



Lea County, NM (NAD 83 NME)

Ruby 2 State Com #601Y

HP 642

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: #601Y

KB=25' @ 3328.0usft (HP 642) 3304.0
Northing 393647.31 Easting 916362.53 Latitude 32° 4' 44.777' N Longitude 103° 29' 43.463' W

SECTION DETAILS

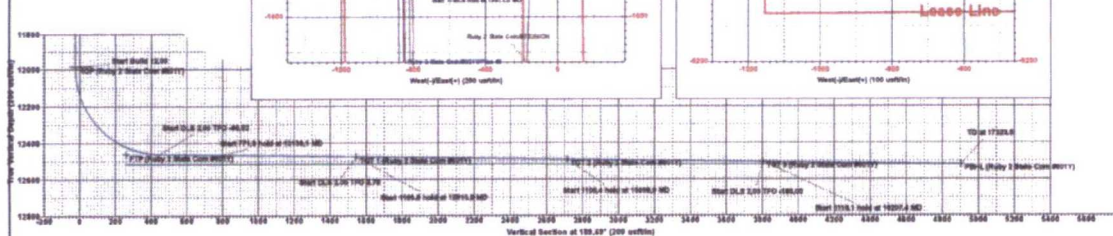
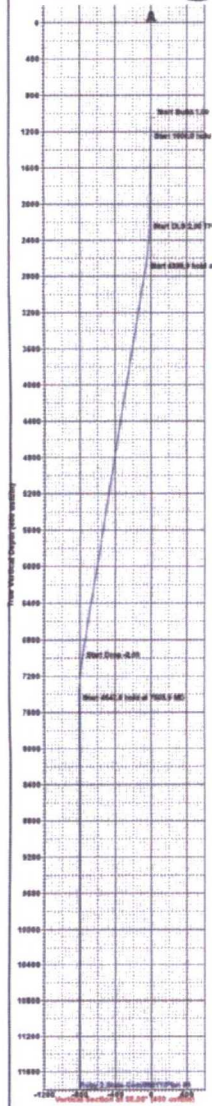
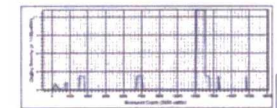
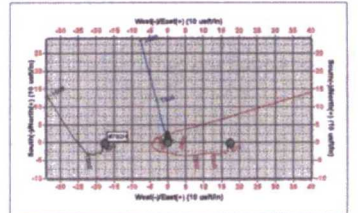
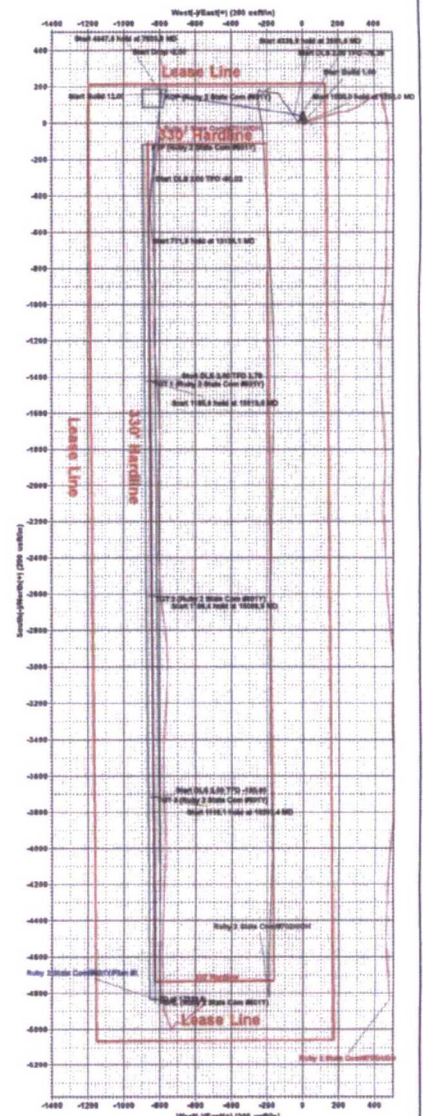
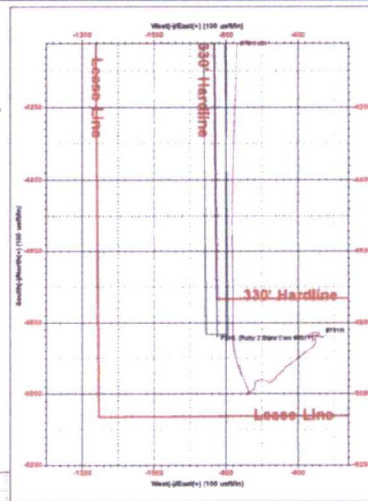
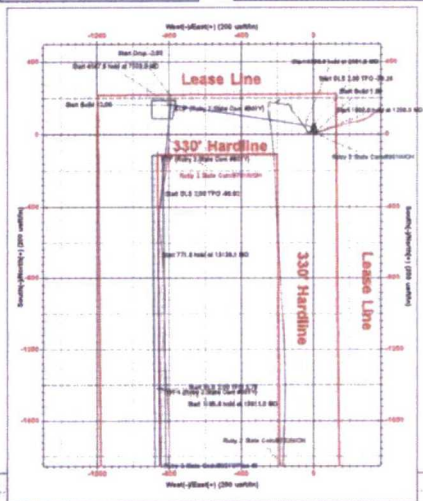
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSecl	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
1050.0	0.00	0.00	1050.0	0.0	0.0	0.00	0.00	0.0	
1250.0	2.00	345.00	1250.0	3.4	-0.9	1.00	345.00	-3.2	
2250.0	2.00	345.00	2249.4	37.1	-9.9	0.00	0.00	-34.9	
2691.8	9.45	278.59	2688.9	50.0	-47.8	2.00	-78.28	-41.2	
7031.6	9.45	278.59	6969.9	156.3	-752.1	0.00	0.00	-27.5	
7503.9	0.00	0.00	7440.0	162.1	-790.5	2.00	180.00	-26.7	
12051.5	0.00	0.00	11987.6	162.1	-790.5	0.00	0.00	-26.7	
