



EOG Resources - Midland

Lea County, NM (NAD 27 NME)

Osprey 10

#601H

OH

Design: OH

EOG PVA

10 December, 2014

APR 28 2015

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HOBBSOCD

20-025-41816



EOG Resources, Inc.
EOG PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #601H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 21 @ 3354.0usft (Nomac 55)
Site:	Osprey 10	MD Reference:	KB = 21 @ 3354.0usft (Nomac 55)
Well:	#601H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Project	Lea County, NM (NAD 27 NME)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Osprey 10		
Site Position:		Northing:	415,103.00 usft
From:	Map	Easting:	768,701.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 8' 17.729 N
		Longitude:	103° 27' 54.902 W
		Grid Convergence:	0.46 °

Well	#601H					
Well Position	+N/-S	0.0 usft	Northing:	415,103.00 usft	Latitude:	32° 8' 17.729 N
	+E/-W	0.0 usft	Easting:	768,701.00 usft	Longitude:	103° 27' 54.902 W
Position Uncertainty	0.0 usft		Wellhead Elevation:	usft	Ground Level:	3,333.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF201014	11/18/2014	7.11	60.04	48,234

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	1.87	

Survey Program	Date	12/10/2014		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
168.0	16,895.0	MWD #1 (OH)	MWD	MWD - Standard



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Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (grid_north_azim)	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	0.0	0.0	0.0	0.00	0.00	0.00	0.0	0.0	
168.0	0.50	334.30	168.0	0.7	-0.3	0.30	0.30	0.00	0.0	0.0	
320.0	0.80	334.00	320.0	2.2	-1.1	0.20	0.20	-0.20	0.0	0.0	
503.0	0.90	320.60	503.0	4.5	-2.5	0.12	0.05	-7.32	0.0	0.0	
690.0	1.00	310.90	689.9	6.7	-4.7	0.10	0.05	-5.19	0.0	0.0	
880.0	1.00	322.30	879.9	9.1	-7.0	0.10	0.00	6.00	0.0	0.0	
981.0	1.40	304.40	980.9	10.5	-8.5	0.54	0.40	-17.72	0.0	0.0	
1,087.0	1.40	281.30	1,086.9	11.5	-10.9	0.53	0.00	-21.79	0.0	0.0	
1,182.0	1.30	265.00	1,181.8	11.6	-13.1	0.42	-0.11	-17.16	0.0	0.0	
1,373.0	1.40	261.10	1,372.8	11.0	-17.5	0.07	0.05	-2.04	0.0	0.0	
1,467.0	1.10	187.90	1,466.8	10.0	-18.8	1.61	-0.32	-77.87	0.0	0.0	
1,562.0	1.50	131.60	1,561.7	8.2	-18.0	1.34	0.42	-59.26	0.0	0.0	
1,657.0	1.60	118.40	1,656.7	6.8	-15.9	0.39	0.11	-13.89	0.0	0.0	
1,752.0	1.50	117.40	1,751.7	5.6	-13.6	0.11	-0.11	-1.05	0.0	0.0	
1,848.0	1.30	137.50	1,847.6	4.2	-11.8	0.55	-0.21	20.94	0.0	0.0	
1,943.0	1.50	122.40	1,942.6	2.7	-10.0	0.44	0.21	-15.89	0.0	0.0	
2,038.0	1.50	125.90	2,037.6	1.3	-7.9	0.10	0.00	3.68	0.0	0.0	
2,227.0	1.90	130.50	2,226.5	-2.1	-3.6	0.22	0.21	2.43	0.0	0.0	
2,322.0	2.20	128.70	2,321.4	-4.3	-0.9	0.32	0.32	-1.89	0.0	0.0	
2,418.0	2.50	129.80	2,417.4	-6.8	2.1	0.32	0.31	1.15	0.0	0.0	
2,610.0	2.80	122.20	2,609.2	-12.0	9.3	0.24	0.16	-3.96	0.0	0.0	
2,705.0	2.20	130.80	2,704.1	-14.4	12.6	0.74	-0.63	9.05	0.0	0.0	
2,800.0	2.30	129.40	2,799.0	-16.8	15.5	0.12	0.11	-1.47	0.0	0.0	
2,895.0	2.50	125.00	2,893.9	-19.2	18.7	0.29	0.21	-4.63	0.0	0.0	
2,990.0	3.00	118.30	2,988.8	-21.6	22.5	0.62	0.53	-7.05	0.0	0.0	
3,085.0	2.80	109.90	3,083.7	-23.5	26.9	0.49	-0.21	-8.84	0.0	0.0	
3,180.0	1.20	54.70	3,178.6	-23.8	29.9	2.46	-1.68	-58.11	0.0	0.0	



