

AUG 23 2017

RECEIVED



Lea County, NM (NAD 83 NME)

Righteous 6 State Com #601Y

H&P 621

Plan #2

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

Ground Level: 3398.0
KB = 25 @ 3423.0usft (H&P 621)
Northing: 485716.00
Easting: 829837.00
Latitude: 32° 19' 54.651 N
Longitude: 103° 23' 57.451 W



Azimuths to Grid North
True North: -0.50°
Magnetic North: 6.39°
Magnetic Field
Strength: 48033.6nT
Dip Angle: 66.19°
Date: 5/2/2017
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.39°
To convert a Magnetic Direction to a True Direction, Add 6.89° East
To convert a True Direction to a Grid Direction, Subtract 0.50°

SECTION DETAILS

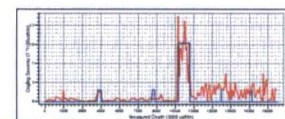
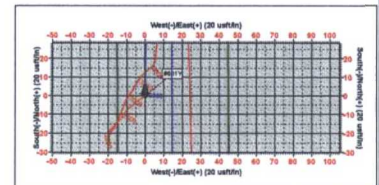
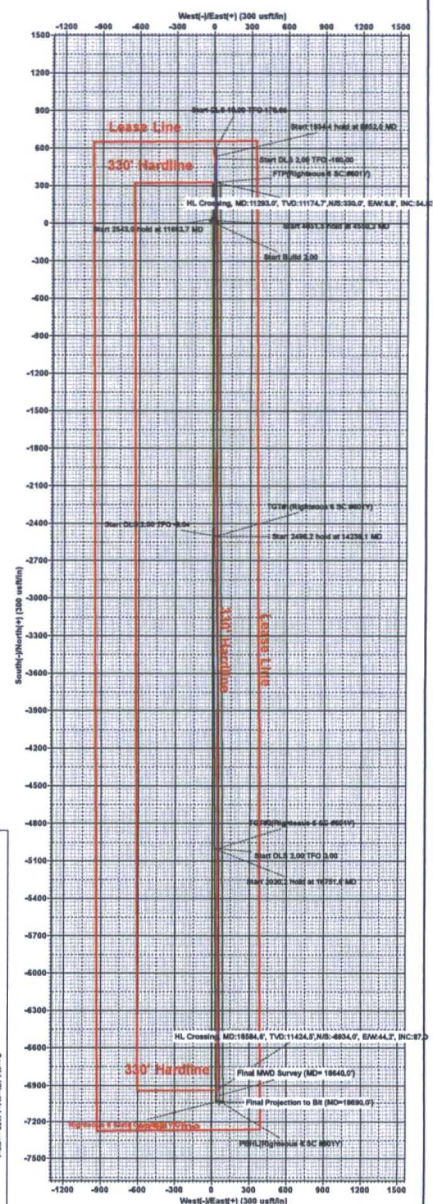
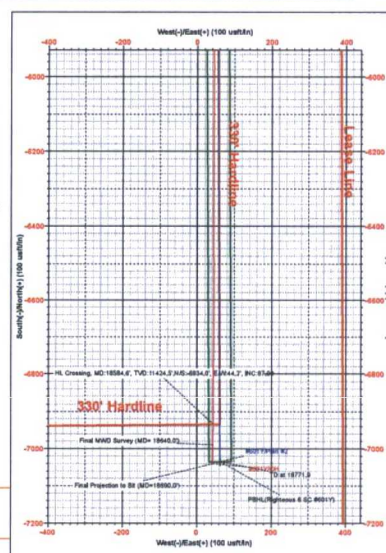
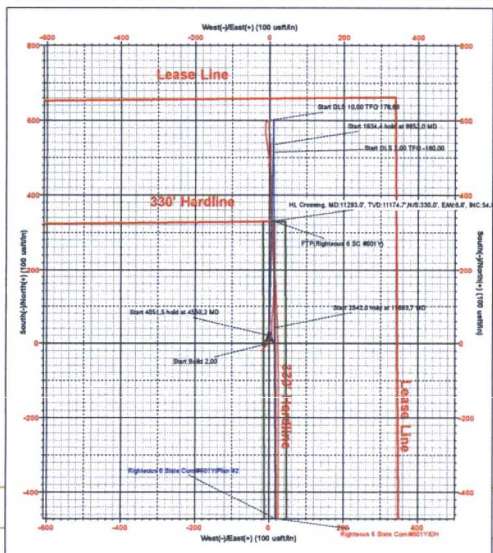
