



HOBBS OCD

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EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Taipan 31 State

#502H

OH

Design: OH

Midland PVA

19 August, 2019



Midland PVA

Company: EOG Resources - Midland Project: Lea County, NM (NAD 83 NME) Site: Talpan 31 State Well: #502H Wellbore: OH Design: OH		Local Co-ordinate Reference: Well #502H TVD Reference: KB =25 @ 3539.0usft MD Reference: KB =25 @ 3539.0usft 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 Geo Datum: North American Datum 1983 Map Zone: New Mexico Eastern Zone		System Datum: Mean Sea Level													
Site Talpan 31 State															
Site Position: From: Map Position Uncertainty: 0.0 usft		Northing: 425,864.00 usft Easting: 762,767.00 usft Slot Radius: 13-3/16 "													
		Latitude: 32° 10' 7.514 N Longitude: 103° 37' 3.145 W Grid Convergence: 0.38 "													
Well #502H															
Well Position +N-S 0.0 usft +E-W 0.0 usft Position Uncertainty 0.0 usft		Northing: 425,864.00 usft Easting: 762,820.00 usft Wellhead Elevation: usft													
		Latitude: 32° 10' 7.512 N Longitude: 103° 37' 3.145 W Ground Level: 3,514.0 usft													
Wellbore OH															
<table border="1"> <thead> <tr> <th>Magnetics</th> <th>Model Name</th> <th>Sample Date</th> <th>Declination (°)</th> <th>Dip Angle (°)</th> <th>Field Strength (nT)</th> </tr> </thead> <tbody> <tr> <td></td> <td>IGRF2015</td> <td>3/14/2019</td> <td>6.78</td> <td>59.98</td> <td>47,721.08093002</td> </tr> </tbody> </table>				Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)		IGRF2015	3/14/2019	6.78	59.98	47,721.08093002
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	IGRF2015	3/14/2019	6.78	59.98	47,721.08093002										
Design OH															
Audit Notes: Version: 1.0 Phase: ACTUAL Tie On Depth: 0.0															
Vertical Section: <table border="1"> <thead> <tr> <th>Depth From (TVD) (usft)</th> <th>+N-S (usft)</th> <th>+E-W (usft)</th> <th>Direction (°)</th> </tr> </thead> <tbody> <tr> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>358.28</td> </tr> </tbody> </table>				Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)	0.0	0.0	0.0	358.28				
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Survey Program Date 8/19/2019															
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183.0	15,980.0	HTMWD (OH)	MWD	OWSG MWD - Standard											



