MWD - Standard	

Survey												
MD (usft)	Inc (")	Azi (azimuth) (")	TVD (usft)	N/S (usft)	E/W (usft)	DLeg ("/100usft)	BuId ("/100usft)	Turn ("/100usft)	High to Plan (usft)	Right to Plan (usft)		
0.0	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0.0
223.0	0.00	88.60	223.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0.0
301.0	0.00	144.10	301.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0.0
476.0	0.70	238.40	476.0	-0.6	-0.9	0.40	0.40	0.00	0.00	0.0	0.0	0.0
649.0	1.90	228.40	648.9	-3.0	-4.0	0.70	0.69	-5.78	0.0	0.0	0.0	0.0
824.0	0.10	50.10	823.9	-4.8	-6.0	1.14	-1.03	-101.89	0.0	0.0	0.0	0.0
912.0	1.10	293.50	911.9	-4.5	-6.7	1.30	1.14	-132.50	0.0	0.0	0.0	0.0
1,037.0	1.80	199.10	1,036.9	-5.8	-8.5	1.74	0.56	-75.52	0.0	0.0	0.0	0.0
1,173.0	1.10	187.50	1,172.8	-9.1	-9.3	0.56	-0.51	-8.53	0.0	0.0	0.0	0.0
1,304.0	0.80	329.80	1,303.8	-9.6	-10.0	1.37	-0.23	108.63	0.0	0.0	0.0	0.0
1,435.0	0.80	333.10	1,434.8	-8.0	-10.8	0.04	0.00	2.52	0.0	0.0	0.0	0.0
1,566.0	1.00	332.60	1,565.8	-6.2	-11.8	0.15	0.15	-0.38	0.0	0.0	0.0	0.0
1,697.0	0.80	354.60	1,696.8	-4.2	-12.4	0.30	-0.15	16.79	0.0	0.0	0.0	0.0
1,828.0	1.10	349.80	1,827.8	-2.1	-12.7	0.24	0.23	-3.66	0.0	0.0	0.0	0.0
2,002.0	1.30	327.20	2,001.7	1.2	-14.1	0.29	0.11	-12.99	0.0	0.0	0.0	0.0
2,177.0	1.40	357.00	2,176.7	5.0	-15.2	0.40	0.06	17.03	0.0	0.0	0.0	0.0
2,351.0	1.30	346.00	2,350.6	9.0	-15.8	0.16	-0.06	-6.32	0.0	0.0	0.0	0.0
2,565.0	1.50	6.00	2,564.6	14.2	-16.1	0.25	0.09	9.35	0.0	0.0	0.0	0.0
2,699.0	1.70	33.80	2,698.5	17.6	-14.8	0.59	0.15	20.75	0.0	0.0	0.0	0.0
2,874.0	2.10	41.60	2,873.4	22.1	-11.3	0.27	0.23	4.46	0.0	0.0	0.0	0.0
3,048.0	2.20	45.80	3,047.3	26.8	-6.8	0.11	0.06	2.47	0.0	0.0	0.0	0.0



