



EOG Resources - Midland

Lea County, NM (NAD 27 NME)

Dragon 36 State

#704H

OH

Design: OH

EOG PVA

09 September, 2015

**OCD – HOBBS
09/08/2016
RECEIVED**



EOG Resources, Inc.
EOG PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #704H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 25 @ 3508.0usft (Precision #612)
Site:	Dragon 36 State	MD Reference:	KB = 25 @ 3508.0usft (Precision #612)
Well:	#704H	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	Dragon 36 State		
Site Position:		Northing:	425,530.00 usft
From:	Map	Easting:	751,878.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 10' 2.209 N
		Longitude:	103° 31' 9.625 W
		Grid Convergence:	0.43 °

Well		#704H				
Well Position	+N/-S	0.0 usft	Northing:	425,948.00 usft	Latitude:	32° 10' 6.562 N
	+E/-W	0.0 usft	Easting:	748,962.00 usft	Longitude:	103° 31' 43.511 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	3,483.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	8/20/2015	7.13	60.04	48,097

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	358.23



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Survey Program		Date	9/9/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
177.0	12,994.0	PDI MWD #1 (OH)	MWD	MWD - Standard	
13,037.0	15,367.0	Pathfinder MWD #1 (OH)	MWD	MWD - Standard	
15,447.0	17,296.0	PDI MWD#2 (OH)	MWD	MWD - Standard	

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
177.0	0.80	248.80	177.0	-0.4	-1.2	0.45	0.45	0.00	-1.2	0.0
332.0	1.20	257.70	332.0	-1.2	-3.7	0.28	0.26	5.74	-3.9	0.4
518.0	1.30	244.00	517.9	-2.5	-7.5	0.17	0.05	-7.37	-7.9	-1.0
706.0	1.40	244.70	705.9	-4.4	-11.5	0.05	0.05	0.37	-12.3	-0.9
890.0	1.30	227.80	889.8	-6.8	-15.1	0.22	-0.05	-9.18	-15.8	-5.1
1,075.0	1.90	210.80	1,074.8	-10.8	-18.2	0.41	0.32	-9.19	-18.7	-10.1
1,218.0	1.80	217.80	1,217.7	-14.7	-20.8	0.17	-0.07	4.90	-24.3	-7.5
1,355.0	1.80	216.90	1,354.6	-18.1	-23.4	0.02	0.00	-0.66	-28.5	-7.9
1,542.0	2.00	209.40	1,541.5	-23.3	-26.8	0.17	0.11	-4.01	-33.4	-11.9
1,728.0	3.30	193.00	1,727.3	-31.3	-29.6	0.80	0.70	-8.82	-37.2	-21.8
1,916.0	3.50	185.10	1,915.0	-42.3	-31.3	0.27	0.11	-4.20	-44.9	-27.5
2,103.0	4.10	188.80	2,101.6	-54.6	-32.9	0.35	0.32	1.98	-58.4	-24.2
2,290.0	3.70	191.10	2,288.1	-67.1	-35.0	0.23	-0.21	1.23	-68.2	-21.6
2,476.0	4.50	187.60	2,473.7	-80.2	-37.2	0.45	0.43	-1.88	-72.6	-25.9
2,663.0	4.50	188.10	2,660.1	-94.8	-39.2	0.02	0.00	0.27	-76.3	-25.0
2,850.0	4.30	178.60	2,846.5	-109.0	-40.0	0.40	-0.11	-5.08	-70.8	-35.6
3,036.0	6.10	179.30	3,031.8	-125.9	-39.7	0.97	0.97	0.38	-69.9	-31.5
3,222.0	6.00	167.70	3,216.7	-145.3	-37.6	0.66	-0.05	-6.24	-61.3	-38.8
3,409.0	8.00	179.80	3,402.3	-167.8	-35.4	1.32	1.07	6.47	-68.1	-19.4



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Design:	OH	Database:	EDM 5000.1 Single User Db

