



HOBBS OCD
APR 25 2018
RECEIVED

Lea County, NM (NAD 83 NME)

Barlow 34 Fed Com #701H

HP 647

Plan #4

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: #701H

Ground Level: 3261.0
KB = 25' @ 3286.0usht (HP 647)
Northing 364974.00 Easting 778981.00 Latitude 32° 0' 3.879 N Longitude 103° 34' 0.167 W



Azimuths to Grid North
True North: -0.41°
Magnetic North: 6.46°
Magnetic Field
Strength: 47743.7nT
Dip Angle: 59.85°
Date: 1/29/2018
Model: IGRF2018

To convert a Magnetic Direction to a Grid Direction, Add 6.46°
To convert a Magnetic Direction to a True Direction, Add 6.87° East
To convert a True Direction to a Grid Direction, Subtract 0.41°

SECTION DETAILS

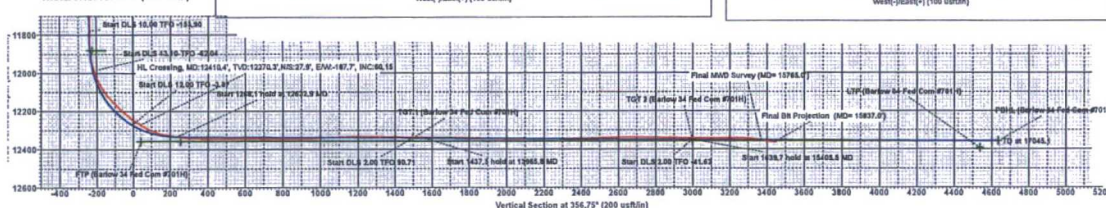
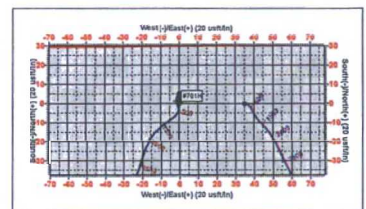
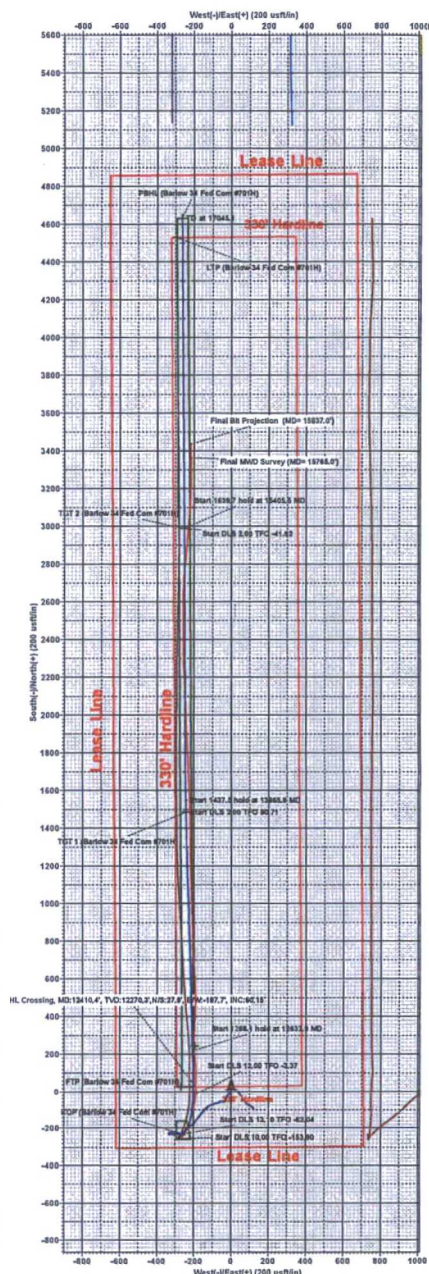
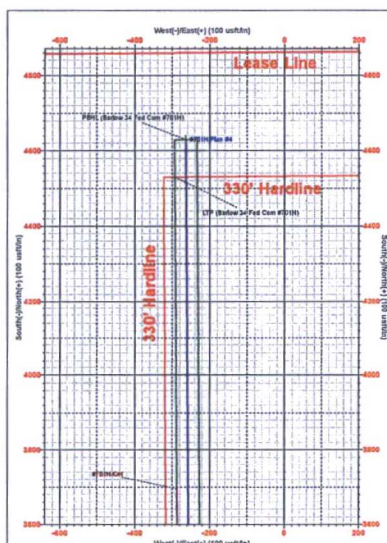
