

HOBBS OCD
JUL 26 2019
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EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Neptune 10 State Com

#301H

OH

Design: OH

Midland PVA

06 April, 2019



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #301H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3640.0usft
Site:	Neptune 10 State Com	MD Reference:	KB = 25 @ 3640.0usft
Well:	#301H	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	Neptune 10 State Com		
Site Position:		Northing:	448,557.00 usft
From:	Map	Easting:	778,984.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 13' 31.172 N
		Longitude:	103° 33' 53.609 W
		Grid Convergence:	0.41 "

Well	#301H		
Well Position	+N-S	0.0 usft	Northing:
	+E-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 13' 32.944 N
		Longitude:	103° 34' 3.501 W
		Ground Level:	3,615.0 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
	IGRF2015	8/27/2018	(°)
			Dip Angle
			(°)
			Field Strength
			(nT)
			47,815.37720222

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
			(°)
			359.54

Survey Program	Date 4/8/2019		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
175.0	20,386.0	Drilltech MWD (OH)	MWD
			Description
			OWSG MWD - Standard



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Well:	#301H	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)	Bulld (°/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
175.0	0.10	130.70	175.0	-0.1	0.1	0.06	0.06	0.00	-0.2	0.0	
234.0	0.40	201.00	234.0	-0.3	0.1	0.64	0.51	119.15	-0.3	0.2	
324.0	0.50	212.10	324.0	-1.0	-0.2	0.15	0.11	12.33	-0.9	0.3	
415.0	0.60	168.10	415.0	-1.9	-0.3	0.62	0.33	-48.35	-1.8	-0.7	
505.0	1.20	162.00	505.0	-3.4	0.1	0.46	0.44	-6.78	-3.3	-1.0	
603.0	0.90	152.00	603.0	-5.1	0.8	0.36	-0.31	-10.20	-4.8	-1.7	
698.0	1.10	151.90	697.9	-6.5	1.6	0.21	0.21	-0.11	-6.5	-1.7	
792.0	1.00	154.70	791.9	-8.1	2.3	0.12	-0.11	2.98	-8.3	-1.3	
887.0	0.60	152.30	886.9	-9.3	2.9	0.42	-0.42	-2.53	-9.6	-1.7	
981.0	0.50	175.50	980.9	-10.1	3.2	0.26	-0.11	24.68	-10.3	2.4	
1,075.0	0.40	190.10	1,074.9	-10.8	3.2	0.16	-0.11	15.53	-10.1	5.0	
1,170.0	0.50	192.50	1,169.9	-11.6	3.0	0.11	0.11	2.53	-10.6	5.4	
1,264.0	0.40	206.40	1,263.9	-12.3	2.8	0.16	-0.11	14.79	-9.8	7.9	
1,358.0	0.50	197.80	1,357.9	-13.0	2.5	0.13	0.11	-9.15	-11.6	6.3	
1,453.0	0.40	205.00	1,452.9	-13.6	2.2	0.12	-0.11	7.58	-11.4	7.8	
1,548.0	0.20	334.70	1,547.9	-13.8	2.0	0.58	-0.21	136.53	13.3	4.1	
1,642.0	0.40	10.90	1,641.9	-13.3	2.0	0.28	0.21	38.51	12.7	-4.5	
1,737.0	0.40	45.90	1,736.9	-12.8	2.3	0.25	0.00	36.84	7.2	-10.8	
1,831.0	0.50	44.10	1,830.9	-12.2	2.8	0.11	0.11	-1.91	6.8	-10.6	
1,925.0	0.20	33.70	1,924.9	-11.8	3.2	0.32	-0.32	-11.06	8.0	-9.2	
2,019.0	1.60	169.10	2,018.9	-13.0	3.6	1.86	1.49	144.04	-13.4	1.1	
2,114.0	3.90	172.60	2,113.8	-17.5	4.2	2.43	2.42	3.68	-15.8	2.9	
2,208.0	6.00	182.40	2,207.4	-25.6	4.4	2.40	2.23	10.43	-18.0	7.4	
2,302.0	7.30	199.30	2,300.8	-36.1	2.2	2.49	1.38	17.98	-17.5	13.4	
2,396.0	7.10	204.80	2,394.0	-47.0	-2.2	0.76	-0.21	5.85	-18.9	14.3	
2,491.0	6.70	203.20	2,489.4	-57.4	-6.8	0.47	-0.42	-1.68	-21.5	12.5	