12795.5	89.28	186.39	12465.0	-306.4	-842.9	12.00	186.39	444.0	TGT 1 (Ruby 2 State Com #601Y)
13139.1	89.28	179.52	12469.3	-649.4	-860.6	2.00	-90.02	785.0	TGT 2 (Ruby 2 State Com #601Y)
13910.9	89.28	179.52	12479.0	-1421.1	-854.1	0.00	0.00	1544.6	TGT 3 (Ruby 2 State Com #601Y)
13913.0	89.32	179.52	12479.0	-1423.2	-854.1	2.00	3.78	1546.7	
15098.9	89.32	179.52	12493.0	-2608.9	-844.2	0.00	0.00	2713.8	
16205.3	89.32	179.52	12506.0	-3715.2	-834.9	0.00	0.00	3802.7	
16207.4	89.28	179.52	12506.0	-3717.3	-834.9	2.00	-180.00	3804.8	
17323.5	89.28	179.52	12520.0	-4833.3	-825.5	0.00	0.00	4903.3	PBHL (Ruby 2 State Com #601Y)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
TGT 1 (Ruby 2 State Com #601Y)	12479.0	-1421.1	-854.1	393224.28	916488.41
TGT 2 (Ruby 2 State Com #601Y)	12489.0	-2908.9	-844.2	391038.40	915508.36
TGT 3 (Ruby 2 State Com #601Y)	12604.0	-3715.2	-834.9	389932.10	916617.83
PBHL (Ruby 2 State Com #601Y)	12520.0	-4833.3	-825.5	389814.00	916527.00
FTP (Ruby 2 State Com #601Y)	12495.0	-116.3	-844.5	393632.00	915489.00
KCP (Ruby 2 State Com #601Y)	11987.6	162.1	-790.5	393609.41	916562.08



EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Ruby 2 State Com

#601Y

OH

Plan: Plan #1

Standard Planning Report

05 October, 2017

Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #601Y
Company:	EOG Resources - Midland	TVD Reference:	KB=25' @ 3329.0usft (HP 642)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB=25' @ 3329.0usft (HP 642)
Site:	Ruby 2 State Com	North Reference:	Grid
Well:	#601Y	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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	Ruby 2 State Com			
Site Position:		Northing:	393,589.99 usft	Latitude: 32° 4' 47.315 N
From:	Map	Easting:	775,148.00 usft	Longitude: 103° 34' 42.355 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.40 °

Well	#601Y			
Well Position	+N/-S	57.3 usft	Northing:	393,647.31 usft
	+E/-W	41,204.5 usft	Easting:	816,352.53 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level: 3,304.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	10/4/2017	6.85	59.95	47,835.39383250

Design	Plan #1			
Audit Notes:				
Version:		Phase:	PLAN	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	189.69

Plan Survey Tool Program		Date 10/5/2017		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	17,323.5 Plan #1 (OH)	MWD	
			MWD - Standard	

Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Ruby 2 State Com
 Well: #601Y
 Wellbore: OH
 Design: Plan #1

Local Co-ordinate Reference: Well #601Y
 TVD Reference: KB=25' @ 3329.0usft (HP 642)
 MD Reference: KB=25' @ 3329.0usft (HP 642)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,050.0	0.00	0.00	1,050.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,250.0	2.00	345.00	1,250.0	3.4	-0.9	1.00	1.00	0.00	345.00	
2,250.0	2.00	345.00	2,249.4	37.1	-9.9	0.00	0.00	0.00	0.00	
2,691.8	9.45	278.59	2,688.9	50.0	-47.8	2.00	1.69	-15.03	-78.28	
7,031.6	9.45	278.59	6,969.9	156.3	-752.1	0.00	0.00	0.00	0.00	
7,503.9	0.00	0.00	7,440.0	162.1	-790.5	2.00	-2.00	0.00	180.00	
12,051.5	0.00	0.00	11,987.6	162.1	-790.5	0.00	0.00	0.00	0.00	
12,795.5	89.28	186.39	12,465.0	-306.4	-842.9	12.00	12.00	0.00	186.39	
13,139.1	89.28	179.52	12,469.3	-649.4	-860.6	2.00	0.00	-2.00	-90.02	
13,910.9	89.28	179.52	12,479.0	-1,421.1	-854.1	0.00	0.00	0.00	0.00	TGT 1 (Ruby 2 State)
13,913.0	89.32	179.52	12,479.0	-1,423.2	-854.1	2.00	2.00	0.13	3.78	
15,098.9	89.32	179.52	12,493.0	-2,608.9	-844.2	0.00	0.00	0.00	0.00	TGT 2 (Ruby 2 State)
16,205.3	89.32	179.52	12,506.0	-3,715.2	-834.9	0.00	0.00	0.00	0.00	TGT 3 (Ruby 2 State)
16,207.4	89.28	179.52	12,506.0	-3,717.3	-834.9	2.00	-2.00	0.00	-180.00	
17,323.5	89.28	179.52	12,520.0	-4,833.3	-825.5	0.00	0.00	0.00	0.00	PBHL (Ruby 2 State C

Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #601Y
Company:	EOG Resources - Midland	TVD Reference:	KB=25' @ 3329.0usft (HP 642)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB=25' @ 3329.0usft (HP 642)
