

HOBBS OCD
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EOG Resources - Midland

Lea County, NM (NAD 83 NME)
Barlow 34 Fed Com
#705H
OH

Design: OH

PVA Report

26 January, 2018





PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #705H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3307.0usft (HP 610)
Site:	Barlow 34 Fed Com	MD Reference:	KB = 25' @ 3307.0usft (HP 610)
Well:	#705H	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	Barlow 34 Fed Com		
Site Position:		Northing:	364,974.00 usft
From:	Map	Easting:	778,981.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 0' 3.879 N
		Longitude:	103° 34' 0.167 W
		Grid Convergence:	0.41 °

Well	#705H			
Well Position	+N-S	0.0 usft	Northing:	364,982.00 usft
	+E-W	0.0 usft	Easting:	780,006.00 usft
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft
			Latitude:	32° 0' 3.886 N
			Longitude:	103° 33' 48.263 W
			Ground Level:	3,282.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	3/9/2017	6.96	59.86	47,835.44147815

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	2.05	



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Survey Program	Date	1/26/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
173.0	878.0	Olebrook MWD (OH)	MWD	MWD - Standard
1,064.0	12,066.0	Intrepid MWD (OH)	MWD	MWD - Standard
12,103.0	17,054.0	Drilltech MWD (OH)	MWD	MWD - Standard

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
173.0	0.97	267.22	173.0	-0.1	-1.5	0.56	0.56	0.00	0.0	0.0
296.0	0.62	279.17	296.0	0.0	-3.2	0.31	-0.28	9.72	0.0	0.0
390.0	0.97	263.88	390.0	0.0	-4.5	0.43	0.37	-16.27	0.0	0.0
510.0	0.88	198.75	510.0	-1.0	-5.8	0.83	-0.07	-54.27	0.0	0.0
610.0	0.44	293.58	610.0	-1.6	-6.4	1.02	-0.44	94.83	0.0	0.0
704.0	0.62	106.11	704.0	-1.6	-6.2	1.13	0.19	183.54	0.0	0.0
799.0	0.70	159.11	799.9	-2.3	-5.5	0.62	0.08	55.79	0.0	0.0
878.0	0.62	174.58	877.9	-3.1	-5.3	0.25	-0.10	19.58	0.0	0.0
1,064.0	2.80	120.60	1,063.9	-6.4	-1.3	1.34	1.17	-29.02	-2.7	0.9
1,250.0	2.40	122.50	1,249.7	-10.9	5.9	0.22	-0.22	1.02	-4.8	2.9
1,436.0	2.50	116.00	1,435.5	-14.7	12.8	0.16	0.05	-3.49	-7.0	4.3
1,621.0	2.60	129.10	1,620.3	-19.1	19.7	0.32	0.05	7.08	-7.6	7.7
1,809.0	3.50	135.40	1,808.0	-25.9	27.1	0.51	0.48	3.35	-10.2	9.2
1,997.0	3.80	134.80	1,995.7	-34.4	35.5	0.16	0.16	-0.32	-15.7	9.4
2,183.0	2.60	146.70	2,181.4	-42.3	42.2	0.73	-0.65	6.40	-17.2	12.8
2,371.0	2.90	140.90	2,369.2	-49.5	47.5	0.22	0.16	-3.09	-20.9	10.2
2,557.0	3.20	148.10	2,554.9	-57.6	53.3	0.26	0.16	3.87	-22.9	12.2
2,744.0	3.20	149.10	2,741.6	-66.5	58.7	0.03	0.00	0.53	-26.7	11.4
2,932.0	3.50	137.90	2,929.3	-75.2	65.2	0.38	0.16	-5.96	-32.8	5.0



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Wellbore: OH	Survey Calculation Method: Minimum Curvature
Design: OH	Database: EDM 5000.14