Midland PVA

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 Project: Lea County, NM (NAD 83 NME)
 Site: Neptune 10 State Com
 Well: #301H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #301H
 TVD Reference: KB = 25 @ 3640.0usft
 MD Reference: KB = 25 @ 3640.0usft
 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)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
2,588.0	6.40	203.80	2,582.7	-67.4	-11.1	0.32	-0.32	0.42	-23.1	11.6	
2,680.0	6.10	201.60	2,676.2	-76.8	-15.0	0.39	-0.32	-2.13	-24.6	9.9	
2,774.0	5.80	202.40	2,769.7	-85.9	-18.7	0.33	-0.32	0.85	-25.1	9.4	
2,869.0	5.50	202.80	2,864.2	-94.5	-22.3	0.32	-0.32	0.42	-25.2	8.6	
2,964.0	5.10	204.80	2,958.8	-102.5	-25.8	0.46	-0.42	2.11	-24.5	8.3	
3,059.0	4.70	203.00	3,053.5	-109.9	-29.1	0.45	-0.42	-1.89	-23.7	6.4	
3,153.0	4.30	200.20	3,147.2	-116.8	-31.8	0.49	-0.43	-2.98	-22.2	4.5	
3,248.0	4.00	204.20	3,241.9	-123.2	-34.4	0.44	-0.32	4.21	-19.5	5.1	
3,342.0	4.00	202.30	3,335.7	-129.2	-37.0	0.14	0.00	-2.02	-17.1	3.5	
3,437.0	4.60	209.80	3,430.4	-135.6	-40.2	0.86	0.63	7.89	-14.6	4.0	
3,531.0	4.10	209.60	3,524.2	-141.7	-43.7	0.53	-0.53	-0.21	-12.9	1.9	
3,625.0	3.80	209.10	3,617.9	-147.4	-46.9	0.32	-0.32	-0.53	-10.4	-0.1	
3,720.0	5.30	202.10	3,712.6	-154.2	-50.1	1.68	1.58	-7.37	-8.6	-2.6	
3,814.0	5.70	199.70	3,806.2	-162.8	-53.3	0.49	0.43	-2.55	-8.4	-3.7	
3,909.0	4.50	198.00	3,900.8	-170.6	-56.0	1.27	-1.26	-1.79	-7.5	-4.2	
4,003.0	4.30	203.80	3,994.5	-177.3	-58.6	0.52	-0.21	6.17	-8.0	-4.2	
4,098.0	4.10	204.60	4,089.3	-183.7	-61.4	0.22	-0.21	0.84	-3.8	-5.3	
4,192.0	3.90	202.10	4,183.1	-189.7	-64.0	0.28	-0.21	-2.66	-1.0	-6.5	
4,286.0	3.20	194.70	4,276.8	-195.2	-65.9	0.89	-0.74	-7.87	3.2	-6.6	
4,381.0	3.60	188.90	4,371.7	-200.7	-67.0	0.55	0.42	-6.11	7.4	-5.3	
4,475.0	4.40	177.70	4,465.5	-207.2	-67.3	1.19	0.85	-11.91	10.4	-1.4	
4,570.0	4.70	162.90	4,560.2	-214.8	-68.0	1.27	0.32	-15.58	10.7	5.5	
4,665.0	4.10	160.00	4,654.9	-221.5	-63.7	0.67	-0.63	-3.05	10.5	11.4	
4,759.0	4.20	155.20	4,748.7	-227.8	-61.1	0.38	0.11	-5.11	9.6	18.0	
4,853.0	4.70	155.50	4,842.4	-234.4	-58.1	0.53	0.53	0.32	9.3	24.0	
4,947.0	5.50	156.20	4,936.0	-242.0	-54.7	0.65	0.65	0.74	8.2	29.9	
5,042.0	5.20	159.70	5,030.6	-250.2	-51.4	0.47	-0.32	3.68	8.5	35.2	