Site:	Ruby 2 State Com	North Reference:	Grid
Well:	#601Y	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,050.0	0.00	0.00	1,050.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.50	345.00	1,100.0	0.2	-0.1	-0.2	1.00	1.00	0.00
1,200.0	1.50	345.00	1,200.0	1.9	-0.5	-1.8	1.00	1.00	0.00
1,250.0	2.00	345.00	1,250.0	3.4	-0.9	-3.2	1.00	1.00	0.00
1,300.0	2.00	345.00	1,299.9	5.1	-1.4	-4.8	0.00	0.00	0.00
1,400.0	2.00	345.00	1,399.9	8.4	-2.3	-7.9	0.00	0.00	0.00
1,500.0	2.00	345.00	1,499.8	11.8	-3.2	-11.1	0.00	0.00	0.00
1,600.0	2.00	345.00	1,599.7	15.2	-4.1	-14.3	0.00	0.00	0.00
1,700.0	2.00	345.00	1,699.7	18.5	-5.0	-17.4	0.00	0.00	0.00
1,800.0	2.00	345.00	1,799.6	21.9	-5.9	-20.6	0.00	0.00	0.00
1,900.0	2.00	345.00	1,899.6	25.3	-6.8	-23.8	0.00	0.00	0.00
2,000.0	2.00	345.00	1,999.5	28.7	-7.7	-27.0	0.00	0.00	0.00
2,100.0	2.00	345.00	2,099.4	32.0	-8.6	-30.1	0.00	0.00	0.00
2,200.0	2.00	345.00	2,199.4	35.4	-9.5	-33.3	0.00	0.00	0.00
2,250.0	2.00	345.00	2,249.4	37.1	-9.9	-34.9	0.00	0.00	0.00
2,300.0	2.41	321.03	2,299.3	38.7	-10.8	-36.4	2.00	0.82	-47.94
2,400.0	3.93	296.59	2,399.2	41.9	-15.2	-38.8	2.00	1.52	-24.44
2,500.0	5.75	286.58	2,498.8	44.9	-23.1	-40.3	2.00	1.82	-10.01
2,600.0	7.66	281.46	2,598.1	47.6	-34.4	-41.2	2.00	1.91	-5.12
2,691.8	9.45	278.59	2,688.9	50.0	-47.8	-41.2	2.00	1.95	-3.13
2,700.0	9.45	278.59	2,697.0	50.2	-49.2	-41.2	0.00	0.00	0.00
2,800.0	9.45	278.59	2,795.6	52.6	-65.4	-40.9	0.00	0.00	0.00
2,900.0	9.45	278.59	2,894.3	55.1	-81.6	-40.5	0.00	0.00	0.00
3,000.0	9.45	278.59	2,992.9	57.5	-97.9	-40.2	0.00	0.00	0.00
3,100.0	9.45	278.59	3,091.6	60.0	-114.1	-39.9	0.00	0.00	0.00
3,200.0	9.45	278.59	3,190.2	62.4	-130.3	-39.6	0.00	0.00	0.00
3,300.0	9.45	278.59	3,288.8	64.9	-146.5	-39.3	0.00	0.00	0.00
3,400.0	9.45	278.59	3,387.5	67.3	-162.8	-39.0	0.00	0.00	0.00
3,500.0	9.45	278.59	3,486.1	69.8	-179.0	-38.6	0.00	0.00	0.00
3,600.0	9.45	278.59	3,584.8	72.2	-195.2	-38.3	0.00	0.00	0.00
3,700.0	9.45	278.59	3,683.4	74.7	-211.4	-38.0	0.00	0.00	0.00
3,800.0	9.45	278.59	3,782.1	77.1	-227.7	-37.7	0.00	0.00	0.00
3,900.0	9.45	278.59	3,880.7	79.6	-243.9	-37.4	0.00	0.00	0.00
4,000.0	9.45	278.59	3,979.4	82.0	-260.1	-37.1	0.00	0.00	0.00
4,100.0	9.45	278.59	4,078.0	84.5	-276.4	-36.7	0.00	0.00	0.00
4,200.0	9.45	278.59	4,176.6	86.9	-292.6	-36.4	0.00	0.00	0.00
4,300.0	9.45	278.59	4,275.3	89.4	-308.8	-36.1	0.00	0.00	0.00
4,400.0	9.45	278.59	4,373.9	91.8	-325.0	-35.8	0.00	0.00	0.00
4,500.0	9.45	278.59	4,472.6	94.3	-341.3	-35.5	0.00	0.00	0.00
4,600.0	9.45	278.59	4,571.2	96.7	-357.5	-35.2	0.00	0.00	0.00
4,700.0	9.45	278.59	4,669.9	99.2	-373.7	-34.8	0.00	0.00	0.00
4,800.0	9.45	278.59	4,768.5	101.6	-389.9	-34.5	0.00	0.00	0.00
4,900.0	9.45	278.59	4,867.2	104.1	-406.2	-34.2	0.00	0.00	0.00