Midland PVA



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Well:	#602H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Asl (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
3,223.0	1.40	27.90	3,222.2	31.1	-3.3	0.55	-0.46	-10.29	0.0	0.0	
3,398.0	2.30	56.00	3,397.1	34.9	0.6	0.72	0.51	16.06	0.0	0.0	
3,572.0	1.40	50.10	3,571.0	38.2	5.1	0.53	-0.52	-3.39	0.0	0.0	
3,747.0	1.10	17.30	3,746.0	41.2	7.2	0.44	-0.17	-18.74	0.0	0.0	
3,921.0	0.80	16.50	3,920.0	44.0	8.1	0.17	-0.17	-0.46	0.0	0.0	
4,096.0	1.90	40.60	4,094.9	47.4	10.3	0.69	0.63	13.77	0.0	0.0	
4,270.0	1.80	33.00	4,268.8	51.8	13.7	0.15	-0.06	-4.37	0.0	0.0	
4,445.0	2.10	12.80	4,443.7	57.3	15.9	0.43	0.17	-11.54	0.0	0.0	
4,620.0	1.10	20.10	4,618.7	62.0	17.2	0.58	-0.57	4.17	0.0	0.0	
4,707.0	0.30	238.20	4,705.7	62.6	17.3	1.55	-0.92	-161.95	0.0	0.0	
4,794.0	1.10	199.80	4,792.7	61.7	16.8	1.02	0.92	-45.29	0.0	0.0	
4,969.0	2.40	160.80	4,967.6	58.7	17.4	0.97	0.74	-22.29	0.0	0.0	
5,103.0	2.20	156.50	5,101.5	51.7	19.4	0.20	-0.15	-3.21	0.0	0.0	
5,185.0	1.80	153.20	5,183.4	49.1	20.6	0.51	-0.49	-4.02	0.3	0.1	
5,372.0	1.90	327.40	5,370.4	49.1	20.2	1.98	0.05	93.16	-2.9	0.9	
5,561.0	5.40	352.60	5,559.0	60.5	17.4	1.99	1.85	13.33	-3.6	4.5	
5,747.0	9.00	349.60	5,743.5	83.5	13.6	1.95	1.94	-1.61	-4.8	5.5	
5,841.0	9.80	346.10	5,836.2	98.5	10.4	1.05	0.85	-3.72	-5.1	6.5	
6,028.0	9.80	346.60	6,020.5	129.5	2.9	0.05	0.00	0.27	-5.6	9.9	
6,216.0	8.90	348.20	6,206.0	159.3	-3.8	0.50	-0.48	0.85	-4.3	12.9	
6,404.0	8.50	347.40	6,391.8	187.1	-9.8	0.22	-0.21	-0.43	-1.3	15.4	
6,590.0	9.50	357.20	6,575.5	215.8	-13.6	0.98	0.54	5.27	3.6	15.2	
6,776.0	9.80	356.00	6,758.9	246.9	-15.4	0.19	0.16	-0.65	3.4	13.1	
6,963.0	10.20	355.90	6,943.1	279.3	-17.7	0.21	0.21	-0.05	2.3	11.2	
7,151.0	9.60	356.20	7,128.3	311.6	-19.9	0.32	-0.32	0.16	1.6	9.2	
7,339.0	9.40	354.70	7,313.7	342.5	-22.4	0.17	-0.11	-0.80	2.0	7.6	
7,527.0	6.40	352.50	7,499.9	368.2	-25.2	1.60	-1.60	-1.17	6.0	7.1	



Midland PVA



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Project: Lea County, NM (NAD 83 NME)
Site: Fox 30 Fed Com
Well: #602H
Wellbore: .OH
Design: .OH

