

Well Name: DOGWOOD 23 FED COM	Well Location: T26S / R33E / SEC 26 / NWNE / 32.0207278 / -103.5429371	County or Parish/State: LEA / NM
Well Number: 722H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM121490	Unit or CA Name:	Unit or CA Number:
US Well Number: 300254740800X1	Well Status: Approved Application for Permit to Drill	Operator: EOG RESOURCES INCORPORATED

Notice of Intent

Type of Submission: Notice of Intent	Type of Action Other
Date Sundry Submitted: 03/26/2021	Time Sundry Submitted: 06:44
Date proposed operation will begin: 04/06/2021	

**Procedure Description:** EOG respectfully requests an amendment to our approved APD for this well to reflect the following changes: Change well name & number from Dogwood 26 Fed Com 743H to Dogwood 23 Fed Com 722H Update casing program to current design Change BHL to T-26-S R-33-E Sec 14 100 feet FNL 1930 feet FEL Lea Co, NM Change SHL to T-26-S R-33-E Sec 23 194 feet FSL 2316 feet from WL Lea Co, NM Revise directional plan to include back build

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

- DOGWOOD\_23\_FED\_COM\_722H\_C102\_20210326064244.pdf
- Dogwood\_23\_Fed\_Com\_722H\_Wall\_Plot\_20210326064007.pdf
- Dogwood\_23\_Fed\_Com\_722H\_Permit\_Info\_\_\_Rev\_Name\_tgt\_BHL\_SHL\_back\_build\_3.24.2021\_20210326063957.pdf
- Dogwood\_23\_Fed\_Com\_722H\_Planning\_Report\_20210326063957.pdf

<b>Well Name:</b> DOGWOOD 23 FED COM	<b>Well Location:</b> T26S / R33E / SEC 26 / NWNE / 32.0207278 / -103.5429371	<b>County or Parish/State:</b> LEA / NM
<b>Well Number:</b> 722H	<b>Type of Well:</b> OIL WELL	<b>Allottee or Tribe Name:</b>
<b>Lease Number:</b> NMNM121490	<b>Unit or CA Name:</b>	<b>Unit or CA Number:</b>
<b>US Well Number:</b> 300254740800X1	<b>Well Status:</b> Approved Application for Permit to Drill	<b>Operator:</b> EOG RESOURCES INCORPORATED

Conditions of Approval

Additional Reviews

Dogwood\_Master\_SurfaceUse\_COAs\_20210402082805.pdf

Operator Certification

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

<b>Operator Electronic Signature:</b> HARRELL	<b>Signed on:</b> MAR 26, 2021 06:43 AM
<b>Name:</b> EOG RESOURCES INCORPORATED	
<b>Title:</b> Regulatory Specialist	
<b>Street Address:</b> 5509 CHAMPIONS DRIVE	
<b>City:</b> MIDLAND	<b>State:</b> TX
<b>Phone:</b> (432) 848-9161	
<b>Email address:</b> Star_Harrell@eogresources.com	

Field Representative

<b>Representative Name:</b> STAR HARRELL		
<b>Street Address:</b> 5509 CHAMPIONS DRIVE		
<b>City:</b> MIDLAND	<b>State:</b> TX	<b>Zip:</b> 79706
<b>Phone:</b> (432)848-9161		
<b>Email address:</b> Star_Harrell@eogresources.com		

BLM Point of Contact

<b>BLM POC Name:</b> CHRISTOPHER WALLS	<b>BLM POC Title:</b> Petroleum Engineer
<b>BLM POC Phone:</b> 5752342234	<b>BLM POC Email Address:</b> cwalls@blm.gov
<b>Disposition:</b> Approved	<b>Disposition Date:</b> 04/06/2021
<b>Signature:</b> Chris Walls	

District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720  
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

<sup>1</sup> API Number <b>30-025-</b>	<sup>2</sup> Pool Code <b>98097</b>	<sup>3</sup> Pool Name <b>Sanders Tank; Upper Wolfcamp</b>
<sup>4</sup> Property Code <b>319664</b>	<sup>5</sup> Property Name <b>DOGWOOD 23 FED COM</b>	<sup>6</sup> Well Number <b>722H</b>
<sup>7</sup> OGRID No. <b>7377</b>	<sup>8</sup> Operator Name <b>EOG RESOURCES, INC.</b>	<sup>9</sup> Elevation <b>3305'</b>

