



Lea County, NM (NAD 83 NME)

Jolly Roger 16 State #301H

HP 651

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: #301H

KB = 25' @ 3580.0usr (HP 651) 3555.0
Northing 445511.00 Easting 804489.00 Latitude 32° 13' 18.918 N Longitude 103° 28' 56.577 W

SECTION DETAILS

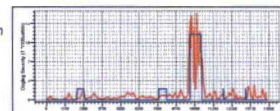
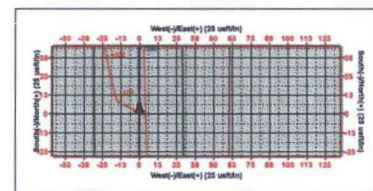
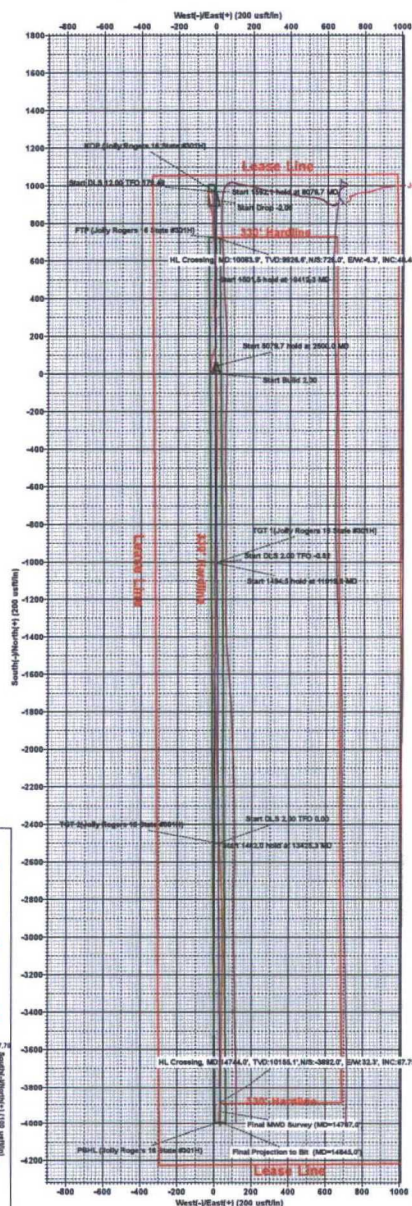
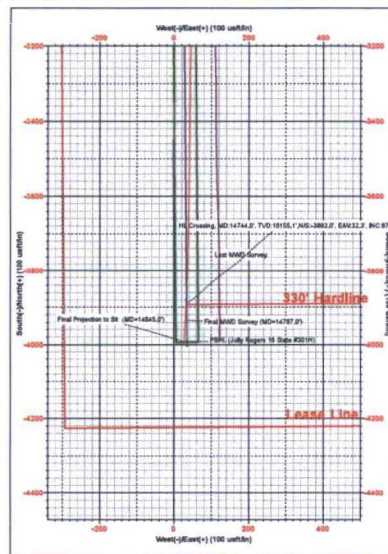
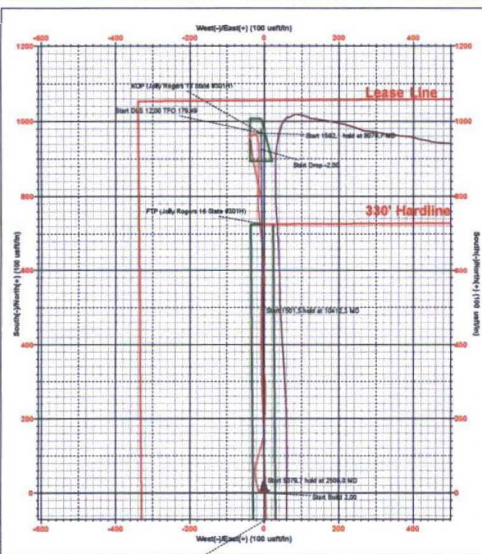
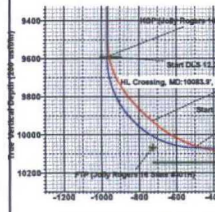
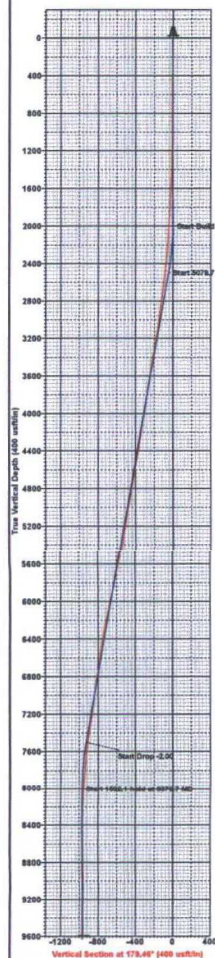
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0	
3	2500.0	10.00	359.46	2497.5	43.5	-0.4	2.00	359.46	-43.5	
4	7579.7	10.00	359.46	7500.0	925.6	-8.7	0.00	-925.6		
5	8079.7	0.00	0.00	7997.5	969.1	-9.1	2.00	180.00	-969.1	
6	9671.8	0.00	0.00	9589.6	969.1	-9.1	0.00	0.00	-969.1	
7	10412.3	88.85	179.49	10067.0	501.2	-5.0	12.00	179.49	-501.2	
8	11913.8	88.85	179.49	10097.0	-1000.0	8.4	0.00	0.00	1000.0	TGT 1(Jolly Rogers 16 State #301H)
9	11919.6	88.97	179.49	10097.1	-1005.7	8.4	2.00	-0.52	1005.8	
10	13414.0	88.97	179.49	10124.0	-2499.9	21.7	0.00	0.00	2500.0	TGT 2(Jolly Rogers 16 State #301H)
11	13425.3	89.20	179.49	10124.2	-2511.2	21.8	2.00	0.00	2511.3	
12	14907.3	89.20	179.49	10145.0	-3993.0	35.0	0.00	0.00	3993.2	PBHL (Jolly Rogers 16 State #301H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
KOP (Jolly Rogers 16 State #301H)	9589.6	889.1	-9.1	446480.10	804479.80
FTP (Jolly Rogers 16 State #301H)	10067.0	726.0	-7.0	446237.00	804482.00
TGT 1(Jolly Rogers 16 State #301H)	10097.0	-1005.0	8.4	444511.00	804487.36
TGT 2(Jolly Rogers 16 State #301H)	10124.0	-2499.9	21.7	443011.10	804510.71
PBHL (Jolly Rogers 16 State #301H)	10145.0	-3993.0	35.0	441518.00	804524.00