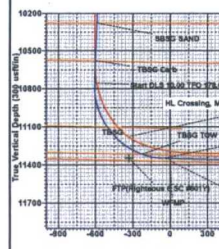
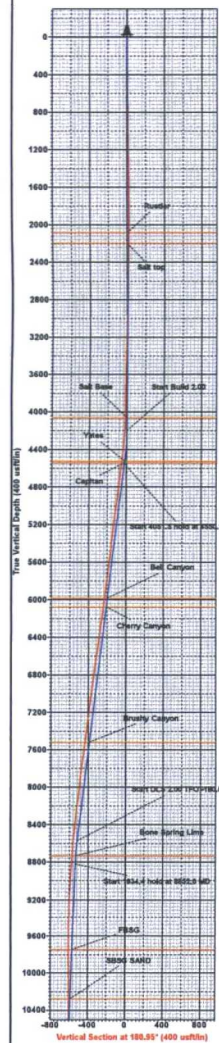
Sec	MD	Inc	Azi	TVD	+N/S	+E/W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	4200.0	0.00	0.00	4200.0	0.0	0.0	0.00	0.00	0.0	
3	4550.2	7.00	0.95	4549.3	21.4	0.4	2.00	0.95	-21.4	
4	8601.7	7.00	0.95	8570.6	515.4	8.6	0.00	0.00	-515.3	
5	8852.0	2.00	0.95	8820.0	535.0	8.9	2.00	-180.00	-534.9	
6	10786.3	2.00	0.95	10753.2	602.5	10.0	0.00	0.00	-602.4	
7	11593.7	88.74	179.61	11346.0	42.5	14.3	10.00	178.66	-42.4	TGT#1(Righteous 6 SC #601Y)
8	14236.7	88.74	179.61	11402.0	-2499.8	31.6	0.00	0.00	2500.0	TGT#2(Righteous 6 SC #601Y)
9	14239.1	88.79	179.60	11402.1	-2502.2	31.6	2.00	-8.04	2502.4	PBHL(Righteous 6 SC #601Y)
10	16737.3	88.79	179.60	11455.0	-4999.8	48.9	0.00	0.00	5000.0	
11	16751.6	89.07	179.60	11455.3	-5014.1	49.0	2.00	0.00	5014.3	
12	18771.9	89.07	179.60	11488.0	-7034.0	63.0	0.00	0.00	7034.3	