<sup>10</sup>Surface Location

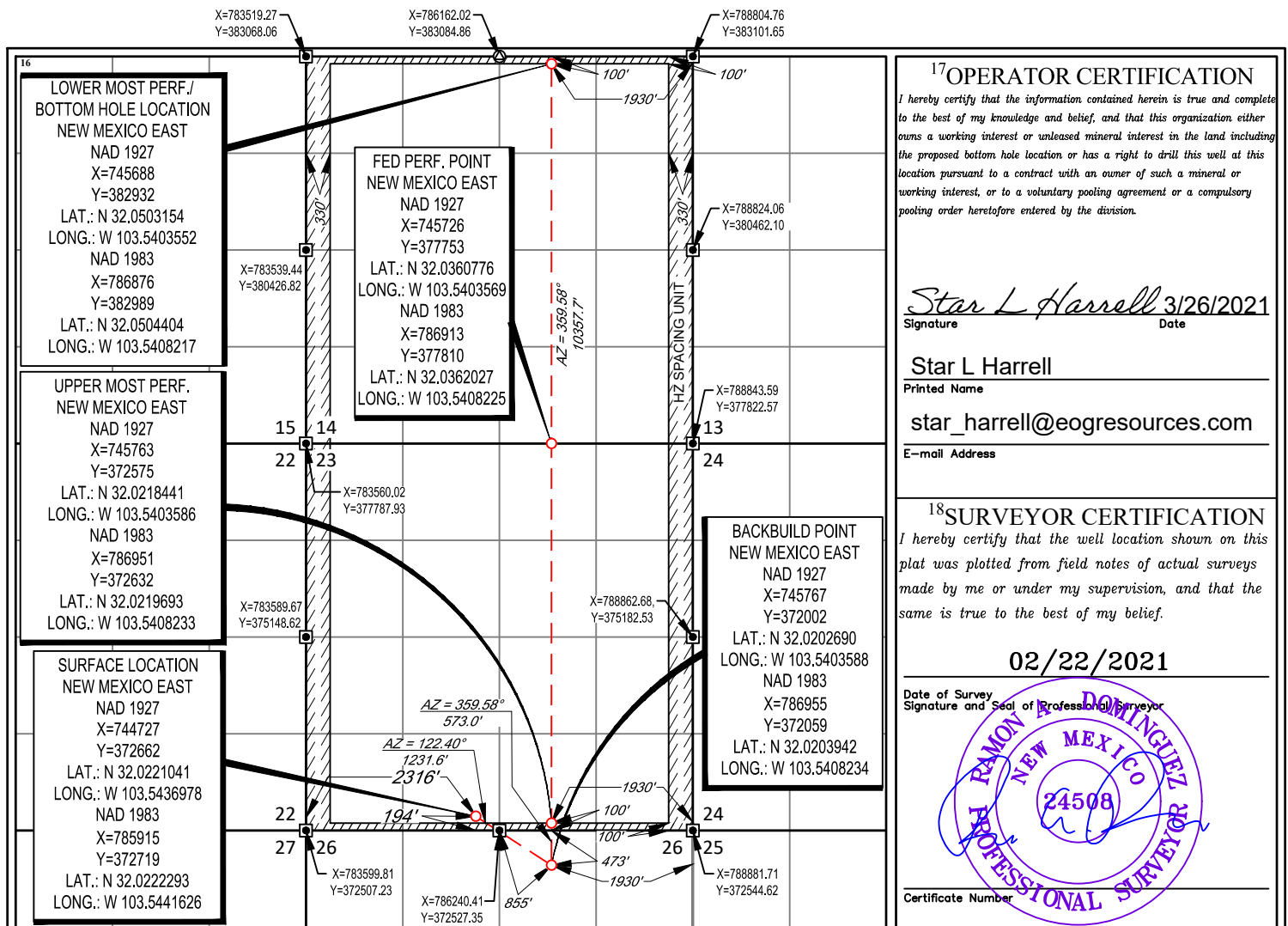
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>N</b>	<b>23</b>	<b>26-S</b>	<b>33-E</b>	<b>-</b>	<b>194'</b>	<b>SOUTH</b>	<b>2316'</b>	<b>WEST</b>	<b>LEA</b>

<sup>11</sup>Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>B</b>	<b>14</b>	<b>26-S</b>	<b>33-E</b>	<b>-</b>	<b>100'</b>	<b>NORTH</b>	<b>1930'</b>	<b>EAST</b>	<b>LEA</b>

<sup>12</sup> Dedicated Acres <b>1280</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
----------------------------------------------	-------------------------------	----------------------------------	-------------------------

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 3/25/2021:**

Well Name: Dogwood 23 Fed Com #722H

**Location:**

SHL: 194' FSL &amp; 2316' FWL, Section 23, T-26-S, R-33-E, Lea Co., N.M.

BHL: 100' FNL &amp; 1930' FEL, Section 14, T-26-S, R-33-E, Lea Co., N.M.