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Well:	#301H	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)	EW (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
5,078.0	4.90	159.70	5,066.4	-253.2	-50.3	0.83	-0.83	0.00	8.2	37.3	
5,216.0	4.00	157.00	5,204.0	-263.2	-46.3	0.67	-0.65	-1.96	5.1	45.3	
5,310.0	6.70	205.00	5,297.7	-271.2	-47.4	5.32	2.87	51.06	34.2	28.4	
5,405.0	5.90	202.80	5,392.1	-280.7	-51.6	0.88	-0.84	-2.32	24.4	29.2	
5,499.0	3.70	196.00	5,485.7	-288.1	-54.3	2.41	-2.34	-7.23	13.0	31.3	
5,593.0	1.60	230.30	5,579.6	-291.8	-56.2	2.71	-2.23	36.49	24.6	20.2	
5,688.0	0.60	275.80	5,674.8	-292.6	-57.7	1.32	-1.05	47.89	30.2	-2.4	
5,782.0	0.60	274.20	5,768.8	-292.5	-58.7	0.02	0.00	-1.70	29.3	-1.6	
5,876.0	0.60	265.50	5,862.6	-292.5	-59.6	0.10	0.00	-9.26	28.2	2.8	
5,970.0	0.60	259.70	5,956.6	-292.7	-60.6	0.06	0.00	-6.17	26.8	5.5	
6,064.0	0.40	265.00	6,050.6	-292.8	-61.4	0.22	-0.21	5.84	26.4	3.1	
6,158.0	0.50	265.50	6,144.6	-292.8	-62.2	0.11	0.11	0.53	25.7	2.9	
6,252.0	0.40	255.30	6,238.6	-293.0	-62.9	0.14	-0.11	-10.85	24.1	7.3	
6,347.0	0.40	263.70	6,333.6	-293.1	-63.5	0.06	0.00	8.84	24.2	3.8	
6,442.0	0.40	255.80	6,428.6	-293.2	-64.2	0.06	0.00	-8.32	22.8	7.0	
6,536.0	0.40	256.50	6,522.6	-293.4	-64.8	0.01	0.00	0.74	22.2	6.7	
6,631.0	0.40	267.20	6,617.8	-293.4	-65.5	0.08	0.00	11.26	22.4	2.5	
6,725.0	0.50	268.40	6,711.6	-293.5	-66.2	0.11	0.11	1.28	21.7	2.1	
6,819.0	0.50	273.50	6,805.6	-293.5	-67.0	0.05	0.00	5.43	21.0	0.2	
6,914.0	0.50	265.10	6,900.6	-293.5	-67.9	0.08	0.00	-8.84	19.9	3.2	
7,008.0	0.60	269.20	6,994.6	-293.5	-68.8	0.11	0.11	4.36	19.2	1.8	
7,102.0	0.60	265.20	7,088.8	-293.6	-69.7	0.04	0.00	-4.26	18.1	3.1	
7,196.0	0.50	259.30	7,182.8	-293.7	-70.6	0.13	-0.11	-7.34	16.7	5.2	
7,291.0	0.60	262.60	7,277.6	-293.8	-71.5	0.11	0.11	4.53	16.1	3.9	
7,385.0	0.60	259.60	7,371.6	-294.0	-72.5	0.03	0.00	-3.19	14.9	4.7	
7,479.0	0.40	266.00	7,465.6	-294.1	-73.3	0.22	-0.21	6.81	14.5	3.1	
7,573.0	0.50	257.50	7,559.6	-294.2	-74.0	0.13	0.11	-9.04	13.1	5.2	