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)	
3,118.0	3.90	132.70	3,114.9	-83.7	73.7	0.28	0.22	-2.80	-38.6	2.1	
3,305.0	3.60	138.90	3,301.5	-92.5	82.2	0.27	-0.16	3.32	-43.8	6.8	
3,492.0	3.60	143.20	3,488.1	-101.6	89.6	0.14	0.00	2.30	-48.4	9.9	
3,680.0	3.80	137.30	3,675.7	-110.9	97.4	0.23	0.11	-3.14	-54.7	4.4	
3,868.0	3.60	134.80	3,863.3	-119.6	105.8	0.14	-0.11	-1.33	-60.5	2.1	
4,054.0	3.70	105.30	4,049.0	-125.3	115.7	1.00	0.05	-15.86	-59.3	-27.3	
4,241.0	2.00	129.70	4,235.7	-129.0	124.0	1.10	-0.91	13.05	-67.6	3.0	
4,428.0	1.50	151.80	4,422.7	-133.3	127.7	0.44	-0.27	11.82	-60.6	27.9	
4,615.0	2.20	153.40	4,609.6	-138.6	130.5	0.38	0.37	0.86	-59.5	27.9	
4,802.0	3.20	167.00	4,796.4	-146.9	133.3	0.63	0.53	7.27	-54.3	38.8	
4,879.0	2.70	170.80	4,873.3	-150.8	134.0	0.70	-0.65	4.94	-53.3	41.0	
5,056.0	2.30	162.40	5,050.1	-158.3	135.8	0.31	-0.23	-4.75	-60.8	29.6	
5,242.0	3.00	143.10	5,235.9	-165.8	139.8	0.60	0.38	-10.38	-65.7	5.8	
5,428.0	3.40	144.50	5,421.6	-174.1	145.9	0.22	0.22	0.75	-57.1	5.3	
5,616.0	3.00	148.90	5,609.3	-182.9	151.7	0.25	-0.21	2.34	-47.7	6.4	
5,802.0	2.70	147.90	5,795.1	-190.8	156.6	0.16	-0.16	-0.54	-37.9	2.1	
5,990.0	2.60	150.30	5,982.9	-198.2	161.0	0.08	-0.05	1.28	-27.2	-0.3	
6,178.0	3.60	125.80	6,170.6	-205.4	167.9	0.87	0.53	-13.03	-15.2	-9.1	
6,365.0	3.80	123.30	6,357.2	-212.2	177.9	0.14	0.11	-1.34	-7.9	-5.1	
6,552.0	3.70	123.50	6,543.8	-219.0	188.1	0.05	-0.05	0.11	-1.2	-0.1	
6,738.0	3.80	125.60	6,729.4	-225.9	198.1	0.09	0.05	1.13	5.3	4.3	
6,926.0	2.90	134.60	6,917.1	-232.8	206.5	0.55	-0.48	4.79	6.0	5.0	
7,113.0	2.70	149.50	7,103.9	-239.9	212.2	0.40	-0.11	7.97	-1.0	4.3	
7,300.0	1.20	149.70	7,290.8	-245.4	215.4	0.80	-0.80	0.11	-7.4	4.3	
7,487.0	0.90	153.10	7,477.7	-248.4	217.0	0.16	-0.16	1.82	-10.5	4.9	
7,674.0	0.70	237.00	7,664.7	-250.4	216.7	0.58	-0.11	44.87	2.4	12.5	
7,862.0	0.80	230.40	7,852.7	-251.8	214.8	0.07	0.05	-3.51	-1.5	12.5	