**Casing Program:**

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF <sub>min</sub> Collapse	DF <sub>min</sub> Burst	DF <sub>min</sub> Tension
12.25"	0' – 1,050'	9.625"	36#	J-55	LTC	1.125	1.25	1.60
8.75"	0' – 11,380'	7.625"	29.7#	HCP-110	FXL	1.125	1.25	1.60
6.75"	0' – 10,880'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.60
6.75"	10,880' – 11,380'	5.5"	20#	P-110EC	VAM SFC	1.125	1.25	1.60
6.75"	11,380' – 23,412'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.60

Variance is requested to waive the centralizer requirements for the 7-5/8" casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive any centralizer requirements for the 5-1/2" casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive the annular clearance requirements for the 5-1/2" casing by 7-5/8" casing annulus to the proposed top of cement.

EOG requests permission to allow deviation from the 0.422" annulus clearance requirement from Onshore Order #2 under the following conditions:

- Annular clearance to meet or exceed 0.422" between intermediate casing ID and production casing coupling only on the first 500' overlap between both casing strings.
- Annular clearance less than 0.422" is acceptable for the curve and lateral portions of the production open hole section.

**Cement Program:**

Depth	No. Sacks	Wt. ppg	Yld Ft <sup>3</sup> /sk	Slurry Description
1,050' 9-5/8"	279	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl <sub>2</sub> + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	72	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 850')
11,380' 7-5/8"	359	14.2	1.11	1 <sup>st</sup> Stage (Tail): Class C + 0.6% Halad-9 + 0.45% HR-601 + 3% Microbond (TOC @ 8,209')
	1,000	14.8	1.5	2 <sup>nd</sup> Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ surface)
23,412' 5-1/2"	1,043	14.2	1.31	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 10,880')

Additive	Purpose
Bentonite Gel	Lightweight/Lost circulation prevention
Calcium Chloride	Accelerator
Cello-flake	Lost circulation prevention
Sodium Metasilicate	Accelerator
MagOx	Expansive agent
Pre-Mag-M	Expansive agent
Sodium Chloride	Accelerator
FL-62	Fluid loss control
Halad-344	Fluid loss control
Halad-9	Fluid loss control
HR-601	Retarder
Microbond	Expansive Agent

EOG requests variance from minimum standards to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated TOC at the Brushy Canyon and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary a top out consisting of 1,000 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. Top of cement will be verified by Echo-meter.

EOG will include the final fluid top verified by Echo-meter and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

EOG will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

#### **Mud Program:**

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,050'	Fresh - Gel	8.6-8.8	28-34	N/c
1,050' – 11,380'	Brine	10.0-10.2	28-34	N/c
11,380' – 12,210'	Oil Base	8.7-9.4	58-68	N/c - 6
12,210' – 23,412' Lateral	Oil Base	10.0-14.0	58-68	3 - 6

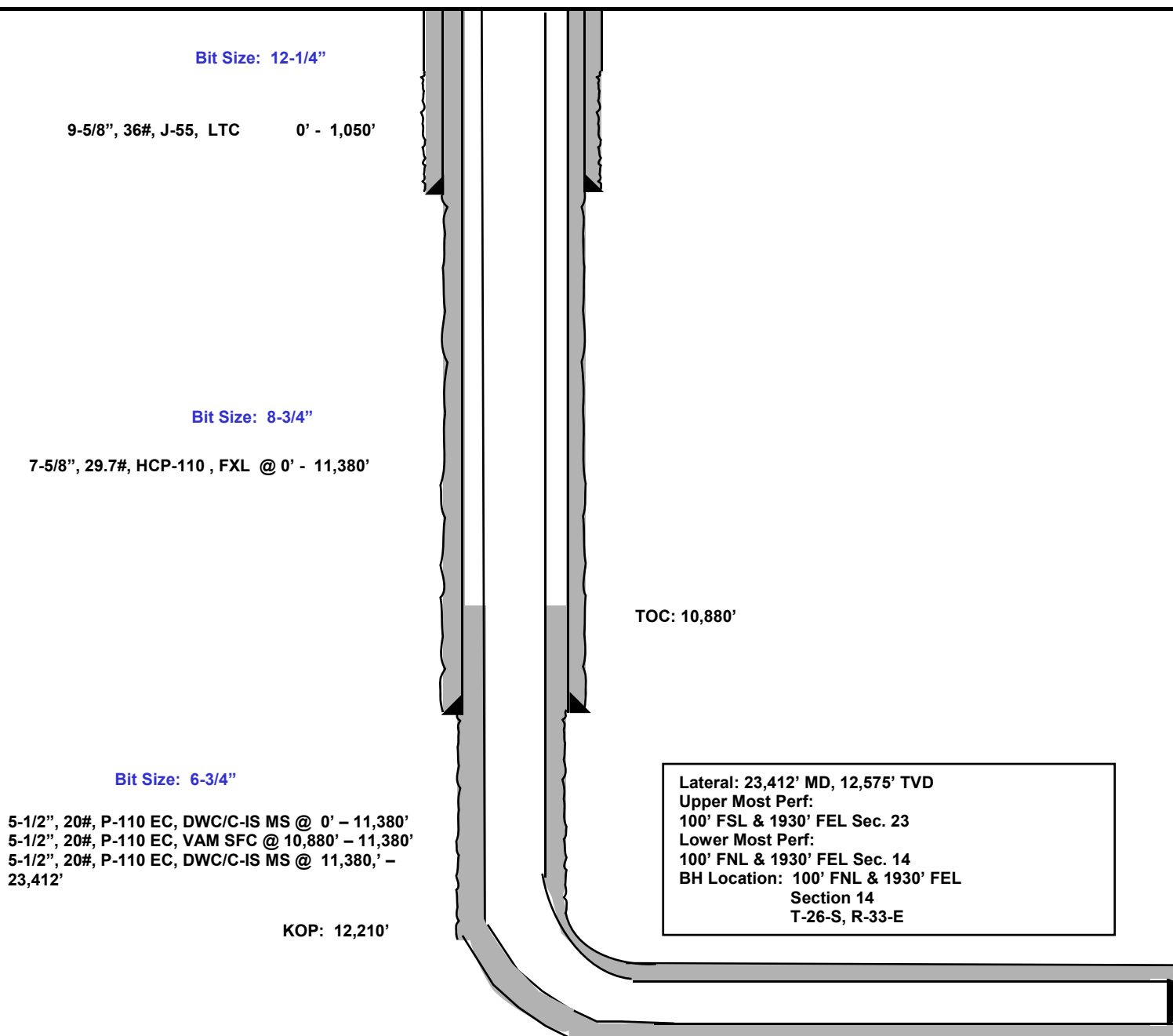
Variance is requested to use a 5,000 psi annular BOP with the 10,000 psi BOP stack.

