

HOBBS OCD

JUN 13 2019

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EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Condor 32 State Corn

#616H

OH

Design: OH

Midland PVA

12 February, 2019



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #616H
Project:	Les County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3355.0usft
Site:	Condor 32 State Com	MD Reference:	KB = 25' @ 3355.0usft
Well:	#616H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Project	Les 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	Condor 32 State Com		
Site Position:		Northing:	394,016.00 usft
From:	Map	Easting:	801,320.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 4' 49.616 N
		Longitude:	103° 29' 38.138 W
		Grid Convergence:	0.45 °

Well	#616H		
Well Position	+N-S	0.0 usft	Northing:
	+E-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 4' 50.611 N
		Longitude:	103° 29' 53.808 W
		Ground Level:	3,330.0 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2015	11/14/2018	6.76
			Dip Angle
			(°)
			59.92
			Field Strength
			(nT)
			47,716.42250985

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
			(°)
			359.48



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Site:	Condor 32 State Com	MD Reference:	KB = 25' @ 3355.0usft
Well:	#616H	North Reference:	Gdd
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey Program	Date	2/12/2019			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
174.0	19,303.0	Driltech (OH)	MWD	OWSG MWD - Standard	
20,017.0	20,017.0	Blind (OH)	Blind	Blind drilling (no survey data)	

MD (usft)	Inc (")	Azi (azimuth) (")	TVD (usft)	N/S (usft)	EW (usft)	DLeg (°/100usft)	Buflid (°/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
174.0	0.40	322.20	174.0	0.5	-0.4	0.23	0.23	0.00	-0.6	0.0
325.0	0.30	303.80	325.0	1.1	-1.0	0.10	-0.07	-12.19	-1.5	-0.4
513.0	0.10	221.50	513.0	1.3	-1.5	0.16	-0.11	-43.78	-0.1	-2.0
697.0	0.40	224.50	697.0	0.7	-2.1	0.16	0.16	1.63	-1.0	-2.0
884.0	0.40	193.00	884.0	-0.4	-2.7	0.12	0.00	-16.84	-1.0	-2.5
904.0	0.30	209.40	904.0	-0.5	-2.7	0.70	-0.50	82.00	-1.8	-2.1
1,061.0	0.30	215.40	1,061.0	-1.2	-3.2	0.02	0.00	3.82	-2.8	-1.9
1,155.0	0.30	195.00	1,155.0	-1.7	-3.4	0.11	0.00	-21.70	-2.5	-2.6
1,249.0	0.40	184.90	1,249.0	-2.2	-3.5	0.12	0.11	-10.74	-2.5	-3.3
1,342.0	0.30	157.20	1,342.0	-2.8	-3.4	0.21	-0.11	-29.78	-1.2	-4.2
1,436.0	0.50	125.20	1,436.0	-3.2	-3.0	0.31	0.21	-34.04	0.6	-4.4
1,529.0	2.70	178.00	1,528.9	-5.7	-2.5	2.60	2.37	54.62	-5.5	-2.9
1,624.0	4.00	179.40	1,623.8	-11.2	-2.3	1.38	1.37	3.58	-10.1	-2.4
1,717.0	4.20	183.70	1,716.5	-17.8	-2.5	0.39	0.22	4.62	-12.9	-1.6
1,811.0	4.10	184.50	1,810.3	-24.6	-3.0	0.12	-0.11	0.85	-12.6	-1.8
1,905.0	4.00	183.80	1,904.1	-31.2	-3.5	0.12	-0.11	-0.74	-11.0	-2.3
2,093.0	5.90	182.90	2,091.3	-47.4	-4.4	1.01	1.01	-0.48	-10.8	-3.1
2,279.0	5.90	178.40	2,278.4	-88.5	-4.6	0.25	0.00	-2.42	-13.4	-4.0
2,465.0	5.40	166.00	2,461.5	-84.6	-2.2	0.71	-0.27	-6.67	-14.7	-4.6
2,652.0	5.50	153.30	2,647.6	-101.1	3.9	0.65	0.05	-6.79	-16.5	-2.0