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Well:	#601H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
3,276.0	1.90	36.60	3,274.6	-21.9	31.7	0.88	0.73	-18.85	0.0	0.0	
3,371.0	2.80	41.70	3,369.5	-18.9	34.2	0.97	0.95	5.37	0.0	0.0	
3,466.0	2.30	49.20	3,464.4	-15.9	37.1	0.63	-0.53	7.89	0.0	0.0	
3,560.0	2.00	65.60	3,558.3	-14.0	40.1	0.72	-0.32	17.45	0.0	0.0	
3,656.0	1.20	175.10	3,654.3	-14.3	41.7	2.76	-0.83	114.06	0.0	0.0	
3,751.0	1.80	183.50	3,749.3	-16.8	41.7	0.67	0.63	8.84	0.0	0.0	
3,846.0	1.90	188.40	3,844.2	-19.9	41.4	0.20	0.11	5.16	0.0	0.0	
3,941.0	1.30	184.20	3,939.2	-22.5	41.0	0.64	-0.63	-4.42	0.0	0.0	
4,036.0	1.00	188.20	4,034.2	-24.4	40.8	0.33	-0.32	4.21	0.0	0.0	
4,130.0	1.50	198.30	4,128.2	-26.4	40.3	0.58	0.53	10.74	0.0	0.0	
4,225.0	2.00	195.50	4,223.1	-29.1	39.5	0.53	0.53	-2.95	0.0	0.0	
4,320.0	2.40	188.00	4,318.0	-32.7	38.8	0.52	0.42	-7.89	0.0	0.0	
4,414.0	1.50	135.80	4,412.0	-35.5	39.4	2.02	-0.96	-55.53	0.0	0.0	
4,509.0	2.80	116.90	4,506.9	-37.5	42.3	1.54	1.37	-19.89	0.0	0.0	
4,604.0	4.00	116.00	4,601.8	-40.0	47.4	1.26	1.26	-0.95	0.0	0.0	
4,700.0	2.20	133.80	4,697.6	-42.7	51.7	2.10	-1.87	18.54	0.0	0.0	
4,797.0	3.00	137.40	4,794.5	-45.9	54.8	0.84	0.82	3.71	0.0	0.0	
4,892.0	1.00	105.10	4,889.5	-47.9	57.2	2.34	-2.11	-34.00	0.0	0.0	
4,984.0	1.90	122.00	4,981.4	-48.9	59.3	1.07	0.98	18.37	-0.3	0.3	
5,079.0	3.20	122.00	5,076.3	-51.2	62.9	1.37	1.37	0.00	-2.1	0.9	
5,173.0	0.40	177.90	5,170.3	-52.9	65.1	3.19	-2.98	59.47	-0.5	2.8	
5,269.0	0.30	217.00	5,266.3	-53.4	65.0	0.26	-0.10	40.73	1.2	0.2	
5,364.0	0.10	267.50	5,361.3	-53.6	64.8	0.26	-0.21	53.16	-1.0	-2.4	
5,459.0	0.30	303.90	5,456.3	-53.5	64.5	0.24	0.21	38.32	-4.9	-1.8	
5,553.0	0.50	308.00	5,550.3	-53.1	63.9	0.21	0.21	4.36	-8.1	-1.7	
5,649.0	0.60	318.00	5,646.3	-52.5	63.3	0.14	0.10	10.42	-11.7	-0.1	
5,744.0	0.70	343.40	5,741.3	-51.6	62.8	0.32	0.11	26.74	-13.8	6.3	