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Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
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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)	
7,668.0	0.50	282.30	7,654.5	-294.4	-74.9	0.04	0.00	5.05	12.7	4.1	
7,762.0	0.70	249.60	7,748.5	-294.6	-75.8	0.25	0.21	-13.51	10.5	6.7	
7,857.0	0.50	248.70	7,843.5	-295.0	-76.7	0.21	-0.21	-0.95	9.4	6.8	
7,952.0	0.40	229.40	7,938.5	-295.3	-77.4	0.19	-0.11	-20.32	5.9	9.4	
8,048.0	0.40	212.70	8,032.5	-295.8	-77.8	0.12	0.00	-17.77	2.3	10.6	
8,140.0	0.40	200.30	8,128.5	-296.4	-78.1	0.09	0.00	-13.18	-0.7	10.8	
8,235.0	0.60	198.60	8,221.5	-297.2	-78.3	0.21	0.21	-3.89	-2.2	10.7	
8,328.0	0.70	192.90	8,315.5	-298.2	-78.6	0.12	0.11	-3.94	-4.0	10.5	
8,423.0	0.70	200.90	8,409.5	-298.3	-79.0	0.10	0.00	8.51	-3.6	11.1	
8,518.0	0.70	205.80	8,504.5	-300.4	-79.4	0.08	0.00	5.16	-3.8	11.4	
8,612.0	0.60	211.10	8,588.5	-301.3	-79.9	0.12	-0.11	5.64	-3.8	11.7	
8,706.0	0.60	213.70	8,692.5	-302.1	-80.4	0.03	0.00	2.77	-4.2	11.9	
8,801.0	0.70	215.90	8,787.5	-303.0	-81.1	0.11	0.11	2.32	-4.9	12.1	
8,895.0	0.60	221.90	8,881.5	-303.9	-81.7	0.13	-0.11	6.38	-4.6	12.6	
8,989.0	0.60	211.50	8,975.5	-304.6	-82.3	0.12	0.00	-11.06	-7.8	11.5	
9,083.0	0.40	202.80	9,069.5	-305.4	-82.7	0.23	-0.21	-9.26	-10.3	10.1	
9,177.0	0.40	178.80	9,163.5	-306.0	-82.8	0.18	0.00	-25.53	-14.1	4.9	
9,272.0	0.40	138.20	9,258.5	-306.6	-82.6	0.29	0.00	-42.74	-14.5	-5.7	
9,366.0	0.70	111.90	9,352.5	-307.0	-81.8	0.41	0.32	-27.98	-11.3	-11.7	
9,461.0	0.80	131.60	9,447.5	-307.8	-80.7	0.36	0.21	20.74	-15.9	-7.0	
9,571.0	0.80	111.80	9,557.4	-308.6	-79.4	0.28	-0.09	-18.00	-14.2	-12.2	
9,665.0	4.10	43.50	9,651.4	-308.4	-78.5	4.12	3.51	-72.66	2.5	-18.3	
9,759.0	16.20	22.20	9,743.7	-291.8	-69.2	13.26	12.87	-22.66	0.0	-19.3	
9,854.0	25.90	28.70	9,832.3	-261.2	-54.2	10.49	10.21	6.84	-14.9	-26.4	
9,901.0	30.30	20.60	9,873.8	-241.1	-45.0	12.24	9.38	-16.81	-17.4	-33.7	
9,948.0	33.90	12.10	9,913.6	-217.2	-38.0	12.45	7.66	-16.51	-17.9	-39.5	
9,995.0	38.00	6.70	9,951.6	-190.0	-33.6	11.02	8.72	-11.49	-19.2	-41.9	



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Well:	#301H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