Local Co-ordinate Reference: Well #602H
TVD Reference: Kb = 25 @ 3349.0usft (H&P 647)
MD Reference: Kb = 25 @ 3349.0usft (H&P 647)
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)	
7,715.0	3.60	353.30	7,687.1	384.4	-27.2	1.49	-1.49	0.43	8.9	6.9	
7,903.0	0.70	39.70	7,875.0	391.2	-27.2	1.68	-1.54	24.68	10.6	-2.5	
8,091.0	0.50	69.80	8,063.0	392.4	-25.7	0.19	-0.11	16.01	6.1	-6.9	
8,278.0	0.10	162.20	8,250.0	392.5	-24.9	0.27	-0.21	49.41	-7.3	-5.0	
8,465.0	0.30	38.10	8,437.0	392.7	-24.5	0.20	0.11	-66.36	7.9	-3.4	
8,651.0	0.20	34.60	8,623.0	393.4	-24.0	0.05	-0.05	-1.88	7.3	-2.9	
8,839.0	0.30	231.00	8,811.0	393.3	-24.2	0.26	0.05	-67.02	-6.3	4.8	
9,026.0	0.50	235.00	8,998.0	392.5	-25.3	0.11	0.11	2.14	-7.3	5.2	
9,213.0	0.50	246.30	9,185.0	391.7	-26.7	0.05	0.00	6.04	-7.7	6.7	
9,402.0	0.40	231.90	9,374.0	391.0	-28.0	0.08	-0.05	-7.62	-10.6	4.4	
9,591.0	0.30	292.60	9,563.0	390.8	-28.9	0.19	-0.05	32.12	-2.2	12.0	
9,685.0	0.40	151.30	9,657.0	390.6	-29.0	0.70	0.11	-150.32	-5.9	-10.9	
9,872.0	0.40	123.00	9,844.0	389.7	-28.1	0.10	0.00	-15.13	-1.3	-12.7	
10,060.0	0.10	200.90	10,031.9	389.2	-27.7	0.21	-0.16	41.44	-13.0	-0.8	
10,246.0	1.20	291.40	10,217.9	389.7	-29.5	0.65	0.59	48.66	-2.6	13.1	
10,433.0	1.80	338.90	10,404.9	393.2	-32.4	0.71	0.32	25.40	3.7	12.2	
10,619.0	4.00	344.50	10,590.6	402.1	-35.2	1.19	1.18	3.01	-4.5	12.1	
10,807.0	2.20	296.50	10,778.4	410.1	-40.2	1.60	-0.96	-25.53	-20.0	-0.2	
10,994.0	1.20	278.40	10,965.3	412.0	-45.3	0.60	-0.53	-9.68	-24.4	-7.5	
11,183.0	0.80	279.60	11,154.3	412.5	-48.6	0.21	-0.21	0.63	-27.8	-6.9	
11,370.0	0.90	54.50	11,341.2	413.5	-48.7	0.84	0.05	72.14	14.2	25.5	
11,557.0	1.30	56.40	11,528.2	415.6	-45.7	0.21	0.21	1.02	11.4	25.1	
11,727.0	2.60	4.40	11,698.1	420.5	-43.8	1.22	0.76	-30.59	-17.8	22.9	
11,853.0	1.80	177.90	11,824.1	421.4	-43.5	3.49	-0.63	137.70	21.1	-20.5	
11,947.0	2.60	172.60	11,918.0	417.8	-43.2	0.88	0.85	-5.64	19.4	-18.5	
11,994.0	2.30	165.50	11,965.0	415.8	-42.8	0.91	-0.64	-15.11	22.5	-15.4	
12,041.0	6.10	179.10	12,011.8	412.4	-42.5	8.30	8.09	28.94	22.2	-20.0	



Midland PVA



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Survey											
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12,088.0	13.10	179.80	12,058.2	404.6	-42.5	14.90	14.89	1.49	26.0	-20.3	
12,135.0	20.50	181.00	12,103.1	391.0	-42.6	15.76	15.74	2.55	28.1	-21.1	
12,182.0	29.90	179.90	12,145.6	371.0	-42.7	20.02	20.00	-2.34	28.4	-20.8	
12,229.0	36.10	172.10	12,185.0	345.5	-40.8	15.97	13.19	-16.60	28.5	-16.0	
12,276.0	40.30	171.70	12,221.9	316.8	-36.7	8.95	8.94	-0.85	26.3	-12.3	
12,323.0	43.60	174.60	12,256.9	285.6	-33.0	8.14	7.02	6.17	25.0	-10.1	
12,370.0	50.20	179.10	12,289.0	251.3	-31.2	15.68	14.04	9.57	24.0	-10.0	
12,417.0	58.70	181.10	12,316.3	213.1	-31.3	18.41	18.09	4.26	21.7	-10.9	
12,464.0	66.00	181.70	12,338.1	171.5	-32.3	15.57	15.53	1.28	17.4	-12.2	
12,512.0	72.40	181.20	12,355.1	126.7	-33.4	13.37	13.33	-1.04	12.1	-13.6	
12,518.6	72.74	181.30	12,357.1	120.4	-33.6	5.30	5.10	1.51	11.3	-13.7	
FTP Crossing 12518.6' MD; 12357.1' TVD; 120.4'; -33.6'; 72.74											
12,559.0	74.80	181.90	12,368.4	81.6	-34.7	5.30	5.11	1.49	7.7	-15.1	
12,605.0	77.40	181.20	12,379.5	37.0	-35.9	5.84	5.65	-1.52	5.8	-16.6	
12,652.0	81.20	179.90	12,388.2	-9.2	-36.3	8.53	8.09	-2.77	5.8	-17.4	
12,698.0	81.80	179.50	12,395.0	-54.7	-36.1	1.56	1.30	-0.87	8.4	-17.5	
12,745.0	89.20	179.80	12,398.7	-101.5	-35.8	15.76	15.74	0.64	11.5	-17.6	
12,792.0	93.60	181.50	12,397.5	-148.4	-36.3	10.04	9.36	3.62	10.1	-18.5	
12,886.0	90.10	180.80	12,394.5	-242.4	-38.2	3.80	-3.72	-0.74	6.6	-21.2	
12,980.0	86.30	179.80	12,397.4	-336.3	-38.7	4.18	-4.04	-1.06	9.1	-22.5	
13,074.0	91.00	180.60	12,399.6	-430.3	-39.0	5.07	5.00	0.85	10.9	-23.6	
13,168.0	91.30	179.00	12,397.8	-524.2	-38.7	1.73	0.32	-1.70	8.5	-24.0	
13,262.0	92.30	181.60	12,394.8	-618.2	-39.2	2.96	1.06	2.77	5.1	-25.3	
13,356.0	88.00	175.00	12,394.6	-712.1	-36.4	8.38	-4.57	-7.02	4.5	-23.3	
13,450.0	87.10	175.20	12,398.6	-805.6	-28.4	0.98	-0.96	0.21	8.0	-16.0	
13,543.0	91.60	181.00	12,399.6	-898.5	-25.3	7.89	4.84	6.24	8.6	-13.7	
13,636.0	90.50	179.90	12,397.9	-991.5	-26.0	1.67	-1.18	-1.18	6.4	-15.2	