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5,840.0	0.70	200.30	5,837.3	-51.5	62.4	1.38	0.00	-149.06	8.1	-15.9	
5,935.0	0.60	171.70	5,932.3	-52.6	62.3	0.35	-0.11	-30.11	15.7	-11.8	
6,030.0	0.70	174.20	6,027.3	-53.7	62.4	0.11	0.11	2.63	16.0	-14.0	
6,125.0	0.80	173.60	6,122.2	-54.9	62.5	0.11	0.11	-0.63	16.8	-15.4	
6,220.0	0.60	162.80	6,217.2	-56.0	62.8	0.25	-0.21	-11.37	20.5	-13.3	
6,315.0	0.60	149.70	6,312.2	-56.9	63.2	0.14	0.00	-13.79	24.3	-9.0	
6,410.0	0.60	155.40	6,407.2	-57.8	63.6	0.06	0.00	6.00	24.6	-12.2	
6,507.0	0.80	153.10	6,504.2	-58.9	64.1	0.21	0.21	-2.37	26.3	-12.0	
6,600.0	0.90	146.90	6,597.2	-60.1	64.8	0.15	0.11	-6.67	28.4	-9.7	
6,695.0	0.90	143.40	6,692.2	-61.3	65.7	0.06	0.00	-3.68	29.9	-8.3	
6,790.0	1.50	183.10	6,787.2	-63.1	66.1	1.04	0.63	41.79	17.5	-26.8	
6,885.0	1.70	181.60	6,882.1	-65.8	66.0	0.22	0.21	-1.58	17.2	-28.2	
6,973.0	1.60	179.60	6,970.1	-68.3	65.9	0.13	-0.11	-2.27	17.3	-29.2	
7,068.0	1.80	167.40	7,065.1	-71.1	66.3	0.43	0.21	-12.84	22.4	-26.5	
7,164.0	1.90	162.80	7,161.0	-74.1	67.1	0.19	0.10	-4.79	23.5	-25.9	
7,259.0	1.90	157.80	7,256.0	-77.1	68.1	0.17	0.00	-5.26	24.8	-24.9	
7,354.0	1.80	155.20	7,350.9	-79.9	69.3	0.14	-0.11	-2.74	25.1	-24.6	
7,449.0	2.90	144.20	7,445.8	-83.2	71.4	1.25	1.16	-11.58	27.9	-20.1	
7,543.0	2.80	143.80	7,539.7	-86.9	74.1	0.11	-0.11	-0.43	25.8	-20.3	
7,734.0	2.90	138.20	7,730.5	-94.3	80.1	0.15	0.05	-2.93	23.1	-18.4	
7,829.0	2.80	138.30	7,825.4	-97.8	83.2	0.11	-0.11	0.11	20.8	-18.6	
7,925.0	2.80	143.00	7,921.2	-101.5	86.2	0.24	0.00	4.90	17.0	-20.4	
8,020.0	2.50	144.30	8,016.1	-105.0	88.8	0.32	-0.32	1.37	14.5	-21.1	
8,115.0	2.40	144.40	8,111.1	-108.3	91.2	0.11	-0.11	0.11	12.9	-21.5	
8,210.0	2.10	144.50	8,206.0	-111.3	93.4	0.32	-0.32	0.11	11.5	-21.9	
8,305.0	2.00	141.80	8,300.9	-114.1	95.4	0.15	-0.11	-2.84	11.6	-21.7	
8,400.0	1.70	141.30	8,395.9	-116.5	97.3	0.32	-0.32	-0.53	11.1	-21.9	



