

HOBBS OCD
OCT 04 2018
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EOG Resources - Midland

Lea County, NM (NAD 83 NME)
Condor 32 State Com
#712Y
OH

Design: OH

Midland PVA

02 October, 2018



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #712Y
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3365.0usft (H&P 653)
Site:	Condor 32 State Com	MD Reference:	KB = 25' @ 3365.0usft (H&P 653)
Well:	#712Y	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	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	#712Y		
Well Position	+N-S	0.0 usft	Northing: 394,091.00 usft
	+E-W	0.0 usft	Easting: 801,889.00 usft
Position Uncertainty	0.0 usft		Latitude: 32° 4' 50.315 N
			Longitude: 103° 29' 31.518 W
			Wellhead Elevation: usft
			Ground Level: 3,340.0 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2015	6/19/2018	6.80
			Dip Angle (°) 59.93
			Field Strength (nT) 47,758.57244921

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 (°) 357.08

Survey Program	Date	7/13/2018		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
223.0	20,294.0	Drilltech MWD (OH)	MWD	OWSG MWD - Standard



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Well:	#712Y	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Dataverse:	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)	
0.0	0.00	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.0	0.0
223.0	1.58	81.85	223.0	0.4	3.0	0.71	0.71	0.00	-3.1	0.0	
253.0	1.85	71.65	253.0	0.6	3.9	1.36	0.90	-34.00	-3.9	-0.6	
402.0	2.20	71.13	401.9	2.3	8.9	0.24	0.23	-0.35	-9.2	-0.7	
584.0	2.20	61.19	583.7	5.1	15.3	0.21	0.00	-5.46	-15.9	-2.9	
767.0	2.20	58.12	766.6	8.7	21.3	0.06	0.00	-1.68	-22.7	-3.9	
950.0	1.93	51.53	949.5	12.5	26.7	0.20	-0.15	-3.60	-28.7	-6.9	
1,081.0	1.93	53.02	1,080.4	15.2	30.2	0.04	0.00	1.14	-32.3	-5.4	
1,173.0	0.70	87.91	1,172.4	16.1	32.0	1.54	-1.34	37.92	-28.3	15.1	
1,266.0	0.70	112.43	1,265.4	15.9	33.1	0.32	0.00	26.37	-17.6	24.5	
1,359.0	1.32	177.74	1,358.4	14.6	33.7	1.30	0.67	70.23	13.7	23.5	
1,453.0	1.58	175.28	1,452.3	12.3	33.8	0.28	0.28	-2.62	10.6	20.7	
1,546.0	1.76	180.55	1,545.3	9.6	33.9	0.25	0.19	5.67	9.7	16.5	
1,640.0	1.41	168.51	1,639.3	7.0	34.1	0.51	-0.37	-12.81	4.1	14.7	
1,734.0	1.41	207.62	1,733.2	4.8	33.8	1.00	0.00	41.61	9.1	6.6	
1,829.0	1.58	216.23	1,828.2	2.7	32.5	0.30	0.18	9.06	8.2	2.2	
1,924.0	3.34	192.41	1,923.1	-1.0	31.1	2.10	1.85	-25.07	7.6	3.0	
2,019.0	3.96	187.14	2,017.9	-7.0	30.1	0.74	0.65	-5.55	7.8	2.6	
2,114.0	3.78	189.25	2,112.7	-13.3	29.2	0.24	-0.19	2.22	8.0	1.4	
2,209.0	3.61	193.56	2,207.5	-19.3	28.0	0.34	-0.18	4.54	8.4	-0.6	
2,304.0	3.67	175.98	2,302.3	-25.4	27.5	1.23	0.27	-18.51	8.7	1.6	
2,399.0	3.96	167.10	2,397.1	-31.8	28.5	0.64	0.09	-9.35	8.4	3.9	
2,494.0	3.69	169.56	2,491.9	-38.0	29.8	0.33	-0.28	2.59	8.8	4.8	
2,589.0	3.17	162.18	2,586.7	-43.5	31.1	0.72	-0.55	-7.77	8.7	7.6	
2,684.0	3.69	176.15	2,681.5	-49.1	32.2	1.03	0.55	14.71	11.3	6.3	
2,779.0	4.84	186.88	2,776.3	-56.1	31.9	1.47	1.21	11.29	11.8	3.9	
2,874.0	4.48	182.75	2,871.0	-63.8	31.2	0.52	-0.38	-4.35	10.4	4.1	