Midland PVA



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Wellbore: OH
Design: OH

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13,731.0	91.50	179.90	12,396.3	-1,086.5	-25.9	1.05	1.05	0.00	4.3	-15.9	
13,824.0	92.40	179.90	12,393.1	-1,179.4	-25.7	0.97	0.97	0.00	0.7	-16.5	
13,917.0	93.50	179.00	12,388.3	-1,272.3	-24.8	1.53	1.18	-0.97	-4.6	-16.4	
14,011.0	93.80	178.90	12,382.3	-1,366.1	-23.1	0.34	0.32	-0.11	-11.0	-15.4	
14,105.0	91.40	179.90	12,378.1	-1,460.0	-22.1	2.77	-2.55	1.06	-15.8	-15.2	
14,200.0	90.00	180.60	12,376.9	-1,555.0	-22.5	1.65	-1.47	0.74	-17.4	-16.4	
14,294.0	92.20	178.50	12,375.1	-1,648.9	-22.6	2.62	2.34	-1.17	-19.6	-17.3	
14,388.0	87.60	180.80	12,375.3	-1,742.9	-22.8	5.09	-4.89	1.38	-19.9	-18.3	
14,482.0	87.60	181.00	12,379.2	-1,836.8	-24.3	0.21	0.00	0.21	-16.2	-20.5	
14,576.0	88.50	180.00	12,382.4	-1,930.8	-25.1	1.43	0.96	-1.06	-13.2	-22.1	
14,670.0	89.30	179.80	12,384.2	-2,024.7	-25.0	0.88	0.85	-0.21	-11.7	-22.8	
14,764.0	85.00	173.60	12,388.9	-2,118.4	-19.6	8.02	-4.57	-6.60	-7.1	-18.2	
14,857.0	86.50	172.90	12,395.8	-2,210.5	-8.7	1.78	1.61	-0.75	-0.5	-8.0	
14,951.0	88.40	174.60	12,400.0	-2,303.8	1.5	2.71	2.02	1.81	3.4	1.4	
15,045.0	89.90	175.10	12,401.4	-2,397.5	10.0	1.68	1.60	0.53	4.5	9.1	
15,140.0	91.00	174.30	12,400.6	-2,492.0	18.8	1.43	1.16	-0.84	3.6	17.1	
15,234.0	89.60	173.10	12,400.1	-2,585.5	29.1	1.96	-1.49	-1.28	2.8	26.6	
15,327.0	89.10	174.10	12,401.2	-2,677.9	39.4	1.20	-0.54	1.08	3.6	36.2	
15,420.0	90.20	176.60	12,401.7	-2,770.6	47.0	2.94	1.18	2.69	3.9	43.0	
15,514.0	92.80	179.30	12,399.2	-2,864.5	50.3	4.06	2.87	2.87	1.1	45.6	
15,607.0	94.60	179.00	12,393.1	-2,957.2	51.7	1.86	1.83	-0.32	-5.1	46.2	
15,700.0	93.30	179.00	12,386.7	-3,050.0	53.3	1.40	-1.40	0.00	-11.8	47.1	
15,793.0	89.60	178.20	12,384.4	-3,142.9	55.6	4.07	-3.98	-0.86	-14.5	48.5	
15,887.0	89.50	179.40	12,385.1	-3,236.9	57.6	1.28	-0.11	1.28	-14.0	49.7	
15,981.0	86.60	179.30	12,388.3	-3,330.8	58.6	3.09	-3.09	-0.11	-11.0	50.0	
16,074.0	84.00	178.60	12,395.9	-3,423.5	60.3	2.89	-2.80	-0.75	-3.7	50.9	
16,168.0	86.30	181.00	12,403.9	-3,517.1	60.7	3.53	2.45	2.55	4.2	50.5	



