

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM110840
2. Name of Operator EOG RESOURCES INCORPORATED		6. If Indian, Allottee or Tribe Name
3a. Address MIDLAND, TX 79702		7. If Unit or CA/Agreement, Name and/or No.
3b. Phone No. (include area code) Ph: 432-686-3689		8. Well Name and No. PHILLY 31 FED COM 704H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 31 T26S R34E 290FSL 2065FWL 32.001064 N Lat, 103.510880 W Lon		9. API Well No. 30-025-44769-00-X1
		10. Field and Pool or Exploratory Area RED HILLS-WOLFCAMP, WEST (GAS)
		11. County or Parish, State LEA COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original APD
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM. All proposed subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including completion, have been completed and the operator has determined that the site is ready for final inspection.

EOG Resources requests an amendment to our approved APD for this well to reflect a change in BHL.

Change BHL to: 100' FNL & 2345' FWL C-30-26S-34E

14. I hereby certify that the foregoing is true and correct. Electronic Submission #428567 verified by the BLM Well Information System For EOG RESOURCES INCORPORATED, sent to the Hobbs Committed to AFMSS for processing by PRISCILLA PEREZ on 07/25/2018 (18PP1543SE)	
Name (Printed/Typed) STAN WAGNER	Title REGULATORY ANALYST
Signature (Electronic Submission)	Date 07/24/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>/s/Zota Stevens</u>	Signature <u>Petroleum Engineer</u>	Date <u>8/18/18</u>
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.		

(Instructions on page 2)

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

District I
1625 N French Dr. Hobbs, NM 88240
Phone: (575) 393-6161 Fax (575) 393-6720
District II
811 S First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax (505) 334-6170
District IV
1220 S. St. Francis Dr. Santa Fe, NM 87505
Phone: (505) 476-3460 Fax (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources
Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

FORM C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-44769		² Pool Code 98079	³ Pool Name Sanders Tank; Upper Wolfcamp
⁴ Property Code 321381	⁵ Property Name PHILLY 31 FED COM		⁶ Well Number #704H
⁷ OGRID No. 7377	⁸ Operator Name EOG RESOURCES, INC.		⁹ Elevation 3365'

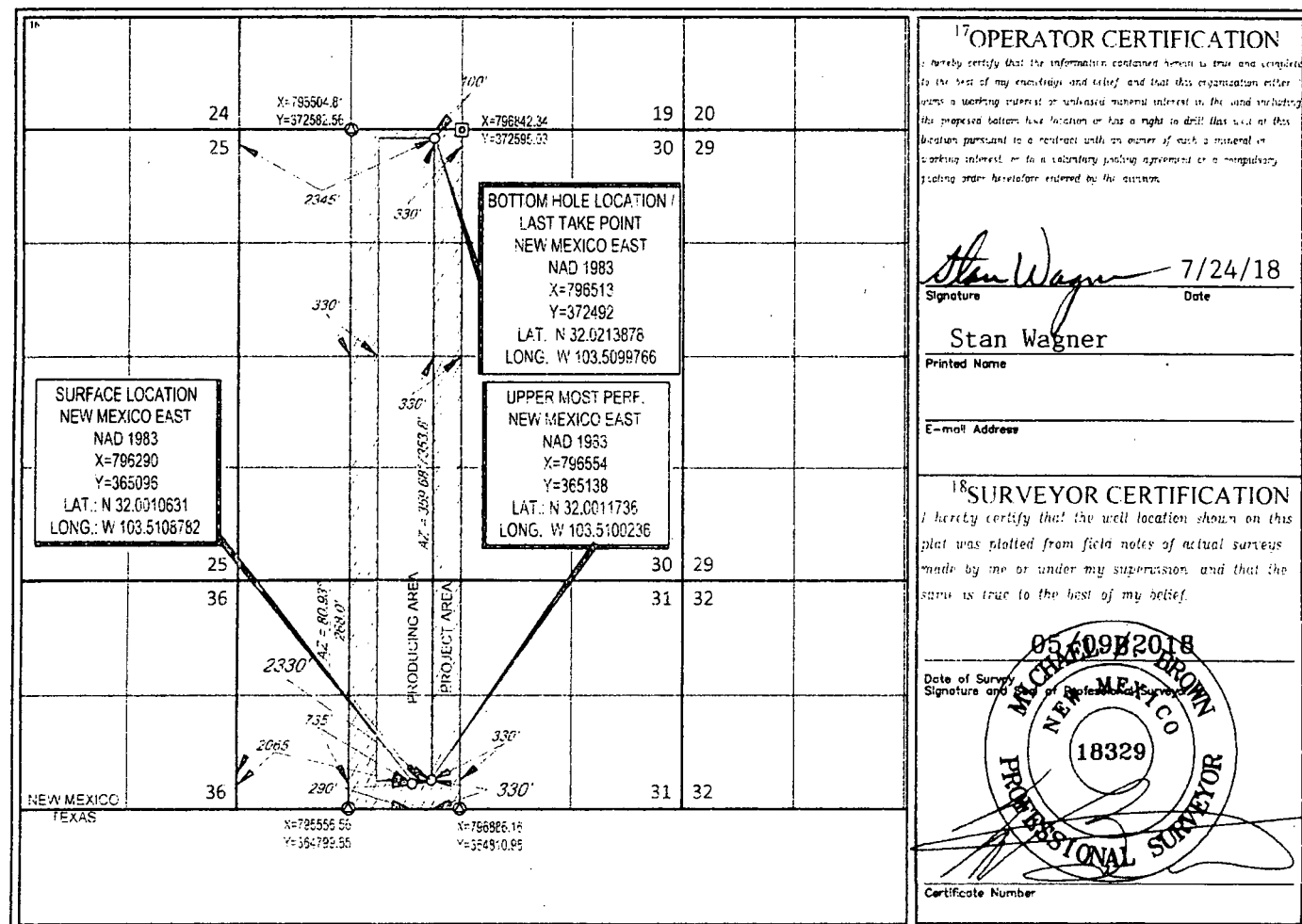
¹⁰Surface Location

U.I. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
3	31	26-S	34-E	-	290'	SOUTH	2065'	WEST	LEA