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/S	+E/W	Northing	Easting
FTP(Righteous 6 SC #601Y)	11346.0	330.0	12.0	486046.00	829849.00
TGT#1(Righteous 6 SC #601Y)	11402.0	-2499.8	31.6	483216.30	829868.60
TGT#2(Righteous 6 SC #601Y)	11455.0	-4999.8	48.9	480716.20	829885.91
PBHL(Righteous 6 SC #601Y)	11488.0	-7034.0	63.0	478682.00	829900.00

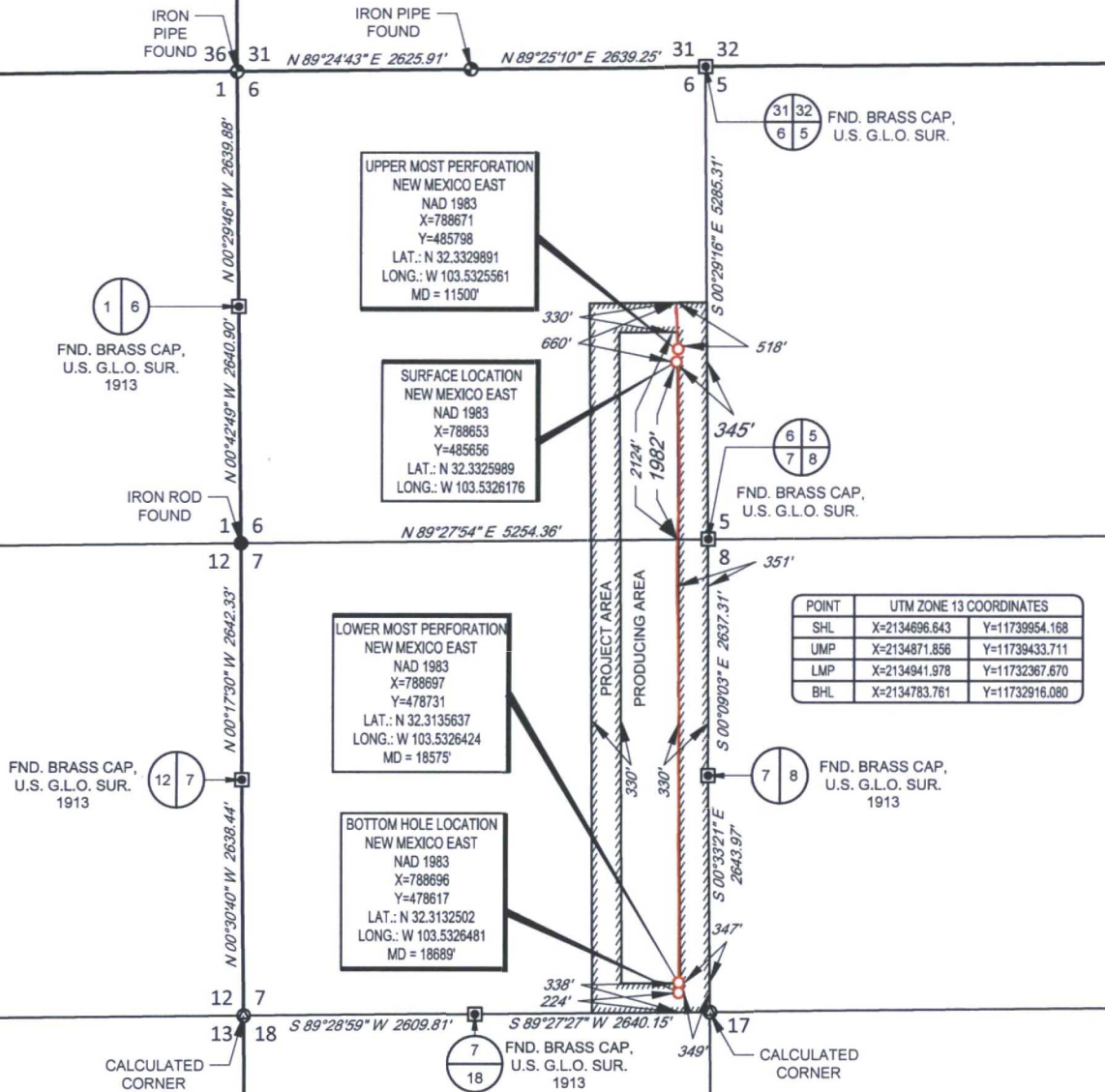


Lea County, NM (NAD 83 NME)
Righteous 6 State Com #601Y
H&P 621
Plan #2
12.00.00.00

SCALE: 1" = 1000'

0' 500' 1000'

SECTION 6, TOWNSHIP 21-S, RANGE 35-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



POINT	UTM ZONE 13 COORDINATES	
SHL	X=2134696.643	Y=11739964.168
UMP	X=2134871.856	Y=11739433.711
LMP	X=2134941.978	Y=11732367.670
BHL	X=2134783.761	Y=11732916.080

LEASE NAME & WELL NO.: RIGHTEOUS 6 STATE COM #601Y
 SECTION 6 TWP 21-S RGE 35-E SURVEY N.M.P.M.
 COUNTY LEA STATE NM ELEVATION 3320'
 DESCRIPTION 1982' FSL & 345' FEL



TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
 TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
 2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
 TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
 WWW.TOPOGRAPHIC.COM



Michael Blake Brown, P.S. No. 18329
AUGUST 8, 2017

RIGHTEOUS 6 STATE COM #601Y PRE-COMPLETION	REVISION:
DATE: 08/8/17	
FILE: AD_RIGHTEOUS_6_STATE_COM_601Y	
DRAWN BY: A.M.D.	
SHEET: 1 OF 1	

NOTES:

1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
3. THIS WELL LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY EOG RESOURCES, INC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Righteous 6 State Com

#601Y

OH

Design: OH

PVA Report

12 June, 2017

EOG Resources

PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #601Y
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3423.0usft (H&P 621)
Site:	Righteous 6 State Com	MD Reference:	KB = 25 @ 3423.0usft (H&P 621)
Well:	#601Y	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14 Single User Db

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	Righteous 6 State Com		
Site Position:		Northing:	485,716.00 usft
From:	Map	Easting:	829,837.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 19' 54.651 N
		Longitude:	103° 23' 57.451 W
		Grid Convergence:	0.50 °

Well	#601Y		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty		0.0 usft	Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2015	5/2/2017	6.89
			Dip Angle (°)
			60.19
			Field Strength (nT)
			48,033.58017952

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)
	0.0	0.0	0.0
			Direction (°)
			179.49

EOG Resources

PVA Report

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Well:	#601Y	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14 Single User Db