Midland PVA

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Site:	Condor 32 State Com	MD Reference:	KB = 25' @ 3365.0usft (H&P 653)
Well:	#712Y	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)	DLog ("/100usft)	Build ("/100usft)	Turn ("/100usft)	High to Plan (usft)	Right to Plan (usft)	
2,969.0	3.87	172.11	2,965.7	-70.7	31.5	1.04	-0.64	-11.20	9.2	6.2	
3,064.0	4.04	179.32	3,060.5	-77.2	32.0	0.55	0.18	7.59	10.0	5.5	
3,159.0	4.40	177.82	3,155.2	-84.2	32.1	0.40	0.38	-1.58	9.5	5.9	
3,254.0	4.57	178.62	3,249.9	-91.6	32.4	0.19	0.18	0.84	8.8	6.0	
3,349.0	5.45	185.21	3,344.6	-99.9	32.1	1.11	0.93	6.94	7.7	4.8	
3,444.0	4.92	180.81	3,439.2	-108.5	31.6	0.70	-0.56	-4.63	5.4	4.9	
3,538.0	5.10	188.99	3,532.8	-116.6	30.9	0.78	0.19	8.70	4.3	3.6	
3,633.0	6.16	202.08	3,627.4	-125.5	28.3	1.75	1.12	13.78	2.0	1.2	
3,728.0	6.07	205.77	3,721.8	-134.8	24.2	0.42	-0.09	3.88	-1.6	0.8	
3,823.0	5.80	206.65	3,816.3	-143.6	19.9	0.30	-0.28	0.93	-4.8	1.0	
3,918.0	5.63	217.02	3,910.8	-151.6	14.9	1.10	-0.18	10.92	-7.4	1.7	
4,013.0	5.45	220.54	4,005.4	-158.7	9.2	0.40	-0.19	3.71	-10.0	0.9	
4,108.0	4.22	217.38	4,100.1	-165.0	4.1	1.32	-1.29	-3.33	-11.5	-1.0	
4,203.0	3.96	213.42	4,194.8	-170.5	0.2	0.40	-0.27	-4.17	-11.6	-2.7	
4,298.0	3.61	213.42	4,289.6	-175.7	-3.3	0.37	-0.37	0.00	-11.2	-3.3	
4,393.0	2.90	209.64	4,384.5	-180.3	-6.1	0.78	-0.75	-3.98	-9.8	-4.5	
4,488.0	3.08	192.94	4,479.3	-184.9	-7.9	0.93	0.19	-17.58	-6.5	-6.1	
4,583.0	3.17	189.43	4,574.2	-189.9	-8.9	0.22	0.09	-3.69	-5.0	-4.5	
4,678.0	2.73	187.84	4,669.1	-194.8	-9.6	0.47	-0.46	-1.67	-3.5	-2.5	
4,772.0	2.99	186.88	4,762.9	-199.4	-10.2	0.28	0.28	-1.02	-2.0	-0.2	
4,867.0	3.17	180.02	4,857.8	-204.5	-10.5	0.43	0.19	-7.22	-1.2	2.3	
4,962.0	3.34	165.87	4,952.7	-209.8	-9.8	0.86	0.18	-14.89	-2.1	5.7	
5,057.0	4.31	185.21	5,047.4	-216.1	-9.5	1.69	1.02	20.36	-0.2	9.6	
5,098.0	4.57	192.41	5,088.3	-219.2	-10.0	1.50	0.63	17.56	0.6	10.4	
5,181.0	4.13	194.96	5,171.1	-225.3	-11.5	0.58	-0.53	3.07	0.5	11.8	
5,276.0	3.52	194.61	5,265.9	-231.4	-13.1	0.64	-0.64	-0.37	0.5	13.3	
5,371.0	3.08	194.88	5,360.7	-236.7	-14.5	0.46	-0.46	0.28	1.6	14.8	