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MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLag (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
10,040.0	40.80	359.20	9,988.4	-161.5	-32.2	12.26	6.22	-16.67	-18.4	-42.0	
10,135.0	45.80	3.90	10,055.6	-96.5	-30.3	6.26	5.26	4.85	-22.6	-34.8	
10,228.0	52.90	5.70	10,116.8	-25.4	-24.3	7.69	7.55	1.91	-18.6	-31.8	
10,323.0	64.20	4.00	10,165.7	54.3	-17.6	12.12	12.02	-1.81	-12.7	-29.0	
10,418.0	75.40	1.30	10,198.5	143.2	-13.5	12.09	11.79	-2.84	-9.8	-22.4	
10,512.0	80.10	2.10	10,218.4	235.0	-10.8	5.07	5.00	0.85	-4.4	-14.0	
10,606.0	88.20	3.50	10,228.0	328.4	-6.2	8.74	8.62	1.49	3.6	-8.1	
10,701.0	88.80	2.60	10,230.5	423.2	-1.2	1.14	0.63	-0.95	6.2	-6.8	
10,785.0	89.50	2.20	10,231.9	517.1	2.7	0.86	0.74	-0.43	7.6	-9.0	
10,889.0	89.40	0.90	10,232.8	611.1	5.3	1.39	-0.11	-1.36	8.6	-12.3	
10,984.0	90.20	0.00	10,233.1	706.0	6.0	1.27	0.84	-0.95	9.0	-13.8	
11,078.0	91.40	0.20	10,231.8	800.0	6.2	1.29	1.28	0.21	7.8	-14.7	
11,172.0	91.10	358.50	10,229.8	894.0	5.1	1.84	-0.32	-1.81	5.8	-14.4	
11,267.0	89.50	358.50	10,229.3	989.0	2.6	1.68	-1.68	0.00	5.4	-12.6	
11,361.0	90.50	357.40	10,229.3	1,082.9	-0.7	1.58	1.06	-1.17	5.5	-10.0	
11,455.0	91.60	359.80	10,227.5	1,176.9	-3.0	2.81	1.17	2.55	3.8	-8.4	
11,550.0	90.40	0.20	10,225.9	1,271.8	-3.0	1.33	-1.26	0.42	2.3	-8.2	
11,644.0	89.70	1.40	10,225.8	1,365.8	-1.7	1.48	-0.74	1.28	2.3	-11.2	
11,738.0	87.90	0.90	10,227.8	1,459.8	0.2	1.99	-1.91	-0.53	4.3	-13.8	
11,832.0	87.80	0.50	10,231.3	1,553.7	1.3	0.44	-0.11	-0.43	7.9	-15.7	
11,927.0	89.80	357.90	10,233.4	1,648.7	0.0	3.33	1.89	-2.74	10.2	-15.1	
12,021.0	90.40	356.90	10,233.4	1,742.6	-4.3	1.36	0.85	-1.06	10.2	-11.6	
12,116.0	91.40	357.00	10,232.0	1,837.4	-9.3	1.06	1.05	0.11	8.8	-7.3	
12,210.0	90.40	358.30	10,230.5	1,931.3	-13.2	1.74	-1.06	1.38	7.4	-4.2	
12,304.0	91.90	358.30	10,228.6	2,025.3	-16.0	1.60	1.60	0.00	5.6	-2.1	
12,399.0	87.80	358.90	10,228.8	2,120.2	-18.3	4.36	-4.32	0.63	5.8	-0.5	
12,493.0	88.50	358.80	10,231.9	2,214.1	-20.2	0.75	0.74	-0.11	8.7	0.6	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #301H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3640.0usft
Site:	Neptune 10 State Com	MD Reference:	KB = 25 @ 3640.0usft
Well:	#301H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Asd (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
12,587.0	89.30	358.00	10,233.7	2,308.1	-22.8	1.20	0.85	-0.85	10.5	2.5	
12,681.0	91.30	357.90	10,233.2	2,402.0	-26.1	2.13	2.13	-0.11	9.9	5.2	
12,776.0	89.70	359.20	10,232.4	2,497.0	-28.5	2.17	-1.68	1.37	9.1	6.8	
12,870.0	90.60	358.50	10,232.1	2,591.0	-30.4	1.21	0.96	-0.74	8.8	8.0	
12,964.0	90.40	1.10	10,231.3	2,684.9	-30.8	2.77	-0.21	2.77	7.9	7.6	
13,058.0	91.30	1.10	10,229.9	2,778.9	-29.0	0.96	0.96	0.00	6.4	5.0	
13,152.0	90.20	1.40	10,228.7	2,872.9	-26.9	1.21	-1.17	0.32	5.1	2.3	
13,247.0	87.80	0.60	10,230.3	2,967.8	-25.3	2.66	-2.53	-0.84	6.7	-0.1	
13,341.0	87.80	359.90	10,233.9	3,061.8	-24.8	0.75	0.11	-0.74	10.2	-1.3	
13,436.0	90.40	0.10	10,235.3	3,156.8	-24.8	2.64	2.63	0.21	11.5	-2.0	
13,530.0	92.50	359.80	10,232.9	3,250.7	-25.1	2.30	2.23	-0.53	9.1	-2.5	