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #816H
Project:	Lee County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 2355.0usft
Site:	Conder 32 State Corn	MD Reference:	KB = 25' @ 2355.0usft
Well:	#816H	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)	DLag ("/100usft)	Build ("/100usft)	Turn ("/100usft)	High to Plan (usft)	Right to Plan (usft)	
2,838.0	6.30	172.60	2,832.7	-116.2	9.3	1.14	0.43	10.32	-18.8	8.9	
3,025.0	4.80	175.10	3,018.8	-136.9	11.3	0.92	-0.91	1.39	-19.9	11.9	
3,213.0	6.90	173.60	3,205.8	-155.6	13.2	1.23	1.22	-0.90	-22.8	13.3	
3,399.0	6.20	181.00	3,390.6	-176.7	14.2	0.59	-0.38	3.98	-25.9	17.6	
3,587.0	5.80	185.30	3,577.6	-196.4	13.2	0.32	-0.21	2.29	-27.8	19.0	
3,774.0	5.20	209.40	3,763.8	-213.2	8.1	1.27	-0.32	12.89	-20.4	24.8	
3,961.0	4.00	220.50	3,950.2	-225.5	-0.3	0.80	-0.64	5.94	-17.5	19.5	
4,148.0	2.60	156.20	4,136.9	-234.3	-2.8	1.98	-0.75	-34.39	-17.5	-6.2	
4,336.0	3.00	159.50	4,324.7	-242.8	0.7	0.23	0.21	1.76	-11.7	1.1	
4,520.0	2.30	166.60	4,508.5	-250.9	3.2	0.42	-0.38	3.86	-4.4	7.2	
4,710.0	3.30	141.40	4,698.3	-258.9	7.5	0.82	0.53	-13.26	-3.2	13.6	
4,898.0	5.10	166.10	4,885.8	-271.3	12.9	1.34	0.96	13.14	5.3	20.2	
5,085.0	6.90	181.40	5,071.7	-290.6	14.6	1.28	0.96	8.18	7.5	20.2	
5,272.0	4.10	213.80	5,257.9	-307.4	10.8	2.18	-1.50	17.33	11.0	12.6	
5,459.0	1.40	234.40	5,444.7	-314.3	5.0	1.51	-1.44	11.02	7.1	9.1	
5,646.0	1.30	294.00	5,631.6	-314.7	1.2	0.72	-0.05	31.87	8.1	0.5	
5,833.0	1.30	300.70	5,818.6	-312.8	-2.5	0.08	0.00	3.58	3.9	-0.2	
6,020.0	1.40	296.20	6,005.5	-310.7	-8.4	0.08	0.05	-2.41	-0.5	-0.1	
6,207.0	1.30	303.80	6,192.5	-308.5	-10.2	0.11	-0.05	4.06	-4.9	0.3	
6,394.0	1.20	303.40	6,379.4	-306.2	-13.6	0.05	-0.05	-0.21	-9.0	0.2	
6,580.0	1.10	306.20	6,565.4	-304.1	-16.7	0.06	-0.05	1.51	-12.7	0.7	
6,766.0	1.10	300.60	6,751.4	-302.1	-19.7	0.06	0.00	-3.01	-16.3	-0.7	
6,953.0	1.10	304.30	6,938.3	-300.2	-22.7	0.04	0.00	1.98	-19.9	0.5	
7,141.0	0.70	331.40	7,126.3	-298.2	-24.7	0.31	-0.21	14.41	-20.2	10.3	
7,328.0	0.50	22.60	7,313.3	-296.4	-25.0	0.29	-0.11	27.38	-8.2	23.1	
7,513.0	0.50	47.50	7,498.3	-295.1	-24.0	0.12	0.00	13.46	2.6	23.9	
7,701.0	0.50	54.20	7,686.3	-294.1	-22.8	0.03	0.00	3.56	3.7	23.5	