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Local Co-ordinate Reference: Well #601H
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8,495.0	1.40	142.20	8,490.8	-118.5	98.9	0.32	-0.32	0.95	10.7	-22.4	
8,590.0	1.20	140.10	8,585.8	-120.2	100.2	0.22	-0.21	-2.21	11.8	-22.2	
8,685.0	1.10	143.10	8,680.8	-121.6	101.4	0.12	-0.11	3.16	11.1	-23.1	
8,780.0	2.30	133.00	8,775.8	-123.7	103.4	1.30	1.26	-10.63	14.6	-20.9	
8,874.0	2.60	132.50	8,869.7	-126.4	106.3	0.32	0.32	-0.53	13.2	-20.7	
8,969.0	2.20	136.00	8,964.6	-129.2	109.2	0.45	-0.42	3.68	10.4	-21.4	
9,064.0	1.80	134.40	9,059.5	-131.5	111.5	0.43	-0.42	-1.68	10.2	-21.1	
9,159.0	1.50	129.10	9,154.5	-133.4	113.5	0.35	-0.32	-5.58	11.8	-19.9	
9,253.0	1.20	140.90	9,248.5	-134.9	115.1	0.43	-0.32	12.55	7.7	-21.9	
9,348.0	1.70	127.20	9,343.4	-136.5	116.9	0.64	0.53	-14.42	12.7	-19.4	
9,443.0	1.50	118.60	9,438.4	-138.0	119.1	0.33	-0.21	-9.05	15.2	-16.8	
9,539.0	1.50	114.80	9,534.4	-139.1	121.3	0.10	0.00	-3.96	16.1	-15.0	
9,633.0	1.70	119.30	9,628.3	-140.3	123.7	0.25	0.21	4.79	14.6	-15.5	
9,728.0	2.00	126.40	9,723.3	-142.0	126.2	0.40	0.32	7.47	11.9	-16.6	
9,823.0	1.40	135.50	9,818.2	-143.8	128.4	0.69	-0.63	9.58	8.8	-18.0	
9,918.0	1.00	125.20	9,913.2	-145.1	129.9	0.48	-0.42	-10.84	12.4	-16.0	
10,013.0	1.50	113.00	10,008.2	-146.0	131.7	0.59	0.53	-12.84	15.7	-12.2	
10,108.0	1.90	107.20	10,103.1	-147.0	134.3	0.46	0.42	-6.11	16.2	-9.6	
10,203.0	1.50	101.80	10,198.1	-147.7	137.0	0.45	-0.42	-5.68	16.3	-6.8	
10,298.0	1.50	95.20	10,293.1	-148.1	139.5	0.18	0.00	-6.95	16.4	-3.5	
10,394.0	1.00	81.50	10,389.0	-148.1	141.6	0.60	-0.52	-14.27	16.1	2.2	
10,488.0	1.40	23.20	10,483.0	-146.9	142.8	1.30	0.43	-62.02	4.1	16.4	
10,583.0	1.40	23.60	10,578.0	-144.8	143.8	0.01	0.00	0.42	1.0	18.7	
10,623.0	1.40	34.00	10,618.0	-143.9	144.2	0.63	0.00	26.00	3.2	19.3	
10,668.0	1.40	42.80	10,663.0	-143.1	144.9	0.48	0.00	19.56	5.0	19.8	
10,718.0	1.10	51.40	10,713.0	-142.3	145.7	0.71	-0.60	17.20	7.0	20.2	
10,814.0	1.50	24.70	10,808.9	-140.6	147.0	0.75	0.42	-27.81	-5.8	23.1	