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Survey											
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8,049.0	1.10	226.10	8,039.7	-253.9	212.5	0.16	0.16	-2.30	-5.5	12.3	
8,236.0	1.50	224.40	8,226.6	-256.9	209.5	0.21	0.21	-0.91	-10.1	12.1	
8,424.0	0.70	180.10	8,414.6	-259.8	207.7	0.59	-0.43	-23.56	-18.6	-0.1	
8,610.0	0.90	3.50	8,600.6	-259.5	207.8	0.86	0.11	-94.95	18.2	-1.0	
8,798.0	0.70	356.60	8,788.6	-256.9	207.8	0.12	-0.11	-3.67	15.6	1.0	
8,984.0	0.40	266.70	8,974.6	-255.8	207.1	0.43	-0.16	-48.33	-1.6	14.5	
9,172.0	0.50	259.90	9,162.6	-255.9	205.7	0.06	0.05	-3.62	-4.8	14.1	
9,359.0	0.20	246.70	9,349.6	-256.2	204.6	0.17	-0.16	-7.06	-9.0	12.4	
9,547.0	0.70	298.20	9,537.5	-255.8	203.2	0.32	0.27	27.39	2.8	15.0	
9,734.0	1.50	312.70	9,724.5	-253.6	200.4	0.45	0.43	7.75	2.9	14.1	
9,921.0	2.40	246.90	9,911.4	-253.5	195.0	1.20	0.48	-35.19	-16.6	6.2	
10,108.0	0.80	267.80	10,098.3	-255.1	190.1	0.90	-0.86	11.18	-18.3	13.1	
10,295.0	1.60	96.20	10,285.3	-255.4	191.4	1.28	0.43	-91.76	14.8	-15.9	
10,482.0	1.60	107.40	10,472.3	-256.5	198.5	0.17	0.00	5.99	6.3	-17.9	
10,670.0	1.30	332.60	10,660.2	-255.3	198.0	1.43	-0.16	-71.70	8.0	15.3	
10,856.0	2.00	290.00	10,846.2	-252.4	194.0	0.73	0.38	-22.90	-9.2	15.2	
11,044.0	3.00	262.10	11,034.0	-251.9	186.1	0.82	0.53	-14.84	-23.1	7.6	
11,232.0	3.00	241.00	11,221.7	-255.0	176.9	0.58	0.00	-11.22	-33.8	-3.0	
11,419.0	2.90	276.70	11,408.5	-256.8	167.9	0.97	-0.05	19.09	-37.9	20.1	
11,606.0	1.00	254.80	11,595.4	-256.7	161.6	1.07	-1.02	-11.71	-48.7	2.8	
11,659.0	0.80	254.20	11,648.4	-256.9	160.8	0.38	-0.38	-1.13	-49.6	2.3	
11,738.0	0.60	222.20	11,727.4	-257.4	160.0	0.55	-0.25	-40.51	-44.1	-24.6	
11,831.0	0.30	119.00	11,820.4	-257.8	159.9	0.78	-0.32	-110.97	33.9	-37.8	
11,878.0	1.80	76.70	11,867.4	-257.7	160.7	3.39	3.19	-90.00	49.7	-5.2	
11,924.0	2.20	64.70	11,913.3	-257.2	162.2	1.25	0.87	-26.09	48.1	5.1	
11,926.7	2.31	62.29	11,916.0	-257.1	162.3	5.26	3.94	-88.58	47.7	7.1	

KOP [Barlow 34 Fed Com #705H]