13,625.0	90.80	359.90	10,230.1	3,345.7	-25.5	1.82	-1.79	0.32	8.3	-2.8	
13,719.0	88.90	0.10	10,230.4	3,439.7	-25.5	2.03	-2.02	0.21	6.5	-3.6	
13,813.0	88.90	359.00	10,232.2	3,533.7	-26.2	1.17	0.00	-1.17	8.3	-3.6	
13,907.0	91.10	359.40	10,232.2	3,627.6	-27.8	2.38	2.34	0.43	8.2	-3.0	
13,934.0	91.70	359.60	10,231.5	3,654.8	-27.8	2.34	2.22	0.74	7.5	-3.0	
14,028.0	89.50	0.40	10,230.6	3,748.6	-27.8	2.49	-2.34	0.85	6.5	-3.7	
14,122.0	89.30	1.00	10,231.5	3,842.6	-26.8	0.87	-0.21	0.64	7.4	-5.6	
14,216.0	89.10	0.90	10,232.9	3,936.6	-25.1	0.24	-0.21	-0.11	8.7	-7.9	
14,311.0	89.30	0.50	10,234.2	4,031.6	-23.9	0.47	0.21	-0.42	9.9	-9.8	
14,405.0	89.40	0.90	10,235.2	4,125.6	-22.8	0.44	0.11	0.43	10.9	-11.6	
14,500.0	89.30	0.30	10,236.3	4,220.5	-21.8	0.64	-0.11	-0.63	12.0	-13.4	
14,594.0	89.30	0.40	10,237.5	4,314.5	-21.2	0.11	0.00	0.11	13.0	-14.7	
14,688.0	89.60	359.80	10,238.4	4,408.5	-21.0	0.71	0.32	-0.64	13.9	-15.6	
14,783.0	90.00	359.70	10,238.7	4,503.5	-21.5	0.43	0.42	-0.11	14.2	-15.9	
14,877.0	89.30	358.80	10,239.3	4,597.5	-22.7	1.21	-0.74	-0.96	14.7	-15.4	
14,971.0	88.60	358.20	10,241.0	4,691.5	-25.1	0.98	-0.74	-0.64	16.3	-13.7	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #301H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3640.0usft
Site:	Neptune 10 State Corn	MD Reference:	KB = 25 @ 3640.0usft
Well:	#301H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Asd (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
15,065.0	88.10	358.30	10,243.7	4,785.4	-28.0	0.54	-0.53	0.11	19.0	-11.5	
15,160.0	88.60	357.70	10,246.4	4,880.3	-31.3	0.82	0.53	-0.63	21.7	-9.0	
15,254.0	88.70	358.30	10,248.7	4,974.2	-34.6	0.65	0.11	0.64	23.8	-6.4	
15,348.0	89.70	359.10	10,250.0	5,068.2	-36.7	1.36	1.06	0.85	25.1	-5.0	
15,443.0	89.60	359.50	10,250.5	5,163.2	-37.9	0.43	-0.11	0.42	25.6	-4.6	
15,537.0	89.20	359.20	10,251.5	5,257.1	-39.0	0.53	-0.43	-0.32	26.5	-4.3	
15,631.0	90.10	0.10	10,252.1	5,351.1	-39.5	1.35	0.96	0.96	27.0	-4.4	
15,725.0	90.30	359.30	10,251.8	5,445.1	-40.0	0.88	0.21	-0.85	26.7	-4.7	
15,820.0	89.80	359.80	10,251.7	5,540.1	-40.8	0.74	-0.53	0.53	26.5	-4.7	
15,914.0	92.50	359.90	10,249.8	5,634.1	-41.0	2.87	2.87	0.11	24.6	-5.1	
16,009.0	90.80	359.40	10,247.1	5,729.1	-41.6	1.87	-1.79	-0.53	21.8	-5.3	
16,103.0	88.90	358.20	10,247.3	5,823.0	-43.6	2.39	-2.02	-1.28	22.0	-4.1	
16,198.0	88.60	358.00	10,249.4	5,918.0	-46.7	0.38	-0.32	-0.21	24.0	-1.7	
16,293.0	88.80	357.40	10,251.5	6,012.9	-50.5	0.67	0.21	-0.63	26.1	1.4	
16,387.0	88.40	358.70	10,253.8	6,108.8	-53.7	1.45	-0.43	1.38	28.3	3.9	
16,481.0	89.80	359.90	10,255.3	6,200.8	-54.9	1.98	1.49	1.28	29.7	4.3	
16,575.0	91.50	0.90	10,254.3	6,294.7	-54.2	2.10	1.81	1.06	28.6	2.9	
16,669.0	91.90	0.70	10,251.5	6,388.7	-52.9	0.48	0.43	-0.21	25.8	0.9	
16,764.0	91.90	0.70	10,248.3	6,483.6	-51.8	0.00	0.00	0.00	22.6	-1.0	
16,858.0	91.30	359.90	10,245.7	6,577.6	-51.3	1.08	-0.64	-0.85	19.9	-2.3	
16,952.0	91.20	0.50	10,243.6	6,671.6	-50.9	0.65	-0.11	0.84	17.8	-3.3	
17,047.0	91.10	359.30	10,241.7	6,766.5	-51.1	1.27	-0.11	-1.26	15.8	-3.9	
17,141.0	91.00	359.50	10,240.0	6,860.5	-52.1	0.24	-0.11	0.21	14.0	-3.6	