Survey Program		Date 6/12/2017			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
374.0	1,717.0	WildFire MWD #1 (OH)	MWD	MWD - Standard	
1,917.0	18,690.0	Intrepid MWD #1 (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
374.0	1.50	235.91	374.0	-2.7	-4.1	0.40	0.40	0.00	-4.9	0.0
713.0	1.20	222.91	712.9	-7.8	-10.1	0.13	-0.09	-3.83	-12.6	-2.1
803.0	1.00	214.91	802.8	-9.2	-11.2	0.28	-0.22	-8.89	-13.9	-4.0
844.0	1.10	207.91	843.8	-9.8	-11.6	0.40	0.24	-17.07	-14.1	-5.7
888.0	1.30	222.91	887.8	-10.5	-12.2	0.84	0.45	34.09	-16.0	-1.7
993.0	0.80	187.91	992.8	-12.1	-13.1	0.75	-0.48	-33.33	-13.8	-11.3
1,455.0	1.10	247.91	1,454.8	-17.0	-17.6	0.21	0.06	12.99	-22.7	9.1
1,499.0	0.60	199.91	1,498.8	-17.4	-18.1	1.88	-1.14	-109.09	-22.5	-11.1
1,593.0	0.70	235.91	1,592.7	-18.2	-18.7	0.44	0.11	38.30	-25.7	4.5
1,630.0	0.60	225.91	1,629.7	-18.4	-19.1	0.41	-0.27	-27.03	-26.5	0.0
1,673.0	0.40	222.91	1,672.7	-18.7	-19.3	0.47	-0.47	-6.98	-26.9	-1.4
1,717.0	0.30	176.91	1,716.7	-18.9	-19.4	0.66	-0.23	-104.55	-17.8	-20.4
1,917.0	0.20	182.20	1,916.7	-19.8	-19.4	0.05	-0.05	2.64	-20.5	-18.6
2,029.0	0.60	69.50	2,028.7	-19.8	-18.9	0.63	0.36	-100.62	24.6	-11.9
2,216.0	1.50	30.60	2,215.7	-17.3	-16.7	0.59	0.48	-20.80	23.4	5.6
2,403.0	2.00	21.90	2,402.6	-12.2	-14.2	0.30	0.27	-4.65	16.6	8.7
2,590.0	1.40	22.60	2,589.5	-7.1	-12.2	0.32	-0.32	0.37	11.2	8.5
2,777.0	1.10	20.50	2,776.5	-3.3	-10.6	0.16	-0.16	-1.12	6.8	8.8
2,963.0	1.20	37.20	2,962.5	0.0	-8.8	0.19	0.05	8.98	5.4	7.0
3,150.0	1.10	33.20	3,149.4	3.0	-6.7	0.07	-0.05	-2.14	1.1	7.2

EOG Resources

PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #601Y
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3423.0usft (H&P 621)
Site:	Righteous 6 State Com	MD Reference:	KB = 25 @ 3423.0usft (H&P 621)
Well:	#601Y	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14 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)	
3,338.0	1.10	26.90	3,337.4	6.1	-4.9	0.06	0.00	-3.35	-3.3	7.1	
3,525.0	1.30	33.50	3,524.3	9.5	-2.9	0.13	0.11	3.53	-6.3	7.7	
3,714.0	1.30	48.40	3,713.3	12.7	-0.1	0.18	0.00	7.88	-8.4	9.6	
3,902.0	1.10	54.30	3,901.3	15.2	3.0	0.12	-0.11	3.14	-11.3	10.6	
4,090.0	0.70	36.40	4,089.2	17.2	5.1	0.26	-0.21	-9.52	-16.8	6.1	
4,276.0	3.50	4.50	4,275.1	23.7	6.2	1.57	1.51	-17.15	-23.2	-4.4	
4,464.0	6.90	1.90	4,462.3	40.7	7.1	1.81	1.81	-1.38	-28.8	-5.9	
4,651.0	6.90	2.50	4,647.9	63.2	7.9	0.04	0.00	0.32	-29.8	-6.1	
4,839.0	6.70	3.90	4,834.6	85.4	9.2	0.14	-0.11	0.74	-29.3	-6.2	
5,026.0	7.10	4.10	5,020.3	107.8	10.7	0.21	0.21	0.11	-29.0	-7.4	
5,215.0	6.80	1.20	5,207.9	130.7	11.8	0.24	-0.16	-1.53	-28.4	-9.5	
5,401.0	6.80	0.30	5,392.6	152.7	12.1	0.06	0.00	-0.48	-27.6	-9.9	
5,500.0	6.70	1.10	5,490.9	164.3	12.2	0.14	-0.10	0.81	-27.3	-9.4	
5,639.0	6.30	0.10	5,629.0	180.1	12.4	0.30	-0.29	-0.72	-25.9	-9.8	
5,827.0	7.50	357.90	5,815.6	202.6	12.0	0.65	0.64	-1.17	-25.2	-9.9	
6,014.0	8.30	355.10	6,000.8	228.3	10.4	0.47	0.43	-1.50	-27.7	-9.4	
6,201.0	8.20	356.50	6,185.9	255.0	8.4	0.12	-0.05	0.75	-32.0	-6.6	
6,389.0	7.60	358.80	6,372.1	280.9	7.3	0.36	-0.32	1.22	-35.2	-4.0	
6,576.0	7.50	357.40	6,557.5	305.4	6.5	0.11	-0.05	-0.75	-36.9	-3.7	
6,763.0	7.60	357.20	6,742.9	329.9	5.3	0.06	0.05	-0.11	-38.7	-2.4	
6,950.0	7.00	1.00	6,928.4	353.7	4.9	0.41	-0.32	2.03	-39.8	1.0	
7,138.0	8.20	358.10	7,114.7	378.5	4.7	0.67	0.64	-1.54	-41.7	-0.5	
7,326.0	7.50	357.90	7,300.9	404.2	3.8	0.37	-0.37	-0.11	-44.5	0.6	
7,514.0	6.90	359.70	7,487.5	427.8	3.3	0.34	-0.32	0.96	-45.1	2.8	
7,701.0	7.80	358.50	7,672.9	451.7	2.9	0.49	0.48	-0.64	-46.3	2.6	
7,889.0	6.70	359.40	7,859.4	475.4	2.4	0.59	-0.59	0.48	-47.1	4.2	
8,076.0	6.60	1.60	8,045.2	497.1	2.6	0.15	-0.05	1.18	-45.7	6.1	

