

MAY 15 2017

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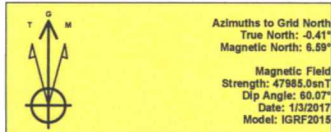
Lea County, NM (NAD 27 NME)
Neptune 10 State Com #505H
H&P 642
Plan #3

PROJECT DETAILS: Lea County, NM (NAD 27 NME)

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

WELL DETAILS: #505H

Ground Level: 3615.0
KB = 25' @ 3640.0usft (H&P 642)
Northing: 446798.00 Easting: 737007.00 Latitude: 32° 13' 33.747 N Longitude: 103° 34' 0.859 W



To convert a Magnetic Direction to a Grid Direction, Add 8.59°
To convert a Magnetic Direction to a True Direction, Add 7.00° East
To convert a True Direction to a Grid Direction, Subtract 0.41°

SECTION DETAILS

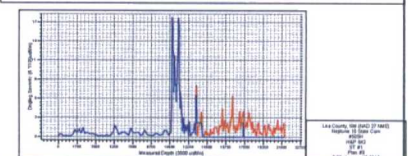
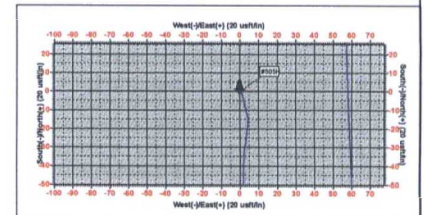
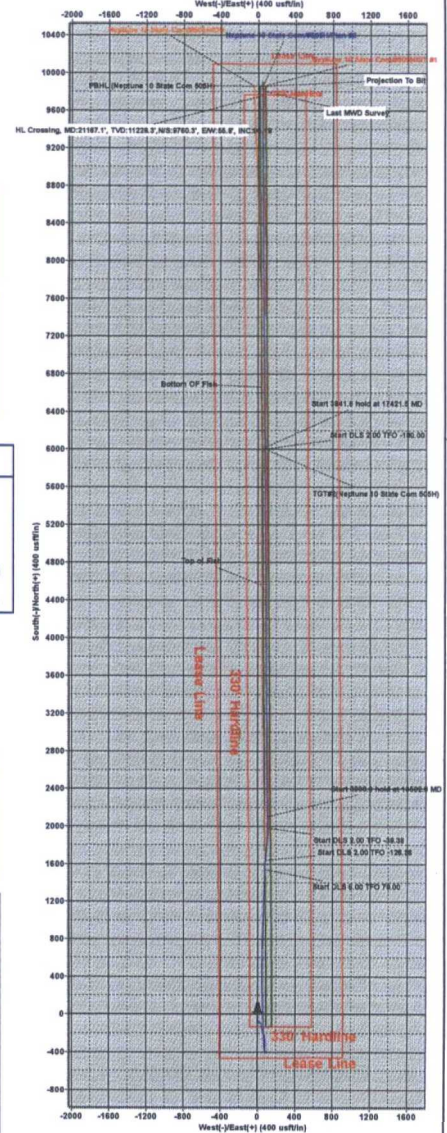
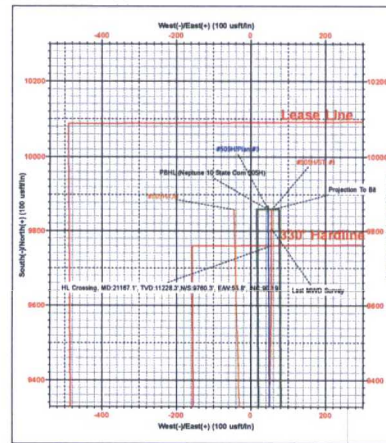
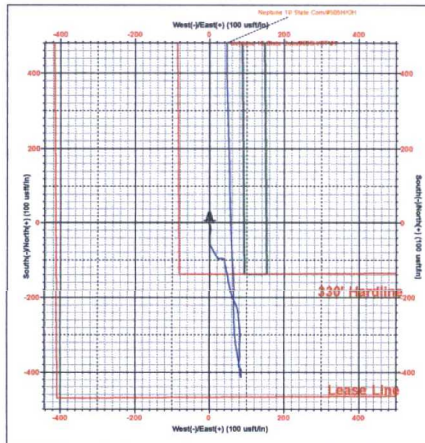
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	12943.0	90.10	0.90	11235.8	1541.5	77.2	0.00	0.00	1541.9	
2	13043.0	92.15	6.54	11233.8	1641.2	83.7	6.00	70.00	1641.6	
3	13381.7	88.13	1.09	11233.0	1979.0	106.2	2.00	-126.38	1979.5	
4	13502.9	90.00	359.56	11235.0	2100.1	106.9	2.00	-39.38	2100.6	
5	17402.9	90.00	359.56	11235.0	6000.0	77.0	0.00	0.00	6000.3	TGT#2(Neptune 10 State Com 505H)
6	17421.5	89.63	359.56	11235.1	6018.6	76.9	2.00	180.00	6018.9	
7	21263.1	89.63	359.56	11260.0	9860.0	47.4	0.00	0.00	9860.1	PBHL (Neptune 10 State Com 505H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
TGT#2(Neptune 10 State Com 505H)	11235.0	6000.0	77.0	462798.00	737084.00
PBHL (Neptune 10 State Com 505H)	11260.0	9860.0	47.4	456658.00	737064.40