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #502H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB =25 @ 3539.0usft
Site:	Talpan 31 State	MD Reference:	KB =25 @ 3539.0usft
Well:	#502H	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)	Buile (°/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	0.0
183.0	0.31	348.17	183.0	0.5	-0.1	0.17	0.17	0.00	-0.5	0.0	
267.0	0.18	357.52	267.0	0.8	-0.1	0.16	-0.15	9.94	-0.8	0.1	
450.0	0.22	104.22	450.0	1.0	0.2	0.18	0.02	58.31	0.1	1.1	
564.0	0.18	97.81	564.0	1.0	0.8	0.04	-0.04	-5.62	-0.4	1.0	
684.0	0.31	247.04	684.0	0.8	0.5	0.39	0.11	124.36	0.7	-0.6	
778.0	0.40	276.93	778.0	0.8	-0.1	0.22	0.10	32.49	-0.2	-0.7	
960.0	1.85	247.66	960.0	-0.3	-3.5	0.82	0.79	-15.91	-3.3	-1.0	
1,126.0	2.02	224.46	1,125.9	-3.4	-8.0	0.48	0.10	-13.98	-8.0	-3.3	
1,241.0	1.89	212.12	1,240.8	-6.5	-10.4	0.38	-0.11	-10.73	-10.7	-5.4	
1,334.0	2.77	212.42	1,333.7	-9.7	-12.4	0.95	0.95	0.32	-11.7	-5.9	
1,425.0	5.98	208.99	1,424.4	-15.7	-15.9	3.54	3.53	-3.77	-12.6	-7.4	
1,517.0	7.08	207.32	1,515.8	-24.9	-20.8	1.21	1.20	-1.82	-14.2	-8.7	
1,612.0	6.77	208.64	1,610.2	-35.0	-26.2	0.37	-0.33	1.39	-15.1	-9.5	
1,707.0	6.84	210.57	1,704.5	-44.6	-31.7	0.27	-0.14	2.03	-15.8	-10.4	
1,801.0	6.33	204.33	1,797.9	-54.0	-36.6	0.82	-0.33	-6.64	-14.4	-13.1	
1,896.0	5.98	201.78	1,892.4	-63.4	-40.6	0.47	-0.37	-2.68	-13.1	-13.9	
1,991.0	5.49	206.88	1,986.9	-72.1	-44.5	0.74	-0.52	5.37	-13.0	-13.2	
2,086.0	6.02	201.78	2,081.4	-80.7	-48.4	0.77	0.56	-5.37	-10.4	-14.6	
2,181.0	6.86	197.56	2,175.8	-90.8	-51.9	1.01	0.88	-4.44	-9.1	-14.9	
2,275.0	6.46	199.06	2,269.2	-101.1	-55.4	0.46	-0.43	1.60	-9.7	-13.9	
2,370.0	6.11	188.27	2,363.6	-111.0	-58.7	0.38	-0.37	-0.83	-9.1	-13.4	
2,465.0	5.93	197.03	2,458.1	-120.5	-61.7	0.23	-0.19	-1.31	-7.9	-12.8	
2,560.0	5.67	188.24	2,552.6	-128.7	-64.5	0.29	-0.27	-0.83	-6.5	-11.9	
2,655.0	6.37	196.16	2,647.1	-139.2	-67.2	0.74	0.74	-0.08	-5.7	-10.8	
2,750.0	7.47	195.10	2,741.4	-150.3	-70.3	1.17	1.16	-1.12	-6.2	-9.7	
2,846.0	6.81	193.69	2,836.6	-161.8	-73.3	0.71	-0.69	-1.47	-7.0	-8.4	



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2,941.0	6.29	185.28	2,931.0	-172.3	-76.0	0.58	-0.55	1.67	-7.3	-6.7	
3,035.0	5.76	190.27	3,024.5	-181.9	-78.2	0.79	-0.56	-5.33	-6.0	-5.6	
3,130.0	6.33	189.65	3,118.0	-191.8	-79.9	0.60	0.60	-0.65	-5.3	-3.4	
3,225.0	7.69	194.57	3,213.2	-203.1	-82.4	1.56	1.43	5.18	-8.4	-1.1	
3,320.0	7.12	193.08	3,307.4	-215.0	-85.3	0.63	-0.60	-1.57	-7.9	0.3	
3,414.0	6.46	194.22	3,400.8	-225.8	-87.9	0.72	-0.70	1.21	-8.4	2.0	
3,509.0	5.76	197.30	3,495.2	-235.5	-90.7	0.81	-0.74	3.24	-7.6	3.6	
3,604.0	6.07	196.86	3,589.7	-244.9	-93.6	0.33	0.33	-0.46	-6.6	4.5	
3,699.0	6.33	194.66	3,684.2	-254.7	-96.3	0.37	0.27	-2.32	-6.2	5.5	
3,794.0	5.01	186.66	3,778.7	-263.9	-98.1	1.62	-1.39	-8.42	-5.8	6.7	
3,889.0	6.07	193.26	3,873.3	-272.9	-99.8	1.30	1.12	6.95	-3.4	9.4	
3,984.0	7.30	196.33	3,967.6	-283.6	-102.6	1.35	1.29	3.23	-3.1	11.0	
4,079.0	6.24	195.72	4,062.0	-294.4	-105.7	1.12	-1.12	-0.64	-3.7	12.0	
4,173.0	6.64	196.66	4,155.4	-304.5	-108.7	0.44	0.43	1.02	-3.3	13.2	
4,268.0	6.99	189.39	4,249.7	-315.5	-111.2	0.98	0.37	-7.67	-5.6	14.3	
4,363.0	6.51	183.24	4,344.0	-326.5	-112.4	0.91	-0.51	-6.47	-8.0	16.5	
4,458.0	5.76	183.59	4,438.5	-336.7	-113.0	0.79	-0.79	0.37	-7.7	20.0	
4,553.0	5.89	178.05	4,533.0	-346.3	-113.2	0.61	0.14	-5.83	-9.3	23.2	
4,648.0	6.11	174.27	4,627.5	-356.2	-112.5	0.48	0.23	-3.98	-11.1	27.2	
4,743.0	6.29	179.90	4,721.9	-366.5	-112.0	0.67	0.19	5.93	-8.6	32.8	
4,838.0	4.66	195.19	4,833.4	-377.0	-113.2	1.94	-1.46	13.65	2.6	37.0	
4,948.0	4.40	198.27	4,926.1	-384.0	-115.3	0.38	-0.28	3.31	7.8	37.7	
5,020.0	5.98	208.11	4,997.8	-389.9	-117.9	2.51	2.19	13.67	15.6	35.4	
5,115.0	8.09	207.67	5,092.1	-400.2	-123.3	2.22	2.22	-0.46	14.7	34.5	
5,210.0	8.18	207.14	5,186.2	-412.2	-129.5	0.12	0.09	-0.56	11.7	33.6	
5,305.0	8.18	206.97	5,280.2	-424.2	-135.7	0.03	0.00	-0.18	8.9	32.6	
5,400.0	7.96	207.58	5,374.3	-438.1	-141.8	0.25	-0.23	0.64	6.7	31.6	