EOG Resources

PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #601Y
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3423.0usft (H&P 621)
Site:	Righteous 6 State Com	MD Reference:	KB = 25 @ 3423.0usft (H&P 621)
Well:	#601Y	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14 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)
8,264.0	6.90	359.10	8,231.9	519.1	2.8	0.22	0.16	-1.33	-45.1	4.4
8,452.0	6.00	358.40	8,418.7	540.3	2.3	0.48	-0.48	-0.37	-43.4	4.8
8,640.0	5.00	355.80	8,605.8	558.3	1.4	0.55	-0.53	-1.38	-39.0	4.4
8,828.0	4.20	356.40	8,793.2	573.3	0.4	0.43	-0.43	0.32	-39.8	6.0
9,015.0	3.20	357.80	8,979.8	585.3	-0.2	0.54	-0.53	0.75	-45.1	7.5
9,203.0	2.50	6.30	9,167.6	594.7	0.0	0.43	-0.37	4.52	-46.2	14.2
9,389.0	0.40	317.40	9,353.5	599.2	0.0	1.21	-1.13	-26.29	-39.7	-24.1
9,577.0	0.40	293.50	9,541.5	599.9	-1.0	0.09	0.00	-12.71	-25.3	-32.3
9,764.0	0.50	249.00	9,728.5	599.9	-2.4	0.19	0.05	-23.80	0.9	-35.2
9,951.0	0.20	322.80	9,915.5	599.9	-3.3	0.26	-0.16	39.47	-29.0	-5.8
10,138.0	0.40	269.70	10,102.5	600.1	-4.2	0.17	0.11	-28.40	-13.7	-20.4
10,327.0	0.50	244.30	10,291.5	599.7	-5.6	0.12	0.05	-13.44	-8.0	-18.7
10,514.0	1.10	221.10	10,478.5	598.0	-7.5	0.36	0.32	-12.41	-7.5	-16.4
10,681.0	1.10	242.20	10,645.4	596.1	-10.0	0.24	0.00	12.63	-18.9	-6.9
10,728.0	5.20	191.30	10,692.4	593.8	-10.8	9.76	8.72	-108.30	-10.5	-19.1
10,776.0	12.10	182.70	10,739.8	586.6	-11.5	14.59	14.37	-17.92	-16.1	-20.9
10,823.0	14.90	177.10	10,785.5	575.7	-11.4	6.57	5.96	-11.91	-25.6	-23.1
10,870.0	16.50	172.20	10,830.7	563.0	-10.2	4.42	3.40	-10.43	-33.5	-25.3
10,917.0	20.40	171.30	10,875.3	548.3	-8.0	8.32	8.30	-1.91	-41.3	-24.8
10,964.0	24.70	172.90	10,918.7	530.4	-5.6	9.24	9.15	3.40	-49.4	-22.1
11,011.0	28.80	172.00	10,960.7	509.5	-2.8	8.77	8.72	-1.91	-55.8	-20.8
11,059.0	32.40	171.10	11,002.0	485.3	0.8	7.56	7.50	-1.87	-61.3	-18.5
11,106.0	34.90	175.10	11,041.1	459.5	3.9	7.11	5.32	8.51	-66.0	-11.8
11,154.0	39.40	178.40	11,079.4	430.5	5.5	10.25	9.37	6.87	-68.6	-7.1
11,201.0	44.00	179.20	11,114.4	399.3	6.2	9.85	9.79	1.70	-70.0	-5.9
11,248.0	48.70	179.80	11,146.9	365.3	6.4	10.04	10.00	1.28	-70.8	-5.4
11,295.0	55.10	178.90	11,175.9	328.3	6.9	13.70	13.62	-1.91	-71.7	-5.9