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10,909.0	1.50	8.90	10,903.9	-138.2	147.7	0.43	0.00	-16.63	-15.7	22.3
11,004.0	0.90	5.00	10,998.9	-136.3	147.9	0.64	-0.63	-4.11	-20.8	23.0
11,099.0	0.60	350.80	11,093.9	-135.0	147.9	0.37	-0.32	-14.95	-29.0	18.4
11,194.0	0.80	28.10	11,188.9	-133.9	148.1	0.51	0.21	39.26	-13.7	34.9
11,288.0	1.20	23.10	11,282.9	-132.5	148.8	0.44	0.43	-5.32	-19.2	35.8
11,391.0	1.60	14.80	11,385.8	-130.1	149.6	0.43	0.39	-8.06	-28.0	34.8
11,511.0	1.60	35.20	11,505.8	-127.1	151.0	0.47	0.00	17.00	-17.9	46.0
11,582.0	2.00	43.10	11,576.7	-125.4	152.4	0.66	0.56	11.13	-13.6	50.0
11,606.0	1.90	51.30	11,600.7	-124.8	153.0	1.23	-0.42	34.17	-7.1	52.1
11,654.0	5.80	12.60	11,648.6	-122.0	154.2	9.33	8.12	-80.62	-40.3	36.4
11,701.0	13.10	9.30	11,694.9	-114.4	155.6	15.57	15.53	-7.02	-45.1	34.0
11,749.0	18.30	9.30	11,741.1	-101.6	157.7	10.83	10.83	0.00	-49.0	33.2
11,796.0	21.80	8.80	11,785.3	-85.7	160.2	7.46	7.45	-1.06	-52.4	31.2
11,844.0	28.20	6.60	11,828.8	-65.6	162.9	13.47	13.33	-4.58	-56.4	27.5
11,891.0	29.90	4.50	11,869.9	-42.8	165.1	4.22	3.62	-4.47	-59.1	24.0
11,939.0	35.00	7.80	11,910.4	-17.3	167.9	11.24	10.62	6.87	-58.3	24.4
11,986.0	41.40	5.80	11,947.3	11.6	171.3	13.87	13.62	-4.26	-59.7	19.6
12,034.0	49.10	2.90	11,981.0	45.5	173.8	16.60	16.04	-6.04	-62.4	15.1
12,082.0	55.40	3.60	12,010.4	83.4	176.0	13.18	13.12	1.46	-65.8	13.8
12,115.7	58.84	3.16	12,028.7	111.7	177.6	10.27	10.21	-1.30	-68.4	11.9
HL Crossing, MD:12115.7', TVD:12028.7', N/S:111.7', E/W:177.6', INC:58.84										
12,129.0	60.20	3.00	12,035.4	123.1	178.2	10.27	10.21	-1.23	-69.4	11.2
12,177.0	63.90	2.60	12,057.9	165.5	180.3	7.74	7.71	-0.83	-72.0	8.8
12,224.0	65.30	2.10	12,078.1	207.9	182.0	3.13	2.98	-1.06	-72.3	6.7
12,272.0	66.20	2.20	12,097.8	251.6	183.7	1.88	1.87	0.21	-68.9	4.8
12,306.0	67.20	1.90	12,111.3	282.8	184.8	3.05	2.94	-0.88	-64.3	3.4
12,353.0	70.30	0.10	12,128.3	326.6	185.6	7.50	6.60	-3.83	-56.0	2.0