194' FSL  
2316' FWL  
Section 23  
T-26-S, R-33-E

Revised Wellbore

KB: 3,330'  
GL: 3,305'

API: 30-025-47408





Lea County, NM (NAD 83 NME)

Dogwood 23 Fed Com #722H

Plan #0.1



To convert a Magnetic Direction to a Grid Direction, Add 6.13°  
To convert a Magnetic Direction to a True Direction, Add 6.54° East  
To convert a True Direction to a Grid Direction, Subtract 0.42°

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: #722H

KB @ 3330.0usft3305.0

Northing	Easting	Latitude	Longitude
372719.00	785915.00	32° 1' 20.025 N	103° 32' 38.990 W

SECTION DETAILS

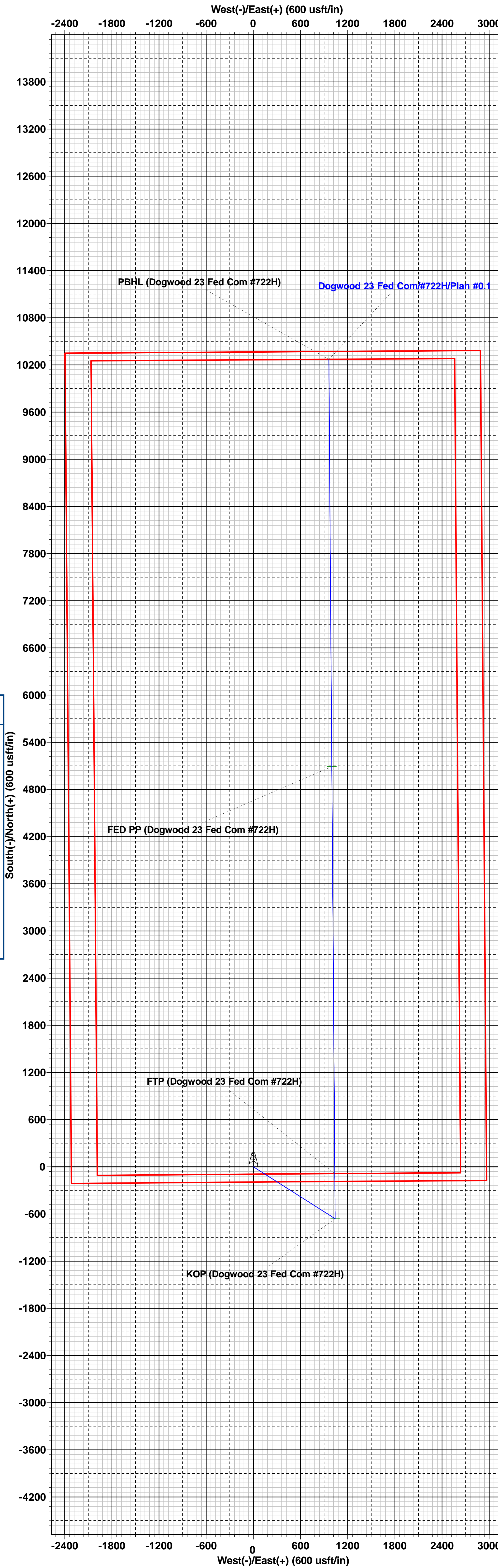
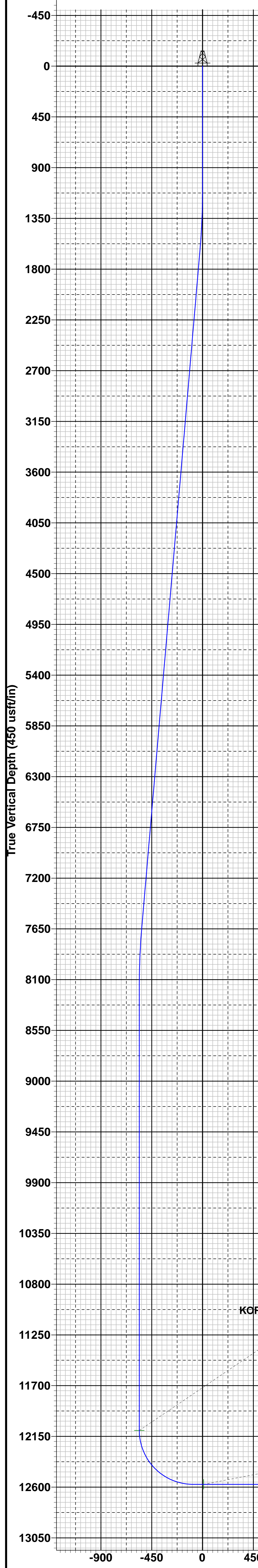
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1100.0	0.00	0.00	1100.0	0.0	0.0	0.00	0.00	0.0	
3	1634.3	10.69	122.40	1631.2	-26.6	42.0	2.00	122.40	-22.6	
4	7740.8	10.69	122.40	7631.8	-633.4	998.0	0.00	0.00	-537.6	
5	8275.1	0.00	0.00	8163.0	-660.0	1040.0	2.00	180.00	-560.2	
6	12209.6	0.00	0.00	12097.5	-660.0	1040.0	0.00	0.00	-560.2	KOP (Dogwood 23 Fed Com #722H)
7	12959.7	90.00	359.60	12575.0	-182.5	1036.7	12.00	359.60	-85.1	
8	13055.2	90.00	359.60	12575.0	-87.0	1036.0	0.00	0.00	9.9	FTP (Dogwood 23 Fed Com #722H)
9	18233.3	90.00	359.56	12575.0	5091.0	998.0	0.00	-90.00	5161.8	FED PP (Dogwood 23 Fed Com #722H)
10	23412.4	90.00	359.62	12575.0	10270.0	961.0	0.00	90.00	10314.9	PBHL (Dogwood 23 Fed Com #722H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP (Dogwood 23 Fed Com #722H)	12097.5	-660.0	1040.0	372059.00	786955.00