U.I. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	30	26-S	34-E	-	100'	NORTH	2345'	WEST	LEA

¹² Dedicated Acres 238.30	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



Revised Permit Information 7/20/18:

Well Name: Philly 31 Fed Com No. 704H

Location:

SL: 290' FSL & 2065' FWL, Section 31, T-26-S, R-34-E, Lea Co., N.M.

BHL: 100' FNL & 2345' FWL, Section 30, T-26-S, R-34-E, Lea Co., N.M.

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
17.5"	0 - 840'	13.375"	54.5#	J55	STC	1.125	1.25	1.60
12.25"	0-4,000'	9.625"	40#	J55	LTC	1.125	1.25	1.60
12.25"	4,000' - 5,300'	9.625"	40#	HCK55	LTC	1.125	1.25	1.60
8.75"	0 - 11,600'	7.625"	29.7#	HCP110	FXL	1.125	1.25	1.60
6.75"	0 - 11,100'	5.5"	20#	P110EC	DWC CIS MS	1.125	1.25	1.60
6.75"	11,100'-20,144'	5.5"	20#	P110EC	VAM SFC	1.125	1.25	1.60

Variance is requested for annular clearance of the 5-1/2" x 7-5/8" to the top of cement.

Cement Program:

Depth	No. Sacks	Wt. lb/gal	Yld Ft ³ /ft	Slurry Description
840'	697	13.5	1.74	Lead: Class 'C' + 4.00% Bentonite + 2.00% CaCl ₂ (TOC @ Surface)
	333	14.8	1.35	Tail: Class 'C' + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate + 2.0% KCl (1.06 lb/sk)
5,300'	692	12.7	2.22	Lead: Class C + 0.15% C-20 + 11.63 pps Salt + 0.1% C-51 + 0.75% C-41P (TOC @ Surface)
	303	14.8	1.32	Tail: Class C + 0.13% C-20
11,600'	375	10.8	3.67	Lead: Class C + 0.40% D013 + 0.20% D046 + 0.10% D065 + 0.20% D167 (TOC @ 4,800')
	400	14.8	2.38	Tail: Class H + 94.0 pps D909 + 0.25% D065 + 0.30% D167 + 0.02% D208 + 0.15% D800
20,144'	1000	14.8	1.31	Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 11,100')

Mud Program:

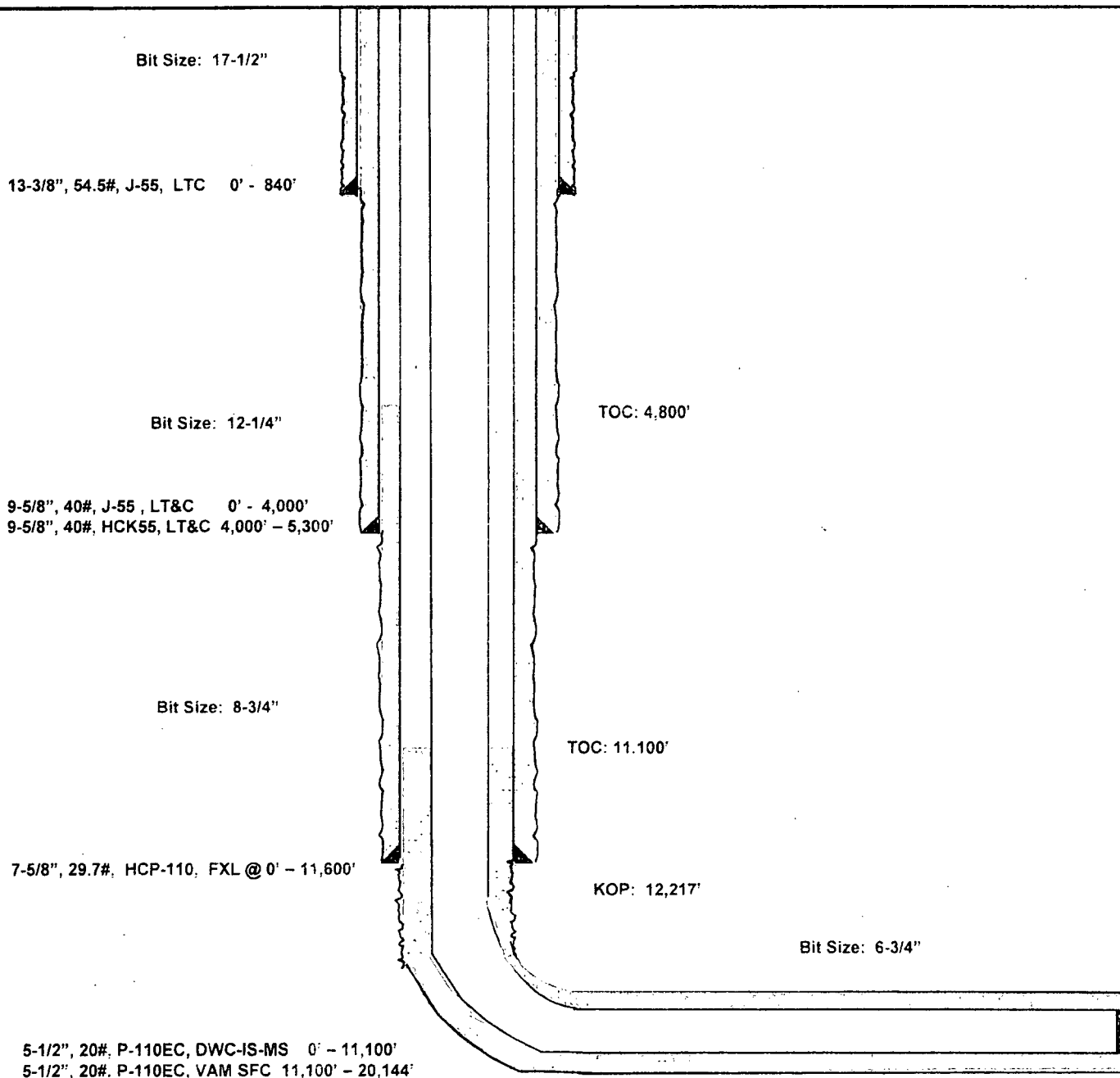
Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 - 840'	Fresh - Gel	8.6-8.8	28-34	N/c
840' - 5,300'	Brine	10.0-10.2	28-34	N/c
5,300' - 11,600'	Oil Base	8.7-9.4	58-68	N/c - 6
11,600' - 20,144' Lateral	Oil Base	10.0-11.5	58-68	3 - 6