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Site:	Condor 32 State Com	MD Reference:	KB = 25' @ 3355.0usft
Well:	#616H	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)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
7,888.0	0.30	79.00	7,873.3	-293.5	-21.6	0.14	-0.11	13.26	12.0	20.1	
8,074.0	0.30	190.30	8,059.3	-293.9	-21.2	0.27	0.00	59.84	14.1	-18.1	
8,282.0	0.50	172.90	8,247.3	-295.2	-21.2	0.12	0.11	-9.26	17.5	-13.2	
8,448.0	0.70	168.40	8,433.3	-297.1	-20.9	0.11	0.11	-2.42	16.6	-11.8	
8,636.0	1.10	169.90	8,621.2	-300.0	-20.4	0.21	0.21	0.80	13.3	-12.2	
8,823.0	1.00	181.30	8,808.2	-303.4	-20.1	0.12	-0.05	6.10	7.2	-14.2	
9,010.0	1.10	195.20	8,995.2	-306.8	-20.6	0.15	0.05	7.43	0.2	-15.2	
9,197.0	1.30	217.10	9,182.1	-310.2	-22.3	0.27	0.11	11.71	-9.2	-13.5	
9,384.0	1.90	225.10	9,369.1	-314.1	-25.8	0.34	0.32	4.28	-16.2	-11.8	
9,571.0	1.20	225.50	9,556.0	-317.7	-28.4	0.37	-0.37	0.21	-21.4	-11.6	
9,758.0	0.70	206.90	9,743.0	-320.1	-31.3	0.31	-0.27	-9.95	-19.5	-18.5	
9,944.0	0.70	167.60	9,929.0	-322.2	-31.6	0.25	0.00	-21.13	-5.4	-27.4	
10,131.0	0.90	273.50	10,115.9	-323.2	-32.8	0.69	0.11	56.83	-28.0	13.8	
10,318.0	1.50	288.30	10,302.9	-322.4	-36.6	0.36	0.32	7.91	-25.5	20.4	
10,504.0	1.00	264.80	10,488.9	-321.7	-40.5	0.38	-0.27	-12.63	-35.4	7.6	
10,691.0	1.60	230.00	10,675.8	-323.6	-44.1	0.52	0.32	-18.61	-37.3	-14.9	
10,783.0	1.00	148.50	10,767.8	-325.1	-44.7	1.91	-0.65	-86.59	8.2	-40.4	
10,877.0	1.70	138.30	10,861.8	-326.8	-43.4	0.78	0.74	-10.85	13.0	-38.4	
11,065.0	1.50	129.90	11,049.7	-330.5	-39.6	0.16	-0.11	-4.47	13.3	-36.5	
11,251.0	1.50	124.20	11,235.6	-333.4	-35.7	0.08	0.00	-3.06	12.0	-35.2	
11,438.0	1.90	43.20	11,422.6	-332.5	-31.6	1.19	0.21	-43.32	33.2	3.9	
11,626.0	4.30	19.80	11,610.3	-323.6	-27.1	1.42	1.28	-12.45	18.0	15.6	
11,814.0	4.70	16.40	11,797.7	-309.6	-22.5	0.28	0.21	-1.81	3.3	16.2	
11,838.0	4.70	18.80	11,821.6	-307.7	-21.9	0.82	0.00	10.00	2.0	16.1	
11,917.0	3.90	17.30	11,900.4	-302.1	-20.1	1.02	-1.01	-1.90	-4.3	16.1	
12,010.0	4.10	2.60	11,893.2	-295.8	-19.0	1.12	0.22	-15.81	-14.6	13.7	
12,057.0	6.20	1.10	12,040.0	-291.5	-18.8	4.48	4.47	-3.19	-17.1	13.2	



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Condor 32 State Com
 Well: #816H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #816H
 TVD Reference: KB = 25' @ 3355.0usft
 MD Reference: KB = 25' @ 3355.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14