FTP (Dogwood 23 Fed Com #722H)	12575.0	-87.0	1036.0	372632.00	786951.00
FED PP (Dogwood 23 Fed Com #722H)	12575.0	5091.0	998.0	377810.00	786913.00
PBHL (Dogwood 23 Fed Com #722H)	12575.0	10270.0	961.0	382989.00	786876.00





## **EOG Resources - Midland**

**Lea County, NM (NAD 83 NME)**

**Dogwood 23 Fed Com**

**#722H**

**OH**

**Plan: Plan #0.1**

## **Standard Planning Report**

**25 March, 2021**



## EOG Resources

## Planning Report



<b>Database:</b>	EDM 5000.14	<b>Local Co-ordinate Reference</b>	Well #722H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	KB @ 3330.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3330.0usft
<b>Site:</b>	Dogwood 23 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#722H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1		

<b>Project</b>	Lea County, NM (NAD 83 NME)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Eastern Zone		

<b>Site</b>	Dogwood 23 Fed Com		
<b>Site Position:</b>		<b>Northing:</b>	372,741.00 usft
<b>From:</b>	Map	<b>Easting:</b>	788,311.00 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	32° 1' 20.069 N
		<b>Longitude:</b>	103° 32' 11.158 W
		<b>Grid Convergence:</b>	0.42 °

Well	#722H					
Well Position	+N/-S	-22.0 usft	Northing:	372,719.00 usft	Latitude:	32° 1' 20.025 N
	+E/-W	-2,396.0 usft	Easting:	785,915.00 usft	Longitude:	103° 32' 38.990 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,305.0 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2020	3/25/2021	6.54	59.73	47,401.14054266