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Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
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5,495.0	7.65	208.55	5,468.4	-447.4	-147.9	0.35	-0.33	1.02	5.1	30.3
5,589.0	7.52	208.02	5,561.6	-458.4	-153.7	0.18	-0.14	-0.58	3.1	29.2
5,684.0	7.30	208.28	5,655.8	-469.2	-159.5	0.23	-0.23	0.27	1.7	28.0
5,779.0	7.21	209.34	5,750.0	-479.7	-165.3	0.17	-0.09	1.12	1.0	26.7
5,874.0	6.89	207.32	5,844.3	-490.0	-170.9	0.35	-0.23	-2.13	-0.9	25.5
5,969.0	6.29	206.44	5,938.6	-499.8	-175.8	0.74	-0.74	-0.93	-1.4	24.6
6,064.0	5.98	207.85	6,033.1	-508.8	-180.5	0.36	-0.33	1.48	-0.2	23.6
6,159.0	5.71	208.02	6,127.6	-517.4	-185.0	0.28	-0.28	0.18	1.0	22.5
6,254.0	5.41	208.99	6,222.1	-525.5	-189.4	0.33	-0.32	1.02	3.0	21.2
6,349.0	5.49	213.38	6,316.7	-533.2	-194.1	0.45	0.08	4.62	6.2	19.2
6,444.0	5.67	214.88	6,411.3	-540.8	-199.2	0.24	0.18	1.58	8.1	16.7
6,539.0	5.45	214.88	6,505.8	-548.4	-204.5	0.23	-0.23	0.00	9.5	14.3
6,634.0	5.19	214.09	6,600.4	-555.6	-209.5	0.28	-0.27	-0.83	11.1	12.1
6,729.0	4.88	215.23	6,695.0	-562.5	-214.2	0.34	-0.33	1.20	13.6	9.5
6,823.0	4.66	213.29	6,788.7	-569.0	-218.6	0.29	-0.23	-2.06	16.0	7.7
6,918.0	4.48	213.58	6,883.4	-575.3	-222.8	0.19	-0.19	0.28	19.1	5.5
7,013.0	4.18	212.50	6,978.1	-581.3	-226.7	0.33	-0.32	-1.12	22.5	3.8
7,108.0	4.18	212.42	7,072.9	-587.1	-230.4	0.01	0.00	-0.08	26.3	1.8
7,203.0	4.00	212.50	7,167.7	-592.9	-234.1	0.19	-0.19	0.08	29.3	0.0
7,298.0	1.93	230.98	7,262.5	-598.7	-237.1	2.37	-2.18	19.43	29.0	-11.6
7,393.0	0.70	306.11	7,357.5	-597.3	-238.8	1.98	-1.29	79.11	-5.6	-33.1
7,488.0	0.75	295.38	7,452.5	-596.7	-239.8	0.15	0.05	-11.29	-0.6	-34.3
7,583.0	0.57	272.18	7,547.5	-596.4	-240.9	0.34	-0.19	-24.42	11.9	-32.0
7,678.0	0.53	252.32	7,642.5	-596.5	-241.6	0.20	-0.04	-20.91	21.2	-26.3
7,773.0	0.44	259.79	7,737.5	-596.7	-242.5	0.12	-0.09	7.86	16.8	-28.7
7,867.0	0.35	235.88	7,831.5	-597.0	-243.1	0.20	-0.10	-25.44	28.4	-19.6
7,963.0	0.31	216.11	7,927.5	-597.3	-243.5	0.12	-0.04	-20.59	30.9	-9.6