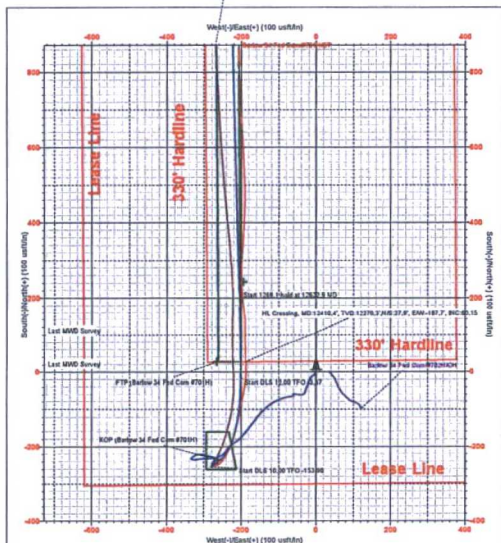
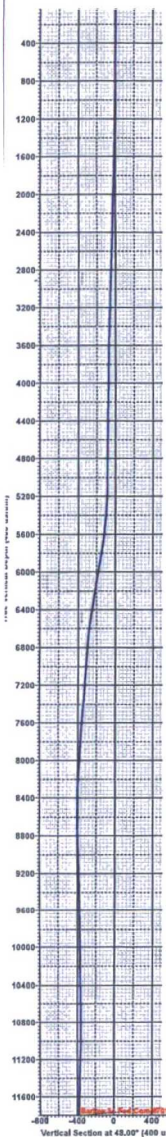
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	Vsect	Target	Annotation
1	11672.0	1.60	189.70	11648.6	-250.6	-278.9	0.00	6.00	-234.4		
2	11800.0	1.51	202.08	11776.6	-254.0	-279.8	0.27	111.13	-237.7		
3	12013.5	20.00	50.00	11986.0	-232.9	-252.6	10.00	+153.90	-218.2		
4	12385.2	60.00	0.00	12270.9	-17.9	-200.7	13.10	-62.04	-4.5		
5	12632.9	89.68	358.34	12335.0	218.5	-204.4	12.00	-0.37	228.7		
6	13001.0	89.68	358.34	12342.0	1486.0	-241.2	0.00	0.00	1487.3		
7	13965.8	89.67	358.63	12342.4	1550.8	-242.3	2.00	90.71	1562.0		
8	15403.3	89.67	358.63	12350.7	2988.2	-251.6	0.00	0.00	2987.7		
9	15405.5	89.70	358.60	12350.7	2990.4	-251.6	2.00	-41.62	2998.8		
10	17045.1	89.70	358.60	12359.3	4630.0	-263.0	0.00	0.00	4637.5		