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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)	
5,466.0	4.48	192.06	5,455.5	-242.8	-15.9	1.49	1.47	-2.97	1.0	16.5	
5,561.0	5.19	197.25	5,550.2	-250.6	-17.9	0.88	0.75	5.46	1.0	17.9	
5,656.0	5.36	196.28	5,644.8	-258.9	-20.5	0.20	0.18	-1.02	-1.6	19.2	
5,751.0	4.92	210.08	5,739.4	-266.7	-23.7	1.38	-0.46	14.53	1.3	19.8	
5,846.0	4.66	211.66	5,834.1	-273.5	-27.8	0.31	-0.27	1.66	0.5	19.4	
5,941.0	4.48	212.19	5,928.8	-279.9	-31.8	0.19	-0.19	0.56	-0.4	18.9	
6,036.0	4.66	212.45	6,023.5	-286.3	-35.9	0.19	0.19	0.27	-3.8	18.6	
6,131.0	3.25	186.44	6,118.2	-292.3	-38.2	2.37	-1.48	-27.38	-16.8	13.8	
6,226.0	1.93	190.39	6,213.1	-296.5	-38.8	1.40	-1.39	4.16	-20.1	15.1	
6,321.0	1.06	324.78	6,308.1	-297.4	-39.6	2.92	-0.92	141.46	25.1	5.0	
6,416.0	1.93	344.20	6,403.1	-295.1	-40.6	1.05	0.92	20.44	22.9	-3.3	
6,510.0	2.11	343.06	6,497.0	-291.9	-41.5	0.20	0.19	-1.21	19.6	-2.9	
6,605.0	2.20	344.64	6,592.0	-288.5	-42.5	0.11	0.09	1.66	16.0	-3.4	
6,700.0	2.29	344.64	6,686.9	-284.9	-43.5	0.09	0.09	0.00	12.3	-3.4	
6,795.0	2.20	340.69	6,781.8	-281.4	-44.6	0.19	-0.09	-4.16	8.7	-2.7	
6,890.0	2.29	342.44	6,876.7	-277.8	-45.8	0.12	0.09	1.84	4.9	-2.9	
6,985.0	2.29	340.95	6,971.7	-274.2	-46.9	0.06	0.00	-1.57	1.2	-2.8	
7,080.0	2.29	339.54	7,066.6	-270.7	-48.2	0.06	0.00	-1.48	-2.5	-2.8	
7,175.0	0.97	347.37	7,161.5	-268.1	-49.1	1.41	-1.39	8.24	-5.6	-2.2	
7,270.0	0.88	337.52	7,256.5	-266.6	-49.5	0.19	-0.09	-10.37	-6.6	-3.3	
7,365.0	0.97	331.19	7,351.5	-265.3	-50.2	0.14	0.09	-6.66	-7.8	-4.0	
7,460.0	1.14	344.38	7,446.5	-263.6	-50.8	0.31	0.18	13.88	-10.2	-2.0	
7,555.0	0.53	190.74	7,541.5	-263.2	-51.2	1.72	-0.64	-161.73	10.4	-3.2	
7,649.0	0.53	165.96	7,635.5	-264.0	-51.1	0.24	0.00	-26.36	10.0	1.3	
7,744.0	0.79	176.15	7,730.5	-265.1	-51.0	0.30	0.27	10.73	9.0	-0.4	
7,839.0	0.70	167.37	7,825.5	-266.3	-50.8	0.15	-0.09	-9.24	7.7	0.9	
7,934.0	1.06	183.19	7,920.5	-267.8	-50.7	0.45	0.38	16.65	6.2	-1.1	