Lea County, NM (NAD 83 NME)
Jolly Roger 16 State #301H
HP 651
Plan #1
12/15/2017

EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Jolly Roger 16 State

#301H

OH

Design: OH

PVA Report

06 September, 2017

PVA Report

Company:	EOG Resources - Midland			Local Co-ordinate Reference:	Well #301H
Project:	Lea County, NM (NAD 83 NME)			TVD Reference:	KB = 25' @ 3580.0usft (HP 651)
Site:	Jolly Roger 16 State			MD Reference:	KB = 25' @ 3580.0usft (HP 651)
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	Jolly Roger 16 State				
Site Position:		Northing:	445,511.00 usft	Latitude:	32° 13' 18.918 N
From:	Map	Easting:	804,489.00 usft	Longitude:	103° 28' 56.577 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.45 °

Well	#301H					
Well Position	+N/-S	0.0 usft	Northing:	445,511.00 usft	Latitude:	32° 13' 18.918 N
	+E/-W	0.0 usft	Easting:	804,489.00 usft	Longitude:	103° 28' 56.577 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,555.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	8/16/2017	6.89	60.07	47,928.43998038

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	179.50	

Survey Program	Date	9/6/2017		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
150.0	14,845.0	Pro MWD (OH)	MWD	MWD - Standard