Survey

MD (usft)	Inc (")	Asl (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLag (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
12,104.0	10.90	20.20	12,088.5	-284.8	-17.3	11.55	10.00	40.84	-12.3	16.3
12,151.0	14.90	27.40	12,132.3	-275.3	-12.9	9.16	8.51	15.32	-10.5	12.7
12,188.0	18.50	25.10	12,177.3	-263.2	-7.0	7.79	7.66	-4.89	-9.8	4.9
12,238.0	25.40	13.40	12,214.4	-249.0	-2.3	20.35	17.25	-29.25	-8.5	-2.4
12,292.0	33.90	5.50	12,261.3	-222.7	1.8	17.29	15.74	-14.63	-8.8	-8.0
12,339.0	43.40	8.10	12,298.0	-193.6	5.4	20.50	20.21	5.53	-8.5	-11.5
12,388.0	49.60	5.90	12,330.3	-159.8	9.5	13.62	13.19	-4.68	-11.1	-15.9
12,433.0	54.60	359.00	12,359.2	-122.6	11.0	15.72	10.64	-14.68	-12.6	-18.6
12,478.0	62.00	355.10	12,383.3	-83.6	8.9	17.63	16.09	-8.48	-15.2	-17.4
12,528.0	67.60	354.50	12,403.3	-41.4	5.1	11.97	11.91	-1.28	-19.1	-14.0
12,573.0	74.40	357.50	12,418.6	2.9	2.0	15.67	14.47	6.38	-23.6	-10.9
12,620.0	80.10	358.70	12,429.0	48.7	0.5	12.38	12.13	2.55	-28.2	-9.6
12,667.0	82.40	358.70	12,436.2	95.1	-0.6	4.89	4.89	0.00	-31.0	-8.8
12,761.0	83.90	359.00	12,447.4	188.4	-2.4	1.63	1.60	0.32	-25.5	-7.7
12,854.0	84.70	358.30	12,456.6	260.9	-4.6	1.14	0.86	-0.75	-15.7	-6.3
12,948.0	86.40	358.80	12,463.9	374.6	-7.0	1.88	1.81	0.53	-7.8	-4.7
13,041.0	87.50	358.30	12,468.8	467.4	-9.4	1.30	1.18	-0.54	-2.3	-3.1
13,135.0	89.50	357.80	12,471.3	561.4	-12.5	2.19	2.13	-0.53	0.7	-0.6
13,228.0	91.00	356.10	12,470.9	654.2	-17.5	2.44	1.61	-1.83	0.8	3.5
13,321.0	91.40	357.20	12,468.9	747.0	-22.9	1.26	0.43	1.18	-0.5	8.2
13,414.0	91.50	0.70	12,466.6	840.0	-24.8	3.78	0.11	3.78	-2.4	9.1
13,508.0	92.60	1.40	12,463.2	933.9	-22.9	1.39	1.17	0.74	-5.2	6.6
13,602.0	89.40	0.40	12,461.6	1,027.9	-21.4	3.57	-3.40	-1.08	-6.2	4.4
13,696.0	90.00	0.10	12,462.1	1,121.9	-21.0	0.71	0.64	-0.32	-5.2	3.2
13,789.0	90.20	359.40	12,461.9	1,214.9	-21.4	0.78	0.22	-0.75	-4.8	2.8
13,883.0	90.60	358.60	12,461.3	1,308.8	-23.1	0.95	0.43	-0.85	-4.9	3.7
13,977.0	91.00	0.30	12,460.0	1,402.8	-24.0	1.66	0.43	1.81	-5.6	3.8