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11,972.0	4.40	41.80	11,961.2	-255.4	164.3	5.26	4.62	-45.25	41.3	21.6
12,019.0	7.60	45.50	12,008.0	-251.9	167.7	6.85	6.81	7.87	42.3	14.3
12,066.0	15.10	37.20	12,054.0	-244.8	173.6	16.29	15.96	-17.66	39.3	13.4
12,103.0	22.80	27.20	12,089.0	-234.6	179.8	22.51	20.81	-27.03	34.6	14.1
12,134.0	27.96	19.57	12,117.0	-222.4	185.0	19.68	16.65	-24.61	30.1	13.9
12,166.0	33.68	13.85	12,144.5	-206.7	189.7	20.07	17.87	-17.87	25.3	12.7
12,197.0	37.64	10.69	12,169.7	-189.0	193.5	14.09	12.77	-10.19	20.9	10.7
12,243.0	45.81	8.85	12,204.0	-158.9	198.6	17.96	17.76	-4.00	13.8	6.9
12,290.0	52.32	6.91	12,234.8	-123.7	203.5	14.20	13.85	-4.13	5.3	3.0
12,337.0	58.65	4.54	12,261.4	-85.2	207.3	14.09	13.47	-5.04	-3.8	-0.5
12,384.0	62.70	0.93	12,284.4	-44.3	209.2	10.91	8.62	-7.68	-12.4	-2.9
12,431.0	65.42	359.70	12,305.0	-2.0	209.5	6.25	5.79	-2.62	-19.2	-3.6
12,466.6	71.41	0.33	12,318.0	31.0	209.5	16.90	16.83	1.76	-23.9	-3.8
HL Crossing, MD:12466.6', TVD:12318.0', N/S:31.0', E/W:209.5', INC:71.41										
12,477.0	73.16	0.50	12,321.2	40.9	209.5	16.90	16.83	1.67	-25.4	-3.9
12,486.7	73.81	0.68	12,324.0	50.2	209.6	6.98	6.74	1.87	-26.8	-4.1
FTP (Barlow 34 Fed Com #705H)										
12,524.0	76.33	1.37	12,333.6	86.3	210.3	6.98	6.75	1.85	-31.5	-4.9
12,570.0	81.25	1.64	12,342.5	131.4	211.5	10.71	10.70	0.59	-35.9	-6.5
12,596.0	84.59	1.02	12,345.7	157.2	212.1	13.06	12.85	-2.38	-38.1	-7.4
12,670.0	85.21	1.55	12,352.3	230.9	213.7	1.10	0.84	0.72	-38.6	-9.9
12,763.0	86.79	357.95	12,358.8	323.6	213.3	4.22	1.70	-3.87	-32.8	-10.3
12,856.0	89.08	358.39	12,362.1	416.5	210.3	2.51	2.46	0.47	-30.2	-8.1
12,949.0	89.69	358.91	12,363.1	509.5	208.2	0.86	0.66	0.56	-29.9	-6.7
13,042.0	92.07	357.86	12,361.7	602.4	205.5	2.80	2.56	-1.13	-32.0	-4.9
13,135.0	92.95	357.68	12,357.6	695.2	201.9	0.97	0.95	-0.19	-36.8	-2.1
13,229.0	93.65	358.12	12,352.2	789.0	198.5	0.88	0.74	0.47	-42.9	0.6



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13,323.0	93.83	358.12	12,346.1	882.8	195.4	0.19	0.19	0.00	-49.7	2.8		
13,417.0	92.59	356.72	12,340.8	976.5	191.2	1.99	-1.32	-1.49	-55.7	6.2		
13,511.0	88.29	0.67	12,340.1	1,070.5	189.0	6.21	-4.57	4.20	-57.1	7.6		
13,604.0	88.29	2.08	12,342.9	1,163.4	191.3	1.52	0.00	1.52	-55.1	4.6		
13,697.0	89.69	2.43	12,344.5	1,256.3	194.9	1.55	1.51	0.38	-54.1	0.1		
13,790.0	89.78	1.99	12,345.0	1,349.2	198.5	0.48	0.10	-0.47	-54.4	-4.3		
13,885.0	89.25	3.04	12,345.8	1,444.1	202.7	1.24	-0.56	1.11	-54.3	-9.2		
13,978.0	88.99	1.29	12,347.2	1,537.1	206.2	1.90	-0.28	-1.88	-53.6	-13.6		
14,010.9	88.99	0.55	12,347.8	1,570.0	206.7	2.24	0.00	-2.24	-53.2	-14.4		
TGT 1 (Barlow 34 Fed Com #705H)												
14,072.0	88.99	359.18	12,348.8	1,631.0	206.6	2.24	0.00	-2.24	-52.9	-14.8		
14,166.0	81.78	359.18	12,356.4	1,724.7	205.2	7.67	-7.67	0.00	-46.4	-14.4		
14,260.0	87.05	357.51	12,365.5	1,818.1	202.5	5.88	5.61	-1.78	-38.4	-12.4		
14,352.0	88.02	357.16	12,369.5	1,909.9	198.3	1.12	1.05	-0.38	-35.6	-8.9		
14,446.0	89.96	357.77	12,371.2	2,003.8	194.1	2.16	2.06	0.65	-35.1	-5.5		
14,539.0	88.90	357.24	12,372.1	2,096.7	190.1	1.27	-1.14	-0.57	-35.3	-2.3		
14,632.0	90.57	354.43	12,372.5	2,189.5	183.3	3.51	1.80	-3.02	-36.0	3.6		
14,726.0	91.89	356.19	12,370.5	2,283.1	175.6	2.34	1.40	1.87	-39.1	10.6		
14,819.0	92.51	359.53	12,366.9	2,376.0	172.1	3.65	0.67	3.59	-43.8	13.3		
14,836.5	92.23	359.68	12,366.2	2,393.5	172.0	1.82	-1.61	0.85	-44.8	13.2		
TGT 2 (Barlow 34 Fed Com #705H)												
14,912.0	91.01	0.32	12,364.1	2,468.9	172.0	1.82	-1.61	0.85	-47.7	12.6		
15,005.0	90.22	0.76	12,363.1	2,561.9	172.9	0.97	-0.85	0.47	-49.8	10.9		
15,098.0	87.14	359.79	12,365.2	2,654.9	173.3	3.47	-3.31	-1.04	-48.6	9.7		
15,191.0	89.60	0.67	12,367.9	2,747.9	173.7	2.81	2.65	0.95	-47.0	8.5		
15,284.0	89.69	1.37	12,368.4	2,840.8	175.4	0.76	0.10	0.75	-47.5	6.0		
15,378.0	88.02	1.90	12,370.3	2,934.8	178.1	1.86	-1.78	0.56	-46.6	2.6		