PVA Report

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Jolly Roger 16 State
 Well: #301H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #301H
 TVD Reference: KB = 25' @ 3580.0usft (HP 651)
 MD Reference: KB = 25' @ 3580.0usft (HP 651)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 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)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.0	0.0	
150.0	0.60	355.20	150.0	0.8	-0.1	0.40	0.40	0.00	-0.8	0.0	
237.0	0.70	293.60	237.0	1.4	-0.6	0.77	0.11	-70.80	-1.1	-1.1	
411.0	1.00	292.80	411.0	2.5	-3.0	0.17	0.17	-0.46	-3.7	-1.1	
600.0	0.80	308.30	600.0	3.9	-5.5	0.17	-0.11	8.20	-6.8	0.3	
789.0	0.80	294.70	788.9	5.3	-7.8	0.10	0.00	-7.20	-9.3	-1.6	
977.0	0.80	285.70	976.9	6.2	-10.2	0.07	0.00	-4.79	-11.5	-3.2	
1,166.0	0.80	295.10	1,165.9	7.1	-12.7	0.07	0.00	4.97	-14.5	-1.1	
1,204.0	0.70	303.70	1,203.9	7.4	-13.1	0.40	-0.26	22.63	-15.0	1.2	
1,339.0	0.70	315.40	1,338.9	8.4	-14.4	0.11	0.00	8.67	-16.1	4.3	
1,527.0	2.80	343.60	1,526.8	13.6	-16.5	1.17	1.12	15.00	-17.7	12.0	
1,716.0	3.20	347.50	1,715.5	23.2	-18.9	0.24	0.21	2.06	-26.7	13.5	
1,904.0	3.20	347.90	1,903.2	33.5	-21.2	0.01	0.00	0.21	-37.1	13.7	
2,093.0	3.80	351.50	2,091.9	44.8	-23.2	0.34	0.32	1.90	-46.3	16.5	
2,282.0	4.20	356.20	2,280.4	57.9	-24.6	0.27	0.21	2.49	-45.4	21.5	
2,470.0	6.90	16.60	2,467.5	75.6	-21.8	1.76	1.44	10.85	-29.1	30.9	
2,659.0	7.00	16.20	2,655.2	97.5	-15.3	0.06	0.05	-0.21	-20.8	21.2	
2,848.0	8.00	14.10	2,842.5	121.4	-8.9	0.55	0.53	-1.11	-14.3	11.7	
3,036.0	8.60	12.70	3,028.6	147.8	-2.7	0.34	0.32	-0.74	-9.9	3.6	
3,225.0	10.10	1.80	3,215.1	178.1	1.0	1.22	0.79	-5.77	-8.0	-2.3	
3,413.0	9.40	3.50	3,400.3	209.9	2.4	0.40	-0.37	0.90	-7.3	-3.9	
3,602.0	9.30	0.60	3,586.8	240.6	3.5	0.25	-0.05	-1.53	-5.0	-5.7	
3,790.0	9.10	359.80	3,772.4	270.6	3.6	0.13	-0.11	-0.43	-2.3	-6.2	
3,979.0	8.40	358.50	3,959.2	299.4	3.2	0.38	-0.37	-0.69	2.0	-6.0	
4,167.0	9.00	353.10	4,145.1	327.7	1.1	0.54	0.32	-2.87	6.7	-3.5	
4,355.0	9.10	354.40	4,330.7	357.1	-2.1	0.12	0.05	0.69	9.6	-0.4	
4,544.0	9.90	356.30	4,517.1	388.2	-4.6	0.45	0.42	1.01	11.2	1.6	