Midland PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Condor 32 State Com
 Well: #816H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #816H
 TVD Reference: KB = 25' @ 3353.0usft
 MD Reference: KB = 25' @ 3353.0usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
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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)	
14,070.0	89.70	0.60	12,459.4	1,495.8	-23.2	1.43	-1.40	0.32	-5.6	2.3	
14,163.0	89.30	0.00	12,460.2	1,588.8	-22.8	0.78	-0.43	-0.65	-4.4	1.1	
14,256.0	91.60	359.40	12,459.5	1,681.8	-23.2	2.56	2.47	-0.65	-4.7	0.8	
14,350.0	89.60	0.80	12,458.5	1,775.8	-23.1	2.60	-2.13	1.49	-5.2	-0.1	
14,444.0	90.50	0.30	12,458.4	1,869.8	-22.2	1.10	0.96	-0.53	-4.9	-1.8	
14,537.0	92.50	359.30	12,456.0	1,962.7	-22.5	2.40	2.15	-1.08	-6.9	-2.3	
14,630.0	89.70	359.40	12,454.2	2,055.7	-23.6	3.01	-3.01	0.11	-8.2	-2.0	
14,724.0	90.40	357.60	12,454.1	2,149.7	-26.0	2.05	0.74	-1.91	-7.9	-0.3	
14,817.0	93.60	357.20	12,450.9	2,242.5	-30.2	3.47	3.44	-0.43	-10.7	3.2	
14,911.0	90.10	358.10	12,447.8	2,336.4	-34.1	3.84	-3.72	0.96	-13.3	6.2	
15,004.0	89.00	359.50	12,448.5	2,429.3	-36.0	1.81	-1.16	1.51	-12.1	7.4	
15,097.0	88.50	359.60	12,450.6	2,522.3	-36.8	0.55	-0.54	0.11	-9.6	7.4	
15,190.0	89.60	359.40	12,452.1	2,615.3	-37.6	1.20	1.18	-0.22	-7.7	7.4	
15,283.0	89.10	359.40	12,453.2	2,708.3	-38.5	0.54	-0.54	0.00	-6.2	7.6	
15,376.0	89.30	358.80	12,454.5	2,801.3	-40.0	0.68	0.22	-0.65	-4.5	6.3	
15,469.0	90.50	358.30	12,454.6	2,894.2	-42.4	1.40	1.29	-0.54	-3.9	9.9	
15,563.0	91.40	358.30	12,453.1	2,988.2	-45.1	0.96	0.96	0.00	-5.0	11.9	
15,657.0	91.20	0.80	12,450.9	3,082.1	-45.9	2.67	-0.21	2.66	-6.6	11.9	
15,751.0	90.70	1.60	12,448.4	3,176.1	-43.9	1.00	-0.53	0.85	-7.6	9.1	
15,845.0	90.90	1.70	12,448.1	3,270.1	-41.2	0.24	0.21	0.11	-8.3	5.7	
15,938.0	89.40	1.80	12,447.8	3,363.0	-38.4	1.82	-1.61	0.11	-8.0	2.1	
16,032.0	90.00	2.80	12,448.3	3,456.9	-34.6	1.24	0.64	1.06	-6.9	-2.5	
16,126.0	90.20	3.30	12,448.2	3,550.8	-29.6	0.57	0.21	0.53	-6.5	-8.3	
16,219.0	90.00	2.30	12,448.0	3,643.7	-25.1	1.10	-0.22	-1.08	-6.1	-13.6	
16,313.0	90.00	1.10	12,448.0	3,737.6	-22.3	1.28	0.00	-1.28	-5.6	-17.1	
16,407.0	90.90	1.20	12,447.3	3,831.6	-20.4	0.96	0.96	0.11	-5.7	-19.8	
16,501.0	90.50	1.70	12,446.1	3,925.6	-18.0	0.68	-0.43	0.53	-6.3	-22.9	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #816H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3355.0usft
Site:	Conder 32 State Com	MD Reference:	KB = 25' @ 3355.0usft
Well:	#816H	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)	E/W (usft)	DLeg ("/100usft)	BuId ("/100usft)	Turn ("/100usft)	High to Plan (usft)	Right to Plan (usft)	