Philly 31 Fed Com #704H
Lea County, New Mexico

290' FSL
2065' FWL
Section 31
T-26-S, R-34-E

Proposed Wellbore
Revised 7/20/18
API: 30-025-44769

KB: 3,389'
GL: 3,364'



Lateral: 20,144' MD, 12,701' TVD
Upper Most Perf:
330' FSL & 2330' FWL Sec. 31
Lower Most Perf:
100' FNL & 2345' FWL Sec. 30
BH Location: 100' FNL & 2345' FWL
Section 30
T-26-S, R-34-E



Lea County, NM (NAD 83 NME)

Philly 31 Fed Com #704H

Plan #0.2

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: #704H

KB = 25' @ 3389.0usft 3365.0
Northing 365096.00 Easting 796290.00 Latitude 32° 0' 3.827 N Longitude 103° 30' 39.158 W

SECTION DETAILS

Sec	MD	Inc	Azi	1VD	-N-S	+E-W	Diag	TFace	VSeal	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	4000.0	0.00	0.00	4000.0	0.0	0.0	0.00	0.00	0.0	
3	4247.8	2.48	134.28	4247.7	-3.7	3.8	1.00	134.28	-3.6	
4	12216.8	2.48	134.28	12209.3	-244.3	250.5	0.00	0.00	-236.6	
5	12981.3	90.00	359.68	12701.0	233.0	263.0	12.00	-134.57	240.8	
6	20144.4	90.00	359.68	12701.0	7396.0	223.0	0.00	0.00	7399.4	PBHL (Philly 31 Fed Com #704H 7/20)

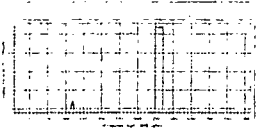
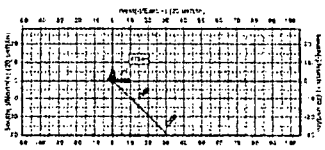
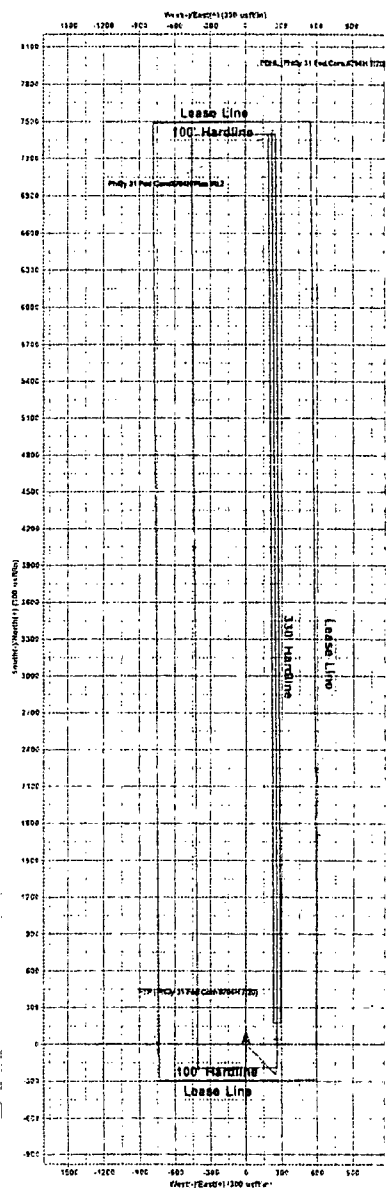
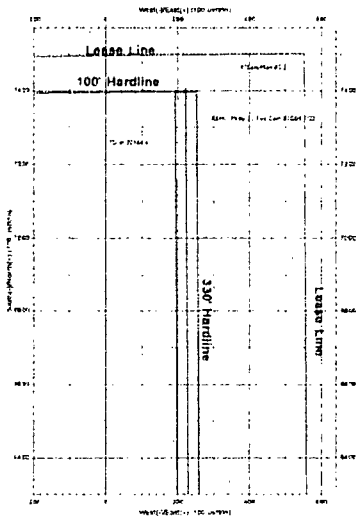
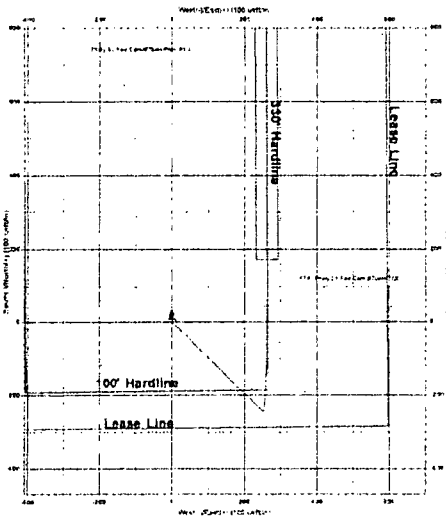