Planning Report

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Ruby 2 State Com
Well: #601Y
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference:
TVD Reference: KB=25' @ 3329.0usft (HP 642)
MD Reference: KB=25' @ 3329.0usft (HP 642)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,000.0	9.45	278.59	4,965.8	106.5	-422.4	-33.9	0.00	0.00	0.00
5,100.0	9.45	278.59	5,064.4	109.0	-438.6	-33.6	0.00	0.00	0.00
5,200.0	9.45	278.59	5,163.1	111.4	-454.8	-33.3	0.00	0.00	0.00
5,300.0	9.45	278.59	5,261.7	113.9	-471.1	-32.9	0.00	0.00	0.00
5,400.0	9.45	278.59	5,360.4	116.3	-487.3	-32.6	0.00	0.00	0.00
5,500.0	9.45	278.59	5,459.0	118.8	-503.5	-32.3	0.00	0.00	0.00
5,600.0	9.45	278.59	5,557.7	121.2	-519.8	-32.0	0.00	0.00	0.00
5,700.0	9.45	278.59	5,656.3	123.7	-536.0	-31.7	0.00	0.00	0.00
5,800.0	9.45	278.59	5,755.0	126.1	-552.2	-31.4	0.00	0.00	0.00
5,900.0	9.45	278.59	5,853.6	128.6	-568.4	-31.0	0.00	0.00	0.00
6,000.0	9.45	278.59	5,952.2	131.0	-584.7	-30.7	0.00	0.00	0.00
6,100.0	9.45	278.59	6,050.9	133.5	-600.9	-30.4	0.00	0.00	0.00
6,200.0	9.45	278.59	6,149.5	135.9	-617.1	-30.1	0.00	0.00	0.00
6,300.0	9.45	278.59	6,248.2	138.4	-633.3	-29.8	0.00	0.00	0.00
6,400.0	9.45	278.59	6,346.8	140.8	-649.6	-29.5	0.00	0.00	0.00
6,500.0	9.45	278.59	6,445.5	143.3	-665.8	-29.1	0.00	0.00	0.00
6,600.0	9.45	278.59	6,544.1	145.7	-682.0	-28.8	0.00	0.00	0.00
6,700.0	9.45	278.59	6,642.8	148.2	-698.2	-28.5	0.00	0.00	0.00
6,800.0	9.45	278.59	6,741.4	150.6	-714.5	-28.2	0.00	0.00	0.00
6,900.0	9.45	278.59	6,840.0	153.1	-730.7	-27.9	0.00	0.00	0.00
7,000.0	9.45	278.59	6,938.7	155.5	-746.9	-27.6	0.00	0.00	0.00
7,031.6	9.45	278.59	6,969.9	156.3	-752.1	-27.5	0.00	0.00	0.00
7,100.0	8.08	278.59	7,037.5	157.9	-762.4	-27.3	2.00	-2.00	0.00
7,200.0	6.08	278.59	7,136.7	159.7	-774.5	-27.0	2.00	-2.00	0.00
7,300.0	4.08	278.59	7,236.3	161.0	-783.3	-26.8	2.00	-2.00	0.00
7,400.0	2.08	278.59	7,336.1	161.8	-788.6	-26.7	2.00	-2.00	0.00
7,503.9	0.00	0.00	7,440.0	162.1	-790.5	-26.7	2.00	-2.00	0.00
7,600.0	0.00	0.00	7,536.1	162.1	-790.5	-26.7	0.00	0.00	0.00
7,700.0	0.00	0.00	7,636.1	162.1	-790.5	-26.7	0.00	0.00	0.00
7,800.0	0.00	0.00	7,736.1	162.1	-790.5	-26.7	0.00	0.00	0.00
7,900.0	0.00	0.00	7,836.1	162.1	-790.5	-26.7	0.00	0.00	0.00
8,000.0	0.00	0.00	7,936.1	162.1	-790.5	-26.7	0.00	0.00	0.00
8,100.0	0.00	0.00	8,036.1	162.1	-790.5	-26.7	0.00	0.00	0.00
8,200.0	0.00	0.00	8,136.1	162.1	-790.5	-26.7	0.00	0.00	0.00
8,300.0	0.00	0.00	8,236.1	162.1	-790.5	-26.7	0.00	0.00	0.00
8,400.0	0.00	0.00	8,336.1	162.1	-790.5	-26.7	0.00	0.00	0.00
8,500.0	0.00	0.00	8,436.1	162.1	-790.5	-26.7	0.00	0.00	0.00
8,600.0	0.00	0.00	8,536.1	162.1	-790.5	-26.7	0.00	0.00	0.00
8,700.0	0.00	0.00	8,636.1	162.1	-790.5	-26.7	0.00	0.00	0.00
8,800.0	0.00	0.00	8,736.1	162.1	-790.5	-26.7	0.00	0.00	0.00
8,900.0	0.00	0.00	8,836.1	162.1	-790.5	-26.7	0.00	0.00	0.00
9,000.0	0.00	0.00	8,936.1	162.1	-790.5	-26.7	0.00	0.00	0.00
9,100.0	0.00	0.00	9,036.1	162.1	-790.5	-26.7	0.00	0.00	0.00
9,200.0	0.00	0.00	9,136.1	162.1	-790.5	-26.7	0.00	0.00	0.00
9,300.0	0.00	0.00	9,236.1	162.1	-790.5	-26.7	0.00	0.00	0.00
9,400.0	0.00	0.00	9,336.1	162.1	-790.5	-26.7	0.00	0.00	0.00
9,500.0	0.00	0.00	9,436.1	162.1	-790.5	-26.7	0.00	0.00	0.00
9,600.0	0.00	0.00	9,536.1	162.1	-790.5	-26.7	0.00	0.00	0.00
9,700.0	0.00	0.00	9,636.1	162.1	-790.5	-26.7	0.00	0.00	0.00
9,800.0	0.00	0.00	9,736.1	162.1	-790.5	-26.7	0.00	0.00	0.00
9,900.0	0.00	0.00	9,836.1	162.1	-790.5	-26.7	0.00	0.00	0.00
10,000.0	0.00	0.00	9,936.1	162.1	-790.5	-26.7	0.00	0.00	0.00
10,100.0	0.00	0.00	10,036.1	162.1	-790.5	-26.7	0.00	0.00	0.00
10,200.0	0.00	0.00	10,136.1	162.1	-790.5	-26.7	0.00	0.00	0.00

Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Ruby 2 State Com
 Well: #601Y
 Wellbore: OH
 Design: Plan #1