16,583.0	91.00	2.80	12,444.9	4,017.5	-14.4	1.31	0.54	1.20	-7.0	-27.3	
16,687.0	93.00	1.50	12,441.6	4,111.4	-10.9	2.54	2.13	-1.38	-9.7	-31.6	
16,780.0	92.80	0.50	12,436.9	4,204.2	-9.2	1.10	-0.22	-1.08	-13.8	-34.0	
16,874.0	90.00	0.30	12,434.6	4,298.2	-8.6	2.99	-2.98	-0.21	-15.6	-35.4	
16,968.0	87.70	358.10	12,436.5	4,392.2	-9.9	3.39	-2.45	-2.34	-13.1	-34.6	
17,062.0	86.90	356.30	12,440.9	4,485.9	-14.5	2.09	-0.85	-1.91	-8.1	-31.1	
17,155.0	90.90	357.70	12,442.7	4,578.8	-19.4	4.56	4.30	1.51	-5.4	-27.0	
17,250.0	92.00	357.60	12,440.3	4,673.7	-23.3	1.18	1.16	-0.21	-6.8	-23.8	
17,343.0	91.10	357.20	12,437.8	4,768.5	-27.6	1.02	-0.97	-0.32	-8.2	-20.3	
17,437.0	91.10	357.20	12,436.0	4,860.4	-32.2	0.00	0.00	0.00	-9.0	-16.4	
17,530.0	92.60	357.30	12,433.0	4,953.2	-36.7	1.62	1.61	0.11	-10.9	-12.7	
17,623.0	92.40	359.90	12,428.9	5,046.1	-38.9	2.80	-0.22	2.80	-13.9	-11.3	
17,716.0	90.10	359.60	12,426.9	5,139.1	-39.4	2.49	-2.47	-0.32	-14.9	-11.6	
17,810.0	90.00	359.30	12,426.8	5,233.1	-40.3	0.34	-0.11	-0.32	-13.9	-11.5	
17,903.0	90.30	359.10	12,426.6	5,326.1	-41.6	0.39	0.32	-0.22	-13.1	-10.9	
17,996.0	90.50	359.30	12,425.9	5,418.1	-42.9	0.30	0.22	0.22	-12.7	-10.4	
18,090.0	90.00	359.60	12,425.5	5,513.0	-43.8	0.62	-0.53	0.32	-12.0	-10.3	
18,184.0	89.30	359.60	12,426.1	5,607.0	-44.2	0.77	-0.74	0.21	-10.4	-10.6	
18,277.0	89.70	0.10	12,426.9	5,700.0	-44.3	0.54	0.43	0.32	-8.5	-11.3	
18,371.0	90.30	0.00	12,426.9	5,794.0	-44.2	0.65	0.64	-0.11	-7.4	-12.1	
18,464.0	90.80	0.50	12,426.0	5,887.0	-43.8	0.76	0.54	0.54	-7.3	-13.3	
18,558.0	92.00	1.70	12,423.7	5,981.0	-42.0	1.81	1.28	1.28	-8.5	-15.9	
18,651.0	90.50	359.60	12,421.7	6,073.9	-40.8	2.60	-1.61	-2.04	-8.8	-17.9	
18,744.0	89.40	358.70	12,421.8	6,166.9	-42.0	1.67	-1.18	-1.18	-6.7	-17.4	
18,837.0	89.00	357.80	12,423.1	6,259.9	-44.9	1.06	-0.43	-0.97	-3.3	-15.3	
18,931.0	92.20	359.20	12,422.1	6,353.8	-47.3	3.72	3.40	1.49	-2.2	-13.6	
19,024.0	92.80	359.60	12,418.0	6,446.7	-48.3	0.78	0.65	0.43	-4.2	-13.4	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #816H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3355.0usft
Site:	Candor 32 State Com	MD Reference:	KB = 25' @ 3355.0usft
Well:	#816H	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)	E/W (usft)	D/Lag ("/100usft)	Build ("/100usft)	Turn ("/100usft)	High to Plan (usft)	Right to Plan (usft)	
19,118.0	93.20	359.60	12,413.1	6,540.6	-49.0	0.43	0.43	0.00	-7.0	-13.6	
19,210.0	91.60	358.40	12,409.3	6,632.5	-50.6	2.17	-1.74	-1.30	-8.9	-12.7	
19,303.0	92.40	0.00	12,406.0	6,725.4	-51.9	1.92	0.66	1.72	-10.0	-12.2	
20,017.0	92.40	0.00	12,376.1	7,438.8	-51.9	0.00	0.00	0.00	-24.1	-18.1	