Azimuths to Grid North
True North: -0.44°
Magnetic North: 0.45°
Magnetic Field
Strength: 47755.9nT
Dip Angle: 69.88°
Date: 5/19/2017
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 0.85° East
To convert a True Direction to a Grid Direction, Subtract 0.44°

WELLBORE TARGET DETAILS (MAP COORDINATES)

Name	1VD	-N-S	+E-W	Northing	Easting
Brushy Top (Philly 31 Fed Com #704H)	8074.0	-238.0	234.0	364858.00	796524.00
FTP (Philly 31 Fed Com #704H 7/20)	12701.0	42.0	264.0	365138.00	796994.00
PBHL (Philly 31 Fed Com #704H 7/20)	12701.0	1396.0	223.0	372482.00	796513.00
FTP (Philly 31 Fed Com #704H)	12710.0	42.0	234.0	365138.00	796924.00
PBHL (Philly 31 Fed Com #704H)	12728.0	1268.0	184.0	372382.00	796484.00
Y01 #1 (Philly 31 Fed Com #704H)	12729.0	4495.0	208.0	369592.00	796488.77





EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Philly 31 Fed Com

#704H

73697

OH

Plan: Plan #0.2

Standard Planning Report

20 July, 2018



Planning Report

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Philly 31 Fed Com
Well: #704H
Wellbore: OH
Design: Plan #0.2

Local Co-ordinate Reference: Well #704H
TVD Reference: KB = 25' @ 3389.0usft
MD Reference: KB = 25' @ 3389.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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	Philly 31 Fed Com		
Site Position:		Northing:	365,084.00 usft
From:	Map	Easting:	794,820.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"
		Latitude:	32° 0' 3.819 N
		Longitude:	103° 30' 56.229 W
		Grid Convergence:	0.43 °

Well	#704H		
Well Position	+N/-S	12.0 usft	Northing: 365,096.00 usft
	+E/-W	1,470.0 usft	Easting: 796,290.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	
		Latitude:	32° 0' 3.827 N
		Longitude:	103° 30' 39.158 W
		Ground Level:	3,365.0 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
	IGRF2015	9/19/2017	(°)
			6.88
			59.86
			47,785.86156761

Design	Plan #0.2		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction: 1.73
			(°)

Plan Survey Tool Program	Date: 7/20/2018		
Depth From	Depth To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
0.0	20,144.4	Plan #0.2 (OH)	MWD
			OWSG MWD - Standard

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,247.8	2.48	134.28	4,247.7	-3.7	3.8	1.00	1.00	0.00	134.28	
12,216.8	2.48	134.28	12,209.3	-244.3	250.5	0.00	0.00	0.00	0.00	
12,981.3	90.00	359.68	12,701.0	233.0	263.0	12.00	11.45	-17.61	-134.57	
20,144.4	90.00	359.68	12,701.0	7,396.0	223.0	0.00	0.00	0.00	0.00	PBHL (Philly 31 Fed C



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Philly 31 Fed Com
 Well: #704H
 Wellbore: OH
 Design: Plan #0.2

Local Co-ordinate Reference: Well #704H
 TVD Reference: KB = 25' @ 3389.0usft
 MD Reference: KB = 25' @ 3389.0usft
 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)
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
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	1.00	134.28	4,100.0	-0.6	0.6	-0.6	1.00	1.00	0.00
4,200.0	2.00	134.28	4,200.0	-2.4	2.5	-2.4	1.00	1.00	0.00
4,247.8	2.48	134.28	4,247.7	-3.7	3.6	-3.6	1.00	1.00	0.00
4,300.0	2.48	134.28	4,299.9	-5.3	5.5	-5.1	0.00	0.00	0.00
4,400.0	2.48	134.28	4,399.6	-8.3	8.5	-8.1	0.00	0.00	0.00
4,500.0	2.48	134.28	4,499.7	-11.4	11.6	-11.0	0.00	0.00	0.00
4,600.0	2.48	134.28	4,599.6	-14.4	14.7	-13.9	0.00	0.00	0.00
4,700.0	2.48	134.28	4,699.5	-17.4	17.8	-16.8	0.00	0.00	0.00
4,800.0	2.48	134.28	4,799.4	-20.4	20.9	-19.8	0.00	0.00	0.00
4,900.0	2.48	134.28	4,899.3	-23.4	24.0	-22.7	0.00	0.00	0.00
5,000.0	2.48	134.28	4,999.2	-26.4	27.1	-25.6	0.00	0.00	0.00
5,100.0	2.48	134.28	5,099.1	-29.5	30.2	-28.5	0.00	0.00	0.00
5,200.0	2.48	134.28	5,199.0	-32.5	33.3	-31.5	0.00	0.00	0.00



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Philly 31 Fed Com
 Well: #704H
 Wellbore: OH
 Design: Plan #0.2