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3,594.0	7.50	180.70	3,585.6	-192.8	-35.5	0.28	-0.27	0.49	-71.1	-14.8	
3,781.0	6.00	181.30	3,771.3	-214.8	-35.9	0.80	-0.80	0.32	-70.6	-10.8	
3,967.0	9.30	190.40	3,955.7	-239.3	-38.8	1.88	1.77	4.89	-73.5	1.5	
4,153.0	8.20	193.40	4,139.5	-267.0	-44.6	0.64	-0.59	1.61	-79.0	4.5	
4,340.0	6.80	192.30	4,324.9	-290.8	-50.1	0.75	-0.75	-0.59	-80.7	1.5	
4,526.0	6.60	176.30	4,509.6	-312.2	-51.7	1.01	-0.11	-8.60	-77.3	-18.6	
4,712.0	6.50	164.90	4,694.4	-333.0	-48.3	0.70	-0.05	-6.13	-72.4	-26.2	
4,899.0	8.40	181.40	4,879.9	-356.9	-45.9	1.52	1.02	8.82	-78.1	1.4	
5,085.0	6.90	183.20	5,064.2	-381.6	-46.8	0.82	-0.81	0.97	-80.3	6.7	
5,271.0	5.00	199.90	5,249.2	-400.4	-50.2	1.37	-1.02	8.98	-71.6	28.3	
5,457.0	5.50	201.30	5,434.4	-416.3	-56.2	0.28	0.27	0.75	-65.7	25.5	
5,643.0	6.60	195.50	5,619.4	-434.9	-62.3	0.68	0.59	-3.12	-64.9	15.4	
5,829.0	5.90	191.30	5,804.3	-454.6	-67.0	0.45	-0.38	-2.26	-63.4	9.1	
6,016.0	6.10	188.80	5,990.3	-473.9	-70.4	0.18	0.11	-1.34	-60.5	6.1	
6,202.0	6.20	187.40	6,175.2	-493.6	-73.2	0.10	0.05	-0.75	-57.9	5.1	
6,388.0	5.50	185.60	6,360.2	-512.4	-75.4	0.39	-0.38	-0.97	-54.3	4.4	
6,574.0	5.10	189.00	6,545.4	-529.5	-77.6	0.27	-0.22	1.83	-48.4	8.2	
6,760.0	4.70	193.40	6,730.8	-545.0	-80.6	0.29	-0.22	2.37	-40.9	10.9	
6,946.0	4.60	192.00	6,916.1	-559.7	-83.9	0.08	-0.05	-0.75	-33.6	8.6	
7,133.0	4.00	190.00	7,102.6	-573.5	-86.6	0.33	-0.32	-1.07	-25.0	6.8	
7,319.0	3.10	186.70	7,288.3	-584.9	-88.3	0.50	-0.48	-1.77	-14.4	6.0	
7,506.0	2.20	180.70	7,475.1	-593.5	-89.0	0.50	-0.48	-3.21	-5.7	6.6	
7,693.0	1.80	170.70	7,661.9	-600.0	-88.5	0.28	-0.21	-5.35	-1.9	8.7	
7,879.0	1.60	168.60	7,847.9	-605.4	-87.6	0.11	-0.11	-1.13	-2.2	10.6	
8,066.0	1.20	168.90	8,034.8	-609.9	-86.7	0.21	-0.21	0.16	-6.1	10.9	
8,252.0	1.30	156.50	8,220.8	-613.7	-85.5	0.15	0.05	-6.67	-12.3	8.9	
8,440.0	1.10	139.40	8,408.7	-617.1	-83.4	0.22	-0.11	-9.10	-18.2	4.2	