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8,029.0	1.23	163.41	8,015.5	-269.6	-50.5	0.45	0.18	-20.82	4.4	0.8	
8,124.0	1.32	164.20	8,110.4	-271.6	-49.9	0.10	0.09	0.83	2.2	0.7	
8,219.0	1.06	176.51	8,205.4	-273.6	-49.6	0.38	-0.27	12.96	0.4	0.5	
8,314.0	1.23	176.59	8,300.4	-275.5	-49.5	0.18	0.18	0.08	-1.5	0.5	
8,409.0	1.23	177.21	8,395.4	-277.5	-49.3	0.01	0.00	0.65	-3.5	0.5	
8,504.0	1.14	186.00	8,490.3	-279.5	-49.4	0.21	-0.09	9.25	-5.4	1.2	
8,598.0	1.32	179.41	8,584.3	-281.5	-49.5	0.24	0.19	-7.01	-7.5	0.4	
8,694.0	0.79	179.49	8,680.3	-283.2	-49.5	0.55	-0.55	0.08	-9.2	0.5	
8,788.0	0.44	186.97	8,774.3	-284.2	-49.5	0.38	-0.37	7.96	-10.1	1.7	
8,883.0	0.62	256.49	8,869.3	-284.7	-50.0	0.65	0.19	73.18	-2.5	10.4	
8,978.0	0.79	233.28	8,964.3	-285.2	-51.1	0.35	0.18	-24.43	-7.6	8.4	
9,073.0	0.97	304.56	9,059.3	-285.2	-52.3	1.09	0.19	75.03	4.5	10.5	
9,168.0	1.41	316.96	9,154.3	-283.9	-53.7	0.53	0.46	13.05	4.7	9.4	
9,263.0	1.32	304.21	9,249.2	-282.4	-55.4	0.33	-0.09	-13.42	0.2	10.0	
9,359.0	1.23	307.81	9,345.2	-281.1	-57.1	0.13	-0.09	3.75	-1.3	10.0	
9,454.0	1.49	308.25	9,440.2	-279.8	-58.9	0.27	0.27	0.46	-3.4	10.0	
9,580.0	1.85	309.48	9,566.1	-277.4	-61.8	0.29	0.29	0.98	-6.9	10.1	
9,675.0	0.82	253.06	9,661.1	-276.6	-63.5	1.68	-1.29	-59.39	-13.6	-1.4	
9,770.0	0.88	254.03	9,756.1	-277.0	-64.6	0.27	0.27	1.02	-14.9	-1.2	
9,865.0	0.88	274.15	9,851.1	-277.1	-68.1	0.32	0.00	21.18	-15.8	4.3	
9,960.0	1.06	268.26	9,946.1	-277.1	-67.7	0.22	0.19	-6.20	-17.8	2.6	
10,055.0	1.76	258.60	10,041.0	-277.4	-70.0	0.78	0.74	-10.17	-20.3	-0.6	
10,150.0	0.70	46.25	10,136.0	-277.3	-71.0	2.51	-1.12	155.42	17.4	12.1	
10,245.0	1.85	70.77	10,231.0	-276.4	-69.1	1.31	1.21	25.81	18.8	4.1	
10,340.0	2.11	82.73	10,326.0	-275.7	-65.9	0.51	0.27	12.59	16.0	0.4	
10,435.0	2.37	91.96	10,420.9	-275.5	-62.3	0.47	0.27	9.72	12.2	-1.9	
10,530.0	2.73	101.45	10,515.8	-276.0	-58.1	0.58	0.38	9.99	7.5	-3.6	



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Design:	OH	Database:	EDM 5000.14

MD (usft)	Inc (")	Azi (azi/muth) (")	TVD (usft)	NIS (usft)	EAW (usft)	DLeg ("/100usft)	Bulld ("/100usft)	Turn ("/100usft)	High to Plan (usft)	Right to Plan (usft)
10,625.0	3.43	146.54	10,610.7	-278.8	-54.3	2.58	0.74	47.46	-1.7	-6.2
10,720.0	3.78	172.81	10,705.5	-284.3	-52.3	1.76	0.37	27.65	-9.9	-3.6
10,815.0	4.48	201.12	10,800.2	-290.9	-53.3	2.24	0.74	29.80	-16.9	3.0
10,910.0	3.08	233.20	10,895.0	-295.9	-56.7	2.61	-1.47	33.77	-18.4	13.5
11,005.0	1.85	226.16	10,990.0	-298.5	-59.8	1.33	-1.29	-7.41	-24.0	10.9
11,100.0	0.79	248.93	11,084.9	-299.8	-61.5	1.22	-1.12	23.97	-20.0	19.9
11,195.0	0.35	249.81	11,179.9	-300.1	-62.4	0.46	-0.46	0.93	-20.6	20.2
11,290.0	1.41	197.86	11,274.9	-301.3	-63.0	1.29	1.12	-54.68	-30.0	-4.0
11,385.0	1.76	144.51	11,369.9	-303.6	-62.5	1.53	0.37	-56.16	-16.8	-27.4
11,480.0	3.08	155.76	11,464.8	-307.1	-60.7	1.47	1.39	11.84	-25.8	-23.3
11,575.0	1.06	224.32	11,559.7	-310.1	-60.2	3.02	-2.13	72.17	-33.0	17.9
11,670.0	1.32	265.54	11,654.7	-310.8	-61.9	0.92	0.27	43.39	-14.7	35.8
11,765.0	0.53	288.13	11,749.7	-310.8	-63.4	0.90	-0.83	23.78	-1.3	39.1
11,860.0	1.32	288.30	11,844.7	-310.3	-64.9	0.83	0.83	0.18	-2.7	39.1
11,955.0	1.76	297.00	11,939.7	-309.3	-67.2	0.52	0.46	9.16	0.7	39.2
12,051.0	2.99	302.63	12,035.6	-307.2	-70.6	1.30	1.28	5.86	0.5	39.1
12,092.0	3.52	311.15	12,076.5	-305.8	-72.5	1.75	1.29	20.78	4.0	38.8
12,100.0	4.04	305.57	12,084.5	-305.5	-72.9	7.95	6.50	-69.76	-0.3	39.0
KOP, MD:12100.0, TVD:12084.5, NIS:-305.5, EAW:-72.9, INC:4.04										
12,139.0	6.86	291.47	12,123.3	-303.9	-76.2	7.95	7.23	-36.15	-13.1	37.5
12,187.0	12.49	290.41	12,170.6	-301.0	-83.7	11.73	11.73	-2.21	-17.9	38.2
12,234.0	19.52	296.65	12,215.8	-295.7	-95.5	15.38	14.96	13.28	-18.1	41.8
12,283.0	23.48	300.96	12,261.3	-287.0	-111.2	8.70	8.08	8.80	-19.3	44.6
12,330.0	28.14	308.61	12,303.7	-275.3	-127.9	12.17	9.91	16.28	-16.6	46.7
12,378.0	32.62	310.89	12,345.1	-259.7	-146.6	9.64	9.33	4.75	-17.1	45.3
12,424.0	37.64	307.20	12,382.7	-243.1	-167.1	11.84	10.91	-8.02	-20.3	42.5
12,471.0	42.38	309.48	12,418.7	-224.3	-190.8	10.55	10.09	4.85	-19.3	41.3