PVA Report

Company: EOG Resources - Midland	Local Co-ordinate Reference: Well #705H
Project: Lea County, NM (NAD 83 NME)	TVD Reference: KB = 25' @ 3307.0usft (HP 610)
Site: Barlow 34 Fed Com	MD Reference: KB = 25' @ 3307.0usft (HP 610)
Well: #705H	North Reference: Grid
Wellbore: OH	Survey Calculation Method: Minimum Curvature
Design: OH	Database: EDM 5000.14

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)
15,472.0	88.02	2.08	12,373.6	3,028.7	181.3	0.19	0.00	0.19	-44.4	-1.5
15,566.0	90.92	2.25	12,374.4	3,122.6	184.9	3.09	3.09	0.18	-44.6	-5.9
15,659.0	88.37	0.41	12,375.0	3,215.5	187.0	3.38	-2.74	-1.98	-45.0	-8.8
15,753.0	83.89	358.21	12,381.4	3,309.3	185.9	5.31	-4.77	-2.34	-39.7	-8.6
15,753.7	83.90	358.21	12,381.4	3,310.0	185.9	0.86	0.86	-0.10	-39.6	-8.6
TGT 3 (Barlow 34 Fed Com #705H)										
15,845.0	84.68	358.12	12,390.5	3,400.8	183.0	0.86	0.86	-0.10	-30.6	-6.4
15,940.0	89.16	356.45	12,395.6	3,495.5	178.5	5.03	4.72	-1.76	-25.5	-2.7
16,033.0	89.25	356.28	12,396.9	3,588.3	172.6	0.21	0.10	-0.18	-24.2	2.4
16,126.0	91.36	354.34	12,396.4	3,681.0	165.0	3.08	2.27	-2.09	-24.7	9.2
16,220.0	89.96	351.35	12,395.3	3,774.2	153.3	3.51	-1.49	-3.18	-25.8	20.0
16,313.0	93.74	351.35	12,392.3	3,866.1	139.3	4.06	4.06	0.00	-28.7	33.3
16,407.0	95.41	351.88	12,384.8	3,958.8	125.6	1.86	1.78	0.56	-35.9	46.4
16,500.0	94.62	358.12	12,376.7	4,051.1	117.6	6.74	-0.85	6.71	-44.2	53.5
16,593.0	94.00	1.02	12,369.7	4,143.8	116.9	3.18	-0.67	3.12	-51.3	53.3
16,611.7	92.69	1.09	12,368.6	4,162.4	117.2	7.02	-7.01	0.37	-52.4	52.8
TGT 4 (Barlow 34 Fed Com #705H)										
16,687.0	87.41	1.37	12,368.5	4,237.7	118.8	7.02	-7.01	0.37	-51.6	50.6
16,781.0	90.04	0.93	12,370.6	4,331.7	120.7	2.84	2.80	-0.47	-48.4	47.9
16,817.0	88.29	0.41	12,371.2	4,367.6	121.1	5.07	-4.86	-1.44	-47.3	47.2
16,874.0	90.66	359.44	12,371.7	4,424.6	121.1	4.49	4.16	-1.70	-46.1	46.7
16,968.0	89.96	357.33	12,371.2	4,518.6	118.4	2.36	-0.74	-2.24	-45.3	48.6
16,980.4	89.56	357.29	12,371.2	4,531.0	117.8	3.28	-3.26	-0.33	-45.1	49.0
HL Crossing, MD:16980.4', TVD:12371.2', N/S:4531.0', E/W:117.8', INC:89.56										
16,995.0	89.08	357.24	12,371.4	4,545.6	117.1	3.28	-3.26	-0.33	-44.8	49.6
Final MWD Survey (MD= 16995.0')										
17,054.0	89.08	357.24	12,372.4	4,604.5	114.3	0.00	0.00	0.00	-43.0	51.9
Final Bit Projection (MD= 17054.0') - PBHL (Barlow 34 Fed Com #705H)										