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 #701H)	12342.0	1486.0	-241.2	366460.00	778739.80
TGT 2 (Barlow 34 Fed Com #701H)	12350.7	2988.2	-251.6	367862.20	778729.40
PBH (Barlow 34 Fed Com #701H)	12359.3	4630.0	-263.0	369504.00	778718.00
FTP (Barlow 34 Fed Com #701H)	12360.0	28.0	-265.0	365002.00	778716.00
KOP (Barlow 34 Fed Com #701H)	11882.5	-236.0	-262.1	364738.03	778718.93
LTP (Barlow 34 Fed Com #701H)	12384.5	4530.0	-292.3	369504.00	778688.49
Plan @ 12360.1 (#701H ST Plan #2)	12360.1	243.3	-193.7	365217.32	778787.26





EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Barlow 34 Fed Com

#701H

ST

Design: ST

PVA Report

13 February, 2018

PVA Report

Company: EOG Resources - Midland		Local Co-ordinate Reference: Well #701H	
Project: Lea County, NM (NAD 83 NME)		TVD Reference: KB = 25' @ 3286.0usft (HP 647)	
Site: Barlow 34 Fed Com		MD Reference: KB = 25' @ 3286.0usft (HP 647)	
Well: #701H		North Reference: Grid	
Wellbore: ST		Survey Calculation Method: Minimum Curvature	
Design: ST		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 #701H			
Well Position +N/-S 0.0 usft		Northing: 364,974.00 usft	
+E/-W 0.0 usft		Easting: 778,981.00 usft	
Position Uncertainty 0.0 usft		Wellhead Elevation: 0.0 usft	
		Latitude: 32° 0' 3.879 N	
		Longitude: 103° 34' 0.167 W	
		Ground Level: 3,261.0 usft	

Wellbore ST			
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2015	1/29/2018	6.87
			Dip Angle (°)
			59.85
			Field Strength (nT)
			47,743.68749032

Design ST			
Audit Notes:			
Version: 1.0	Phase: ACTUAL	Tie On Depth: 11,672.0	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.0	0.0	0.0
			Direction (°)
			353.73

PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #701H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3286.0usft (HP 647)
Site:	Barlow 34 Fed Com	MD Reference:	KB = 25' @ 3286.0usft (HP 647)
Well:	#701H	North Reference:	Grid
Wellbore:	ST	Survey Calculation Method:	Minimum Curvature
Design:	ST	Database:	EDM 5000.14

Survey Program		Date	2/13/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
131.0	684.0	Invictus MWD (OH)	MWD	MWD - Standard	
986.0	11,672.0	Intrepid MWD (OH)	MWD	MWD - Standard	
11,845.0	15,837.0	Intrepid MWD #2 (ST)	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	0.0
131.0	0.80	238.50	131.0	-0.5	-0.8	0.61	0.61	0.00	0.0	0.0	0.0
159.0	0.70	167.50	159.0	-0.7	-0.9	3.12	-0.36	-253.57	0.0	0.0	0.0
216.0	1.00	155.50	216.0	-1.5	-0.6	0.61	0.53	-21.05	0.0	0.0	0.0
247.0	0.60	138.50	247.0	-1.9	-0.4	1.49	-1.29	-54.84	0.0	0.0	0.0
278.0	0.30	154.50	278.0	-2.1	-0.3	1.04	-0.97	51.61	0.0	0.0	0.0
309.0	0.60	158.50	309.0	-2.3	-0.2	0.97	0.97	12.90	0.0	0.0	0.0
372.0	0.40	139.50	372.0	-2.8	0.1	0.41	-0.32	-30.16	0.0	0.0	0.0
404.0	0.30	216.50	404.0	-3.0	0.1	1.38	-0.31	240.62	0.0	0.0	0.0
435.0	0.50	192.50	435.0	-3.2	0.0	0.83	0.65	-77.42	0.0	0.0	0.0
466.0	0.40	232.50	466.0	-3.3	-0.1	1.04	-0.32	129.03	0.0	0.0	0.0
497.0	0.20	191.50	497.0	-3.5	-0.2	0.91	-0.65	-132.26	0.0	0.0	0.0
528.0	0.30	189.50	528.0	-3.6	-0.2	0.32	0.32	-6.45	0.0	0.0	0.0
559.0	0.50	196.50	559.0	-3.8	-0.3	0.66	0.65	22.58	0.0	0.0	0.0
621.0	0.70	196.50	621.0	-4.4	-0.4	0.32	0.32	0.00	0.0	0.0	0.0
684.0	0.60	217.50	684.0	-5.1	-0.7	0.41	-0.16	33.33	0.0	0.0	0.0
986.0	0.40	229.50	986.0	-7.0	-2.5	0.07	-0.07	3.97	-0.2	-0.1	-0.1
1,079.0	0.50	229.50	1,079.0	-7.5	-3.1	0.11	0.11	0.00	-0.2	-0.1	-0.1
1,263.0	0.80	235.20	1,262.9	-8.7	-4.7	0.17	0.16	3.10	-0.2	0.0	0.0
1,449.0	0.90	238.70	1,448.9	-10.2	-7.0	0.06	0.05	1.88	-0.2	0.0	0.0

PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #701H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3286.0usft (HP 647)
Site:	Barlow 34 Fed Com	MD Reference:	KB = 25' @ 3286.0usft (HP 647)
Well:	#701H	North Reference:	Grid
Wellbore:	ST	Survey Calculation Method:	Minimum Curvature
Design:	ST	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)	
1,636.0	1.20	228.60	1,635.9	-12.3	-9.8	0.19	0.16	-5.40	-0.2	-0.1	
1,822.0	1.30	222.10	1,821.8	-15.1	-12.6	0.09	0.05	-3.49	-0.2	-0.1	
2,010.0	1.60	214.00	2,009.8	-18.9	-15.5	0.19	0.16	-4.31	-0.2	-0.1	
2,198.0	1.80	205.30	2,197.7	-23.7	-18.3	0.17	0.11	-4.63	-0.1	-0.1	
2,384.0	1.70	196.00	2,383.6	-29.0	-20.3	0.16	-0.05	-5.00	-0.1	-0.1	
2,572.0	1.90	197.40	2,571.5	-34.7	-22.0	0.11	0.11	0.74	-0.1	-0.1	
2,759.0	2.20	203.70	2,758.4	-40.9	-24.3	0.20	0.16	3.37	-0.1	-0.1	
2,947.0	2.10	197.90	2,946.3	-47.5	-26.9	0.13	-0.05	-3.09	-0.1	-0.1	
3,135.0	2.20	196.90	3,134.1	-54.3	-29.0	0.06	0.05	-0.53	-0.1	-0.1	
3,322.0	1.10	229.70	3,321.1	-58.8	-31.4	0.75	-0.59	17.54	-0.2	-0.1	
3,510.0	1.80	252.30	3,509.0	-60.9	-35.6	0.47	0.37	12.02	-0.2	0.0	
3,698.0	2.40	275.50	3,696.9	-61.4	-42.3	0.55	0.32	12.34	-0.2	0.1	
3,885.0	0.90	295.60	3,883.8	-60.4	-47.5	0.85	-0.80	10.75	-0.1	0.1	
4,071.0	0.60	282.80	4,069.8	-59.6	-49.8	0.18	-0.16	-6.88	-0.2	0.1	
4,258.0	1.40	274.60	4,256.8	-59.2	-53.0	0.43	0.43	-4.39	-0.2	0.1	
4,445.0	1.80	280.40	4,443.7	-58.5	-58.2	0.23	0.21	3.10	-0.2	0.1	
4,633.0	0.30	289.80	4,631.6	-57.8	-61.6	0.80	-0.80	5.00	-0.1	0.1	
4,804.0	1.50	150.30	4,802.6	-59.6	-60.9	1.02	0.70	-81.58	0.0	-0.2	
4,997.0	1.30	140.90	4,995.6	-63.4	-58.2	0.16	-0.10	-4.87	0.0	-0.2	
5,185.0	2.10	269.90	5,183.5	-65.1	-60.3	1.64	0.43	68.62	-0.2	0.1	
5,372.0	4.50	260.60	5,370.2	-66.3	-71.0	1.31	1.28	-4.97	-0.2	0.0	
5,560.0	7.10	253.10	5,557.2	-70.9	-89.4	1.44	1.38	-3.99	-0.2	0.0	
5,748.0	9.10	239.80	5,743.4	-81.8	-113.4	1.45	1.06	-7.07	-0.2	0.0	
5,935.0	10.20	229.20	5,927.7	-100.0	-138.7	1.12	0.59	-5.67	-0.2	-0.1	
6,123.0	9.50	214.20	6,113.0	-123.7	-160.0	1.41	-0.37	-7.98	-0.2	-0.1	
6,310.0	9.30	215.30	6,297.5	-148.8	-177.4	0.14	-0.11	0.59	-0.2	-0.1	
6,498.0	8.50	222.50	6,483.2	-171.5	-195.6	0.73	-0.43	3.83	-0.2	-0.1	