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #712Y
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	'KB = 25' @ 3365.0usft (H&P 653)
Site:	Condor 32 State Com	MD Reference:	'KB = 25' @ 3365.0usft (H&P 653)
Well:	#712Y	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	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)	
12,518.0	48.36	316.34	12,451.7	-201.5	-215.2	16.41	12.72	14.60	-16.5	38.8	
12,566.0	54.17	321.88	12,481.7	-173.2	-239.6	15.08	12.10	11.54	-17.2	35.6	
12,613.0	59.27	325.83	12,507.5	-141.5	-262.8	12.92	10.85	8.40	-20.5	32.9	
12,653.0	62.19	327.60	12,527.1	-112.3	-281.9	8.26	7.31	4.42	-24.5	31.7	
FTP Crossing: MD:12653.0, TVD:12527.1, NS:-112.3, EW:-281.9, INC:62.19											
12,661.0	62.78	327.94	12,530.8	-106.3	-285.7	8.26	7.34	4.27	-25.4	31.6	
12,708.0	65.86	330.49	12,551.1	-89.9	-307.3	8.18	6.55	5.43	-29.8	32.3	
12,756.0	72.11	334.71	12,568.3	-30.2	-327.9	15.39	13.02	8.79	-34.6	34.6	
12,803.0	74.92	340.95	12,581.7	11.6	-344.9	14.06	5.98	13.28	-39.5	36.6	
12,851.0	77.82	347.72	12,593.0	56.5	-357.5	14.98	6.04	14.10	-43.6	36.8	
12,898.0	78.44	354.48	12,602.7	101.9	-384.6	14.14	1.32	14.38	-46.1	34.5	
12,946.0	76.85	358.88	12,613.0	148.7	-367.3	9.55	-3.31	9.17	-45.0	30.1	
12,993.0	75.53	358.88	12,624.2	194.3	-368.2	2.81	-2.81	0.00	-39.4	26.6	
13,041.0	74.48	358.82	12,636.6	240.6	-369.2	2.25	-2.19	-0.54	-29.0	26.2	
13,088.0	80.99	359.06	12,646.6	286.5	-370.1	13.88	13.85	0.94	-19.2	27.1	
13,136.0	85.91	359.93	12,652.1	334.2	-370.5	10.41	10.25	1.81	-13.6	27.8	
13,232.0	87.58	4.77	12,657.5	429.9	-366.6	5.33	1.74	5.04	-7.8	24.6	
13,327.0	87.41	3.54	12,661.7	524.6	-359.7	1.31	-0.18	-1.29	-3.4	18.4	
13,423.0	89.16	0.81	12,664.5	620.5	-356.1	3.38	1.82	-2.84	-0.3	15.5	
13,518.0	89.52	2.13	12,665.6	715.4	-353.7	1.44	0.38	1.39	1.0	13.7	
13,613.0	88.29	1.43	12,667.4	810.4	-350.7	1.49	-1.29	-0.74	3.1	11.5	
13,709.0	90.57	2.39	12,668.4	906.3	-347.5	2.58	2.37	1.00	4.4	9.0	
13,821.0	90.48	2.39	12,667.4	1,018.2	-342.8	0.08	-0.08	0.00	3.7	5.2	
13,916.0	91.36	2.48	12,665.8	1,113.1	-338.8	0.93	0.93	0.09	2.4	1.9	
14,010.0	90.92	2.22	12,664.0	1,207.0	-334.9	0.54	-0.47	-0.28	0.8	-1.3	
14,105.0	90.84	3.19	12,662.5	1,301.9	-330.5	1.02	-0.08	1.02	-0.4	-5.0	
14,200.0	89.69	2.66	12,662.1	1,396.8	-325.6	1.33	-1.21	-0.56	-0.5	-9.2	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #712Y
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3365.0usft (H&P 653)
Site:	Condor 32 State Com	MD Reference:	KB = 25' @ 3365.0usft (H&P 653)
Well:	#712Y	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)	
14,295.0	87.85	359.58	12,664.1	1,491.7	-323.8	3.78	-1.94	-3.24	1.8	-10.3	
14,390.0	89.78	359.23	12,666.1	1,586.7	-324.7	2.06	2.03	-0.37	4.0	-8.6	
14,485.0	91.63	359.49	12,664.9	1,681.7	-325.8	1.97	1.95	0.27	3.1	-8.9	
14,580.0	90.13	0.55	12,663.5	1,776.6	-325.8	1.93	-1.58	1.12	2.0	-6.2	
14,675.0	91.80	1.16	12,661.9	1,871.6	-324.4	1.87	1.76	0.64	0.6	-6.9	
14,770.0	89.52	1.87	12,660.8	1,966.6	-321.8	2.51	-2.40	0.75	-0.2	-8.7	
14,864.0	88.81	2.13	12,662.1	2,060.5	-318.6	0.80	-0.76	0.28	1.7	-12.7	
14,959.0	89.78	2.13	12,663.3	2,155.4	-315.0	1.02	1.02	0.00	3.5	-17.0	
15,054.0	90.31	0.90	12,663.2	2,250.4	-312.5	1.41	0.56	-1.29	4.0	-20.3	
15,149.0	91.89	0.46	12,661.4	2,345.4	-311.4	1.73	1.66	-0.46	2.7	-22.2	
15,244.0	94.09	0.81	12,656.4	2,440.2	-310.3	2.34	2.32	0.37	-1.6	-24.1	
15,370.0	93.03	357.30	12,648.6	2,565.9	-312.4	2.90	-0.84	-2.79	-8.8	-23.0	
15,463.0	93.21	358.62	12,643.6	2,658.7	-315.7	1.43	0.19	1.42	-13.2	-20.5	
15,558.0	91.10	359.41	12,640.0	2,753.7	-317.4	2.37	-2.22	0.83	-16.2	-19.7	