EOG Resources, Inc.
EOG PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #601H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 21 @ 3354.0usft (Nomac 55)
Site:	Osprey 10	MD Reference:	KB = 21 @ 3354.0usft (Nomac 55)
Well:	#601H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
12,400.0	72.00	359.00	12,143.5	371.1	185.2	4.24	3.62	-2.34	-45.5	2.1	
12,447.0	74.10	357.90	12,157.2	416.0	184.0	5.00	4.47	-2.34	-32.7	3.1	
12,494.0	78.40	357.40	12,168.4	461.6	182.1	9.21	9.15	-1.06	-21.1	4.7	
12,542.0	81.10	358.30	12,176.9	508.8	180.4	5.92	5.62	1.87	-12.1	6.1	
12,588.0	83.10	358.80	12,183.2	554.4	179.2	4.48	4.35	1.09	-5.4	6.9	
12,683.0	89.10	358.30	12,189.7	649.1	176.8	6.34	6.32	-0.53	1.9	8.7	
12,777.0	90.30	359.60	12,190.2	743.1	175.1	1.88	1.28	1.38	3.3	9.8	
12,872.0	92.30	0.70	12,188.0	838.0	175.3	2.40	2.11	1.16	2.0	8.9	
12,967.0	93.60	0.50	12,183.1	932.9	176.3	1.38	1.37	-0.21	-2.0	7.3	
13,061.0	94.50	3.00	12,176.5	1,026.6	179.2	2.82	0.96	2.66	-7.8	3.8	
13,155.0	90.20	2.70	12,172.6	1,120.4	183.8	4.59	-4.57	-0.32	-10.8	-1.5	
13,250.0	88.60	0.40	12,173.6	1,215.3	186.4	2.95	-1.68	-2.42	-8.9	-4.7	
13,345.0	90.40	0.10	12,174.5	1,310.3	186.8	1.92	1.89	-0.32	-7.2	-5.7	
13,440.0	93.90	0.60	12,170.9	1,405.2	187.4	3.72	3.68	0.53	-9.9	-6.9	
13,534.0	89.30	1.00	12,168.3	1,499.2	188.7	4.91	-4.89	0.43	-11.7	-8.9	
13,629.0	91.60	1.50	12,167.5	1,594.1	190.8	2.48	2.42	0.53	-11.6	-11.6	
13,723.0	88.70	0.10	12,167.3	1,688.1	192.1	3.43	-3.09	-1.49	-11.0	-13.5	
13,817.0	88.00	358.80	12,170.0	1,782.1	191.2	1.57	-0.74	-1.38	-7.5	-13.2	
13,913.0	89.60	358.00	12,172.0	1,878.0	188.5	1.86	1.67	-0.83	-4.7	-11.1	
14,008.0	88.10	357.10	12,173.9	1,972.9	184.5	1.84	-1.58	-0.95	-2.1	-7.7	
14,104.0	90.80	357.00	12,174.8	2,068.8	179.5	2.81	2.81	-0.10	-0.5	-3.4	
14,199.0	91.90	358.60	12,172.6	2,163.7	175.9	2.04	1.16	1.68	-2.0	-0.4	
14,293.0	92.30	359.30	12,169.1	2,257.6	174.2	0.86	0.43	0.74	-4.8	0.7	
14,388.0	92.10	359.10	12,165.5	2,352.5	172.8	0.30	-0.21	-0.21	-7.9	1.4	
14,483.0	92.90	358.30	12,161.3	2,447.4	170.7	1.19	0.84	-0.84	-11.4	3.0	
14,578.0	93.00	358.60	12,156.5	2,542.2	168.1	0.33	0.11	0.32	-15.8	4.9	
14,673.0	92.90	359.00	12,151.6	2,637.1	166.1	0.43	-0.11	0.42	-20.1	6.3	



EOG Resources, Inc.
EOG PVA

Company: EOG Resources - Midland				Local Co-ordinate Reference: Well #601H			
Project: Lea County, NM (NAD 27 NME)				TVD Reference: KB = 21 @ 3354.0usft (Nomac 55)			
Site: Osprey 10				MD Reference: KB = 21 @ 3354.0usft (Nomac 55)			
Well: #601H				North Reference: Grid			
Wellbore: OH				Survey Calculation Method: Minimum Curvature			
Design: OH				Database: EDM 5000.1 Single User Db			