PVA Report

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Site:	Barlow 34 Fed Com	MD Reference:	KB = 25' @ 3286.0usft (HP 647)
Well:	#701H	North Reference:	Grid
Wellbore:	ST	Survey Calculation Method:	Minimum Curvature
Design:	ST	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)	
6,686.0	7.20	238.70	6,669.5	-187.8	-215.0	1.36	-0.69	8.62	-0.2	-0.1	0.0
6,874.0	3.70	224.30	6,856.6	-198.3	-229.3	1.98	-1.86	-7.66	-0.2	-0.1	-0.1
7,062.0	3.30	216.10	7,044.2	-207.0	-236.8	0.34	-0.21	-4.36	-0.2	-0.1	-0.1
7,250.0	3.70	215.80	7,231.9	-216.3	-243.5	0.21	0.21	-0.16	-0.2	-0.1	-0.1
7,437.0	4.90	243.10	7,418.4	-224.8	-254.2	1.25	0.64	14.60	-0.2	0.0	0.0
7,624.0	5.70	255.60	7,604.6	-230.7	-270.3	0.75	0.43	6.68	-0.2	0.0	0.0
7,812.0	3.80	268.20	7,791.9	-233.3	-285.5	1.15	-1.01	6.70	-0.2	0.1	0.1
8,000.0	4.50	272.80	7,979.4	-233.1	-299.1	0.41	0.37	2.45	-0.2	0.1	0.1
8,187.0	5.40	257.30	8,165.8	-234.7	-315.1	0.86	0.48	-8.29	-0.2	0.0	0.0
8,376.0	3.30	280.10	8,354.2	-235.7	-329.1	1.42	-1.11	12.06	-0.2	0.1	0.1
8,563.0	1.10	19.50	8,541.1	-233.0	-333.8	1.95	-1.18	53.16	0.1	0.1	0.1
8,751.0	2.20	49.90	8,729.0	-229.0	-330.4	0.73	0.59	16.17	0.2	0.1	0.1
8,939.0	2.20	61.40	8,916.9	-225.0	-324.5	0.23	0.00	6.12	0.2	0.0	0.0
9,126.0	1.90	63.10	9,103.8	-221.8	-318.6	0.16	-0.16	0.91	0.2	0.0	0.0
9,314.0	2.10	95.60	9,291.7	-220.8	-312.4	0.60	0.11	17.29	0.2	-0.1	-0.1
9,502.0	1.90	98.70	9,479.5	-221.6	-305.9	0.12	-0.11	1.65	0.2	-0.1	-0.1
9,690.0	1.30	107.60	9,667.5	-222.7	-300.8	0.34	-0.32	4.73	0.1	-0.1	-0.1
9,877.0	1.20	109.20	9,854.4	-224.0	-296.9	0.06	-0.05	0.86	0.1	-0.1	-0.1
10,064.0	0.90	136.50	10,041.4	-225.7	-294.0	0.31	-0.16	14.60	0.1	-0.2	-0.2
10,251.0	1.40	70.10	10,228.4	-226.0	-290.9	0.71	0.27	-35.51	0.2	0.0	0.0
10,438.0	2.70	98.80	10,415.2	-225.9	-284.4	0.87	0.70	15.35	0.2	-0.1	-0.1
10,626.0	1.90	114.00	10,603.1	-227.8	-277.1	0.53	-0.43	8.09	0.1	-0.1	-0.1
10,813.0	1.70	119.30	10,790.0	-230.4	-271.9	0.14	-0.11	2.83	0.1	-0.1	-0.1
11,002.0	1.30	172.50	10,978.9	-233.9	-269.2	0.74	-0.21	28.15	-0.1	-0.2	-0.2
11,189.0	2.50	227.90	11,165.9	-238.8	-271.9	1.10	0.64	29.63	-0.2	-0.1	-0.1
11,375.0	1.50	226.90	11,351.7	-243.1	-276.7	0.54	-0.54	-0.54	-0.2	-0.1	-0.1
11,563.0	1.70	183.70	11,539.7	-247.6	-278.7	0.63	0.11	-22.98	-0.1	-0.2	-0.2