Midland PVA

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 Wellbore: OH
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 TVD Reference: KB =25 @ 3539.0usft
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8,058.0	0.44	208.81	8,022.5	-597.9	-243.9	0.15	0.14	-7.68	31.3	-5.6
8,152.0	0.44	203.98	8,116.5	-598.5	-244.2	0.04	0.00	-5.14	30.9	-3.0
8,247.0	0.66	193.78	8,211.5	-599.4	-244.5	0.25	0.23	-10.74	30.1	2.5
8,342.0	0.75	199.94	8,306.5	-600.5	-244.8	0.12	0.09	6.48	29.0	-0.7
8,437.0	0.88	201.61	8,401.5	-601.8	-245.3	0.14	0.14	1.76	27.6	-1.6
8,532.0	1.10	201.25	8,496.4	-603.3	-245.9	0.23	0.23	-0.38	28.0	-1.4
8,627.0	1.10	198.79	8,591.4	-605.0	-246.5	0.05	0.00	-2.59	24.2	-0.3
8,722.0	1.01	202.92	8,686.4	-606.6	-247.1	0.12	-0.09	4.35	22.4	-2.0
8,817.0	1.14	204.07	8,781.4	-608.3	-247.8	0.14	0.14	1.21	20.5	-2.4
8,912.0	1.32	208.72	8,876.4	-610.1	-248.7	0.22	0.19	4.89	18.2	-4.0
9,007.0	1.41	209.34	8,971.3	-612.1	-249.8	0.10	0.09	0.65	15.9	-4.2
9,102.0	1.58	217.78	9,066.3	-614.1	-251.2	0.29	0.18	8.88	12.7	-6.3
9,197.0	1.45	229.29	9,161.3	-615.9	-252.9	0.35	-0.14	12.12	8.7	-8.4
9,292.0	1.36	232.54	9,256.2	-617.4	-254.7	0.13	-0.09	3.42	5.9	-8.9
9,388.0	1.27	238.98	9,350.2	-618.6	-256.5	0.18	-0.10	6.83	2.7	-9.3
9,481.0	0.92	247.57	9,445.2	-619.5	-258.1	0.41	-0.37	9.06	-0.6	-9.5
9,576.0	1.14	243.09	9,540.2	-620.2	-259.7	0.25	0.23	-4.72	-1.5	-9.5
9,671.0	1.23	249.77	9,635.2	-621.0	-261.5	0.17	0.09	7.03	-4.6	-9.2
9,766.0	1.71	290.29	9,730.1	-620.8	-263.8	1.17	0.51	42.65	-11.6	-3.4
9,861.0	2.37	305.67	9,825.1	-619.2	-266.7	0.90	0.69	16.19	-15.4	0.2
9,956.0	2.73	300.66	9,920.0	-616.9	-270.2	0.45	0.38	-5.27	-19.6	-1.3
10,051.0	2.33	291.61	10,014.9	-615.0	-274.0	0.59	-0.42	-9.53	-23.3	-4.7
10,146.0	2.20	288.97	10,109.8	-613.7	-277.5	0.18	-0.14	-2.78	-26.9	-5.9
10,241.0	1.93	290.11	10,204.8	-612.6	-280.7	0.29	-0.28	1.20	-30.4	-5.3
10,336.0	1.80	285.45	10,299.7	-611.6	-283.7	0.21	-0.14	-4.91	-32.9	-7.9
10,431.0	1.36	280.53	10,394.7	-611.0	-286.2	0.48	-0.46	-5.18	-34.8	-10.8
10,526.0	1.36	292.13	10,489.6	-610.4	-288.4	0.29	0.00	12.21	-38.5	-3.4