Survey										
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
14,769.0	92.80	358.60	12,146.8	2,732.9	164.1	0.43	-0.10	-0.42	-24.4	7.7
14,864.0	93.40	358.90	12,141.7	2,827.8	162.1	0.71	0.63	0.32	-29.1	9.2
14,959.0	92.50	358.60	12,136.8	2,922.6	160.0	1.00	-0.95	-0.32	-33.5	10.6
15,055.0	91.70	358.10	12,133.3	3,018.5	157.2	0.98	-0.83	-0.52	-36.6	12.7
15,151.0	91.70	359.10	12,130.4	3,114.4	154.9	1.04	0.00	1.04	-36.7	14.5
15,246.0	89.80	358.40	12,129.2	3,209.4	152.8	2.13	-2.00	-0.74	-34.2	16.0
15,342.0	93.10	358.40	12,126.7	3,305.3	150.1	3.44	3.44	0.00	-32.9	18.0
15,437.0	94.40	0.20	12,120.5	3,400.1	149.0	2.33	1.37	1.89	-35.4	18.5
15,532.0	94.00	1.70	12,113.6	3,494.8	150.5	1.63	-0.42	1.58	-38.7	16.3
15,626.0	90.20	2.30	12,110.1	3,588.7	153.8	4.09	-4.04	0.64	-38.4	12.4
15,721.0	89.80	2.00	12,110.1	3,683.6	157.4	0.53	-0.42	-0.32	-34.7	8.3
15,816.0	91.60	3.00	12,109.0	3,778.5	161.5	2.17	1.89	1.05	-32.2	3.5
15,911.0	92.90	4.40	12,105.2	3,873.3	167.6	2.01	1.37	1.47	-32.2	-3.3
16,006.0	90.00	3.40	12,102.8	3,968.0	174.1	3.23	-3.05	-1.05	-30.9	-10.3
16,102.0	89.90	3.30	12,102.9	4,063.8	179.7	0.15	-0.10	-0.10	-27.0	-16.5
16,196.0	89.80	3.00	12,103.2	4,157.7	184.9	0.34	-0.11	-0.32	-23.1	-22.2
16,291.0	89.50	2.60	12,103.7	4,252.6	189.5	0.53	-0.32	-0.42	-18.8	-27.5
16,386.0	91.20	0.70	12,103.2	4,347.5	192.3	2.68	1.79	-2.00	-15.7	-30.8
16,481.0	91.90	1.00	12,100.6	4,442.5	193.7	0.80	0.74	0.32	-14.5	-32.8
16,576.0	92.10	1.30	12,097.3	4,537.4	195.6	0.38	0.21	0.32	-14.1	-35.3
16,702.0	90.60	1.30	12,094.3	4,663.3	198.4	1.19	-1.19	0.00	-12.2	-39.0
Last MWD Survey										
16,769.1	90.60	1.30	12,093.6	4,730.4	199.9	0.00	0.00	0.00	-10.3	-41.0
HL Crossing, MD:16769.1', TVD:12093.6', N/S:4730.4', E/W:199.9', INC:90.60										
16,895.0	90.60	1.30	12,092.3	4,856.3	202.8	0.00	0.00	0.00	-8.7	-51.8
Projection To Bit										

**EOG Resources, Inc.**

EOG PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #601H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 21 @ 3354.0usft (Nomac 55)
Site:	Osprey 10	MD Reference:	KB = 21 @ 3354.0usft (Nomac 55)
Well:	#601H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