EOG Resources

PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #601Y
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3423.0usft (H&P 621)
Site:	Righteous 6 State Com	MD Reference:	KB = 25 @ 3423.0usft (H&P 621)
Well:	#601Y	North Reference:	Grid
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Design:	OH	Database:	EDM 5000.14 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)
11,342.0	61.10	177.10	11,200.7	288.5	8.3	13.17	12.77	-3.83	-73.2	-5.9
11,389.0	65.10	175.80	11,221.9	246.7	10.9	8.86	8.51	-2.77	-74.5	-4.1
11,437.0	69.70	175.90	11,240.4	202.5	14.1	9.59	9.58	0.21	-74.9	-0.8
11,484.0	74.10	176.50	11,255.0	157.9	17.1	9.44	9.36	1.28	-74.5	2.5
11,531.0	76.90	177.10	11,266.7	112.5	19.6	6.08	5.96	1.28	-72.6	5.3
11,578.0	78.70	177.20	11,276.7	66.6	21.9	3.84	3.83	0.21	-68.2	7.6
11,625.0	80.20	177.60	11,285.3	20.4	24.0	3.30	3.19	0.85	-61.2	9.6
11,672.0	84.60	179.50	11,291.5	-26.1	25.1	10.18	9.36	4.04	-56.0	10.4
11,720.0	86.60	180.10	11,295.2	-74.0	25.3	4.35	4.17	1.25	-53.4	10.2
11,814.0	87.60	179.80	11,299.9	-167.9	25.4	1.11	1.06	-0.32	-50.7	9.7
11,908.0	88.40	179.80	11,303.2	-261.8	25.7	0.85	0.85	0.00	-49.5	9.4
12,003.0	89.10	180.40	11,305.3	-356.8	25.6	0.97	0.74	0.63	-49.5	8.6
12,097.0	89.50	179.90	11,306.4	-450.8	25.3	0.68	0.43	-0.53	-50.4	7.7
12,191.0	89.50	179.50	11,307.3	-544.8	25.8	0.43	0.00	-0.43	-51.7	7.5
12,285.0	90.10	179.20	11,307.6	-638.7	26.9	0.71	0.64	-0.32	-53.4	7.9
12,379.0	91.10	178.10	11,306.6	-732.7	29.1	1.58	1.06	-1.17	-56.5	9.5
12,473.0	90.70	179.00	11,305.1	-826.7	31.5	1.05	-0.43	0.96	-60.0	11.2
12,567.0	91.70	178.40	11,303.2	-920.6	33.6	1.24	1.06	-0.64	-64.1	12.7
12,661.0	90.20	179.90	11,301.6	-1,014.6	35.0	2.26	-1.60	1.60	-67.7	13.5
12,756.0	87.80	179.40	11,303.3	-1,109.6	35.6	2.58	-2.53	-0.53	-68.1	13.4
12,850.0	88.70	179.40	11,306.1	-1,203.5	36.6	0.96	0.96	0.00	-67.3	13.8
12,944.0	90.80	180.80	11,306.5	-1,297.5	36.4	2.68	2.23	1.49	-69.0	13.0
13,038.0	87.90	180.00	11,307.6	-1,391.5	35.7	3.20	-3.09	-0.85	-70.0	11.7
13,132.0	88.00	179.80	11,311.0	-1,485.4	35.9	0.24	0.11	-0.21	-68.7	11.2
13,226.0	88.50	181.70	11,313.8	-1,579.4	34.7	2.09	0.53	2.02	-67.9	9.4
13,321.0	86.00	183.10	11,318.4	-1,674.2	30.7	3.02	-2.63	1.47	-65.4	4.8
13,415.0	86.10	183.30	11,324.9	-1,767.8	25.5	0.24	0.11	0.21	-61.0	-1.1