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8,626.0	0.20	124.80	8,594.7	-618.6	-82.0	0.49	-0.48	-7.85	-20.7	-0.9
8,813.0	1.10	354.00	8,781.7	-617.0	-81.9	0.66	0.48	-69.95	12.7	-15.3
9,000.0	0.70	357.90	8,968.7	-614.1	-82.1	0.22	-0.21	2.09	8.7	-16.0
9,186.0	1.00	294.30	9,154.7	-612.3	-83.7	0.50	0.16	-34.19	16.1	-0.4
9,374.0	0.80	275.80	9,342.6	-611.5	-86.5	0.19	-0.11	-9.84	12.5	4.2
9,559.0	0.50	318.70	9,527.6	-610.7	-88.3	0.30	-0.16	23.19	10.3	-4.5
9,747.0	0.80	25.50	9,715.6	-608.9	-88.3	0.40	0.16	35.53	-1.8	-10.5
9,932.0	1.30	25.50	9,900.6	-605.9	-86.8	0.27	0.27	0.00	-5.1	-10.5
10,118.0	1.20	33.10	10,086.5	-602.3	-84.8	0.10	-0.05	4.09	-10.5	-9.4
10,304.0	1.00	29.40	10,272.5	-599.3	-83.0	0.11	-0.11	-1.99	-13.5	-10.2
10,489.0	1.10	335.40	10,457.5	-596.3	-82.9	0.52	0.05	-29.19	-2.4	-18.2
10,667.0	0.90	347.50	10,635.4	-593.4	-83.9	0.16	-0.11	6.80	-9.2	-17.0
10,853.0	1.30	96.90	10,821.4	-592.2	-82.2	0.97	0.22	58.82	-14.6	15.7
11,039.0	2.60	56.80	11,007.3	-590.1	-76.5	0.97	0.70	-21.56	-27.1	1.3
11,225.0	2.60	22.90	11,193.1	-583.9	-71.4	0.81	0.00	-18.23	-30.9	-16.4
11,411.0	6.00	74.90	11,378.6	-577.5	-60.3	2.61	1.83	27.96	-44.2	17.7
11,595.0	5.00	225.00	11,562.3	-580.7	-56.7	5.78	-0.54	81.58	47.5	11.7
11,782.0	3.30	218.20	11,748.8	-590.7	-65.8	0.94	-0.91	-3.64	32.3	16.2
11,969.0	2.60	266.90	11,935.6	-595.1	-73.4	1.34	-0.37	26.04	25.7	-9.5
12,016.0	5.80	309.60	11,982.5	-593.7	-76.3	9.08	6.81	90.85	9.4	-23.4
12,062.0	11.20	319.10	12,028.0	-588.8	-81.0	12.09	11.74	20.65	1.1	-22.1
12,109.0	15.90	318.20	12,073.6	-580.6	-88.3	10.01	10.00	-1.91	-4.3	-17.2
12,155.0	22.90	319.90	12,117.0	-569.0	-98.2	15.27	15.22	3.70	-11.8	-9.8
12,202.0	29.70	325.60	12,159.1	-552.4	-110.7	15.42	14.47	12.13	-21.5	0.4
12,248.0	34.40	333.70	12,198.1	-531.3	-122.9	13.83	10.22	17.61	-29.8	13.2
12,294.0	39.00	341.40	12,235.0	-505.9	-133.3	14.13	10.00	16.74	-35.6	25.6
12,342.0	41.30	351.10	12,271.7	-475.9	-140.6	13.87	4.79	20.21	-37.9	37.0