Midland PVA



Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Fox 30 Fed Com
Well: #602H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #602H
TVD Reference: Kb = 25 @ 3349.0usft (H&P 647)
MD Reference: Kb = 25 @ 3349.0usft (H&P 647)
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)	
16,262.0	87.00	181.60	12,409.4	-3,610.9	58.5	0.98	0.74	0.64	9.4	47.6	
16,356.0	88.90	181.40	12,412.7	-3,704.8	56.1	2.03	2.02	-0.21	12.3	44.3	
16,449.0	90.60	181.40	12,413.1	-3,797.8	53.8	1.83	1.83	0.00	12.3	41.3	
16,543.0	90.20	180.70	12,412.5	-3,891.8	52.1	0.86	-0.43	-0.74	11.3	38.8	
16,637.0	90.30	182.30	12,412.1	-3,985.7	49.6	1.71	0.11	1.70	10.6	35.6	
16,732.0	89.70	181.00	12,412.1	-4,080.7	46.9	1.51	-0.63	-1.37	10.2	32.0	
16,825.0	91.60	181.70	12,411.0	-4,173.7	44.7	2.18	2.04	0.75	8.7	29.1	
16,919.0	92.20	181.80	12,407.9	-4,267.6	41.8	0.65	0.64	0.11	5.2	25.4	
17,013.0	92.00	181.90	12,404.4	-4,361.5	38.8	0.24	-0.21	0.11	1.4	21.6	
17,107.0	92.20	181.50	12,401.0	-4,455.3	36.0	0.48	0.21	-0.43	-2.4	18.1	
17,202.0	89.80	180.40	12,399.3	-4,550.3	34.4	2.78	-2.53	-1.16	-4.4	15.7	
17,296.0	92.40	182.60	12,397.5	-4,644.3	32.0	3.62	2.77	2.34	-6.6	12.5	
17,389.0	88.10	180.90	12,397.1	-4,737.2	29.1	4.97	-4.62	-1.83	-7.3	8.9	
17,482.0	81.70	178.90	12,405.4	-4,829.8	29.3	7.21	-6.88	-2.15	0.6	8.2	
17,515.0	86.20	180.50	12,408.9	-4,862.6	29.4	14.46	13.64	4.85	4.0	8.1	
17,544.0	85.10	176.50	12,411.1	-4,891.5	30.2	14.27	-3.79	-13.79	6.0	8.7	
17,576.0	86.10	173.40	12,413.5	-4,923.2	33.0	10.15	3.13	-9.69	8.3	11.2	
17,607.0	86.70	170.50	12,415.5	-4,953.9	37.3	9.53	1.94	-9.35	10.2	15.3	
17,638.0	87.80	170.20	12,417.0	-4,984.4	42.5	3.68	3.55	-0.97	11.6	20.2	
17,670.0	86.90	170.10	12,418.4	-5,015.9	48.0	2.83	-2.81	-0.31	12.9	25.5	
17,701.0	88.80	171.20	12,419.6	-5,046.5	53.0	7.08	6.13	3.55	14.0	30.2	
17,732.0	90.80	172.20	12,419.7	-5,077.1	57.5	7.21	6.45	3.23	14.1	34.4	
17,764.0	93.70	174.40	12,418.5	-5,108.9	61.2	11.37	9.06	6.88	12.8	37.8	
17,826.0	93.20	174.70	12,414.7	-5,170.5	67.1	0.94	-0.81	0.48	8.8	43.2	
17,858.0	91.60	174.80	12,413.4	-5,202.3	70.0	5.01	-5.00	0.31	7.3	45.9	
17,951.0	91.00	175.90	12,411.3	-5,295.0	77.6	1.35	-0.65	1.18	4.7	52.7	
18,044.0	92.20	177.80	12,408.7	-5,387.8	82.7	2.42	1.29	2.04	1.8	57.0	