Midland PVA

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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)	
10,565.0	1.58	298.37	10,528.6	-610.0	-289.3	0.70	0.56	16.00	-39.3	1.3	
10,660.0	10.99	8.07	10,623.0	-600.3	-289.1	11.10	9.91	73.37	-10.1	36.8	
10,754.0	20.00	7.37	10,713.5	-575.5	-285.8	9.59	9.59	-0.74	-8.4	32.8	
10,849.0	23.82	351.02	10,801.7	-540.4	-286.7	7.54	4.02	-17.21	-8.6	31.2	
10,944.0	37.14	356.91	10,883.4	-482.6	-281.3	14.35	14.02	6.20	3.9	36.4	
11,039.0	48.88	359.72	10,952.8	-427.9	-293.0	12.52	12.36	2.98	9.8	37.5	
11,133.0	59.74	1.57	11,007.5	-351.7	-292.1	11.66	11.55	1.97	11.1	35.8	
11,228.0	67.96	3.50	11,049.4	-266.6	-288.2	8.84	8.85	2.03	11.8	31.3	
11,323.0	81.63	4.20	11,074.2	-175.3	-282.1	14.41	14.39	0.74	9.1	24.6	
11,418.0	93.98	2.62	11,077.8	-82.7	-278.6	13.39	13.28	-1.70	0.4	18.5	
11,511.0	91.82	2.01	11,073.0	12.0	-272.7	2.36	-2.27	-0.64	-4.8	14.0	
11,606.0	89.98	0.95	11,071.5	107.0	-270.3	2.24	-1.94	-1.12	-6.1	10.8	
11,701.0	90.37	0.86	11,071.2	202.0	-268.8	0.42	0.41	-0.09	-6.1	8.6	
11,795.0	90.99	0.95	11,070.1	286.0	-267.3	0.67	0.66	0.10	-7.0	6.4	
11,890.0	91.65	1.04	11,067.9	390.9	-265.7	0.70	0.69	0.09	-8.9	4.1	
11,885.0	90.51	0.77	11,068.1	485.9	-264.2	1.23	-1.20	-0.28	-10.5	1.9	
12,080.0	91.30	0.95	11,064.6	580.9	-262.7	0.85	0.83	0.19	-11.7	-0.2	
12,175.0	89.36	0.25	11,064.0	675.9	-261.7	2.17	-2.04	-0.74	-12.0	-1.9	
12,270.0	90.15	0.25	11,064.4	770.9	-261.3	0.83	0.83	0.00	-11.4	-3.1	
12,365.0	90.80	0.42	11,063.6	865.9	-260.8	0.81	0.79	0.18	-12.0	-4.3	
12,460.0	91.65	0.60	11,061.5	960.8	-259.9	0.81	0.79	0.19	-13.9	-5.9	
12,555.0	89.98	0.51	11,060.1	1,055.8	-259.0	1.76	-1.76	-0.09	-15.0	-7.5	
12,650.0	89.14	359.90	11,060.8	1,150.8	-258.7	1.09	-0.88	-0.64	-14.0	-8.5	
12,744.0	89.71	359.81	11,061.8	1,244.8	-258.9	0.81	0.61	-0.10	-12.8	-8.0	
12,839.0	90.73	359.72	11,061.4	1,339.8	-259.3	1.08	1.07	-0.09	-13.0	-9.3	
12,934.0	91.60	359.98	11,059.5	1,434.8	-259.5	0.96	0.92	0.27	-14.8	-9.8	
13,029.0	90.33	359.54	11,057.9	1,529.8	-259.9	1.41	-1.34	-0.46	-15.8	-10.1	