EOG Resources

PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #601Y
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3423.0usft (H&P 621)
Site:	Righteous 6 State Com	MD Reference:	KB = 25 @ 3423.0usft (H&P 621)
Well:	#601Y	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14 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)	
13,509.0	86.80	182.30	11,330.7	-1,861.5	20.9	1.30	0.74	-1.06	-57.2	-6.3	
13,604.0	85.80	181.30	11,336.8	-1,956.3	17.9	1.49	-1.05	-1.05	-53.2	-10.0	
13,698.0	88.40	180.70	11,341.6	-2,050.1	16.3	2.84	2.77	-0.64	-50.5	-12.3	
13,793.0	89.60	180.40	11,343.2	-2,145.1	15.3	1.30	1.26	-0.32	-50.9	-13.8	
13,887.0	87.00	180.60	11,346.0	-2,239.0	14.5	2.77	-2.77	0.21	-50.2	-15.3	
13,982.0	89.10	180.90	11,349.3	-2,334.0	13.3	2.23	2.21	0.32	-49.1	-17.2	
14,076.0	86.10	180.40	11,353.2	-2,427.9	12.2	3.24	-3.19	-0.53	-47.2	-18.9	
14,171.0	87.90	178.60	11,358.2	-2,522.7	13.0	2.68	1.89	-1.89	-44.3	-18.7	
14,265.0	89.30	177.50	11,360.5	-2,616.7	16.2	1.89	1.49	-1.17	-44.0	-16.2	
14,359.0	91.40	177.20	11,359.9	-2,710.5	20.6	2.26	2.23	-0.32	-46.6	-12.5	
14,453.0	89.80	178.40	11,358.9	-2,804.5	24.2	2.13	-1.70	1.28	-49.5	-9.5	
14,547.0	92.40	178.70	11,357.1	-2,898.4	26.6	2.78	2.77	0.32	-53.3	-7.8	
14,642.0	87.90	179.10	11,356.8	-2,993.4	28.4	4.76	-4.74	0.42	-55.6	-6.6	
14,736.0	89.50	179.40	11,359.0	-3,087.3	29.6	1.73	1.70	0.32	-55.5	-6.0	
14,830.0	88.20	180.10	11,360.9	-3,181.3	30.0	1.57	-1.38	0.74	-55.6	-6.3	
14,924.0	88.40	179.80	11,363.7	-3,275.3	30.1	0.38	0.21	-0.32	-54.8	-6.8	
15,018.0	90.80	178.10	11,364.3	-3,369.2	31.8	3.13	2.55	-1.81	-56.1	-5.8	
15,113.0	91.00	177.70	11,362.8	-3,464.2	35.3	0.47	0.21	-0.42	-59.6	-3.0	
15,207.0	91.20	179.50	11,361.0	-3,558.1	37.6	1.93	0.21	1.91	-63.4	-1.3	
15,301.0	92.00	179.90	11,358.4	-3,652.1	38.1	0.95	0.85	0.43	-68.0	-1.5	
15,395.0	89.10	180.70	11,357.5	-3,746.1	37.6	3.20	-3.09	0.85	-70.9	-2.6	
15,490.0	90.90	180.40	11,357.5	-3,841.1	36.7	1.92	1.89	-0.32	-72.9	-4.2	
15,584.0	89.50	180.90	11,357.2	-3,935.0	35.6	1.58	-1.49	0.53	-75.3	-5.9	
15,678.0	89.70	180.50	11,357.8	-4,029.0	34.5	0.48	0.21	-0.43	-76.6	-7.7	
15,773.0	89.20	180.90	11,358.7	-4,124.0	33.3	0.67	-0.53	0.42	-77.7	-9.5	
15,867.0	87.60	179.70	11,361.4	-4,218.0	32.8	2.13	-1.70	-1.28	-77.1	-10.7	
15,961.0	88.50	179.60	11,364.6	-4,311.9	33.4	0.96	0.96	-0.11	-75.8	-10.7	