Local Co-ordinate Reference: Well #704H
 TVD Reference: KB = 25' @ 3389.0usft
 MD Reference: KB = 25' @ 3389.0usft
 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)	
5,300.0	2.48	134.28	5,298.9	-35.5	36.4	-34.4	0.00	0.00	0.00	
5,400.0	2.48	134.28	5,398.8	-38.5	39.5	-37.3	0.00	0.00	0.00	
5,500.0	2.48	134.28	5,498.8	-41.5	42.6	-40.2	0.00	0.00	0.00	
5,600.0	2.48	134.28	5,598.7	-44.6	45.7	-43.2	0.00	0.00	0.00	
5,700.0	2.48	134.28	5,698.6	-47.6	48.8	-46.1	0.00	0.00	0.00	
5,800.0	2.48	134.28	5,798.5	-50.6	51.9	-49.0	0.00	0.00	0.00	
5,900.0	2.48	134.28	5,898.4	-53.6	55.0	-51.9	0.00	0.00	0.00	
6,000.0	2.48	134.28	5,998.3	-56.6	58.1	-54.9	0.00	0.00	0.00	
6,100.0	2.48	134.28	6,098.2	-59.7	61.2	-57.8	0.00	0.00	0.00	
6,200.0	2.48	134.28	6,198.1	-62.7	64.3	-60.7	0.00	0.00	0.00	
6,300.0	2.48	134.28	6,298.0	-65.7	67.4	-63.6	0.00	0.00	0.00	
6,400.0	2.48	134.28	6,397.9	-68.7	70.5	-66.6	0.00	0.00	0.00	
6,500.0	2.48	134.28	6,497.8	-71.7	73.6	-69.5	0.00	0.00	0.00	
6,600.0	2.48	134.28	6,597.7	-74.7	76.6	-72.4	0.00	0.00	0.00	
6,700.0	2.48	134.28	6,697.6	-77.8	79.7	-75.3	0.00	0.00	0.00	
6,800.0	2.48	134.28	6,797.5	-80.8	82.8	-78.3	0.00	0.00	0.00	
6,900.0	2.48	134.28	6,897.4	-83.8	85.9	-81.2	0.00	0.00	0.00	
7,000.0	2.48	134.28	6,997.3	-86.8	89.0	-84.1	0.00	0.00	0.00	
7,100.0	2.48	134.28	7,097.3	-89.8	92.1	-87.0	0.00	0.00	0.00	
7,200.0	2.48	134.28	7,197.2	-92.9	95.2	-90.0	0.00	0.00	0.00	
7,300.0	2.48	134.28	7,297.1	-95.9	98.3	-92.9	0.00	0.00	0.00	
7,400.0	2.48	134.28	7,397.0	-98.9	101.4	-95.8	0.00	0.00	0.00	
7,500.0	2.48	134.28	7,496.9	-101.9	104.5	-98.7	0.00	0.00	0.00	
7,600.0	2.48	134.28	7,596.8	-104.9	107.6	-101.6	0.00	0.00	0.00	
7,700.0	2.48	134.28	7,696.7	-108.0	110.7	-104.6	0.00	0.00	0.00	
7,800.0	2.48	134.28	7,796.6	-111.0	113.8	-107.5	0.00	0.00	0.00	
7,900.0	2.48	134.28	7,896.5	-114.0	116.9	-110.4	0.00	0.00	0.00	
8,000.0	2.48	134.28	7,996.4	-117.0	120.0	-113.3	0.00	0.00	0.00	
8,084.7	2.48	134.28	8,081.0	-119.6	122.6	-115.8	0.00	0.00	0.00	
Brushy Top (Philly 31 Fed Com #704H)										
8,100.0	2.48	134.28	8,096.3	-120.0	123.1	-116.3	0.00	0.00	0.00	
8,200.0	2.48	134.28	8,196.2	-123.1	126.2	-119.2	0.00	0.00	0.00	
8,300.0	2.48	134.28	8,296.1	-126.1	129.3	-122.1	0.00	0.00	0.00	
8,400.0	2.48	134.28	8,396.0	-129.1	132.4	-125.0	0.00	0.00	0.00	
8,500.0	2.48	134.28	8,495.9	-132.1	135.5	-128.0	0.00	0.00	0.00	
8,600.0	2.48	134.28	8,595.9	-135.1	138.6	-130.9	0.00	0.00	0.00	
8,700.0	2.48	134.28	8,695.8	-138.1	141.7	-133.8	0.00	0.00	0.00	
8,800.0	2.48	134.28	8,795.7	-141.2	144.8	-136.7	0.00	0.00	0.00	
8,900.0	2.48	134.28	8,895.6	-144.2	147.8	-139.7	0.00	0.00	0.00	
9,000.0	2.48	134.28	8,995.5	-147.2	150.9	-142.6	0.00	0.00	0.00	
9,100.0	2.48	134.28	9,095.4	-150.2	154.0	-145.5	0.00	0.00	0.00	
9,200.0	2.48	134.28	9,195.3	-153.2	157.1	-148.4	0.00	0.00	0.00	
9,300.0	2.48	134.28	9,295.2	-156.3	160.2	-151.4	0.00	0.00	0.00	
9,400.0	2.48	134.28	9,395.1	-159.3	163.3	-154.3	0.00	0.00	0.00	
9,500.0	2.48	134.28	9,495.0	-162.3	166.4	-157.2	0.00	0.00	0.00	
9,600.0	2.48	134.28	9,594.9	-165.3	169.5	-160.1	0.00	0.00	0.00	
9,700.0	2.48	134.28	9,694.8	-168.3	172.6	-163.1	0.00	0.00	0.00	
9,800.0	2.48	134.28	9,794.7	-171.4	175.7	-166.0	0.00	0.00	0.00	
9,900.0	2.48	134.28	9,894.6	-174.4	178.8	-168.9	0.00	0.00	0.00	
10,000.0	2.48	134.28	9,994.5	-177.4	181.9	-171.8	0.00	0.00	0.00	
10,100.0	2.48	134.28	10,094.4	-180.4	185.0	-174.8	0.00	0.00	0.00	
10,200.0	2.48	134.28	10,194.4	-183.4	188.1	-177.7	0.00	0.00	0.00	
10,300.0	2.48	134.28	10,294.3	-186.4	191.2	-180.6	0.00	0.00	0.00	