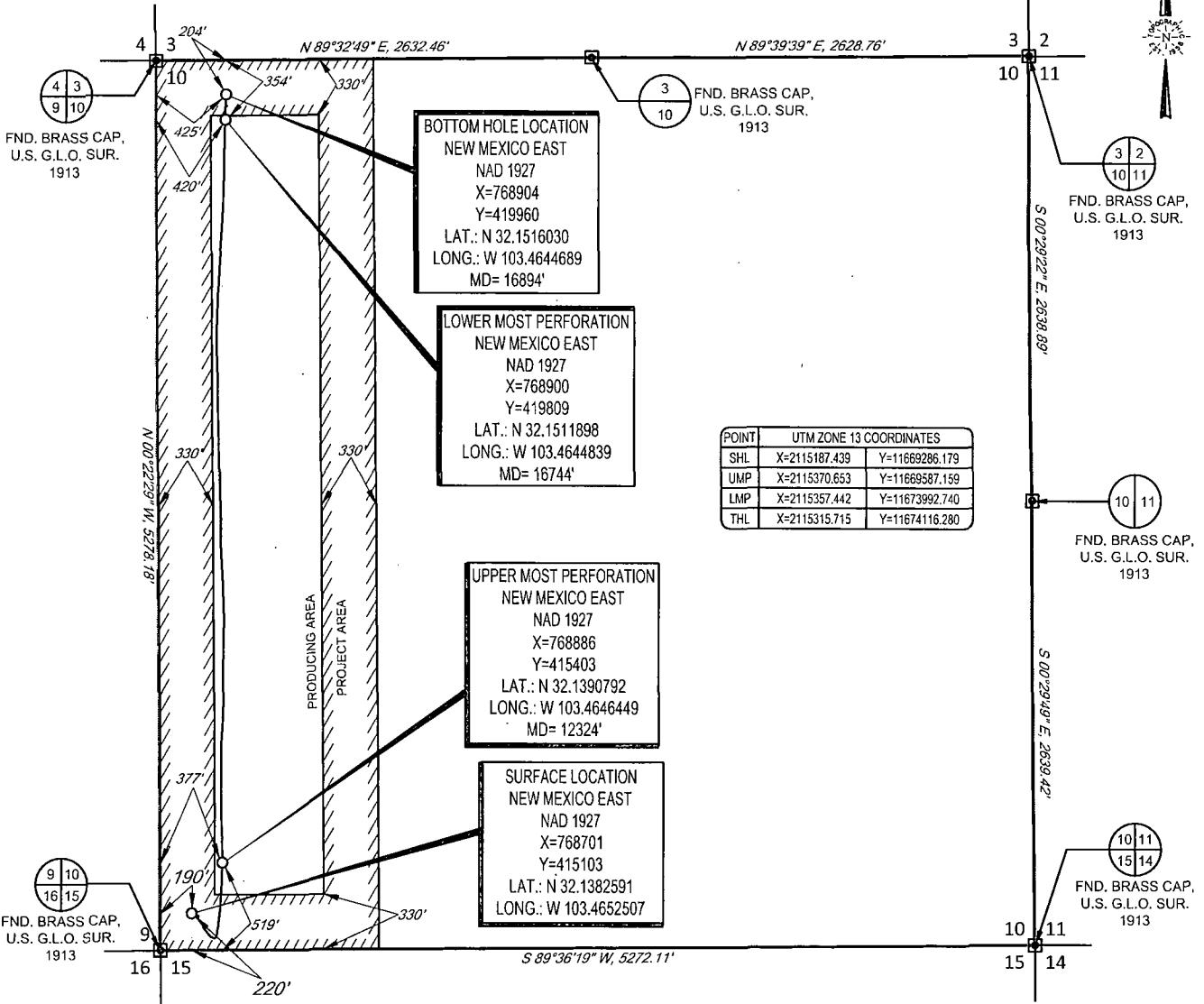
Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
12,115.7	12,028.7	111.7	177.6	HL Crossing, MD:12115.7', TVD:12028.7', N/S:111.7', E/W:177.6', INC:58.84
16,702.0	12,094.3	4,663.3	198.4	Last MWD Survey
16,769.1	12,093.6	4,730.4	199.9	HL Crossing, MD:16769.1', TVD:12093.6', N/S:4730.4', E/W:199.9', INC:90.60
16,895.0	12,092.3	4,856.3	202.8	Projection To Bit

Checked By: _____	Approved By: _____	Date: _____
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SCALE: 1" = 1000'

0' 500' 1000'

SECTION 10, TOWNSHIP 25-S, RANGE 34-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

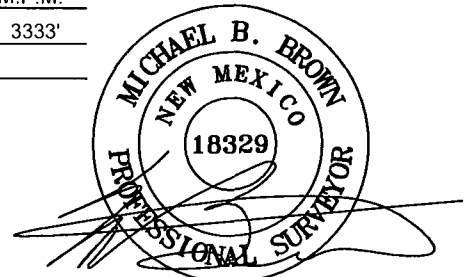


LEASE NAME & WELL NO.: OSPREY 10 #601H
 SECTION 10 TWP 25-S RGE 34-E SURVEY N.M.P.M.
 COUNTY LEA STATE NM ELEVATION 3333'
 DESCRIPTION 220' FSL & 190' FWL



TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
 TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
 2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
 TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
 WWW.TOPOGRAPHIC.COM



Michael Blake Brown, P.S. No. 18329
 MARCH 23, 2015



OSPREY 10 #601H AS-COMPLETED	REVISION:	
	INT	DATE
DATE: 03/23/15		
FILE: AD_OSPREY10_601H		
DRAWN BY: GJU		
SHEET: 1 OF 1		

NOTES:

1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
3. THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY EOG RESOURCES, INC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.