Midland PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Talpan 31 State
Well: #502H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #502H
TVD Reference: KB =25 @ 3539.0usft
MD Reference: KB =25 @ 3539.0usft
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)	
13,124.0	90.99	359.11	11,058.8	1,624.7	-281.1	0.83	0.69	-0.45	-18.2	-9.7	
13,219.0	89.58	358.14	11,058.3	1,719.7	-263.3	1.80	-1.48	-1.02	-16.0	-8.1	
13,313.0	89.98	358.40	11,058.7	1,813.7	-266.2	0.51	0.43	0.28	-14.9	-6.0	
13,408.0	90.55	358.40	11,058.2	1,908.6	-268.8	0.60	0.60	0.00	-14.7	-4.0	
13,503.0	89.23	358.58	11,058.4	2,003.6	-271.3	1.40	-1.39	0.19	-13.8	-2.2	
13,588.0	89.93	358.84	11,057.1	2,098.6	-273.5	0.79	0.74	0.27	-12.4	-0.8	
13,692.0	90.33	358.84	11,058.9	2,192.5	-275.4	0.43	0.43	0.00	-11.9	0.4	
13,788.0	90.99	358.67	11,055.8	2,288.5	-277.5	0.71	0.69	-0.18	-12.3	1.8	
13,883.0	88.84	358.67	11,055.9	2,383.5	-279.7	2.26	-2.26	0.00	-11.5	3.3	
13,978.0	89.49	358.49	11,057.3	2,478.4	-282.0	0.71	0.68	-0.19	-9.4	5.0	
14,072.0	89.85	358.67	11,057.9	2,572.4	-284.3	0.43	0.38	0.19	-8.2	6.6	
14,167.0	90.59	358.75	11,057.5	2,667.4	-286.5	0.78	0.78	0.08	-7.9	8.0	
14,262.0	91.52	358.67	11,055.8	2,762.3	-288.6	0.98	0.98	-0.08	-8.9	9.5	
14,357.0	90.77	359.02	11,053.9	2,857.3	-290.5	0.87	-0.79	0.37	-10.1	10.7	
14,452.0	89.41	359.90	11,053.7	2,952.3	-291.4	1.71	-1.43	0.93	-9.6	10.9	
14,547.0	89.63	359.90	11,054.5	3,047.3	-291.6	0.23	0.23	0.00	-8.0	10.3	
14,642.0	90.42	359.81	11,054.5	3,142.3	-291.8	0.84	0.83	-0.09	-7.2	9.8	
14,738.0	90.73	359.72	11,053.5	3,236.3	-292.2	0.34	0.33	-0.10	-7.3	9.5	
14,831.0	89.63	0.07	11,053.2	3,331.3	-292.4	1.22	-1.18	0.37	-6.7	9.0	
14,926.0	89.93	359.90	11,053.6	3,426.3	-292.4	0.36	0.32	-0.18	-5.5	8.3	
15,021.0	90.46	359.90	11,053.3	3,521.3	-292.6	0.56	0.56	0.00	-5.0	7.8	
15,116.0	91.47	359.28	11,051.7	3,616.3	-293.3	1.25	1.08	-0.65	-5.7	7.8	
15,211.0	90.07	359.72	11,050.4	3,711.3	-294.1	1.54	-1.47	0.46	-6.1	7.9	
15,305.0	90.81	359.46	11,049.7	3,805.2	-294.8	0.83	0.79	-0.28	-6.0	7.9	
15,400.0	89.27	0.16	11,049.8	3,900.2	-295.1	1.78	-1.62	0.74	-5.2	7.5	
15,496.0	89.54	0.16	11,050.6	3,998.2	-294.8	0.28	0.28	0.00	-3.4	6.5	
15,590.0	89.76	0.16	11,051.2	4,090.2	-294.6	0.23	0.23	0.00	-2.0	5.5	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #502H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB =25 @ 3539.0usft
Site:	Talpen 31 State	MD Reference:	KB =25 @ 3539.0usft
Well:	#502H	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)
15,685.0	89.87	359.72	11,051.6	4,185.2	-284.7	0.47	-0.09	-0.46	-0.8	4.9
15,780.0	90.77	359.72	11,051.3	4,280.2	-285.1	1.16	1.16	0.00	-0.4	4.7
15,875.0	91.12	359.98	11,049.7	4,375.2	-285.4	0.46	0.37	0.27	-1.2	4.2
15,980.0	91.12	359.98	11,047.7	4,480.2	-285.4	0.00	0.00	0.00	-2.4	3.5