PVA Report

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Jolly Roger 16 State
Well: #301H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #301H
TVD Reference: KB = 25' @ 3580.0usft (HP 651)
MD Reference: KB = 25' @ 3580.0usft (HP 651)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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)	
4,733.0	9.80	358.50	4,703.3	420.5	-6.1	0.21	-0.05	1.16	11.7	2.3	
4,922.0	10.60	0.70	4,889.3	454.0	-6.3	0.47	0.42	1.16	11.2	1.8	
5,110.0	9.40	4.20	5,074.5	486.6	-5.0	0.72	-0.64	1.86	11.2	-0.5	
5,172.0	9.10	3.70	5,135.7	496.5	-4.3	0.50	-0.48	-0.81	11.9	-1.3	
5,296.0	8.40	3.40	5,258.2	515.3	-3.1	0.57	-0.56	-0.24	14.6	-2.7	
5,485.0	11.20	2.00	5,444.5	547.5	-1.6	1.49	1.48	-0.74	15.3	-4.2	
5,674.0	12.80	3.80	5,629.3	586.7	0.4	0.87	0.85	0.95	8.5	-6.6	
5,862.0	12.10	353.10	5,812.9	627.0	-0.6	1.28	-0.37	-5.69	1.7	-5.2	
6,050.0	11.90	353.30	5,996.8	665.9	-5.2	0.11	-0.11	0.11	-5.1	-1.6	
6,239.0	11.30	354.70	6,182.0	703.6	-9.2	0.35	-0.32	0.74	-10.5	1.7	
6,428.0	9.90	354.40	6,367.7	738.3	-12.5	0.74	-0.74	-0.16	-12.6	4.5	
6,616.0	8.90	355.40	6,553.2	768.8	-15.3	0.54	-0.53	0.53	-10.7	7.3	
6,805.0	8.90	0.50	6,739.9	798.0	-16.3	0.42	0.00	2.70	-6.3	8.9	
6,994.0	8.00	4.70	6,926.9	825.8	-15.1	0.58	-0.48	2.22	-0.6	7.4	
7,182.0	7.90	359.30	7,113.1	851.7	-14.2	0.40	-0.05	-2.87	5.5	6.2	
7,371.0	8.20	359.90	7,300.2	878.2	-14.4	0.16	0.16	0.32	12.0	6.0	
7,560.0	7.50	359.80	7,487.4	904.0	-14.4	0.37	-0.37	-0.05	19.0	5.8	
7,749.0	6.00	359.30	7,675.1	926.2	-14.6	0.79	-0.79	-0.26	24.5	5.9	
7,937.0	4.40	353.10	7,862.3	943.2	-15.6	0.90	-0.85	-3.30	21.7	9.2	
8,126.0	3.40	344.60	8,050.9	955.8	-17.9	0.61	-0.53	-4.50	10.5	12.0	
8,315.0	1.60	321.50	8,239.7	963.3	-21.1	1.07	-0.95	-12.22	-2.9	13.0	
8,503.0	1.70	299.90	8,427.6	966.7	-25.1	0.33	0.05	-11.49	-12.7	10.0	
8,692.0	2.20	223.80	8,616.6	965.5	-30.1	1.29	0.26	-40.26	-17.1	-12.6	
8,880.0	2.60	236.40	8,804.4	960.5	-36.1	0.35	0.21	6.70	-27.2	-7.8	
9,068.0	1.50	347.90	8,992.3	960.6	-40.2	1.83	-0.59	59.31	1.8	32.1	
9,257.0	1.20	10.60	9,181.3	964.9	-40.3	0.32	-0.16	12.01	9.8	29.9	
9,446.0	0.30	325.00	9,370.3	967.3	-40.3	0.54	-0.48	-24.13	-16.4	26.5	

PVA Report

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Jolly Roger 16 State
 Well: #301H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #301H
 TVD Reference: KB = 25' @ 3580.0usft (HP 651)
 MD Reference: KB = 25' @ 3580.0usft (HP 651)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 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)
9,519.0	0.70	253.20	9,443.3	967.3	-40.8	0.92	0.55	-98.36	-30.8	-7.5
9,564.0	0.90	215.90	9,488.3	966.9	-41.3	1.21	0.44	-82.89	-20.6	-24.8
9,659.0	11.10	162.50	9,582.6	957.6	-38.9	11.15	10.74	-56.21	-2.0	-31.9
9,707.0	17.90	168.70	9,629.1	945.9	-36.1	14.51	14.17	12.92	-15.5	-30.8
9,753.0	21.80	174.80	9,672.3	930.5	-34.0	9.59	8.48	13.26	-28.3	-27.8
9,801.0	29.10	172.20	9,715.7	910.0	-31.6	15.38	15.21	-5.42	-37.0	-28.0
9,848.0	34.60	169.10	9,755.6	885.6	-27.5	12.21	11.70	-6.60	-45.8	-27.3
9,896.0	40.30	166.50	9,793.7	857.1	-21.3	12.32	11.87	-5.42	-55.0	-24.6
9,942.0	41.80	166.30	9,828.3	827.7	-14.2	3.27	3.26	-0.43	-62.9	-18.3
9,989.0	45.50	173.70	9,862.4	795.8	-8.6	13.41	7.87	15.74	-68.6	-6.2
10,036.0	47.90	179.10	9,894.6	761.7	-6.5	9.79	5.11	11.49	-70.1	0.5
10,083.9	48.40	180.20	9,926.6	726.0	-6.3	2.00	1.04	2.29	-67.0	1.2
HL Crossing, MD:10083.9', TVD:9926.6', N/S:726.0', E/W:-6.3', INC:48.40										
10,084.0	48.40	180.20	9,926.6	725.9	-6.3	2.00	1.05	2.27	-67.0	1.2
10,131.0	51.00	180.40	9,957.0	690.1	-6.5	5.54	5.53	0.43	-59.9	0.6
10,152.0	54.30	179.80	9,969.8	673.4	-6.5	15.88	15.71	-2.86	-56.1	0.1
10,199.0	60.20	179.90	9,995.2	633.9	-6.4	12.55	12.55	0.21	-47.7	-0.1
10,246.0	63.70	180.10	10,017.3	592.4	-6.4	7.46	7.45	0.43	-38.1	-0.5
10,293.0	66.70	180.80	10,037.0	549.8	-6.7	6.52	6.38	1.49	-26.3	-1.3
10,340.0	70.80	181.20	10,054.0	506.0	-7.5	8.76	8.72	0.85	-12.8	-2.6
10,387.0	76.70	180.80	10,067.2	460.9	-8.3	12.58	12.55	-0.85	-0.6	-3.7
10,435.0	79.80	179.40	10,077.0	413.9	-8.4	7.06	6.46	-2.92	8.2	-4.2
10,483.0	82.70	178.80	10,084.3	366.5	-7.6	6.17	6.04	-1.25	14.6	-3.9
10,527.0	86.00	178.60	10,088.6	322.7	-6.6	7.51	7.50	-0.45	18.0	-3.2
10,624.0	88.60	177.80	10,093.2	225.9	-3.6	2.80	2.68	-0.82	20.7	-1.0
10,718.0	89.10	177.90	10,095.0	131.9	-0.1	0.54	0.53	0.11	20.7	1.7
10,812.0	89.50	178.10	10,096.2	38.0	3.2	0.48	0.43	0.21	19.9	4.1

PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #301H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3580.0usft (HP 651)
Site:	Jolly Roger 16 State	MD Reference:	KB = 25' @ 3580.0usft (HP 651)
Well:	#301H	North Reference:	Grid
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)	
10,907.0	90.10	178.40	10,096.5	-57.0	6.1	0.71	0.63	0.32	18.4	6.2	
11,001.0	90.70	179.40	10,095.9	-150.9	7.9	1.24	0.64	1.06	15.8	7.1	
11,095.0	89.90	179.50	10,095.4	-244.9	8.8	0.86	-0.85	0.11	13.5	7.2	
11,190.0	90.10	179.60	10,095.4	-339.9	9.6	0.24	0.21	0.11	11.6	7.1	
11,284.0	89.30	180.40	10,095.9	-433.9	9.6	1.20	-0.85	0.85	10.2	6.2	
11,378.0	87.80	180.80	10,098.2	-527.9	8.6	1.65	-1.60	0.43	10.7	4.4	
11,472.0	88.10	180.70	10,101.6	-621.8	7.4	0.34	0.32	-0.11	12.2	2.4	
11,566.0	88.30	180.80	10,104.6	-715.8	6.1	0.24	0.21	0.11	13.2	0.3	
11,661.0	88.50	181.00	10,107.2	-810.7	4.6	0.30	0.21	0.21	14.0	-2.0	
11,755.0	89.10	180.90	10,109.2	-904.7	3.1	0.65	0.64	-0.11	14.1	-4.4	
11,849.0	88.40	180.20	10,111.2	-998.6	2.2	1.05	-0.74	-0.74	14.3	-6.2	
11,943.0	88.90	180.60	10,113.4	-1,092.6	1.5	0.68	0.53	0.43	14.8	-7.7	
12,037.0	88.70	180.60	10,115.4	-1,186.6	0.5	0.21	-0.21	0.00	15.0	-9.5	
12,131.0	89.10	180.40	10,117.2	-1,280.6	-0.3	0.48	0.43	-0.21	15.2	-11.1	
12,225.0	89.60	180.60	10,118.3	-1,374.6	-1.1	0.57	0.53	0.21	14.5	-12.8	
12,320.0	89.40	179.30	10,119.1	-1,469.6	-1.0	1.38	-0.21	-1.37	13.7	-13.6	
12,416.0	89.90	178.80	10,119.7	-1,565.5	0.6	0.74	0.52	-0.52	12.5	-12.8	
12,510.0	91.30	179.10	10,118.7	-1,659.5	2.3	1.52	1.49	0.32	9.8	-11.9	
12,605.0	89.50	178.40	10,118.1	-1,754.5	4.4	2.03	-1.89	-0.74	7.5	-10.7	
12,699.0	89.50	178.40	10,118.9	-1,848.4	7.0	0.00	0.00	0.00	6.6	-8.9	
12,793.0	88.50	178.50	10,120.5	-1,942.4	9.5	1.07	-1.06	0.11	6.5	-7.2	
12,887.0	88.50	178.40	10,123.0	-2,036.3	12.1	0.11	0.00	-0.11	7.3	-5.5	
12,982.0	88.20	178.40	10,125.7	-2,131.3	14.7	0.32	-0.32	0.00	8.3	-3.7	
13,076.0	88.60	178.10	10,128.3	-2,225.2	17.6	0.53	0.43	-0.32	9.3	-1.7	
13,170.0	88.30	178.00	10,130.9	-2,319.1	20.8	0.34	-0.32	-0.11	10.1	0.7	
13,265.0	88.30	177.80	10,133.7	-2,414.0	24.3	0.21	0.00	-0.21	11.2	3.3	
13,359.0	88.20	177.50	10,136.6	-2,507.9	28.1	0.34	-0.11	-0.32	12.4	6.4	

PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #301H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3580.0usft (HP 651)
Site:	Jolly Roger 16 State	MD Reference:	KB = 25' @ 3580.0usft (HP 651)
Well:	#301H	North Reference:	Grid
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)
13,453.0	88.00	176.80	10,139.7	-2,601.7	32.8	0.77	-0.21	-0.74	14.2	10.2
13,548.0	88.20	176.40	10,142.8	-2,696.5	38.4	0.47	0.21	-0.42	16.0	15.0
13,642.0	88.80	178.60	10,145.3	-2,790.3	42.5	2.43	0.64	2.34	17.2	18.2
13,736.0	90.40	179.40	10,145.9	-2,884.3	44.2	1.90	1.70	0.85	16.5	19.0
13,830.0	90.90	179.10	10,144.9	-2,978.3	45.4	0.62	0.53	-0.32	14.1	19.4
13,925.0	90.90	179.20	10,143.4	-3,073.3	46.8	0.11	0.00	0.11	11.3	20.0
14,018.0	89.70	181.30	10,142.9	-3,166.3	46.4	2.60	-1.29	2.26	9.5	18.8
14,112.0	89.20	180.80	10,143.8	-3,260.3	44.7	0.75	-0.53	-0.53	9.1	16.2
14,207.0	88.80	180.80	10,145.5	-3,355.2	43.4	0.42	-0.42	0.00	9.4	14.0
14,301.0	89.20	180.50	10,147.1	-3,449.2	42.3	0.53	0.43	-0.32	9.7	12.1
14,396.0	89.80	180.60	10,147.9	-3,544.2	41.4	0.64	0.63	0.11	9.2	10.4
14,490.0	90.00	181.00	10,148.1	-3,638.2	40.1	0.48	0.21	0.43	8.1	8.2
14,584.0	88.20	181.60	10,149.6	-3,732.1	37.9	2.02	-1.91	0.64	8.2	5.2
14,679.0	88.00	182.20	10,152.7	-3,827.0	34.8	0.67	-0.21	0.63	10.1	1.3
14,744.0	87.79	182.13	10,155.1	-3,892.0	32.3	0.34	-0.32	-0.11	11.5	-1.8
HL Crossing, MD:14744.0', TVD:10155.1', N/S:-3892.0', E/W:32.3', INC:87.79										
14,773.0	87.70	182.10	10,156.2	-3,920.9	31.3	0.34	-0.32	-0.11	12.3	-3.1
14,787.0	87.70	182.30	10,156.8	-3,934.9	30.7	1.43	0.00	1.43	12.6	-3.8
Final MWD Survey (MD=14787.0')										
14,845.0	87.70	182.30	10,159.1	-3,992.8	28.4	0.00	0.00	0.00	14.1	-6.6
Final Projection to Bit (MD=14845.0')										

PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #301H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25' @ 3580.0usft (HP 651)
Site:	Jolly Roger 16 State	MD Reference:	KB = 25' @ 3580.0usft (HP 651)
Well:	#301H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,083.9	9,926.6	726.0	-6.3	HL Crossing, MD:10083.9', TVD:9926.6',N/S:726.0', E/W:-6.3', INC:48.40
14,744.0	10,155.1	-3,892.0	32.3	HL Crossing, MD:14744.0', TVD:10155.1',N/S:-3892.0', E/W:32.3', INC:87.79
14,787.0	10,156.8	-3,934.9	30.7	Final MWD Survey (MD=14787.0')
14,845.0	10,159.1	-3,992.8	28.4	Final Projection to Bit (MD=14845.0')

Checked By: _____	Approved By: _____	Date: _____
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