Planning Report

Database: EDM 5000.14
 Company: EOG Resources - Midland
 Project: Lea County, NM (NAD 83 NME)
 Site: Philly 31 Fed Com
 Well: #704H
 Wellbore: OH
 Design: Plan #0.2

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:
 Well #704H
 KB = 25' @ 3389.0usft
 KB = 25' @ 3389.0usft
 Grid
 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)	
10.400.0	2.48	134.28	10.394.2	-189.5	194.3	-183.5	0.00	0.00	0.00	
10.500.0	2.48	134.28	10.494.1	-192.5	197.4	-186.4	0.00	0.00	0.00	
10.600.0	2.48	134.28	10.594.0	-195.5	200.5	-189.4	0.00	0.00	0.00	
10.700.0	2.48	134.28	10.693.9	-198.5	203.6	-192.3	0.00	0.00	0.00	
10.800.0	2.48	134.28	10.793.8	-201.5	206.7	-195.2	0.00	0.00	0.00	
10.900.0	2.48	134.28	10.893.7	-204.6	209.8	-198.1	0.00	0.00	0.00	
11.000.0	2.48	134.28	10.993.6	-207.6	212.9	-201.1	0.00	0.00	0.00	
11.100.0	2.48	134.28	11.093.5	-210.6	215.9	-204.0	0.00	0.00	0.00	
11.200.0	2.48	134.28	11.193.4	-213.6	219.0	-206.9	0.00	0.00	0.00	
11.300.0	2.48	134.28	11.293.3	-216.6	222.1	-209.8	0.00	0.00	0.00	
11.400.0	2.48	134.28	11.393.2	-219.7	225.2	-212.8	0.00	0.00	0.00	
11.500.0	2.48	134.28	11.493.1	-222.7	228.3	-215.7	0.00	0.00	0.00	
11.600.0	2.48	134.28	11.593.0	-225.7	231.4	-218.6	0.00	0.00	0.00	
11.700.0	2.48	134.28	11.693.0	-228.7	234.5	-221.5	0.00	0.00	0.00	
11.800.0	2.48	134.28	11.792.9	-231.7	237.6	-224.5	0.00	0.00	0.00	
11.900.0	2.48	134.28	11.892.8	-234.7	240.7	-227.4	0.00	0.00	0.00	
12.000.0	2.48	134.28	11.992.7	-237.8	243.8	-230.3	0.00	0.00	0.00	
12.100.0	2.48	134.28	12.092.6	-240.8	246.9	-233.2	0.00	0.00	0.00	
12.200.0	2.48	134.28	12.192.5	-243.8	250.0	-236.2	0.00	0.00	0.00	
12.216.8	2.48	134.28	12.209.3	-244.3	250.5	-236.6	0.00	0.00	0.00	
12.225.0	1.92	112.87	12.217.5	-244.5	250.8	-236.8	12.00	-6.81	-261.14	
12.250.0	2.85	37.85	12.242.4	-244.2	251.5	-236.5	12.00	3.74	-300.10	
12.275.0	5.53	18.23	12.267.4	-242.5	252.3	-234.8	12.00	10.71	-78.47	
12.300.0	8.43	11.68	12.292.2	-239.6	253.0	-231.8	12.00	11.59	-26.20	
12.325.0	11.38	8.49	12.316.8	-235.3	253.8	-227.6	12.00	11.80	-12.78	
12.350.0	14.35	6.60	12.341.2	-229.8	254.5	-222.1	12.00	11.86	-7.56	
12.375.0	17.33	5.35	12.365.2	-223.0	255.2	-215.2	12.00	11.92	-5.00	
12.400.0	20.32	4.45	12.388.9	-215.0	255.9	-207.2	12.00	11.94	-3.57	
12.425.0	23.31	3.78	12.412.1	-205.7	256.6	-197.9	12.00	11.96	-2.69	
12.450.0	26.30	3.25	12.434.8	-195.3	257.2	-187.4	12.00	11.97	-2.11	
12.475.0	29.29	2.83	12.456.9	-183.6	257.8	-175.8	12.00	11.97	-1.70	
12.500.0	32.29	2.48	12.478.4	-170.9	258.4	-163.0	12.00	11.98	-1.41	
12.525.0	35.28	2.18	12.499.2	-157.0	259.0	-149.1	12.00	11.98	-1.20	
12.550.0	38.28	1.92	12.519.2	-142.0	259.5	-134.1	12.00	11.98	-1.03	
12.575.0	41.27	1.69	12.538.4	-126.0	260.0	-118.1	12.00	11.99	-0.90	
12.600.0	44.27	1.49	12.556.7	-109.1	260.5	-101.2	12.00	11.99	-0.80	
12.625.0	47.27	1.31	12.574.2	-91.1	260.9	-83.2	12.00	11.99	-0.72	
12.650.0	50.27	1.15	12.590.6	-72.4	261.3	-64.4	12.00	11.99	-0.65	
12.675.0	53.26	1.00	12.608.1	-52.7	261.7	-44.8	12.00	11.99	-0.60	
12.700.0	56.26	0.86	12.620.5	-32.3	262.0	-24.4	12.00	11.99	-0.55	
12.725.0	59.26	0.73	12.633.9	-11.2	262.3	-3.3	12.00	11.99	-0.52	
12.750.0	62.26	0.61	12.646.1	10.6	262.6	18.6	12.00	11.99	-0.49	
12.775.0	65.26	0.49	12.657.1	33.1	262.8	41.0	12.00	11.99	-0.46	
12.800.0	68.25	0.38	12.667.0	56.0	262.9	63.9	12.00	11.99	-0.44	
FTP (Philly 31 Fed Com #704H 7/20)										
12.804.7	68.61	0.36	12.668.7	60.4	263.0	66.3	12.00	11.99	-0.43	
FTP (Philly 31 Fed Com #704H)										
12.825.0	71.25	0.28	12.675.7	79.5	263.1	87.4	12.00	11.99	-0.42	
12.850.0	74.25	0.18	12.683.1	103.4	263.2	111.2	12.00	11.99	-0.41	
12.875.0	77.25	0.08	12.689.2	127.6	263.2	135.5	12.00	11.99	-0.39	
12.900.0	80.25	359.98	12.694.1	152.1	263.2	160.0	12.00	11.99	-0.38	
12.925.0	83.25	359.89	12.697.7	176.6	263.2	184.7	12.00	11.99	-0.38	
12.950.0	86.25	359.80	12.700.0	201.7	263.1	209.6	12.00	11.99	-0.37	
12.975.0	89.24	359.70	12.701.0	226.7	263.0	234.5	12.00	11.99	-0.37	