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/S (usft)	+E/W (usft)	Comment	
12,008.0	11,991.2	-295.9	-19.0	KOP, MD:12008.0', TVD:11991.2', N/S:-295.9', E/W:-19.0', INC:4.09	
12,205.2	12,184.1	-281.0	-6.1	FTP Crossing, MD:12205.2', TVD:12184.1', N/S:-281.0', E/W:-6.1', INC:19.68	
19,303.0	12,406.0	6,725.4	-51.9	Last MWD Survey (MD=19303.0')	
20,017.0	12,376.1	7,438.8	-51.9	Projection to Bit (MD=20017.0')	

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

Condor 32 State Com #616H

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: #616H

KB = 25' @ 3355.0surf 3330.0
Northing 394106.00 Easting 789971.00 Latitude 32° 4' 50.511 N Longitude 103° 29' 53.808 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VFace	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1546.0	0.00	0.00	1546.0	0.0	0.0	0.00	0.00	0.0	
3	1796.1	5.00	181.11	1795.8	-10.9	-0.2	2.00	181.11	-10.9	
4	5113.2	5.00	181.11	5100.2	-300.1	-5.8	0.00	0.00	-300.0	
5	5363.3	0.00	0.00	5350.0	-311.0	-6.0	2.00	180.00	-310.9	
6	12008.8	0.00	0.00	11995.5	-311.0	-6.0	0.00	0.00	-310.9	
7	12781.8	90.34	359.53	12473.0	189.3	-10.0	12.00	359.53	189.4	TGT#1(Condor 32 State Com #616H)
8	14092.3	90.34	359.53	12465.0	1499.9	-20.9	0.00	0.00	1500.0	
9	14098.1	90.27	359.53	12465.0	1503.7	-21.0	2.00	-180.00	1503.8	TGT#2(Condor 32 State Com #616H)
10	15592.3	90.27	359.53	12458.0	2999.8	-33.3	0.00	0.00	3000.0	
11	15596.1	90.34	359.53	12458.0	3003.6	-33.3	2.00	0.00	3003.8	TGT#3(Condor 32 State Com #616H)
12	17092.3	90.34	359.53	12449.0	4499.8	-45.7	0.00	0.00	4500.0	
13	17107.7	90.85	359.53	12448.9	4515.2	-45.8	2.00	0.00	4515.4	TGT#4(Condor 32 State Com #616H)
14	18592.4	90.85	359.53	12432.0	5999.7	-58.1	0.00	0.00	6000.0	
15	18823.5	91.27	359.53	12431.5	8030.8	-58.3	2.00	0.00	8031.1	PBHL (Condor 32 State Com #616H)
16	20040.1	91.27	359.53	12400.0	7447.0	-70.0	0.00	0.00	7447.3	

CASING DETAILS

No casing data is available

WELLSBORE TARGET DETAILS (MAP COORDINATES)

Name	TVD	+N-S	+E-W	Northing	Eastng
Brushy Top(Condor 32 State Com #616H)	8032.0	-311.0	-6.0	392795.00	789963.00
PBHL (Condor 32 State Com #616H)	12400.0	7447.0	-70.0	401583.00	789901.00
TGT#1(Condor 32 State Com #616H)	12432.0	899.7	-58.1	400183.70	789911.94
TGT#2(Condor 32 State Com #616H)	12448.0	4499.8	-45.7	399905.80	789925.31
TGT#3(Condor 32 State Com #616H)	12458.0	2999.8	-33.3	397106.80	789937.83
TGT#4(Condor 32 State Com #616H)	12465.0	1499.9	-20.9	399905.90	789906.09
FTP (Condor 32 State Com #616H)	12474.0	-381.0	-6.0	392345.00	789965.00