Midland PVA



Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Fox 30 Fed Com
Well: #802H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #802H
TVD Reference: Kb = 25 @ 3349.0usft (H&P 647)
MD Reference: Kb = 25 @ 3349.0usft (H&P 647)
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)	Bulid (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
18,139.0	90.40	180.70	12,406.5	-5,482.8	83.9	3.59	-1.89	3.05	-1.0	57.5	
18,233.0	91.90	181.20	12,404.6	-5,576.7	82.4	1.68	1.60	0.53	-3.5	55.1	
18,327.0	91.60	181.10	12,401.8	-5,670.7	80.5	0.34	-0.32	-0.11	-6.9	52.5	
18,420.0	90.90	182.70	12,399.7	-5,763.6	77.4	1.88	-0.75	1.72	-9.5	48.8	
18,514.0	89.00	184.80	12,399.8	-5,857.4	71.3	3.01	-2.02	2.23	-9.9	41.7	
18,607.0	88.50	184.00	12,401.8	-5,950.1	64.1	1.01	-0.54	-0.86	-8.4	33.8	
18,701.0	88.10	184.00	12,404.6	-6,043.8	57.6	0.43	-0.43	0.00	-6.2	26.5	
18,794.0	89.20	184.60	12,406.8	-6,136.5	50.6	1.35	1.18	0.65	-4.6	18.7	
18,888.0	87.80	182.60	12,409.3	-6,230.3	44.7	2.60	-1.49	-2.13	-2.7	12.1	
18,982.0	87.70	180.90	12,413.0	-6,324.2	41.8	1.81	-0.11	-1.81	0.5	8.4	
19,076.0	87.70	180.40	12,416.7	-6,418.1	40.8	0.53	0.00	-0.53	3.7	6.6	
19,169.0	91.10	180.70	12,417.7	-6,511.1	39.9	3.67	3.66	0.32	4.1	4.9	
19,263.0	91.20	179.10	12,415.8	-6,605.0	40.0	1.71	0.11	-1.70	1.6	4.3	
19,356.0	89.80	179.70	12,415.0	-6,698.0	41.0	1.64	-1.51	0.65	0.3	4.5	
19,450.0	90.00	178.40	12,415.2	-6,792.0	42.6	1.40	0.21	-1.38	-0.1	5.3	
19,544.0	88.60	179.90	12,416.3	-6,886.0	44.0	2.18	-1.49	1.60	0.4	5.9	
19,639.0	89.60	179.80	12,417.8	-6,981.0	44.2	1.06	1.05	-0.11	1.4	5.3	
19,732.0	89.00	179.00	12,419.0	-7,074.0	45.2	1.08	-0.65	-0.86	1.9	5.6	
19,798.4	88.79	178.43	12,420.2	-7,140.4	46.7	0.91	-0.32	-0.85	2.8	6.5	
LTP Crossing 19798.4' MD; 12420.2' TVD; -7140.4'; 46.7°; 88.79											
19,826.0	88.70	178.20	12,420.8	-7,167.9	47.5	0.91	-0.32	-0.85	3.3	7.1	
19,842.0	88.70	178.20	12,421.2	-7,184.0	48.0	0.00	0.00	0.00	3.5	7.4	
Last MWD Survey (MD = 19842.0)											
19,897.0	88.70	178.20	12,422.5	-7,238.9	49.7	0.00	0.00	0.00	4.5	8.7	
Projection to Bit (MD = 19897.0)											