<b>Design</b>	Plan #0.1				
<b>Audit Notes:</b>					
<b>Version:</b>		<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	12,575.0	0.0	0.0	5.35	

<b>Plan Survey Tool Program</b>	<b>Date</b>	3/25/2021			
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.0	23,412.4	Plan #0.1 (OH)	EOG MWD+IFR1	
				MWD + IFR1	

## EOG Resources

## Planning Report



<b>Database:</b>	EDM 5000.14	<b>Local Co-ordinate Reference</b>	Well #722H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	KB @ 3330.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3330.0usft
<b>Site:</b>	Dogwood 23 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#722H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1		

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	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,634.3	10.69	122.40	1,631.2	-26.6	42.0	2.00	2.00	0.00	122.40	
7,740.8	10.69	122.40	7,631.8	-633.4	998.0	0.00	0.00	0.00	0.00	
8,275.1	0.00	0.01	8,163.0	-660.0	1,040.0	2.00	-2.00	0.00	180.00	
12,209.6	0.00	0.01	12,097.5	-660.0	1,040.0	0.00	0.00	0.00	0.00	KOP (Dogwood 23 Fe
12,959.7	90.00	359.60	12,575.0	-182.5	1,036.7	12.00	12.00	0.00	359.60	
13,055.2	90.00	359.60	12,575.0	-87.0	1,036.0	0.00	0.00	0.00	0.00	FTP (Dogwood 23 Fe
18,233.3	90.00	359.56	12,575.0	5,091.0	998.0	0.00	0.00	0.00	-90.00	FED PP (Dogwood 23
23,412.4	90.00	359.62	12,575.0	10,270.0	961.0	0.00	0.00	0.00	90.00	PBHL (Dogwood 23 F

## EOG Resources

## Planning Report



<b>Database:</b>	EDM 5000.14	<b>Local Co-ordinate Reference</b>	Well #722H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	KB @ 3330.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3330.0usft
<b>Site:</b>	Dogwood 23 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#722H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1		

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	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,200.0	2.00	122.40	1,200.0	-0.9	1.5	-0.8	2.00	2.00	0.00	
1,300.0	4.00	122.40	1,299.8	-3.7	5.9	-3.2	2.00	2.00	0.00	
1,400.0	6.00	122.40	1,399.5	-8.4	13.3	-7.1	2.00	2.00	0.00	
1,500.0	8.00	122.40	1,498.7	-14.9	23.5	-12.7	2.00	2.00	0.00	
1,600.0	10.00	122.40	1,597.5	-23.3	36.7	-19.8	2.00	2.00	0.00	
1,634.3	10.69	122.40	1,631.2	-26.6	42.0	-22.6	2.00	2.00	0.00	
1,700.0	10.69	122.40	1,695.8	-33.1	52.2	-28.1	0.00	0.00	0.00	
1,800.0	10.69	122.40	1,794.0	-43.1	67.9	-36.6	0.00	0.00	0.00	
1,900.0	10.69	122.40	1,892.3	-53.0	83.5	-45.0	0.00	0.00	0.00	
2,000.0	10.69	122.40	1,990.6	-63.0	99.2	-53.4	0.00	0.00	0.00	
2,100.0	10.69	122.40	2,088.8	-72.9	114.9	-61.9	0.00	0.00	0.00	
2,200.0	10.69	122.40	2,187.1	-82.8	130.5	-70.3	0.00	0.00	0.00	
2,300.0	10.69	122.40	2,285.4	-92.8	146.2	-78.7	0.00	0.00	0.00	
2,400.0	10.69	122.40	2,383.6	-102.7	161.8	-87.2	0.00	0.00	0.00	
2,500.0	10.69	122.40	2,481.9	-112.6	177.5	-95.6	0.00	0.00	0.00	
2,600.0	10.69	122.40	2,580.2	-122.6	193.1	-104.0	0.00	0.00	0.00	
2,700.0	10.69	122.40	2,678.4	-132.5	208.8	-112.5	0.00	0.00	0.00	
2,800.0	10.69	122.40	2,776.7	-142.4	224.5	-120.9	0.00	0.00	0.00	
2,900.0	10.69	122.40	2,875.0	-152.4	240.1	-129.3	0.00	0.00	0.00	
3,000.0	10.69	122.40	2,973.2	-162.3	255.8	-137.8	0.00	0.00	0.00	
3,100.0	10.69	122.40	3,071.5	-172.3	271.4	-146.2	0.00	0.00	0.00	
3,200.0	10.69	122.40	3,169.8	-182.2	287.1	-154.7	0.00	0.00	0.00	
3,300.0	10.69	122.40	3,268.0	-192.1	302.7	-163.1	0.00	0.00	0.00	
3,400.0	10.69	122.40	3,366.3	-202.1	318.4	-171.5	0.00	0.00	0.00	
3,500.0	10.69	122.40	3,464.5	-212.0	334.1	-180.0	0.00	0.00	0.00	
3,600.0	10.69	122.40	3,562.8	-221.9	349.7	-188.4	0.00	0.00	0.00	
3,700.0	10.69	122.40	3,661.1	-231.9	365.4	-196.8	0.00	0.00	0.00	
3,800.0	10.69	122.40	3,759.3	-241.8	381.0	-205.3	0.00	0.00	0.00	
3,900.0	10.69	122.40	3,857.6	-251.7	396.7	-213.7	0.00	0.00	0.00	
4,000.0	10.69	122.40	3,955.9	-261.7	412.3	-222.1	0.00	0.00	0.00	
4,100.0	10.69	122.40	4,054.1	-271.6	428.0	-230.6	0.00	0.00	0.00	
4,200.0	10.69	122.40	4,152.4	-281.6	443.7	-239.0	0.00	0.00	0.00	
4,300.0	10.69	122.40	4,250.7	-291.5	459.3	-247.4	0.00	0.00	0.00	
4,400.0	10.69	122.40	4,348.9	-301.4	475.0	-255.9	0.00	0.00	0.00	
4,500.0	10.69	122.40	4,447.2	-311.4	490.6	-264.3	0.00	0.00	0.00	
4,600.0	10.69	122.40	4,545.5	-321.3	506.3	-272.7	0.00	0.00	0.00	
4,700.0	10.69	122.40	4,643.7	-331.2	521.9	-281.2	0.00	0.00	0.00	
4,800.0	10.69	122.40	4,742.0	-341.2	537.6	-289.6	0.00	0.00	0.00	
4,900.0	10.69	122.40	4,840.3	-351.1	553.3	-298.0	0.00	0.00	0.00	
5,000.0	10.69	122.40	4,938.5	-361.0	568.9	-306.5	0.00	0.00	0.00	
5,100.0	10.69	122.40	5,036.8	-371.0	584.6	-314.9	0.00	0.00	0.00	