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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)
12.981.3	90.00	359.68	12.701.0	233.0	263.0	240.8	12.00	11.99	-0.37
13.000.0	90.00	359.68	12.701.0	251.7	262.9	259.5	0.00	0.00	0.00
13.100.0	90.00	359.68	12.701.0	351.7	262.3	359.5	0.00	0.00	0.00
13.200.0	90.00	359.68	12.701.0	451.7	261.8	459.4	0.00	0.00	0.00
13.300.0	90.00	359.68	12.701.0	551.7	261.2	559.3	0.00	0.00	0.00
13.400.0	90.00	359.68	12.701.0	651.7	260.7	659.3	0.00	0.00	0.00
13.500.0	90.00	359.68	12.701.0	751.7	260.1	759.2	0.00	0.00	0.00
13.600.0	90.00	359.68	12.701.0	851.7	259.6	859.1	0.00	0.00	0.00
13.700.0	90.00	359.68	12.701.0	951.7	259.0	959.1	0.00	0.00	0.00
13.800.0	90.00	359.68	12.701.0	1,051.7	258.4	1,059.0	0.00	0.00	0.00
13.900.0	90.00	359.68	12.701.0	1,151.7	257.9	1,158.9	0.00	0.00	0.00
14.000.0	90.00	359.68	12.701.0	1,251.7	257.3	1,258.9	0.00	0.00	0.00
14.100.0	90.00	359.68	12.701.0	1,351.7	256.8	1,358.8	0.00	0.00	0.00
14.200.0	90.00	359.68	12.701.0	1,451.7	256.2	1,458.8	0.00	0.00	0.00
14.300.0	90.00	359.68	12.701.0	1,551.7	255.6	1,558.7	0.00	0.00	0.00
14.400.0	90.00	359.68	12.701.0	1,651.7	255.1	1,658.6	0.00	0.00	0.00
14.500.0	90.00	359.68	12.701.0	1,751.7	254.5	1,758.6	0.00	0.00	0.00
14.600.0	90.00	359.68	12.701.0	1,851.7	254.0	1,858.5	0.00	0.00	0.00
14.700.0	90.00	359.68	12.701.0	1,951.7	253.4	1,958.4	0.00	0.00	0.00
14.800.0	90.00	359.68	12.701.0	2,051.7	252.8	2,058.4	0.00	0.00	0.00
14.900.0	90.00	359.68	12.701.0	2,151.7	252.3	2,158.3	0.00	0.00	0.00
15.000.0	90.00	359.68	12.701.0	2,251.7	251.7	2,258.2	0.00	0.00	0.00
15.100.0	90.00	359.68	12.701.0	2,351.7	251.2	2,358.2	0.00	0.00	0.00
15.200.0	90.00	359.68	12.701.0	2,451.7	250.6	2,458.1	0.00	0.00	0.00
15.300.0	90.00	359.68	12.701.0	2,551.7	250.1	2,558.1	0.00	0.00	0.00
15.400.0	90.00	359.68	12.701.0	2,651.7	249.5	2,658.0	0.00	0.00	0.00
15.500.0	90.00	359.68	12.701.0	2,751.7	248.9	2,757.9	0.00	0.00	0.00
15.600.0	90.00	359.68	12.701.0	2,851.7	248.4	2,857.9	0.00	0.00	0.00
15.700.0	90.00	359.68	12.701.0	2,951.7	247.8	2,957.8	0.00	0.00	0.00
15.800.0	90.00	359.68	12.701.0	3,051.7	247.3	3,057.7	0.00	0.00	0.00
15.900.0	90.00	359.68	12.701.0	3,151.7	246.7	3,157.7	0.00	0.00	0.00
16.000.0	90.00	359.68	12.701.0	3,251.7	246.1	3,257.6	0.00	0.00	0.00
16.100.0	90.00	359.68	12.701.0	3,351.7	245.6	3,357.5	0.00	0.00	0.00
16.200.0	90.00	359.68	12.701.0	3,451.7	245.0	3,457.5	0.00	0.00	0.00
16.300.0	90.00	359.68	12.701.0	3,551.7	244.5	3,557.4	0.00	0.00	0.00
16.400.0	90.00	359.68	12.701.0	3,651.7	243.9	3,657.3	0.00	0.00	0.00
16.500.0	90.00	359.68	12.701.0	3,751.7	243.4	3,757.3	0.00	0.00	0.00
16.600.0	90.00	359.68	12.701.0	3,851.7	242.8	3,857.2	0.00	0.00	0.00
16.700.0	90.00	359.68	12.701.0	3,951.7	242.2	3,957.2	0.00	0.00	0.00
16.800.0	90.00	359.68	12.701.0	4,051.7	241.7	4,057.1	0.00	0.00	0.00
16.900.0	90.00	359.68	12.701.0	4,151.6	241.1	4,157.0	0.00	0.00	0.00
17.000.0	90.00	359.68	12.701.0	4,251.6	240.6	4,257.0	0.00	0.00	0.00
17.100.0	90.00	359.68	12.701.0	4,351.6	240.0	4,356.9	0.00	0.00	0.00
17.200.0	90.00	359.68	12.701.0	4,451.6	239.4	4,456.8	0.00	0.00	0.00
17.244.5	90.00	359.68	12.701.0	4,496.2	239.2	4,501.3	0.00	0.00	0.00
TGT #1(Philly 31 Fed Com #704H)									
17.300.0	90.00	359.68	12.701.0	4,551.6	238.9	4,556.8	0.00	0.00	0.00
17.400.0	90.00	359.68	12.701.0	4,651.6	238.3	4,656.7	0.00	0.00	0.00
17.500.0	90.00	359.68	12.701.0	4,751.6	237.8	4,756.6	0.00	0.00	0.00
17.600.0	90.00	359.68	12.701.0	4,851.6	237.2	4,856.6	0.00	0.00	0.00
17.700.0	90.00	359.68	12.701.0	4,951.6	236.7	4,956.5	0.00	0.00	0.00
17.800.0	90.00	359.68	12.701.0	5,051.6	236.1	5,056.5	0.00	0.00	0.00
17.900.0	90.00	359.68	12.701.0	5,151.6	235.5	5,156.4	0.00	0.00	0.00