17,235.0	91.00	359.80	10,238.4	6,954.5	-52.6	0.43	0.00	0.43	12.3	-3.9	
17,329.0	91.10	359.20	10,236.6	7,048.5	-53.3	0.75	0.11	-0.74	10.5	-3.9	
17,424.0	88.30	359.90	10,237.1	7,143.5	-54.1	3.04	-2.95	0.74	11.0	-3.9	
17,518.0	88.30	359.30	10,239.9	7,237.4	-54.7	0.64	0.00	-0.64	13.7	-3.9	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #301H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3640.0usft
Site:	Neptune 10 State Com	MD Reference:	KB = 25 @ 3640.0usft
Well:	#301H	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)	Buile (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
17,613.0	88.00	359.90	10,243.0	7,332.4	-55.4	0.71	-0.32	0.63	16.7	-4.0	
17,707.0	87.60	359.10	10,248.6	7,426.3	-56.2	0.95	-0.43	-0.85	20.3	-3.9	
17,801.0	88.70	359.40	10,249.6	7,520.2	-57.4	1.21	1.17	0.32	23.2	-3.4	
17,896.0	87.90	358.60	10,252.5	7,615.2	-59.1	1.19	-0.84	-0.84	26.0	-2.5	
17,990.0	90.10	0.10	10,254.1	7,709.2	-60.1	2.83	2.34	1.60	27.6	-2.2	
18,085.0	92.40	1.20	10,252.0	7,804.1	-59.1	2.68	2.42	1.16	25.5	-4.0	
18,180.0	92.70	1.30	10,247.8	7,899.0	-57.0	0.33	0.32	0.11	21.2	-6.8	
18,274.0	90.70	1.00	10,245.0	7,992.9	-55.1	2.15	-2.13	-0.32	18.3	-9.4	
18,368.0	90.20	1.00	10,244.3	8,086.9	-53.5	0.53	-0.53	0.00	17.5	-11.8	
18,463.0	89.30	0.90	10,244.7	8,181.9	-51.9	0.95	-0.95	-0.11	17.9	-14.1	
18,557.0	89.40	1.00	10,245.8	8,275.9	-50.3	0.15	0.11	0.11	18.9	-16.4	
18,651.0	90.50	1.00	10,245.8	8,369.9	-48.7	1.17	1.17	0.00	18.9	-18.8	
18,745.0	90.00	359.10	10,245.4	8,463.9	-48.6	2.09	-0.53	-2.02	18.4	-19.6	
18,840.0	90.10	358.60	10,245.3	8,558.8	-50.5	0.54	0.11	-0.53	18.3	-18.4	
18,934.0	90.50	358.50	10,244.9	8,652.8	-52.9	0.44	0.43	-0.11	17.8	-16.8	
19,029.0	90.70	359.00	10,243.9	8,747.8	-55.0	0.57	0.21	0.53	16.7	-15.4	
19,123.0	90.80	358.40	10,242.6	8,841.8	-57.1	0.65	0.11	-0.64	15.4	-14.0	
19,217.0	91.80	358.40	10,240.5	8,935.7	-59.7	1.06	1.06	0.00	13.2	-12.2	
19,311.0	89.40	357.70	10,238.5	9,029.6	-62.9	2.66	-2.55	-0.74	12.2	-9.7	
19,406.0	88.90	357.70	10,240.9	9,124.5	-66.7	0.53	-0.53	0.00	13.5	-6.8	
19,500.0	88.70	358.20	10,242.9	9,218.5	-70.1	0.67	-0.21	0.53	15.4	-4.0	
19,594.0	89.40	357.80	10,244.5	9,312.4	-73.4	0.86	0.74	-0.43	16.9	-1.4	
19,689.0	89.80	358.40	10,245.1	9,407.3	-76.5	0.76	0.42	0.63	17.5	1.0	
19,783.0	90.10	358.40	10,245.2	9,501.3	-79.2	0.32	0.32	0.00	17.6	2.9	
19,877.0	90.30	358.40	10,244.9	9,595.3	-81.8	0.21	0.21	0.00	17.2	4.8	
19,972.0	89.00	358.70	10,245.4	9,690.2	-85.8	2.25	-1.37	-1.79	17.7	8.1	
20,066.0	89.30	357.00	10,246.8	9,784.0	-91.0	0.45	0.32	0.32	19.0	12.5	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #301H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3640.0usft
Site:	Neptune 10 State Com	MD Reference:	KB = 25 @ 3640.0usft
Well:	#301H	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)
20,160.0	89.10	358.80	10,248.2	8,877.9	-84.5	1.93	-0.21	1.91	20.3	15.2
20,254.0	88.50	358.50	10,250.1	8,871.9	-86.7	0.71	-0.64	-0.32	22.2	16.7
20,321.0	88.50	359.20	10,251.9	10,038.8	-98.0	1.04	0.00	1.04	23.9	17.5
20,386.0	88.50	359.20	10,253.6	10,103.8	-98.9	0.00	0.00	0.00	25.6	17.9