PVA Report

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Wellbore:	ST					Survey Calculation Method:		Minimum Curvature			
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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)	
11,672.0	1.60	189.70	11,648.6	-250.7	-279.0	0.18	-0.09	5.50	-0.1		-0.2
11,845.0	4.30	76.10	11,821.5	-251.5	-273.1	2.98	1.56	-65.66	-6.2		0.9
11,892.0	9.90	74.60	11,868.1	-250.0	-267.5	11.92	11.91	-3.19	-7.7		-0.9
11,908.3	10.82	67.35	11,884.1	-249.1	-264.8	9.77	5.62	-44.50	-8.1		-2.7
KOP (Barlow 34 Fed Com #701H)											
11,939.0	12.90	56.80	11,914.2	-246.1	-259.2	9.77	6.79	-34.36	-7.8		-5.1
11,986.0	18.10	38.50	11,959.5	-237.5	-250.3	15.06	11.06	-38.94	-6.3		-6.3
12,033.0	24.40	30.20	12,003.3	-223.4	-240.9	14.82	13.40	-17.66	-7.4		-3.2
12,080.0	30.10	23.40	12,045.0	-204.2	-231.3	13.80	12.13	-14.47	-10.6		-0.8
12,127.0	36.20	17.40	12,084.4	-180.1	-222.4	14.72	12.98	-12.77	-15.1		0.4
12,174.0	41.50	14.20	12,121.0	-151.7	-214.5	12.06	11.28	-6.81	-20.1		1.1
12,221.0	46.00	12.70	12,154.9	-120.1	-206.9	9.82	9.57	-3.19	-24.6		0.5
12,268.0	50.10	11.60	12,186.3	-85.9	-199.6	8.90	8.72	-2.34	-28.0		-1.9
12,315.0	50.50	10.20	12,216.4	-50.4	-192.7	2.44	0.85	-2.98	-28.4		-6.3
12,362.0	55.60	3.90	12,244.6	-13.2	-188.2	15.24	10.85	-13.40	-25.5		-11.6
12,409.0	60.10	357.50	12,269.6	26.6	-187.8	14.98	9.57	-13.62	-21.5		-13.5
12,410.4	60.15	357.52	12,270.3	27.8	-187.8	3.91	3.61	1.73	-21.4		-13.4
HL Crossing, MD:12410.4', TVD:12270.3', N/S:27.9', E/W:-187.7', INC:60.15											
12,456.0	61.80	358.30	12,292.5	67.6	-189.3	3.91	3.62	1.70	-16.1		-12.2
FTP (Barlow 34 Fed Com #701H)											
12,503.0	70.80	0.70	12,311.3	110.6	-189.6	19.71	19.15	5.11	-10.5		-12.2
12,550.0	78.90	354.20	12,323.6	155.9	-191.7	21.79	17.23	-13.83	-6.7		-11.2
12,596.0	80.90	352.40	12,331.7	200.8	-197.0	5.81	4.35	-3.91	-2.8		-6.9
12,641.7	83.33	0.48	12,338.0	246.0	-199.8	18.28	5.31	17.66	2.8		-5.4
Plan @ 12360.1 (#701H ST Plan #3)											
12,643.0	83.40	0.70	12,338.1	247.3	-199.8	18.28	5.48	17.56	2.9		-5.5
12,690.0	87.10	2.10	12,342.0	294.1	-198.6	8.41	7.87	2.98	6.6		-8.0

PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #701H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3286.0usft (HP 647)
Site:	Barlow 34 Fed Com	MD Reference:	KB = 25' @ 3286.0usft (HP 647)
Well:	#701H	North Reference:	Grid
Wellbore:	ST	Survey Calculation Method:	Minimum Curvature
Design:	ST	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)	
12,778.0	90.00	5.10	12,344.2	381.9	-193.1	4.74	3.30	3.41	8.4	-16.0	
12,872.0	90.20	357.80	12,344.1	475.8	-190.7	7.77	0.21	-7.77	7.7	-21.1	
12,966.0	89.60	358.00	12,344.2	569.7	-194.2	0.67	-0.64	0.21	7.3	-20.4	
13,060.0	88.80	356.50	12,345.5	663.6	-198.7	1.81	-0.85	-1.60	8.1	-18.6	
13,154.0	89.50	357.90	12,346.9	757.5	-203.3	1.67	0.74	1.49	9.0	-16.8	
13,248.0	91.20	358.30	12,346.4	851.4	-206.4	1.86	1.81	0.43	7.9	-16.4	
13,341.0	93.30	358.20	12,342.7	944.3	-209.2	2.26	2.26	-0.11	3.7	-16.2	
13,435.0	93.10	358.20	12,337.5	1,038.1	-212.2	0.21	-0.21	0.00	-2.1	-16.0	
13,529.0	90.70	358.60	12,334.4	1,132.0	-214.8	2.59	-2.55	0.43	-5.7	-16.1	
13,623.0	89.60	358.70	12,334.1	1,226.0	-217.0	1.18	-1.17	0.11	-6.5	-16.6	
13,717.0	89.30	359.10	12,335.0	1,319.9	-218.8	0.53	-0.32	0.43	-6.1	-17.6	
13,811.0	88.80	359.50	12,336.6	1,413.9	-220.0	0.68	-0.53	0.43	-5.0	-19.1	
13,883.5	88.88	358.95	12,338.0	1,486.4	-220.9	0.76	0.11	-0.75	-4.0	-20.3	
TGT 1 (Barlow 34 Fed Com #701H)											
13,904.0	88.90	358.80	12,338.4	1,506.9	-221.3	0.76	0.11	-0.75	-3.7	-20.4	
13,998.0	88.10	357.70	12,340.9	1,600.8	-224.2	1.45	-0.85	-1.17	-1.7	-18.5	
14,092.0	90.70	358.00	12,341.9	1,694.7	-227.7	2.78	2.77	0.32	-1.3	-15.5	
14,185.0	88.90	357.10	12,342.2	1,787.6	-231.7	2.16	-1.94	-0.97	-1.5	-12.2	
14,279.0	89.00	357.00	12,343.9	1,881.5	-236.5	0.15	0.11	-0.11	-0.3	-7.9	
14,373.0	89.20	357.60	12,345.4	1,975.4	-241.0	0.67	0.21	0.64	0.6	-4.1	
14,466.0	88.80	357.80	12,347.0	2,068.3	-244.7	0.48	-0.43	0.22	1.7	-1.0	
14,560.0	90.80	357.10	12,347.4	2,162.2	-248.9	2.25	2.13	-0.74	1.4	2.6	
14,654.0	90.20	357.50	12,346.5	2,256.1	-253.3	0.77	-0.64	0.43	0.1	6.4	
14,842.0	91.80	0.00	12,343.3	2,444.0	-257.4	1.58	0.85	1.33	-4.3	9.3	
14,998.0	91.70	359.70	12,338.5	2,599.9	-257.8	0.20	-0.06	-0.19	-10.0	8.7	
15,123.0	88.90	4.10	12,337.8	2,724.8	-253.7	4.17	-2.24	3.52	-11.3	3.8	
15,310.0	88.50	6.40	12,342.1	2,911.0	-236.6	1.25	-0.21	1.23	-8.3	-14.5	

PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #701H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3286.0usft (HP 647)
Site:	Barlow 34 Fed Com	MD Reference:	KB = 25' @ 3286.0usft (HP 647)
Well:	#701H	North Reference:	Grid
Wellbore:	ST	Survey Calculation Method:	Minimum Curvature
Design:	ST	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)
15,385.7	89.51	5.15	12,343.4	2,986.3	-228.9	2.12	1.33	-1.65	-7.3	-22.6
TGT 2 (Barlow 34 Fed Com #701H)										
15,498.0	91.00	3.30	12,342.9	3,098.3	-220.7	2.12	1.33	-1.65	-8.4	-31.7
15,651.0	89.00	359.80	12,342.9	3,251.2	-216.5	2.63	-1.31	-2.29	-9.2	-36.9
15,765.0	81.10	358.50	12,352.7	3,364.6	-218.2	7.02	-6.93	-1.14	0.2	-36.0
Final MWD Survey (MD= 15765.0')										
15,837.0	81.10	358.50	12,363.9	3,435.7	-220.1	0.00	0.00	0.00	10.8	-34.6
Final Bit Projection (MD= 15837.0') - LTP (Barlow 34 Fed Com #701H) - PBHL (Barlow 34 Fed Com #701H)										

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
12,410.4	12,270.3	27.8	-187.8	HL Crossing, MD:12410.4', TVD:12270.3', N/S:27.9', E/W:-187.7', INC:60.15
15,765.0	12,352.7	3,364.6	-218.2	Final MWD Survey (MD= 15765.0')
15,837.0	12,363.9	3,435.7	-220.1	Final Bit Projection (MD= 15837.0')

Checked By: _____ Approved By: _____ Date: _____