PVA Report

Company: EOG Resources - Midland	Local Co-ordinate Reference: Well #705H
Project: Lea County, NM (NAD 83 NME)	TVD Reference: KB = 25' @ 3307.0usft (HP 610)
Site: Barlow 34 Fed Com	MD Reference: KB = 25' @ 3307.0usft (HP 610)
Well: #705H	North Reference: Grid
Wellbore: OH	Survey Calculation Method: Minimum Curvature
Design: OH	Database: EDM 5000.14

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)
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Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
12,466.6	12,318.0	31.0	209.5	HL Crossing, MD:12466.6', TVD:12318.0', N/S:31.0', E/W:209.5', INC:71.41
16,980.4	12,371.2	4,531.0	117.8	HL Crossing, MD:16980.4', TVD:12371.2', N/S:4531.0', E/W:117.8', INC:89.56
16,995.0	12,371.4	4,545.6	117.1	Final MWD Survey (MD= 16995.0')
17,054.0	12,372.4	4,604.5	114.3	Final Bit Projection (MD= 17054.0')

Checked By: _____ Approved By: _____ Date: _____



Lea County, NM (NAD 83 NME)

Barlow 34 Fed Com #705H

HP 610

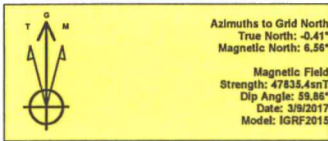
Plan #1

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: #705H

Ground Level: 3282.0
 KB = 25' @ 3307.0usft (HP 610)
 Northing: 364982.00 Easting: 786006.00
 Latitude: 32° 0' 3.866 N Longitude: 103° 33' 48.263 W



Azimuths to Grid North
 True North: -0.41°
 Magnetic North: 6.56°
 Magnetic Field Strength: 47335.4nT
 Dip Angle: 59.86°
 Date: 3/9/2017
 Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.56°
 To convert a Magnetic Direction to a True Direction, Add 6.96° East
 To convert a True Direction to a Grid Direction, Subtract 0.41°