EOG Resources

PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #601Y
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3423.0usft (H&P 621)
Site:	Righteous 6 State Com	MD Reference:	KB = 25 @ 3423.0usft (H&P 621)
Well:	#601Y	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14 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)	
16,056.0	89.20	179.60	11,366.5	-4,406.9	34.1	0.74	0.74	0.00	-76.0	-10.7	
16,150.0	87.20	179.20	11,369.4	-4,500.8	35.1	2.17	-2.13	-0.43	-75.0	-10.4	
16,245.0	87.60	178.90	11,373.7	-4,595.7	36.6	0.53	0.42	-0.32	-72.7	-9.5	
16,339.0	89.60	179.60	11,376.0	-4,689.7	37.9	2.25	2.13	0.74	-72.4	-8.9	
16,433.0	91.00	179.80	11,375.5	-4,783.7	38.4	1.50	1.49	0.21	-74.9	-9.1	
16,528.0	88.80	179.90	11,375.7	-4,878.7	38.6	2.32	-2.32	0.11	-76.7	-9.5	
16,622.0	89.80	179.60	11,376.8	-4,972.7	39.0	1.11	1.06	-0.32	-77.6	-9.7	
16,717.0	87.70	180.90	11,378.9	-5,067.6	38.6	2.60	-2.21	1.37	-77.3	-10.7	
16,811.0	90.60	181.20	11,380.3	-5,161.6	36.9	3.10	3.09	0.32	-77.5	-13.1	
16,905.0	87.90	180.40	11,381.5	-5,255.6	35.6	3.00	-2.87	-0.85	-77.8	-15.1	
17,000.0	87.40	179.90	11,385.4	-5,350.5	35.3	0.74	-0.53	-0.53	-75.6	-16.0	
17,094.0	88.70	179.60	11,388.6	-5,444.4	35.7	1.42	1.38	-0.32	-74.0	-16.3	
17,188.0	86.90	179.00	11,392.2	-5,538.4	36.9	2.02	-1.91	-0.64	-72.0	-15.8	
17,282.0	88.30	178.70	11,396.2	-5,632.3	38.8	1.52	1.49	-0.32	-69.6	-14.5	
17,377.0	90.60	179.30	11,397.1	-5,727.2	40.4	2.50	2.42	0.63	-70.3	-13.5	
17,471.0	90.70	178.70	11,396.0	-5,821.2	42.1	0.65	0.11	-0.64	-73.0	-12.6	
17,565.0	91.10	178.90	11,394.5	-5,915.2	44.0	0.48	0.43	0.21	-76.1	-11.2	
17,615.0	91.10	178.90	11,393.6	-5,965.2	45.0	0.00	0.00	0.00	-77.9	-10.6	
17,659.0	89.30	180.00	11,393.4	-6,009.1	45.4	4.79	-4.09	2.50	-78.8	-10.5	
17,754.0	88.30	180.50	11,395.4	-6,104.1	45.0	1.18	-1.05	0.53	-78.4	-11.5	
17,848.0	85.60	180.10	11,400.4	-6,198.0	44.5	2.90	-2.87	-0.43	-75.0	-12.7	
17,942.0	89.30	180.00	11,404.6	-6,291.9	44.4	3.94	3.94	-0.11	-72.4	-13.4	
18,036.0	89.10	179.90	11,405.9	-6,385.9	44.5	0.24	-0.21	-0.11	-72.7	-14.0	
18,131.0	89.30	179.70	11,407.2	-6,480.9	44.8	0.30	0.21	-0.21	-73.0	-14.3	
18,225.0	88.90	179.70	11,408.7	-6,574.8	45.3	0.43	-0.43	0.00	-73.1	-14.5	
18,320.0	88.60	179.90	11,410.8	-6,669.8	45.7	0.38	-0.32	0.21	-72.7	-14.8	
18,414.0	86.60	180.50	11,414.7	-6,763.7	45.3	2.22	-2.13	0.64	-70.4	-15.8	

EOG Resources

PVA Report

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Righteous 6 State Com
Well: #601Y
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #601Y
TVD Reference: KB = 25 @ 3423.0usft (H&P 621)
MD Reference: KB = 25 @ 3423.0usft (H&P 621)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.14 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)
18,508.0	86.60	180.40	11,420.3	-6,857.6	44.6	0.11	0.00	-0.11	-66.4	-17.2
18,602.0	87.20	180.20	11,425.4	-6,951.4	44.1	0.67	0.64	-0.21	-64.9	-18.6
18,640.0	88.00	180.60	11,427.0	-6,989.4	43.8	2.35	2.11	1.05	-81.2	-23.1
18,690.0	89.00	180.60	11,428.3	-7,039.4	43.3	2.00	2.00	0.00	-117.7	-34.2

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
11,293.0	11,174.7	330.0	6.8	HL Crossing, MD:11293.0', TVD:11174.7', N/S:330.0', E/W:6.8', INC:54.83
18,584.6	11,424.5	-6,934.0	44.2	HL Crossing, MD:18584.6', TVD:11424.5', N/S:-6934.0', E/W:44.2', INC:87.09
18,640.0	11,427.0	-6,989.4	43.8	Final MWD Survey (MD= 18640.0')
18,690.0	11,428.3	-7,039.4	43.3	Final Projection to Bit (MD=18690.0')

Checked By: _____ Approved By: _____ Date: _____