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,635.0	9,621.4	-307.7	-77.8	KOP, MD:9635.0', TVD:9621.4', N/S:-307.7', E/W:-77.8', INC:2.80
8,899.1	9,872.1	-242.0	-45.3	FTP Crossing, MD:9899.1', TVD:9872.1', N/S:-242.0', E/W:-45.3', INC:30.11
20,321.0	10,251.9	10,038.8	-98.0	Last MWD Survey (MD=20321.0')
20,386.0	10,253.6	10,103.8	-98.9	Projection to Bit (MD=20386.0')

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

Neptune 10 State Com

#301H

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



To convert a Magnetic Direction to a Grid Direction, Add 5.41°
To convert a Magnetic Direction to a True Direction, Add 5.82° East
To convert a True Direction to a Grid Direction, Subtract 5.41°

WELL DETAILS: #301H

			3515.0		
			KB = 25 @ 3540.00		
+N-S	+E-W	North	East	Longitude	Site
0.0	0.0	448730.00	778113.00	32° 12' 32.844 N	103° 34' 3.501 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dieg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0	
3	2279.1	5.58	198.77	2278.8	-13.0	-3.9	2.00	198.77	-13.0	
4	5135.3	5.58	198.77	5121.4	-279.0	-84.1	0.00	0.00	-278.3	
5	5414.4	0.00	0.00	5400.0	-292.0	-88.0	2.00	180.00	-291.3	
6	9885.0	0.00	0.00	9851.5	-292.0	-88.0	0.00	0.00	-291.3	
7	10586.4	90.05	6.83	10224.5	277.4	-19.8	10.00	6.83	277.5	
8	10809.0	90.05	359.55	10224.2	519.4	-6.3	3.00	-80.01	519.4	
9	12289.5	90.05	359.55	10223.0	1999.9	-17.9	0.00	0.00	2000.0	TGT#1(Neptune 10 St Com #301H)
10	12293.7	89.98	359.55	10223.0	2004.1	-17.9	2.00	179.83	2004.2	
11	20395.9	89.98	359.55	10228.0	10108.0	-81.0	0.00	0.00	10108.3	BHL (Neptune 10 St Com #301H)

WELLBORE TAPPEY DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	North	East	Shape
Brushy Top (Neptune 10 St Com #301H)	7686.0	-293.0	-88.0	448438.00	778025.00	Polygon
TOT (Neptune 10 St Com #301H)	10223.0	1999.9	-17.9	448729.80	778086.18	Point
FTP (Neptune 10 St Com #301H)	10223.0	-342.0	8.0	448468.00	778113.00	Point
BHL (Neptune 10 St Com #301H)	10228.0	10108.0	-81.0	458338.00	778032.00	Rectangle (Sides: L0.0 W60.0)