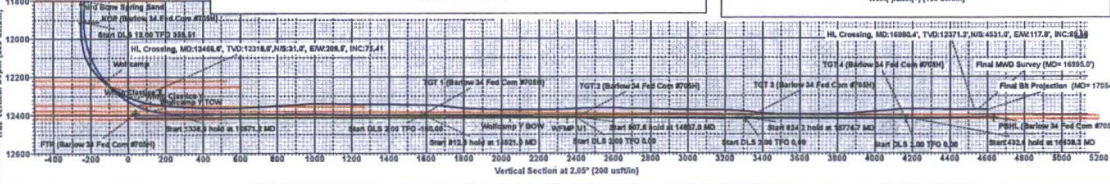
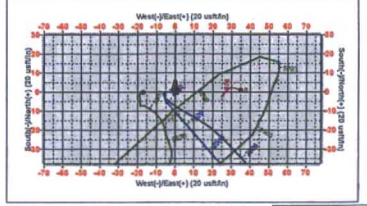
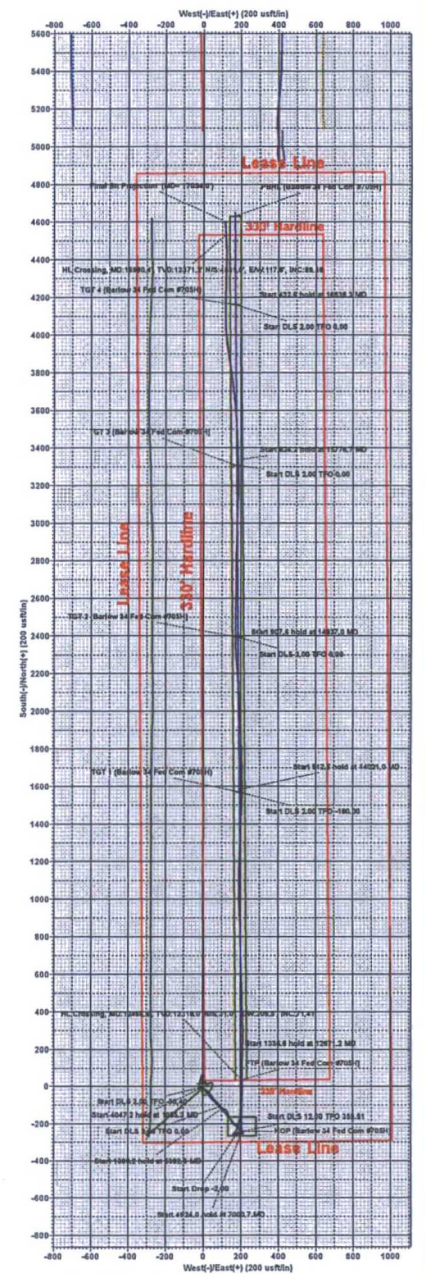
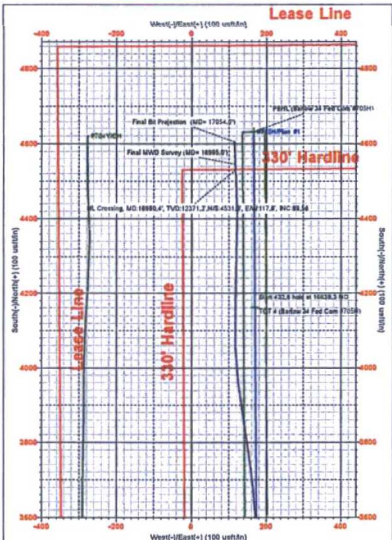
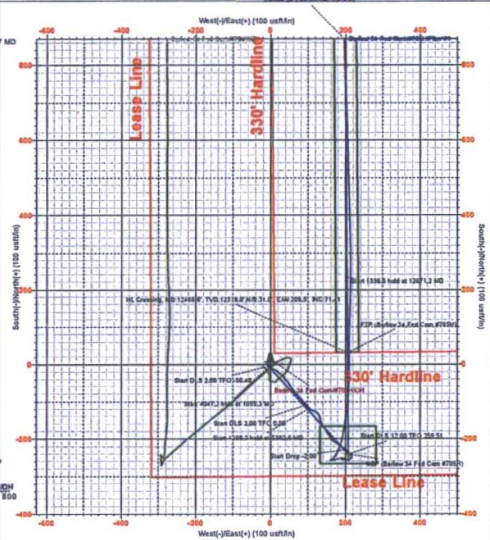
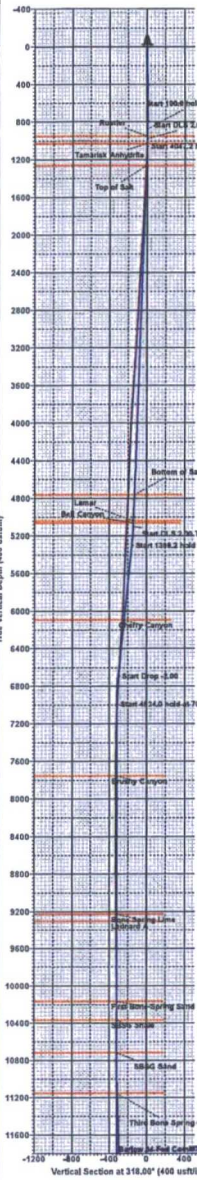
Sec	MD	Inc	Asl	TVD	+N-S	+E-W	Dleg	TFace	Vsect	Target	Annotation
1	878.0	0.62	174.58	877.9	-3.1	-5.3	0.00	0.00	-3.3		
2	878.0	0.62	174.58	877.9	-4.2	-5.2	0.00	0.00	-4.4		
3	1055.3	2.00	138.00	1055.3	-5.6	-4.2	2.00	-50.40	-5.8		
4	5102.6	2.00	138.00	5100.0	-116.6	90.3	0.00	0.00	-107.3		
5	5302.6	6.00	138.00	5296.5	-131.0	99.6	2.00	0.00	-117.3		
6	6700.7	6.00	138.00	6690.0	-229.6	197.4	0.00	0.00	-222.4		
7	7600.7	0.00	0.00	6699.5	-241.2	207.9	2.00	180.00	-233.6		
8	11524.8	0.00	0.00	11513.5	-241.2	207.9	0.00	0.00	-233.6		
9	12871.2	89.57	359.51	12391.0	232.6	203.8	12.00	359.51	238.8		
10	14807.8	89.57	359.51	12401.0	1569.1	192.3	0.00	0.00	1576.0		TGT 1 (Barlow 34 Fed Com #705H)
11	14021.0	89.30	359.51	12401.1	1592.4	192.2	2.00	-180.00	1588.2		TGT 2 (Barlow 34 Fed Com #705H)
12	14833.7	89.30	359.51	12411.0	2394.9	185.2	0.00	0.00	2400.0		TGT 3 (Barlow 34 Fed Com #705H)