HL Crossing: MD:11345.8, TVD:11134.7, NS:137.7, EW:54.6, INC:54.35

HL Crossing: MD:11167.1, TVD:11228.7, NS:8786.7, EW:54.6, INC:54.19

Last MWD Survey

Start DLS 2.00 TPO: 58.39

Start DLS 3.00 TPO: 126.38

Start DLS 4.00 TPO: 180.00

Start DLS 5.00 TPO: 2100.6

Start DLS 6.00 TPO: 6000.3

Start DLS 7.00 TPO: 9860.1

Top of Hole

Bottom of Hole

Projection to Bit

Projection to Bit

Projection to Bit

Projection to Bit

SCALE: 1" = 2000'

0' 1000' 2000'

SECTIONS 3 & 10 TOWNSHIP 24-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



BOTTOM HOLE LOCATION
NEW MEXICO EAST
NAD 1927
X=737063
Y=456657
LAT.: N 32.2531402
LONG.: W 103.5664981
MD = 21265'

POINT	UTM ZONE 13 COORDINATES	
SHL	X=2083458.241	Y=11700118.727
UMP	X=2083513.146	Y=11700211.255
LMP	X=2083453.611	Y=11709784.395
BHL	X=2083452.517	Y=11709976.607

LOWER MOST PERFORATION
NEW MEXICO EAST
NAD 1927
X=737062
Y=456465
LAT.: N 32.2526117
LONG.: W 103.5665029
MD = 21073'

UPPER MOST PERFORATION
NEW MEXICO EAST
NAD 1927
X=737063
Y=446890
LAT.: N 32.2262932
LONG.: W 103.5667237
MD = 11492'

SURFACE LOCATION
NEW MEXICO EAST
NAD 1927
X=737007
Y=446798
LAT.: N 32.2260409
LONG.: W 103.5669052

LEASE NAME & WELL NO.: NEPTUNE 10 STATE COM #505H (SIDETRACK)
SECTION 10 TWP 24-S RGE 33-E SURVEY N.M.P.M.
COUNTY LEA STATE NM ELEVATION 3615'
DESCRIPTION 468' FSL & 411' FWL



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
MARCH 23, 2017



NEPTUNE 10 STATE COM
#505H AS-COMPLETED

DATE: 03/23/17

FILE: AD_NEPTUNE10STATECOM_505H_SIDETRACK

DRAWN BY: A.C.C.

SHEET: 1 OF 1

REVISION:

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 27 NME)

Neptune 10 State Com

#505H

ST #1

Design: ST #1

PVA

17 January, 2017

HOBBS OCD
MAY 15 2017
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EOG Resources, Inc.

PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #505H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 25' @ 3640.0usft (H&P 642)
Site:	Neptune 10 State Com	MD Reference:	KB = 25' @ 3640.0usft (H&P 642)
Well:	#505H	North Reference:	Grid
Wellbore:	ST #1	Survey Calculation Method:	Minimum Curvature
Design:	ST #1	Database:	EDM 5000.1 Single User Db

Project	Lea County, NM (NAD 27 NME)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Neptune 10 State Com		
Site Position:		Northing:	446,603.00 usft
From:	Map	Easting:	740,781.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 13' 31.549 N
		Longitude:	103° 33' 16.943 W
		Grid Convergence:	0.42 °

Well	#505H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft
		Latitude:	32° 13' 33.747 N
		Longitude:	103° 34' 0.859 W
		Ground Level:	3,615.0 usft

Wellbore	ST #1		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2015	1/3/2017	7.00
			Dip Angle (°)
			60.07
			Field Strength (nT)
			47,985

Design	ST #1		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	12,943.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.0	0.0	0.0
			Direction (°)
			0.28



EOG Resources, Inc.

PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 27 NME)
 Site: Neptune 10 State Com
 Well: #505H
 Wellbore: ST #1
 Design: ST #1

Local Co-ordinate Reference: Well #505H
 TVD Reference: KB = 25' @ 3640.0usft (H&P 642)
 MD Reference: KB = 25' @ 3640.0usft (H&P 642)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.1 Single User Db

Survey Program		Date	1/17/2017		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
134.0	12,943.0	Intrp MWD #1 (OH)	MWD	MWD - Standard	
13,017.0	21,266.0	Intrepid MWD #2 (ST #1)	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
134.0	0.40	105.00	134.0	-0.1	0.5	0.30	0.30	0.00	0.0	0.0	0.0
313.0	0.70	165.10	313.0	-1.3	1.3	0.34	0.17	33.58	0.0	0.0	0.0
487.0	0.90	167.10	487.0	-3.7	1.9	0.12	0.11	1.15	0.0	0.0	0.0
675.0	1.00	169.90	674.9	-6.8	2.5	0.06	0.05	1.49	0.0	0.0	0.0
860.0	0.80	162.00	859.9	-9.6	3.2	0.13	-0.11	-4.27	0.0	0.0	0.0
1,044.0	0.70	164.00	1,043.9	-11.9	3.9	0.06	-0.05	1.09	0.0	0.0	0.0
1,232.0	0.80	173.30	1,231.9	-14.3	4.4	0.08	0.05	4.95	0.0	0.0	0.0
1,316.0	1.00	173.30	1,315.9	-15.6	4.5	0.24	0.24	0.00	0.0	0.0	0.0
1,426.0	1.30	187.10	1,425.9	-17.8	4.5	0.37	0.27	12.55	0.0	0.0	0.0
1,613.0	3.10	187.40	1,612.7	-24.9	3.6	0.96	0.96	0.16	0.0	0.0	0.0
1,801.0	2.10	190.80	1,800.5	-33.3	2.3	0.54	-0.53	1.81	0.0	0.0	0.0
1,988.0	4.00	178.30	1,987.2	-43.2	1.8	1.07	1.02	-6.68	0.0	0.0	0.0
2,176.0	3.10	179.80	2,174.9	-54.9	2.1	0.48	-0.48	0.80	0.0	0.0	0.0
2,363.0	4.40	149.50	2,361.5	-66.1	5.7	1.24	0.70	-16.20	0.0	0.0	0.0
2,551.0	3.60	149.70	2,549.0	-77.4	12.3	0.43	-0.43	0.11	0.0	0.0	0.0
2,739.0	2.50	148.90	2,736.8	-86.0	17.4	0.59	-0.59	-0.43	0.0	0.0	0.0
2,927.0	1.80	142.20	2,924.6	-91.9	21.4	0.39	-0.37	-3.56	0.0	0.0	0.0
3,115.0	1.00	137.00	3,112.6	-95.4	24.3	0.43	-0.43	-2.77	0.0	0.0	0.0
3,303.0	0.40	90.60	3,300.6	-96.6	26.1	0.41	-0.32	-24.68	0.0	0.0	0.0
3,491.0	0.40	20.00	3,488.6	-96.0	27.0	0.25	0.00	-37.55	0.0	0.0	0.0



EOG Resources, Inc.

PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #505H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 25' @ 3640.0usft (H&P 642)
Site:	Neptune 10 State Com	MD Reference:	KB = 25' @ 3640.0usft (H&P 642)
Well:	#505H	North Reference:	Grid
Wellbore:	ST #1	Survey Calculation Method:	Minimum Curvature
Design:	ST #1	Database:	EDM 5000.1 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)	
3,679.0	0.10	358.30	3,676.6	-95.2	27.2	0.16	-0.16	-11.54	0.0	0.0	
3,867.0	0.10	324.00	3,864.6	-94.9	27.1	0.03	0.00	-18.24	0.0	0.0	
4,055.0	0.20	124.50	4,052.6	-95.0	27.2	0.16	0.05	85.37	0.0	0.0	
4,242.0	0.30	102.60	4,239.6	-95.2	28.0	0.07	0.05	-11.71	0.0	0.0	
4,430.0	0.40	85.40	4,427.6	-95.3	29.1	0.08	0.05	-9.15	0.0	0.0	
4,618.0	0.90	95.60	4,615.5	-95.4	31.3	0.27	0.27	5.43	0.0	0.0	
4,805.0	0.90	99.50	4,802.5	-95.8	34.2	0.03	0.00	2.09	0.0	0.0	
4,993.0	1.30	104.50	4,990.5	-96.6	37.7	0.22	0.21	2.66	0.0	0.0	
5,087.0	0.80	98.80	5,084.5	-96.9	39.4	0.54	-0.53	-6.06	0.0	0.0	
5,171.0	0.50	72.90	5,168.5	-96.9	40.3	0.49	-0.36	-30.83	0.0	0.0	
5,359.0	2.80	177.20	5,356.4	-101.3	41.3	1.58	1.22	55.48	0.0	0.0	
5,547.0	4.80	168.70	5,544.0	-113.6	43.1	1.10	1.06	-4.52	0.0	0.0	
5,735.0	5.40	169.70	5,731.2	-130.0	46.2	0.32	0.32	0.53	0.0	0.0	
5,922.0	4.50	166.80	5,917.5	-145.8	49.4	0.50	-0.48	-1.55	0.0	0.0	
6,109.0	5.60	171.40	6,103.8	-161.9	52.5	0.63	0.59	2.46	0.0	0.0	
6,297.0	6.20	162.30	6,290.8	-180.7	56.9	0.59	0.32	-4.84	0.0	0.0	
6,485.0	6.80	158.30	6,477.6	-200.7	64.1	0.40	0.32	-2.13	0.0	0.0	
6,673.0	6.90	155.40	6,664.3	-221.3	73.0	0.19	0.05	-1.54	0.0	0.0	
6,860.0	6.70	174.60	6,850.0	-242.4	78.7	1.21	-0.11	10.27	0.0	0.0	
7,048.0	5.40	171.90	7,036.9	-262.1	80.9	0.71	-0.69	-1.44	0.0	0.0	
7,235.0	4.60	176.80	7,223.2	-278.2	82.6	0.48	-0.43	2.62	0.0	0.0	
7,424.0	3.50	173.70	7,411.7	-291.6	83.7	0.59	-0.58	-1.64	0.0	0.0	
7,612.0	4.50	180.60	7,599.3	-304.6	84.2	0.59	0.53	3.67	0.0	0.0	
7,798.0	4.30	183.90	7,784.7	-318.9	83.7	0.17	-0.11	1.77	0.0	0.0	
7,986.0	3.80	182.70	7,972.2	-332.1	82.9	0.27	-0.27	-0.64	0.0	0.0	
8,175.0	2.10	176.70	8,161.0	-341.9	82.8	0.91	-0.90	-3.17	0.0	0.0	
8,362.0	2.90	177.00	8,347.8	-350.0	83.2	0.43	0.43	0.16	0.0	0.0	



EOG Resources, Inc.
PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #505H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 25' @ 3640.0usft (H&P 642)
Site:	Neptune 10 State Com	MD Reference:	KB = 25' @ 3640.0usft (H&P 642)
Well:	#505H	North Reference:	Grid
Wellbore:	ST #1	Survey Calculation Method:	Minimum Curvature
Design:	ST #1	Database:	EDM 5000.1 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)
8,550.0	2.80	185.70	8,535.6	-359.3	83.0	0.24	-0.05	4.63	0.0	0.0
8,738.0	2.40	187.10	8,723.4	-367.8	82.1	0.22	-0.21	0.74	0.0	0.0
8,926.0	2.20	190.70	8,911.2	-375.2	80.9	0.13	-0.11	1.91	0.0	0.0
9,115.0	1.50	192.00	9,100.1	-381.2	79.7	0.37	-0.37	0.69	0.0	0.0
9,303.0	0.70	160.60	9,288.1	-384.7	79.6	0.52	-0.43	-16.70	0.0	0.0
9,491.0	1.10	136.70	9,476.1	-387.1	81.2	0.29	0.21	-12.71	0.0	0.0
9,679.0	1.50	132.00	9,664.0	-390.1	84.3	0.22	0.21	-2.50	0.0	0.0
9,869.0	1.40	155.30	9,854.0	-393.8	87.1	0.31	-0.05	12.26	0.0	0.0
10,057.0	1.10	240.40	10,041.9	-396.8	86.5	0.91	-0.16	45.27	0.0	0.0
10,244.0	2.00	190.00	10,228.9	-400.9	84.4	0.83	0.48	-26.95	0.0	0.0
10,432.0	1.70	180.10	10,416.8	-406.9	83.8	0.23	-0.16	-5.27	0.0	0.0
10,620.0	1.90	147.50	10,604.7	-412.4	85.5	0.55	0.11	-17.34	0.0	0.0
10,642.0	2.00	143.20	10,626.7	-413.0	85.9	0.81	0.45	-19.55	0.0	0.0
10,698.0	1.10	61.50	10,682.7	-413.5	87.0	3.82	-1.61	-145.89	0.0	0.0
10,736.0	6.80	351.10	10,720.6	-411.1	86.9	17.14	15.00	-185.26	0.0	0.0
10,783.0	14.30	349.90	10,766.7	-402.6	85.5	15.96	15.96	-2.55	0.0	0.0
10,829.0	20.00	349.90	10,810.7	-389.3	83.1	12.39	12.39	0.00	0.0	0.0
10,876.0	25.50	351.10	10,854.0	-371.4	80.1	11.74	11.70	2.55	0.0	0.0
10,923.0	28.30	348.70	10,895.9	-350.4	76.4	6.39	5.96	-5.11	0.0	0.0
10,970.0	33.50	352.10	10,936.2	-326.6	72.4	11.67	11.06	7.23	0.0	0.0
11,017.0	37.40	356.20	10,974.5	-299.5	69.7	9.71	8.30	8.72	0.0	0.0
11,064.0	40.80	357.20	11,011.0	-269.9	68.0	7.36	7.23	2.13	0.0	0.0
11,111.0	44.30	358.20	11,045.6	-238.2	66.7	7.58	7.45	2.13	0.0	0.0
11,158.0	46.40	359.80	11,078.6	-204.8	66.1	5.08	4.47	3.40	0.0	0.0
11,204.0	50.10	358.80	11,109.3	-170.5	65.7	8.21	8.04	-2.17	0.0	0.0
11,251.0	54.80	356.70	11,137.9	-133.2	64.2	10.61	10.00	-4.47	0.0	0.0
11,298.0	60.70	357.20	11,163.0	-93.6	62.1	12.59	12.55	1.06	0.0	0.0