15,653.0	89.87	359.23	12,639.2	2,848.6	-318.5	1.31	-1.29	-0.19	-16.5	-19.4	
15,748.0	89.43	358.97	12,639.8	2,943.6	-320.0	0.54	-0.46	-0.27	-15.3	-18.7	
15,843.0	90.13	359.23	12,640.1	3,038.6	-321.5	0.79	0.74	0.27	-14.4	-18.0	
15,938.0	90.57	359.32	12,639.5	3,133.6	-322.7	0.47	0.46	0.09	-14.4	-17.6	
16,032.0	91.28	358.97	12,638.0	3,227.6	-324.1	0.84	0.78	-0.37	-15.3	-16.9	
16,127.0	91.98	358.70	12,635.3	3,322.5	-326.0	0.79	0.74	-0.28	-17.5	-15.8	
16,222.0	89.78	358.97	12,633.9	3,417.5	-327.9	2.33	-2.32	0.28	-18.3	-14.7	
16,317.0	89.34	358.53	12,634.6	3,512.5	-330.0	0.65	-0.46	-0.46	-17.0	-13.4	
16,412.0	89.78	358.88	12,635.3	3,607.4	-332.2	0.59	0.46	0.37	-15.7	-12.0	
16,507.0	90.75	359.41	12,634.9	3,702.4	-333.6	1.16	1.02	0.56	-15.6	-11.4	
16,602.0	90.92	359.32	12,633.5	3,797.4	-334.6	0.20	0.18	-0.09	-16.4	-11.2	
16,697.0	91.10	359.14	12,631.8	3,892.4	-335.9	0.27	0.19	-0.19	-17.5	-10.7	
16,792.0	91.63	359.32	12,629.6	3,987.3	-337.2	0.59	0.55	0.19	-19.1	-10.2	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #712Y
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3365.0usft (H&P 653)
Site:	Condor 32 State Corn	MD Reference:	KB = 25' @ 3365.0usft (H&P 653)
Well:	#712Y	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
ND (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)	
16,887.0	92.42	359.41	12,626.2	4,082.3	-338.2	0.84	0.83	0.09	-21.5	-9.8	
16,982.0	88.99	359.32	12,625.0	4,177.2	-339.3	3.61	-3.61	-0.09	-21.7	-9.7	
17,077.0	89.52	359.67	12,626.3	4,272.2	-340.1	0.67	0.56	0.37	-19.5	-9.6	
17,172.0	87.14	359.58	12,629.0	4,367.2	-340.7	2.51	-2.51	-0.09	-15.8	-9.8	
17,267.0	87.32	359.76	12,633.6	4,462.1	-341.3	0.27	0.19	0.19	-10.3	-10.0	
17,362.0	87.85	359.23	12,637.6	4,557.0	-342.1	0.79	0.56	-0.56	-5.3	-9.9	
17,456.0	88.46	359.49	12,640.7	4,650.9	-343.2	0.71	0.65	0.28	-1.3	-9.7	
17,551.0	89.43	0.11	12,642.4	4,745.9	-343.5	1.21	1.02	0.65	1.3	-10.1	
17,646.0	90.75	0.37	12,642.3	4,840.9	-343.1	1.42	1.39	0.27	2.2	-11.3	
17,741.0	91.89	0.99	12,640.1	4,935.9	-342.0	1.37	1.20	0.65	0.9	-13.2	
17,836.0	90.04	1.43	12,638.5	5,030.8	-340.0	2.00	-1.95	0.46	0.3	-16.0	
17,931.0	89.87	0.81	12,638.6	5,125.8	-338.1	0.68	-0.18	-0.65	1.3	-18.6	
18,026.0	88.99	358.70	12,639.5	5,220.8	-338.5	2.41	-0.93	-2.22	3.2	-19.0	
18,121.0	90.48	358.79	12,639.9	5,315.8	-340.6	1.57	1.57	0.09	4.6	-17.7	
18,216.0	91.54	358.53	12,638.3	5,410.7	-342.8	1.15	1.12	-0.27	3.8	-16.2	
18,311.0	92.15	358.35	12,635.2	5,505.7	-345.4	0.67	0.64	-0.19	1.7	-14.4	
18,406.0	89.52	358.18	12,633.8	5,600.6	-348.3	2.77	-2.77	-0.18	1.3	-12.3	
18,501.0	90.13	358.18	12,634.1	5,695.5	-351.3	0.64	0.64	0.00	2.5	-10.1	
18,596.0	90.57	357.82	12,633.5	5,790.5	-354.6	0.60	0.46	-0.38	2.9	-7.6	
18,691.0	92.59	358.44	12,630.9	5,885.4	-357.7	2.22	2.13	0.65	1.2	-5.2	
18,786.0	90.48	358.79	12,628.4	5,980.3	-360.0	2.25	-2.22	0.37	-0.4	-3.7	
18,881.0	90.84	358.97	12,627.3	6,075.3	-361.9	0.42	0.38	0.19	-0.8	-2.6	
18,976.0	90.84	359.49	12,625.9	6,170.3	-363.1	0.55	0.00	0.55	-1.4	-2.1	
19,071.0	89.43	359.32	12,625.7	6,265.3	-364.1	1.49	-1.48	-0.18	-0.9	-1.9	
19,167.0	89.78	359.49	12,626.3	6,361.3	-365.1	0.41	0.36	0.18	0.5	-1.7	
19,262.0	90.57	359.93	12,626.0	6,456.3	-365.6	0.95	0.83	0.46	1.0	-2.0	
19,357.0	91.28	0.46	12,624.5	6,551.2	-365.3	0.93	0.75	0.56	0.2	-3.1	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #712Y
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3365.0usft (H&P 653)
Site:	Condor 32 State Corn	MD Reference:	KB = 25' @ 3365.0usft (H&P 653)
Well:	#712Y	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