Local Co-ordinate Reference: Well #601Y
 TVD Reference: KB=25' @ 3329.0usft (HP 642)
 MD Reference: KB=25' @ 3329.0usft (HP 642)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,300.0	0.00	0.00	10,236.1	162.1	-790.5	-26.7	0.00	0.00	0.00
10,400.0	0.00	0.00	10,336.1	162.1	-790.5	-26.7	0.00	0.00	0.00
10,500.0	0.00	0.00	10,436.1	162.1	-790.5	-26.7	0.00	0.00	0.00
10,600.0	0.00	0.00	10,536.1	162.1	-790.5	-26.7	0.00	0.00	0.00
10,700.0	0.00	0.00	10,636.1	162.1	-790.5	-26.7	0.00	0.00	0.00
10,800.0	0.00	0.00	10,736.1	162.1	-790.5	-26.7	0.00	0.00	0.00
10,900.0	0.00	0.00	10,836.1	162.1	-790.5	-26.7	0.00	0.00	0.00
11,000.0	0.00	0.00	10,936.1	162.1	-790.5	-26.7	0.00	0.00	0.00
11,100.0	0.00	0.00	11,036.1	162.1	-790.5	-26.7	0.00	0.00	0.00
11,200.0	0.00	0.00	11,136.1	162.1	-790.5	-26.7	0.00	0.00	0.00
11,300.0	0.00	0.00	11,236.1	162.1	-790.5	-26.7	0.00	0.00	0.00
11,400.0	0.00	0.00	11,336.1	162.1	-790.5	-26.7	0.00	0.00	0.00
11,500.0	0.00	0.00	11,436.1	162.1	-790.5	-26.7	0.00	0.00	0.00
11,600.0	0.00	0.00	11,536.1	162.1	-790.5	-26.7	0.00	0.00	0.00
11,700.0	0.00	0.00	11,636.1	162.1	-790.5	-26.7	0.00	0.00	0.00
11,800.0	0.00	0.00	11,736.1	162.1	-790.5	-26.7	0.00	0.00	0.00
11,900.0	0.00	0.00	11,836.1	162.1	-790.5	-26.7	0.00	0.00	0.00
12,000.0	0.00	0.00	11,936.1	162.1	-790.5	-26.7	0.00	0.00	0.00
12,051.5	0.00	0.00	11,987.6	162.1	-790.5	-26.7	0.00	0.00	0.00
12,075.0	2.82	186.39	12,011.1	161.5	-790.5	-26.1	12.00	12.00	0.00
12,100.0	5.82	186.39	12,036.0	159.7	-790.7	-24.2	12.00	12.00	0.00
12,125.0	8.82	186.39	12,060.8	156.5	-791.1	-21.1	12.00	12.00	0.00
12,150.0	11.82	186.39	12,085.4	152.0	-791.6	-16.6	12.00	12.00	0.00
12,175.0	14.82	186.39	12,109.7	146.3	-792.2	-10.8	12.00	12.00	0.00
12,200.0	17.82	186.39	12,133.7	139.3	-793.0	-3.8	12.00	12.00	0.00
12,225.0	20.82	186.39	12,157.3	131.1	-793.9	4.4	12.00	12.00	0.00
12,250.0	23.82	186.39	12,180.5	121.7	-795.0	13.9	12.00	12.00	0.00
12,275.0	26.82	186.39	12,203.0	111.0	-796.2	24.6	12.00	12.00	0.00
12,300.0	29.82	186.39	12,225.1	99.3	-797.5	36.4	12.00	12.00	0.00
12,325.0	32.82	186.39	12,246.4	86.3	-798.9	49.4	12.00	12.00	0.00
12,350.0	35.82	186.39	12,267.0	72.3	-800.5	63.5	12.00	12.00	0.00
12,375.0	38.82	186.39	12,286.9	57.3	-802.2	78.6	12.00	12.00	0.00
12,400.0	41.82	186.39	12,306.0	41.2	-804.0	94.7	12.00	12.00	0.00
12,425.0	44.82	186.39	12,324.2	24.2	-805.9	111.9	12.00	12.00	0.00
12,450.0	47.82	186.39	12,341.4	6.2	-807.9	129.9	12.00	12.00	0.00
12,475.0	50.82	186.39	12,357.7	-12.6	-810.0	148.8	12.00	12.00	0.00
12,500.0	53.82	186.39	12,373.0	-32.3	-812.2	168.6	12.00	12.00	0.00
12,525.0	56.82	186.39	12,387.2	-52.7	-814.5	189.1	12.00	12.00	0.00
12,550.0	59.82	186.39	12,400.4	-73.9	-816.9	210.4	12.00	12.00	0.00
12,575.0	62.82	186.39	12,412.4	-95.7	-819.3	232.2	12.00	12.00	0.00
12,600.0	65.82	186.39	12,423.2	-118.1	-821.8	254.7	12.00	12.00	0.00
12,625.0	68.82	186.39	12,432.8	-141.0	-824.4	277.8	12.00	12.00	0.00
12,650.0	71.82	186.39	12,441.2	-164.4	-827.0	301.3	12.00	12.00	0.00
12,675.0	74.82	186.39	12,448.4	-188.2	-829.7	325.2	12.00	12.00	0.00
12,700.0	77.82	186.39	12,454.3	-212.3	-832.4	349.4	12.00	12.00	0.00
12,725.0	80.82	186.39	12,459.0	-236.7	-835.1	373.9	12.00	12.00	0.00
12,750.0	83.82	186.39	12,462.3	-261.3	-837.9	398.7	12.00	12.00	0.00
12,775.0	86.82	186.39	12,464.3	-286.1	-840.6	423.5	12.00	12.00	0.00
12,795.5	89.28	186.39	12,465.0	-306.4	-842.9	444.0	12.00	12.00	0.00
12,800.0	89.28	186.30	12,465.1	-310.9	-843.4	448.5	2.00	0.00	-2.00
12,900.0	89.28	184.30	12,466.3	-410.5	-852.7	548.2	2.00	0.00	-2.00
13,000.0	89.28	182.30	12,467.6	-510.3	-858.4	647.5	2.00	0.00	-2.00
13,100.0	89.28	180.30	12,468.9	-610.3	-860.7	746.5	2.00	0.00	-2.00
13,139.1	89.28	179.52	12,469.3	-649.4	-860.6	785.0	2.00	0.00	-2.00

Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #601Y
Company:	EOG Resources - Midland	TVD Reference:	KB=25' @ 3329.0usft (HP 642)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB=25' @ 3329.0usft (HP 642)
Site:	Ruby 2 State Com	North Reference:	Grid
Well:	#601Y	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,200.0	89.28	179.52	12,470.1	-710.3	-860.1	844.9	0.00	0.00	0.00
13,300.0	89.28	179.52	12,471.4	-810.2	-859.3	943.4	0.00	0.00	0.00
13,400.0	89.28	179.52	12,472.6	-910.2	-858.4	1,041.8	0.00	0.00	0.00
13,500.0	89.28	179.52	12,473.9	-1,010.2	-857.6	1,140.2	0.00	0.00	0.00
13,600.0	89.28	179.52	12,475.1	-1,110.2	-856.7	1,238.6	0.00	0.00	0.00
13,700.0	89.28	179.52	12,476.4	-1,210.2	-855.9	1,337.0	0.00	0.00	0.00
13,800.0	89.28	179.52	12,477.6	-1,310.2	-855.1	1,435.4	0.00	0.00	0.00
13,900.0	89.28	179.52	12,478.9	-1,410.2	-854.2	1,533.9	0.00	0.00	0.00
13,910.9	89.28	179.52	12,479.0	-1,421.1	-854.1	1,544.6	0.00	0.00	0.00
13,913.0	89.32	179.52	12,479.0	-1,423.2	-854.1	1,546.7	2.00	2.00	0.13
14,000.0	89.32	179.52	12,480.1	-1,510.2	-853.4	1,632.3	0.00	0.00	0.00
14,100.0	89.32	179.52	12,481.2	-1,610.2	-852.5	1,730.7	0.00	0.00	0.00
14,200.0	89.32	179.52	12,482.4	-1,710.1	-851.7	1,829.1	0.00	0.00	0.00
14,300.0	89.32	179.52	12,483.6	-1,810.1	-850.9	1,927.6	0.00	0.00	0.00
14,400.0	89.32	179.52	12,484.8	-1,910.1	-850.0	2,026.0	0.00	0.00	0.00
14,500.0	89.32	179.52	12,485.9	-2,010.1	-849.2	2,124.4	0.00	0.00	0.00
14,600.0	89.32	179.52	12,487.1	-2,110.1	-848.3	2,222.8	0.00	0.00	0.00
14,700.0	89.32	179.52	12,488.3	-2,210.1	-847.5	2,321.2	0.00	0.00	0.00
14,800.0	89.32	179.52	12,489.5	-2,310.1	-846.7	2,419.7	0.00	0.00	0.00
14,900.0	89.32	179.52	12,490.7	-2,410.1	-845.8	2,518.1	0.00	0.00	0.00
15,000.0	89.32	179.52	12,491.8	-2,510.1	-845.0	2,616.5	0.00	0.00	0.00
15,098.9	89.32	179.52	12,493.0	-2,608.9	-844.2	2,713.8	0.00	0.00	0.00
15,100.0	89.32	179.52	12,493.0	-2,610.1	-844.2	2,714.9	0.00	0.00	0.00
15,200.0	89.32	179.52	12,494.2	-2,710.0	-843.3	2,813.3	0.00	0.00	0.00
15,300.0	89.32	179.52	12,495.4	-2,810.0	-842.5	2,911.8	0.00	0.00	0.00
15,400.0	89.32	179.52	12,496.5	-2,910.0	-841.6	3,010.2	0.00	0.00	0.00
15,500.0	89.32	179.52	12,497.7	-3,010.0	-840.8	3,108.6	0.00	0.00	0.00
15,600.0	89.32	179.52	12,498.9	-3,110.0	-840.0	3,207.0	0.00	0.00	0.00
15,700.0	89.32	179.52	12,500.1	-3,210.0	-839.1	3,305.4	0.00	0.00	0.00
15,800.0	89.32	179.52	12,501.3	-3,310.0	-838.3	3,403.9	0.00	0.00	0.00
15,900.0	89.32	179.52	12,502.4	-3,410.0	-837.5	3,502.3	0.00	0.00	0.00
16,000.0	89.32	179.52	12,503.6	-3,510.0	-836.6	3,600.7	0.00	0.00	0.00