13	14837.0	89.37	359.51	12411.0	2398.3	185.2	2.00	0.00	2403.3		TGT 4 (Barlow 34 Fed Com #705H)
14	15744.6	89.37	359.51	12421.0	3305.8	177.4	0.00	0.00	3310.0		
15	15776.7	90.01	359.51	12421.2	3337.8	177.1	2.00	0.00	3342.0		
16	16600.9	90.01	359.51	12421.0	4162.0	170.0	0.00	0.00	4168.4		
17	16636.3	90.76	359.51	12420.7	4199.5	169.7	2.00	0.00	4202.8		
18	17070.9	90.76	359.51	12415.0	4632.0	166.0	0.00	0.00	4635.0		

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
TGT 1 (Barlow 34 Fed Com #705H)	12401.0	1569.1	192.3	365551.10	780198.33
TGT 2 (Barlow 34 Fed Com #705H)	12411.0	2394.9	185.2	367376.90	780191.23
TGT 3 (Barlow 34 Fed Com #705H)	12421.0	3305.8	177.4	369287.80	780183.40
TGT 4 (Barlow 34 Fed Com #705H)	12421.0	4162.0	170.0	369144.00	780176.04
PBHL (Barlow 34 Fed Com #705H)	12415.0	4632.0	166.0	369614.00	780172.00
FTP (Barlow 34 Fed Com #705H)	12391.0	32.0	305.0	365014.00	780211.00
KOP (Barlow 34 Fed Com #705H)	11913.5	-241.2	207.9	364740.77	780213.90



Scale: 1 inch = 100 feet
 Date: 3/9/2017
 Author: [Name]
 Title: [Title]