Midland PVA



Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #602H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	Kb = 25 @ 3349.0usft (H&P 647)
Site:	Fox 30 Fed Com	MD Reference:	Kb = 25 @ 3349.0usft (H&P 647)
Well:	#602H	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)	
12,518.6	12,357.1	120.4	-33.6	FTP Crossing 12518.6' MD; 12357.1' TVD; 120.4'; -33.6'; 72.74
19,798.4	12,420.2	-7,140.4	46.7	LTP Crossing 19798.4' MD; 12420.2' TVD; -7140.4'; 46.7'; 88.79
19,842.0	12,421.2	-7,184.0	48.0	Last MWD Survey (MD = 19842.0)
19,897.0	12,422.5	-7,238.9	49.7	Projection to Bit (MD = 19897.0)

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

Fox 30 Fed Com #602H

H&P 647

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: #602H

Kb = 25 @ 3349.0usft (H&P 647) 3324.0
Northing 401193.00 Easting 797271.00 Longitude 32° 6' 0.944 N 103° 30' 24.557 W



To convert a Magnetic Direction to a Grid Direction, Add 6.42°
To convert a Magnetic Direction to a True Direction, Add 6.86° East
To convert a True Direction to a Grid Direction, Subtract 0.44°

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	Vsect	Target
1	5103.0	2.20	158.50	5101.5	51.7	19.4	0.00	0.00	-51.6	
2	5203.0	2.20	158.50	5201.4	48.2	20.9	0.00	0.00	-48.0	
3	5794.1	9.69	352.51	5790.1	87.2	18.9	2.00	-166.90	-87.1	
4	7431.0	9.69	352.51	7403.7	360.5	-17.0	0.00	0.00	-360.5	
5	7915.6	0.00	0.00	7886.0	401.0	-22.3	2.00	180.00	-401.1	KOP (Fox 30 #602H)
6	11939.2	0.00	0.00	11909.6	401.0	-22.3	0.00	0.00	-401.1	
7	12686.9	89.72	179.53	12387.1	-74.1	-18.4	12.00	179.53	74.0	
8	14312.9	89.72	179.53	12395.0	-1700.1	-4.9	0.00	0.00	1700.0	TGT #1(Fox 30 #602H)
9	14319.4	89.85	179.53	12395.0	-1706.6	-4.8	2.00	0.00	1706.5	
10	16212.9	89.85	179.53	12400.0	-3600.0	10.8	0.00	0.00	3600.0	TGT #2(Fox 30 #602H)
11	16216.5	89.78	179.53	12400.0	-3603.6	10.9	2.00	180.00	3603.6	
12	18012.9	89.78	179.53	12407.0	-5399.9	25.8	0.00	0.00	5400.0	TGT #3(Fox 30 #602H)
13	18018.9	89.66	179.53	12407.0	-5405.9	25.8	2.00	180.00	5406.0	
14	19852.1	89.66	179.53	12418.0	-7239.0	41.0	0.00	0.00	7239.1	PBHL(Fox 30 #602H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
KOP (Fox 30 #602H)	7886.0	401.0	-22.3	401593.99	797248.69
PTP (Fox 30 #602H)	12388.0	121.0	-28.0	401314.00	797251.00
TGT #1(Fox 30 #602H)	12395.0	-1700.1	-4.9	399482.90	797268.10
TGT #2(Fox 30 #602H)	12400.0	-3600.0	10.8	397593.00	797261.84
TGT #3(Fox 30 #602H)	12407.0	-5399.9	25.8	395783.10	797266.78
PBHL(Fox 30 #602H)	12418.0	-7239.0	41.0	393954.00	797312.00