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)
19,452.0	91.88	0.64	12,621.8	6,646.2	-364.4	0.76	0.74	0.19	-1.8	-4.8
19,548.0	91.10	2.04	12,619.2	6,742.1	-362.1	1.72	-0.92	1.46	-3.6	-7.8
19,643.0	92.24	3.01	12,616.4	6,837.0	-357.9	1.58	1.20	1.02	-5.6	-12.8
19,738.0	89.52	0.55	12,615.0	6,931.9	-355.0	3.86	-2.86	-2.59	-6.3	-16.5
19,833.0	89.78	0.11	12,615.6	7,026.9	-354.5	0.54	0.27	-0.46	-5.0	-17.9
19,928.0	90.75	0.64	12,615.1	7,121.9	-353.8	1.16	1.02	0.56	-4.7	-19.3
20,023.0	91.71	0.99	12,613.1	7,216.9	-352.5	1.08	1.01	0.37	-6.0	-21.4
20,118.0	94.00	1.16	12,608.4	7,311.7	-350.7	2.42	2.41	0.18	-9.9	-24.0
Last MWD Survey										
20,284.8	94.00	1.16	12,596.7	7,478.1	-347.3	0.00	0.00	0.00	-20.2	-28.7
LTP Crossing, MD:20284.8', TVD:12596.7', N/S:7478.1', E/W:-347.3', INC:94.00										
20,294.0	94.00	1.16	12,596.1	7,487.3	-347.1	0.00	0.00	0.00	-20.8	-29.0