EOG Resources, Inc.

PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 27 NME)
Site: Neptune 10 State Com
Well: #505H
Wellbore: ST #1
Design: ST #1

Local Co-ordinate Reference: Well #505H
TVD Reference: KB = 25' @ 3640.0usft (H&P 642)
MD Reference: KB = 25' @ 3640.0usft (H&P 642)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 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)	
11,345.0	68.70	357.70	11,183.0	-51.2	60.2	17.05	17.02	1.06	0.0	0.0	0.0
11,390.0	75.80	357.80	11,196.7	-8.4	58.6	15.78	15.78	0.22	0.0	0.0	0.0
11,437.0	79.30	358.00	11,206.9	37.5	56.9	7.46	7.45	0.43	0.0	0.0	0.0
11,484.0	82.00	358.90	11,214.5	83.9	55.6	6.05	5.74	1.91	0.0	0.0	0.0
11,510.0	83.00	359.30	11,217.9	109.6	55.2	4.14	3.85	1.54	0.0	0.0	0.0
11,537.0	84.70	359.30	11,220.8	136.5	54.9	6.30	6.30	0.00	0.0	0.0	0.0
11,630.0	88.80	358.20	11,226.1	229.3	52.9	4.56	4.41	-1.18	0.0	0.0	0.0
11,723.0	89.30	357.60	11,227.6	322.2	49.5	0.84	0.54	-0.65	0.0	0.0	0.0
11,817.0	88.10	359.90	11,229.7	416.1	47.4	2.76	-1.28	2.45	0.0	0.0	0.0
11,911.0	87.90	0.30	11,233.0	510.1	47.6	0.48	-0.21	0.43	0.0	0.0	0.0
12,005.0	89.50	0.50	11,235.2	604.1	48.2	1.72	1.70	0.21	0.0	0.0	0.0
12,099.0	89.80	1.20	11,235.7	698.0	49.6	0.81	0.32	0.74	0.0	0.0	0.0
12,192.0	91.30	1.90	11,234.8	791.0	52.1	1.78	1.61	0.75	0.0	0.0	0.0
12,286.0	91.50	2.00	11,232.5	884.9	55.3	0.24	0.21	0.11	0.0	0.0	0.0
12,380.0	89.50	1.70	11,231.7	978.9	58.4	2.15	-2.13	-0.32	0.0	0.0	0.0
12,474.0	89.40	1.70	11,232.6	1,072.8	61.2	0.11	-0.11	0.00	0.0	0.0	0.0
12,567.0	89.40	2.00	11,233.6	1,165.8	64.2	0.32	0.00	0.32	0.0	0.0	0.0
12,661.0	89.70	2.50	11,234.3	1,259.7	67.8	0.62	0.32	0.53	0.0	0.0	0.0
12,755.0	89.40	2.90	11,235.1	1,353.6	72.3	0.53	-0.32	0.43	0.0	0.0	0.0
12,849.0	89.80	1.10	11,235.7	1,447.5	75.6	1.96	0.43	-1.91	0.0	0.0	0.0
12,943.0	90.10	0.90	11,235.8	1,541.5	77.2	0.38	0.32	-0.21	0.0	0.0	0.0
13,017.0	92.00	6.00	11,234.5	1,615.3	81.6	7.35	2.57	6.89	-0.2	-0.6	-0.6
13,110.0	92.10	6.00	11,231.1	1,707.8	91.4	0.11	0.11	0.00	-0.7	-0.7	-0.7
13,204.0	90.80	6.00	11,228.8	1,801.2	101.2	1.38	-1.38	0.00	-1.7	-2.8	-2.8
13,298.0	89.50	5.10	11,228.5	1,894.8	110.3	1.68	-1.38	-0.96	-2.5	-6.7	-6.7
13,392.0	89.90	3.10	11,229.0	1,988.5	117.0	2.17	0.43	-2.13	-4.3	-10.6	-10.6
13,486.0	90.20	359.80	11,228.9	2,082.5	119.4	3.53	0.32	-3.51	-6.0	-12.4	-12.4



EOG Resources, Inc.

PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #505H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 25' @ 3640.0usft (H&P 642)
Site:	Neptune 10 State Com	MD Reference:	KB = 25' @ 3640.0usft (H&P 642)
Well:	#505H	North Reference:	Grid
Wellbore:	ST #1	Survey Calculation Method:	Minimum Curvature
Design:	ST #1	Database:	EDM 5000.1 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)
13,579.0	89.90	359.40	11,228.8	2,175.5	118.7	0.54	-0.32	-0.43	-6.2	-12.4
13,673.0	90.00	359.20	11,228.9	2,269.5	117.6	0.24	0.11	-0.21	-6.1	-12.0
13,767.0	90.00	359.30	11,228.9	2,363.5	116.3	0.11	0.00	0.11	-6.1	-11.5
13,861.0	89.40	358.80	11,229.4	2,457.5	114.8	0.83	-0.64	-0.53	-5.6	-10.6
13,955.0	89.10	359.00	11,230.6	2,551.4	113.0	0.38	-0.32	0.21	-4.4	-9.5
14,049.0	89.50	359.10	11,231.8	2,645.4	111.4	0.44	0.43	0.11	-3.2	-8.7
14,143.0	89.50	358.80	11,232.6	2,739.4	109.7	0.32	0.00	-0.32	-2.4	-7.7
14,237.0	89.50	358.70	11,233.4	2,833.4	107.6	0.11	0.00	-0.11	-1.6	-6.4
14,331.0	90.40	359.10	11,233.5	2,927.3	105.8	1.05	0.96	0.43	-1.5	-5.3
14,424.0	90.10	358.90	11,233.1	3,020.3	104.2	0.39	-0.32	-0.22	-1.9	-4.4
14,518.0	89.50	359.20	11,233.4	3,114.3	102.7	0.71	-0.64	0.32	-1.6	-3.5
14,612.0	89.90	359.00	11,233.9	3,208.3	101.2	0.48	0.43	-0.21	-1.1	-2.8
14,706.0	91.00	358.60	11,233.2	3,302.3	99.2	1.25	1.17	-0.43	-1.8	-1.5
14,799.0	90.50	359.80	11,232.0	3,395.3	97.9	1.40	-0.54	1.29	-3.0	-0.9
14,893.0	89.20	359.90	11,232.2	3,489.3	97.7	1.39	-1.38	0.11	-2.8	-1.4
14,987.0	89.10	359.30	11,233.6	3,583.2	97.0	0.65	-0.11	-0.64	-1.4	-1.5
15,081.0	89.30	359.10	11,234.9	3,677.2	95.7	0.30	0.21	-0.21	-0.1	-0.9
15,174.0	87.80	359.20	11,237.3	3,770.2	94.3	1.62	-1.61	0.11	2.3	-0.2
15,268.0	86.50	359.10	11,241.9	3,864.0	92.9	1.39	-1.38	-0.11	6.9	0.4
15,362.0	88.00	359.70	11,246.5	3,957.9	91.9	1.72	1.60	0.64	11.5	0.7
15,455.0	91.50	0.90	11,246.9	4,050.9	92.4	3.98	3.76	1.29	11.9	-0.5
15,549.0	90.70	0.90	11,245.1	4,144.9	93.9	0.85	-0.85	0.00	10.1	-2.7
15,643.0	88.60	0.40	11,245.6	4,238.9	95.0	2.30	-2.23	-0.53	10.6	-4.5
15,737.0	87.50	0.30	11,248.8	4,332.8	95.6	1.18	-1.17	-0.11	13.8	-5.8
15,831.0	88.70	359.80	11,251.9	4,426.8	95.6	1.38	1.28	-0.53	16.9	-6.6
15,925.0	90.50	359.50	11,252.6	4,520.8	95.1	1.94	1.91	-0.32	17.6	-6.7
16,018.0	90.60	358.90	11,251.7	4,613.7	93.8	0.65	0.11	-0.65	16.7	-6.1



EOG Resources, Inc.

PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 27 NME)
 Site: Neptune 10 State Com
 Well: #505H
 Wellbore: ST #1
 Design: ST #1

Local Co-ordinate Reference: Well #505H
 TVD Reference: KB = 25' @ 3640.0usft (H&P 642)
 MD Reference: KB = 25' @ 3640.0usft (H&P 642)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.1 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)	
16,112.0	90.00	359.30	11,251.2	4,707.7	92.3	0.77	-0.64	0.43	16.2	-5.4	
16,206.0	91.30	0.50	11,250.2	4,801.7	92.1	1.88	1.38	1.28	15.2	-5.9	
16,300.0	93.90	1.20	11,245.9	4,895.6	93.5	2.86	2.77	0.74	10.9	-8.0	
16,393.0	88.60	0.00	11,243.9	4,988.5	94.5	5.84	-5.70	-1.29	8.9	-9.7	
16,487.0	88.10	359.10	11,246.6	5,082.5	93.7	1.09	-0.53	-0.96	11.6	-9.7	
16,581.0	89.60	359.50	11,248.5	5,176.5	92.6	1.65	1.60	0.43	13.5	-9.3	
16,675.0	89.80	0.00	11,248.9	5,270.5	92.2	0.57	0.21	0.53	13.9	-9.6	
16,770.0	88.30	0.00	11,250.5	5,365.4	92.2	1.58	-1.58	0.00	15.5	-10.3	
16,863.0	87.80	0.70	11,253.7	5,458.4	92.8	0.92	-0.54	0.75	18.7	-11.6	
16,957.0	88.70	359.50	11,256.6	5,552.3	92.9	1.60	0.96	-1.28	21.6	-12.5	
17,051.0	91.60	357.70	11,256.3	5,646.3	90.6	3.63	3.09	-1.91	21.3	-10.9	
17,145.0	91.30	358.80	11,253.9	5,740.2	87.8	1.21	-0.32	1.17	18.9	-8.8	
17,239.0	90.50	0.50	11,252.5	5,834.2	87.2	2.00	-0.85	1.81	17.5	-8.9	
17,334.0	90.30	357.60	11,251.8	5,929.2	85.6	3.06	-0.21	-3.05	16.8	-8.1	
17,428.0	92.90	359.80	11,249.2	6,023.1	83.5	3.62	2.77	2.34	14.1	-6.7	
17,521.0	91.90	359.10	11,245.3	6,116.0	82.6	1.31	-1.08	-0.75	9.6	-6.5	
17,614.0	90.80	359.80	11,243.1	6,209.0	81.7	1.40	-1.18	0.75	6.8	-6.3	
17,707.0	88.80	359.80	11,243.4	6,302.0	81.4	2.15	-2.15	0.00	6.5	-6.7	
17,800.0	88.60	1.10	11,245.5	6,395.0	82.1	1.41	-0.22	1.40	8.0	-8.1	
17,894.0	89.00	357.80	11,247.5	6,488.9	81.2	3.54	0.43	-3.51	9.4	-7.9	
17,989.0	89.40	0.30	11,248.8	6,583.9	79.6	2.66	0.42	2.63	10.1	-7.1	
18,083.0	87.60	359.50	11,251.3	6,677.8	79.5	2.10	-1.91	-0.85	11.9	-7.7	
18,177.0	88.40	358.80	11,254.6	6,771.8	78.1	1.13	0.85	-0.74	14.6	-7.0	
18,271.0	90.40	358.50	11,255.5	6,865.7	75.8	2.15	2.13	-0.32	15.0	-5.5	
18,365.0	90.90	358.30	11,254.5	6,959.7	73.2	0.57	0.53	-0.21	13.3	-3.6	
18,459.0	91.80	359.00	11,252.3	7,053.6	71.0	1.21	0.96	0.74	10.5	-2.1	
18,553.0	91.60	359.10	11,249.5	7,147.6	69.4	0.24	-0.21	0.11	7.1	-1.2	



EOG Resources, Inc.

PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #505H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 25' @ 3640.0usft (H&P 642)
Site:	Neptune 10 State Com	MD Reference:	KB = 25' @ 3640.0usft (H&P 642)
Well:	#505H	North Reference:	Grid
Wellbore:	ST #1	Survey Calculation Method:	Minimum Curvature
Design:	ST #1	Database:	EDM 5000.1 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)
18,646.0	91.80	359.10	11,246.7	7,240.5	68.0	0.22	0.22	0.00	3.7	-0.5
18,740.0	90.90	0.40	11,244.5	7,334.5	67.6	1.68	-0.96	1.38	0.9	-0.8
18,835.0	89.10	1.10	11,244.5	7,429.5	68.8	2.03	-1.89	0.74	0.3	-2.8
18,928.0	89.00	1.50	11,246.0	7,522.5	70.9	0.44	-0.11	0.43	1.2	-5.6
19,022.0	89.50	1.90	11,247.3	7,616.4	73.7	0.68	0.53	0.43	1.8	-9.1
19,116.0	89.30	1.70	11,248.3	7,710.4	76.7	0.30	-0.21	-0.21	2.2	-12.8
19,210.0	89.20	2.00	11,249.5	7,804.3	79.7	0.34	-0.11	0.32	2.8	-16.5
19,303.0	88.60	0.90	11,251.3	7,897.3	82.1	1.35	-0.65	-1.18	4.0	-19.6
19,397.0	89.70	359.80	11,252.7	7,991.2	82.6	1.65	1.17	-1.17	4.8	-20.9
19,490.0	89.60	359.70	11,253.2	8,084.2	82.2	0.15	-0.11	-0.11	4.8	-21.2
19,582.0	89.40	359.60	11,254.0	8,176.2	81.7	0.24	-0.22	-0.11	5.0	-21.4
19,674.0	89.60	358.40	11,254.8	8,268.2	80.1	1.32	0.22	-1.30	5.2	-20.5
19,767.0	91.30	358.20	11,254.1	8,361.2	77.3	1.84	1.83	-0.22	3.8	-18.4
19,861.0	90.70	357.60	11,252.5	8,455.1	73.9	0.90	-0.64	-0.64	1.6	-15.7
19,953.0	91.60	357.90	11,250.6	8,547.0	70.2	1.03	0.98	0.33	-0.9	-12.8
20,046.0	91.10	357.30	11,248.4	8,639.9	66.4	0.84	-0.54	-0.65	-3.7	-9.6
20,141.0	91.20	357.40	11,246.5	8,734.8	62.0	0.15	0.11	0.11	-6.2	-5.9
20,234.0	92.30	358.10	11,243.7	8,827.6	58.3	1.40	1.18	0.75	-9.6	-3.0
20,327.0	92.60	357.70	11,239.7	8,920.5	54.9	0.54	0.32	-0.43	-14.2	-0.3
20,421.0	91.70	358.60	11,236.2	9,014.4	51.9	1.35	-0.96	0.96	-18.3	2.0
20,514.0	92.30	359.40	11,232.9	9,107.3	50.3	1.07	0.65	0.86	-22.2	2.9
20,607.0	90.10	359.80	11,231.0	9,200.3	49.6	2.40	-2.37	0.43	-24.7	2.9
20,701.0	90.80	0.50	11,230.2	9,294.3	49.8	1.05	0.74	0.74	-26.1	1.9
20,794.0	91.40	1.30	11,228.5	9,387.2	51.3	1.08	0.65	0.86	-28.5	-0.3
20,888.0	90.10	1.10	11,227.2	9,481.2	53.3	1.40	-1.38	-0.21	-30.3	-3.0
20,982.0	90.20	0.60	11,227.0	9,575.2	54.7	0.54	0.11	-0.53	-31.2	-5.1
21,075.0	89.00	0.30	11,227.6	9,668.2	55.4	1.33	-1.29	-0.32	-31.1	-6.5



EOG Resources, Inc.

PVA

Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 27 NME)
 Site: Neptune 10 State Com
 Well: #505H
 Wellbore: ST #1
 Design: ST #1

Local Co-ordinate Reference: Well #505H
 TVD Reference: KB = 25' @ 3640.0usft (H&P 642)
 MD Reference: KB = 25' @ 3640.0usft (H&P 642)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.1 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)
21,167.1	90.19	0.20	11,228.3	9,760.3	55.8	1.29	1.29	-0.11	-31.1	-7.6
HL Crossing, MD:21167.1', TVD:11228.3', N/S:9760.3', E/W:55.8', INC:90.19										
21,168.0	90.20	0.20	11,228.3	9,761.2	55.8	1.29	1.29	-0.11	-31.1	-7.6
21,212.0	89.50	359.70	11,228.4	9,805.2	55.8	1.96	-1.59	-1.14	-31.2	-7.9
Last MWD Survey										
21,266.0	89.50	359.70	11,228.9	9,859.2	55.5	0.00	0.00	0.00	-31.1	-8.1
Projection To Bit										

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
21,167.1	11,228.3	9,760.3	55.8	HL Crossing, MD:21167.1', TVD:11228.3', N/S:9760.3', E/W:55.8', INC:90.19
21,212.0	11,228.4	9,805.2	55.8	Last MWD Survey
21,266.0	11,228.9	9,859.2	55.5	Projection To Bit

Checked By: _____ Approved By: _____ Date: _____