16,100.0	89.32	179.52	12,504.8	-3,610.0	-835.8	3,699.1	0.00	0.00	0.00
16,205.3	89.32	179.52	12,506.0	-3,715.2	-834.9	3,802.7	0.00	0.00	0.00
16,207.4	89.28	179.52	12,506.0	-3,717.3	-834.9	3,804.8	2.00	-2.00	0.00
16,300.0	89.28	179.52	12,507.2	-3,809.9	-834.1	3,896.0	0.00	0.00	0.00
16,400.0	89.28	179.52	12,508.4	-3,909.9	-833.3	3,994.4	0.00	0.00	0.00
16,500.0	89.28	179.52	12,509.7	-4,009.9	-832.4	4,092.8	0.00	0.00	0.00
16,600.0	89.28	179.52	12,510.9	-4,109.9	-831.6	4,191.2	0.00	0.00	0.00
16,700.0	89.28	179.52	12,512.2	-4,209.9	-830.8	4,289.7	0.00	0.00	0.00
16,800.0	89.28	179.52	12,513.4	-4,309.9	-829.9	4,388.1	0.00	0.00	0.00
16,900.0	89.28	179.52	12,514.7	-4,409.9	-829.1	4,486.5	0.00	0.00	0.00
17,000.0	89.28	179.52	12,515.9	-4,509.8	-828.2	4,584.9	0.00	0.00	0.00
17,100.0	89.28	179.52	12,517.2	-4,609.8	-827.4	4,683.3	0.00	0.00	0.00
17,200.0	89.28	179.52	12,518.5	-4,709.8	-826.6	4,781.8	0.00	0.00	0.00
17,300.0	89.28	179.52	12,519.7	-4,809.8	-825.7	4,880.2	0.00	0.00	0.00
17,323.5	89.28	179.52	12,520.0	-4,833.3	-825.5	4,903.3	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #601Y
Company:	EOG Resources - Midland	TVD Reference:	KB=25' @ 3329.0usft (HP 642)
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB=25' @ 3329.0usft (HP 642)
Site:	Ruby 2 State Com	North Reference:	Grid
Well:	#601Y	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP (Ruby 2 State Com - plan hits target center - Polygon	0.00	0.00	11,987.5	162.1	-790.5	393,809.41	815,562.07	32° 4' 46.446 N	103° 26' 52.634 W
Point 1			11,987.5	25.0	-105.0	393,834.41	815,457.07		
Point 2			11,987.5	25.0	25.0	393,834.41	815,587.07		
Point 3			11,987.5	-75.0	10.0	393,734.41	815,572.07		
Point 4			11,987.5	-75.0	-105.0	393,734.41	815,457.07		
FTP (Ruby 2 State Com - plan misses target center by 57.0usft at 12618.0usft MD (12430.2 TVD, -134.5 N, -823.7 E) - Point	0.00	0.00	12,465.0	-115.3	-864.5	393,532.00	815,488.00	32° 4' 43.707 N	103° 26' 53.521 W
TGT 1 (Ruby 2 State Co - plan hits target center - Point	0.00	0.00	12,479.0	-1,421.1	-854.1	392,226.20	815,498.41	32° 4' 30.785 N	103° 26' 53.525 W
TGT 2 (Ruby 2 State Co - plan hits target center - Point	0.00	0.00	12,493.0	-2,608.9	-844.2	391,038.40	815,508.36	32° 4' 19.030 N	103° 26' 53.522 W
TGT 3 (Ruby 2 State Co - plan hits target center - Point	0.00	0.00	12,506.0	-3,715.2	-834.9	389,932.10	815,517.63	32° 4' 8.083 N	103° 26' 53.520 W
PBHL (Ruby 2 State Cor - plan hits target center - Rectangle (sides W60.0 H0.0 D4,718.0)	90.00	179.53	12,520.0	-4,833.3	-825.5	388,814.00	815,527.00	32° 3' 57.018 N	103° 26' 53.518 W