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/S (usft)	+E/W (usft)	
12,100.0	12,084.5	-305.5	-72.9	KOP, MD:12100.0', TVD:12084.5', N/S:-305.5', E/W:-72.9', INC:4.04
12,653.0	12,527.1	-112.3	-281.9	FTP Crossing, MD:12653.0', TVD:12527.1', N/S:-112.3', E/W:-281.9', INC:62.18
20,118.0	12,608.4	7,311.7	-350.7	Last MWD Survey
20,284.8	12,596.7	7,478.1	-347.3	LTP Crossing, MD:20284.8', TVD:12596.7', N/S:7478.1', E/W:-347.3', INC:94.00
20,294.0	12,596.1	7,487.3	-347.1	Projection To Bit

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

Condor 32 State Com #712Y

H&P 653

Plan #3

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: #712Y

KB = 25' @ 3365.0ust (H&P 653) 3340.0
Northing 394091.00 Easting 801889.00 Latitude 32° 4' 50.315 N Longitude 103° 29' 31.518 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	1100.0	2.00	90.00	1100.0	0.0	1.7	2.00	90.00	-0.1	
4	1700.4	2.00	90.00	1700.0	0.0	22.7	0.00	0.00	-1.2	
5	1924.0	4.00	180.00	1923.3	-7.8	26.6	2.00	116.52	-9.1	
6	3604.7	4.00	180.00	3600.0	-125.0	26.6	0.00	0.00	-126.2	
7	3700.6	4.00	207.75	3695.6	-131.3	25.0	2.00	103.80	-132.5	
8	5910.4	4.00	207.75	5900.1	-267.8	-46.7	0.00	0.00	-265.1	
9	6110.5	0.00	0.00	6100.0	-274.0	-50.0	2.00	180.00	-271.1	
10	12118.5	0.00	0.00	12108.0	-274.0	-50.0	0.00	0.00	-271.1	
11	12493.5	45.00	305.00	12445.6	-193.8	-164.6	12.00	305.00	-185.2	
12	13047.4	90.17	0.43	12666.0	246.0	-343.4	12.00	63.91	263.2	
13	14750.2	90.17	0.43	12661.0	1948.7	-330.7	0.00	0.00	1963.0	TGT #1(Condor 32 SC #712Y)
14	14798.6	90.35	359.52	12660.8	1995.1	-330.7	2.00	-78.88	2009.3	
15	16752.1	90.35	359.52	12649.0	3950.5	-347.1	0.00	0.00	3963.0	TGT #2(Condor 32 SC #712Y)
16	16763.5	90.57	359.53	12648.9	3961.9	-347.2	2.00	2.68	3974.4	
17	18754.0	90.57	359.53	12629.0	5952.2	-363.5	0.00	0.00	5963.0	TGT #3(Condor 32 SC #712Y)
18	18760.2	90.45	359.53	12628.9	5958.4	-363.6	2.00	-179.99	5969.2	
19	20155.9	90.45	359.53	12618.0	7354.0	-375.0	0.00	0.00	7363.6	PBHL(Condor 32 SC #712Y)
20	20285.9	90.45	359.53	12617.0	7484.0	-376.1	0.00	0.00	7493.4	

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
Brushy Top (Condor SC #712Y)	7872.0	-274.0	-50.0	393817.00	801839.00
PBHL (Condor 32 SC #712Y)	12618.0	-375.0	-401445.00	801514.00	
TGT #1(Condor 32 SC #712Y)	12628.0	-363.5	-400940.20	801525.00	
TGT #2(Condor 32 SC #712Y)	12649.0	-350.5	-347.1	399041.50	801541.82
TGT #3(Condor 32 SC #712Y)	12681.0	-330.7	-396039.70	801558.34	
FTP (Condor 32 SC #712Y)	12667.0	-2.0	-114.0	394089.00	801575.00