## EOG Resources

## Planning Report



<b>Database:</b>	EDM 5000.14	<b>Local Co-ordinate Reference</b>	Well #722H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	KB @ 3330.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3330.0usft
<b>Site:</b>	Dogwood 23 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#722H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1		

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)	
5,200.0	10.69	122.40	5,135.1	-380.9	600.2	-323.3	0.00	0.00	0.00	
5,300.0	10.69	122.40	5,233.3	-390.9	615.9	-331.8	0.00	0.00	0.00	
5,400.0	10.69	122.40	5,331.6	-400.8	631.5	-340.2	0.00	0.00	0.00	
5,500.0	10.69	122.40	5,429.9	-410.7	647.2	-348.6	0.00	0.00	0.00	
5,600.0	10.69	122.40	5,528.1	-420.7	662.9	-357.1	0.00	0.00	0.00	
5,700.0	10.69	122.40	5,626.4	-430.6	678.5	-365.5	0.00	0.00	0.00	
5,800.0	10.69	122.40	5,724.7	-440.5	694.2	-373.9	0.00	0.00	0.00	
5,900.0	10.69	122.40	5,822.9	-450.5	709.8	-382.4	0.00	0.00	0.00	
6,000.0	10.69	122.40	5,921.2	-460.4	725.5	-390.8	0.00	0.00	0.00	
6,100.0	10.69	122.40	6,019.5	-470.3	741.2	-399.2	0.00	0.00	0.00	
6,200.0	10.69	122.40	6,117.7	-480.3	756.8	-407.7	0.00	0.00	0.00	
6,300.0	10.69	122.40	6,216.0	-490.2	772.5	-416.1	0.00	0.00	0.00	
6,400.0	10.69	122.40	6,314.3	-500.2	788.1	-424.6	0.00	0.00	0.00	
6,500.0	10.69	122.40	6,412.5	-510.1	803.8	-433.0	0.00	0.00	0.00	
6,600.0	10.69	122.40	6,510.8	-520.0	819.4	-441.4	0.00	0.00	0.00	
6,700.0	10.69	122.40	6,609.0	-530.0	835.1	-449.9	0.00	0.00	0.00	
6,800.0	10.69	122.40	6,707.3	-539.9	850.8	-458.3	0.00	0.00	0.00	
6,900.0	10.69	122.40	6,805.6	-549.8	866.4	-466.7	0.00	0.00	0.00	
7,000.0	10.69	122.40	6,903.8	-559.8	882.1	-475.2	0.00	0.00	0.00	
7,100.0	10.69	122.40	7,002.1	-569.7	897.7	-483.6	0.00	0.00	0.00	
7,200.0	10.69	122.40	7,100.4	-579.6	913.4	-492.0	0.00	0.00	0.00	
7,300.0	10.69	122.40	7,198.6	-589.6	929.0	-500.5	0.00	0.00	0.00	
7,400.0	10.69	122.40	7,296.9	-599.5	944.7	-508.9	0.00	0.00	0.00	
7,500.0	10.69	122.40	7,395.2	-609.5	960.4	-517.3	0.00	0.00	0.00	
7,600.0	10.69	122.40	7,493.4	-619.4	976.0	-525.8	0.00	0.00	0.00	
7,700.0	10.69	122.40	7,591.7	-629.3	991.7	-534.2	0.00	0.00	0.00	
7,740.8	10.69	122.40	7,631.8	-633.4	998.0	-537.6	0.00	0.00	0.00	
7,800.0	9.50	122.40	7,690.1	-638.9	1,006.8	-542.4	2.00	-2.00	0.00	
7,900.0	7.50	122.40	7,789.0	-646.9	1,019.3	-549.1	2.00	-2.00	0.00	
8,000.0	5.50	122.40	7,888.3	-652.9	1,028.9	-554.2	2.00	-2.00	0.00	
8,100.0	3.50	122.40	7,988.0	-657.1	1,035.5	-557.8	2.00	-2.00	0.00	
8,200.0	1.50	122.40	8,087.9	-659.5	1,039.2	-559.8	2.00	-2.00	0.00	
8,275.1	0.00	0.01	8,163.0	-660.0	1,040.0	-560.2	2.00	-2.00	0.00	
8,300.0	0.00	0.00	8,187.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,287.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,387.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
8,600.0	0.00	0.00	8,487.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,587.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
8,800.0	0.00	0.00	8,687.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
8,900.0	0.00	0.00	8,787.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
9,000.0	0.00	0.00	8,887.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
9,100.0	0.00	0.00	8,987.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
9,200.0	0.00	0.00	9,087.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