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12,389.0	43.00	0.40	12,306.6	-444.5	-142.9	13.75	3.62	19.79	-36.6	43.6
12,436.0	48.30	9.50	12,339.5	-411.1	-139.9	17.84	11.28	19.36	-34.7	44.2
12,483.0	52.60	11.10	12,369.4	-375.5	-133.4	9.52	9.15	3.40	-37.4	37.9
12,529.0	55.50	9.90	12,396.4	-338.9	-126.6	6.65	6.30	-2.61	-39.9	30.2
12,544.3	56.54	9.43	12,405.0	-326.4	-124.5	7.25	6.80	-3.05	-40.3	27.6
HL Crossing, MD:12544.3', TVD:12405.0', N/S:-326.4', E/W:-124.5', INC:56.54										
12,576.0	58.70	8.50	12,421.9	-299.9	-120.3	7.25	6.81	-2.94	-40.6	22.6
12,622.0	63.60	6.70	12,444.1	-260.0	-115.0	11.19	10.65	-3.91	-40.3	16.0
12,669.0	69.00	3.70	12,463.0	-217.2	-111.1	12.89	11.49	-6.38	-39.9	10.7
12,715.0	69.90	2.10	12,479.2	-174.2	-108.9	3.80	1.96	-3.48	-37.8	7.7
12,762.0	72.50	1.30	12,494.3	-129.7	-107.6	5.76	5.53	-1.70	-32.9	5.8
12,807.0	75.70	358.10	12,506.6	-86.4	-107.8	9.87	7.11	-7.11	-26.7	5.4
12,854.0	79.10	356.50	12,516.9	-40.6	-110.0	7.96	7.23	-3.40	-19.0	7.3
12,901.0	81.20	355.10	12,524.9	5.6	-113.4	5.35	4.47	-2.98	-10.7	10.3
12,941.0	83.70	356.70	12,530.2	45.1	-116.2	7.40	6.25	4.00	-5.0	12.8
12,994.0	90.00	359.70	12,533.1	98.0	-117.9	13.16	11.89	5.66	-1.5	14.1
13,037.0	89.43	358.94	12,533.3	141.0	-118.4	2.21	-1.33	-1.77	-0.9	14.3
13,130.0	91.10	1.39	12,532.9	234.0	-118.1	3.19	1.80	2.63	-0.3	13.3
13,226.0	91.89	1.61	12,530.4	329.9	-115.6	0.85	0.82	0.23	-1.8	10.1
13,319.0	93.21	2.71	12,526.2	422.7	-112.1	1.85	1.42	1.18	-5.0	5.9
13,411.0	91.71	1.98	12,522.3	514.6	-108.4	1.81	-1.63	-0.79	-8.0	1.5
13,504.0	91.98	2.47	12,519.3	607.5	-104.8	0.60	0.29	0.53	-10.0	-2.9
13,598.0	91.28	1.17	12,516.6	701.4	-101.8	1.57	-0.74	-1.38	-11.7	-6.5
13,691.0	91.19	0.13	12,514.6	794.3	-100.7	1.12	-0.10	-1.12	-12.7	-8.3
13,781.0	90.92	2.08	12,513.0	884.3	-99.0	2.19	-0.30	2.17	-13.4	-10.7
13,875.0	88.20	357.92	12,513.7	978.3	-99.0	5.29	-2.89	-4.43	-11.7	-11.4
13,969.0	89.52	358.81	12,515.5	1,072.2	-101.7	1.69	1.40	0.95	-8.9	-9.4



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14,061.0	90.75	357.45	12,515.3	1,164.2	-104.7	1.99	1.34	-1.48	-8.2	-7.1	
14,155.0	90.75	354.91	12,514.1	1,257.9	-110.9	2.70	0.00	-2.70	-8.4	-1.5	
14,249.0	92.51	355.46	12,511.4	1,351.6	-118.8	1.96	1.87	0.59	-10.1	5.6	
14,342.0	94.79	358.32	12,505.5	1,444.2	-123.8	3.93	2.45	3.08	-15.0	10.0	
14,435.0	91.01	357.67	12,500.8	1,537.0	-127.1	4.12	-4.06	-0.70	-18.7	12.5	
14,529.0	92.68	357.68	12,497.8	1,630.9	-130.9	1.78	1.78	0.01	-20.4	15.6	
14,623.0	91.01	359.32	12,494.7	1,724.8	-133.4	2.49	-1.78	1.74	-22.2	17.4	
14,716.0	91.63	2.81	12,492.6	1,817.7	-131.6	3.81	0.67	3.75	-23.2	14.9	
14,809.0	86.79	3.64	12,493.9	1,910.6	-126.4	5.28	-5.20	0.89	-20.6	9.0	
14,902.0	86.44	3.67	12,499.4	2,003.2	-120.5	0.38	-0.38	0.03	-13.9	2.4	
14,995.0	87.85	2.47	12,504.0	2,096.0	-115.5	1.99	1.52	-1.29	-8.0	-3.3	
15,087.0	89.96	2.58	12,505.8	2,187.8	-111.5	2.30	2.29	0.12	-5.0	-8.0	
15,181.0	92.68	1.81	12,503.6	2,281.7	-107.9	3.01	2.89	-0.82	-5.9	-12.3	
15,273.0	90.48	0.56	12,501.1	2,373.7	-106.0	2.75	-2.39	-1.36	-7.3	-14.9	
15,367.0	91.98	358.38	12,499.0	2,467.6	-106.8	2.81	1.60	-2.32	-8.0	-14.7	
15,447.0	90.00	355.30	12,497.7	2,547.5	-111.2	4.58	-2.47	-3.85	-8.4	-10.9	
15,539.0	89.50	357.90	12,498.1	2,639.3	-116.7	2.88	-0.54	2.83	-6.7	-6.1	
15,633.0	95.10	6.90	12,494.3	2,733.0	-112.8	11.27	5.96	9.57	-9.2	-10.8	
15,726.0	96.20	5.10	12,485.1	2,825.1	-103.1	2.26	1.18	-1.94	-17.0	-21.2	
15,820.0	95.90	3.50	12,475.2	2,918.3	-96.1	1.72	-0.32	-1.70	-25.7	-29.0	
15,913.0	91.20	0.40	12,469.5	3,011.0	-93.0	6.05	-5.05	-3.33	-30.3	-32.7	
16,007.0	91.10	359.50	12,467.6	3,105.0	-93.0	0.96	-0.11	-0.96	-30.9	-33.3	
16,100.0	90.60	359.00	12,466.2	3,198.0	-94.3	0.76	-0.54	-0.54	-30.9	-32.8	
16,193.0	90.60	358.40	12,465.2	3,290.9	-96.4	0.65	0.00	-0.65	-30.6	-31.4	
16,287.0	91.10	358.40	12,463.8	3,384.9	-99.0	0.53	0.53	0.00	-30.6	-29.4	
16,381.0	92.40	359.00	12,461.0	3,478.8	-101.1	1.52	1.38	0.64	-32.1	-28.0	
16,474.0	91.10	0.20	12,458.1	3,571.8	-101.8	1.90	-1.40	1.29	-33.6	-28.1	