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/S (usft)	+E/W (usft)	
10,578.0	10,541.6	-609.6	-289.5	KOP, MD:10578.0', TVD:10541.6', N/S:-609.6', E/W:-289.5', INC:2.36
10,740.2	10,700.5	-580.0	-288.4	FTP Crossing, MD:10740.2', TVD:10700.5', N/S:-580.0', E/W:-288.4', INC:18.88
15,875.0	11,049.7	4,375.2	-295.4	Last MWD Survey (MD=15875.0')
15,980.0	✓ 11,047.7	✓ 4,480.2	-285.4	Projection to Bit (MD=15980.0')

Checked By: _____ Approved By: _____ Date: _____

I certify this survey to be true and correct to the best of my belief and knowledge.

Kay Maddox 11/15/2019
Signed Date



Lea County, NM (NAD 83 NME)

Taipan 31 State #502H

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: #502H

KB = 25 @ 3539.0usft 3514.0
Northing 425854.00 Easting 782820.00 Latitude 32° 10' 7.512 N Longitude 103° 37' 3.145 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	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	1528.0	8.66	202.02	1527.2	-17.4	-7.0	2.00	202.02	-16.9	
4	7130.1	8.66	202.02	7092.8	-610.6	-247.0	0.00	0.00	-593.3	
5	7458.1	0.00	0.00	7420.0	-828.0	-254.0	2.00	180.00	-610.2	Brushy Top(Taipan 31 State #502H)
6	10543.1	0.00	0.00	10505.0	-828.0	-254.0	0.00	0.00	-610.2	
7	11444.8	90.15	359.57	11078.0	-53.6	-258.3	10.00	359.57	-36.7	
8	12983.8	90.15	359.57	11074.0	1485.6	-269.7	0.00	0.00	1500.0	TGT#1(Taipan 31 State #502H)
9	12997.5	90.42	359.57	11073.9	1499.3	-269.8	2.00	0.00	1513.6	
10	14488.4	90.42	359.57	11063.0	2988.1	-280.8	0.00	0.00	3000.0	TGT#2(Taipan 31 State #502H)
11	14491.1	90.52	359.57	11063.0	2992.6	-280.9	2.00	0.00	3004.7	
12	15488.1	90.52	359.57	11054.0	3989.7	-288.3	0.00	0.00	4000.0	TGT#3(Taipan 31 State #502H)
13	15491.0	90.48	359.57	11054.0	3992.6	-288.3	2.00	180.00	4002.9	
14	15989.4	90.46	359.57	11050.0	4491.0	-292.0	0.00	0.00	4500.5	PBHL(Taipan 31 State #502H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
Brushy Top(Taipan 31 State #502H)	7430.0	423.0	-254.0	425854.00	782820.00
TGT#1(Taipan 31 State #502H)	11074.0	1485.6	-269.7	427349.60	782550.31
TGT#2(Taipan 31 State #502H)	11063.0	2988.1	-280.8	428852.10	782838.16
TGT#3(Taipan 31 State #502H)	11054.0	3989.7	-288.3	430355.70	782571.72
PBHL(Taipan 31 State #502H)	11050.0	4491.0	-292.0	430355.00	782628.00
FTP(Taipan 31 State #502H)	11078.0	-280.0	-264.0	425294.00	782698.00