Database: EDM 5000.14
Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Philly 31 Fed Com
Well: #704H
Wellbore: OH
Design: Plan #0.2

Local Co-ordinate Reference: Well #704H
TVD Reference: KB = 25' @ 3389.0usft
MD Reference: KB = 25' @ 3389.0usft
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)
18,000.0	90.00	359.68	12,701.0	5,251.6	235.0	5,256.3	0.00	0.00	0.00
18,100.0	90.00	359.68	12,701.0	5,351.6	234.4	5,356.3	0.00	0.00	0.00
18,200.0	90.00	359.68	12,701.0	5,451.6	233.9	5,456.2	0.00	0.00	0.00
18,300.0	90.00	359.68	12,701.0	5,551.6	233.3	5,556.1	0.00	0.00	0.00
18,400.0	90.00	359.68	12,701.0	5,651.6	232.7	5,656.1	0.00	0.00	0.00
18,500.0	90.00	359.68	12,701.0	5,751.6	232.2	5,756.0	0.00	0.00	0.00
18,600.0	90.00	359.68	12,701.0	5,851.6	231.6	5,855.9	0.00	0.00	0.00
18,700.0	90.00	359.68	12,701.0	5,951.6	231.1	5,955.9	0.00	0.00	0.00
18,800.0	90.00	359.68	12,701.0	6,051.6	230.5	6,055.8	0.00	0.00	0.00
18,900.0	90.00	359.68	12,701.0	6,151.6	230.0	6,155.8	0.00	0.00	0.00
19,000.0	90.00	359.68	12,701.0	6,251.6	229.4	6,255.7	0.00	0.00	0.00
19,100.0	90.00	359.68	12,701.0	6,351.6	228.8	6,355.6	0.00	0.00	0.00
19,200.0	90.00	359.68	12,701.0	6,451.6	228.3	6,455.6	0.00	0.00	0.00
19,300.0	90.00	359.68	12,701.0	6,551.6	227.7	6,555.5	0.00	0.00	0.00
19,400.0	90.00	359.68	12,701.0	6,651.6	227.2	6,655.4	0.00	0.00	0.00
19,500.0	90.00	359.68	12,701.0	6,751.6	226.6	6,755.4	0.00	0.00	0.00
19,600.0	90.00	359.68	12,701.0	6,851.6	226.0	6,855.3	0.00	0.00	0.00
19,700.0	90.00	359.68	12,701.0	6,951.6	225.5	6,955.2	0.00	0.00	0.00
19,800.0	90.00	359.68	12,701.0	7,051.6	224.9	7,055.2	0.00	0.00	0.00
19,900.0	90.00	359.68	12,701.0	7,151.6	224.4	7,155.1	0.00	0.00	0.00
20,000.0	90.00	359.68	12,701.0	7,251.6	223.8	7,255.1	0.00	0.00	0.00
20,014.6	90.00	359.68	12,701.0	7,266.2	223.7	7,269.6	0.00	0.00	0.00
PBHL (Philly 31 Fed Com #704H)									
20,100.0	90.00	359.68	12,701.0	7,351.6	223.2	7,355.0	0.00	0.00	0.00
20,144.4	90.00	359.68	12,701.0	7,396.0	223.0	7,399.4	0.00	0.00	0.00
PBHL (Philly 31 Fed Com #704H 7/20)									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N-S (usft)	+E-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL (Philly 31 Fed Com)	90.00	359.68	12,701.0	7,396.0	223.0	372,492.00	796,513.00	32° 1' 16.996 N	103° 30' 35.914 W
- plan hits target center									
- Rectangle (sides W60.0 H0.0 D7,224.0)									
FTP (Philly 31 Fed Com)	0.00	0.01	12,701.0	42.0	264.0	365,138.00	795,554.00	32° 0' 4.223 N	103° 30' 36.089 W
- plan misses target center by 36.8usft at 12800.0usft MD (12667.0 TVD, 56.0 N, 262.9 E)									
- Point									