EOG Resources, Inc.
EOG PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #704H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 25 @ 3508.0usft (Precision #612)
Site:	Dragon 36 State	MD Reference:	KB = 25 @ 3508.0usft (Precision #612)
Well:	#704H	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)
16,567.0	91.90	2.00	12,455.7	3,664.7	-100.0	2.12	0.86	1.94	-34.7	-30.6
16,660.0	90.20	0.90	12,454.0	3,757.7	-97.6	2.18	-1.83	-1.18	-35.1	-33.6
16,753.0	89.10	358.40	12,454.6	3,850.7	-98.2	2.94	-1.18	-2.69	-33.2	-33.7
16,846.0	91.90	0.40	12,453.7	3,943.6	-99.2	3.70	3.01	2.15	-32.7	-33.5
16,940.0	89.30	358.80	12,452.8	4,037.6	-99.8	3.25	-2.77	-1.70	-32.3	-33.5
17,033.0	87.30	357.40	12,455.5	4,130.5	-102.9	2.62	-2.15	-1.51	-28.2	-31.2
17,127.0	88.20	357.20	12,459.2	4,224.3	-107.3	0.98	0.96	-0.21	-23.2	-27.4
17,196.0	90.53	358.02	12,460.0	4,293.3	-110.2	3.58	3.37	1.20	-21.5	-25.0
HL Crossing, MD:17196.0', TVD:12460.0',N/S:4293.3', E/W:-110.2', INC:90.53										
17,219.0	91.30	358.30	12,459.6	4,316.3	-110.9	3.58	3.37	1.20	-21.5	-24.5
Last MWD Survey										
17,296.0	91.30	358.30	12,457.9	4,393.2	-113.2	0.00	0.00	0.00	-22.1	-22.8
Projection To Bit										

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
12,544.3	12,405.0	-326.4	-124.5	HL Crossing, MD:12544.3', TVD:12405.0',N/S:-326.4', E/W:-124.5', INC:56.54
17,196.0	12,460.0	4,293.3	-110.2	HL Crossing, MD:17196.0', TVD:12460.0',N/S:4293.3', E/W:-110.2', INC:90.53
17,219.0	12,459.6	4,316.3	-110.9	Last MWD Survey
17,296.0	12,457.9	4,393.2	-113.2	Projection To Bit

Checked By: _____	Approved By: _____	Date: _____
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