9,300.0	0.00	0.00	9,187.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
9,400.0	0.00	0.00	9,287.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
9,500.0	0.00	0.00	9,387.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
9,600.0	0.00	0.00	9,487.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
9,700.0	0.00	0.00	9,587.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
9,800.0	0.00	0.00	9,687.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
9,900.0	0.00	0.00	9,787.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
10,000.0	0.00	0.00	9,887.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
10,100.0	0.00	0.00	9,987.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
10,200.0	0.00	0.00	10,087.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	



## EOG Resources

## Planning Report



<b>Database:</b>	EDM 5000.14	<b>Local Co-ordinate Reference</b>	Well #722H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	KB @ 3330.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3330.0usft
<b>Site:</b>	Dogwood 23 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#722H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1		

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)	
10,300.0	0.00	0.00	10,187.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
10,400.0	0.00	0.00	10,287.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
10,500.0	0.00	0.00	10,387.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
10,600.0	0.00	0.00	10,487.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
10,700.0	0.00	0.00	10,587.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
10,800.0	0.00	0.00	10,687.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
10,900.0	0.00	0.00	10,787.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
11,000.0	0.00	0.00	10,887.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
11,100.0	0.00	0.00	10,987.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
11,200.0	0.00	0.00	11,087.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
11,300.0	0.00	0.00	11,187.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
11,400.0	0.00	0.00	11,287.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
11,500.0	0.00	0.00	11,387.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
11,600.0	0.00	0.00	11,487.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
11,700.0	0.00	0.00	11,587.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
11,800.0	0.00	0.00	11,687.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
11,900.0	0.00	0.00	11,787.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
12,000.0	0.00	0.00	11,887.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
12,100.0	0.00	0.00	11,987.9	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
12,209.6	0.00	0.01	12,097.5	-660.0	1,040.0	-560.2	0.00	0.00	0.00	
<b>KOP (Dogwood 23 Fed Com #722H)</b>										
12,225.0	1.85	359.60	12,112.9	-659.8	1,040.0	-560.0	12.00	12.00	0.00	
12,250.0	4.85	359.60	12,137.9	-658.3	1,040.0	-558.5	12.00	12.00	0.00	
12,275.0	7.85	359.60	12,162.7	-655.5	1,040.0	-555.8	12.00	12.00	0.00	
12,300.0	10.85	359.60	12,187.4	-651.5	1,039.9	-551.7	12.00	12.00	0.00	
12,325.0	13.85	359.60	12,211.8	-646.1	1,039.9	-546.4	12.00	12.00	0.00	
12,350.0	16.85	359.60	12,235.9	-639.5	1,039.9	-539.8	12.00	12.00	0.00	
12,375.0	19.85	359.60	12,259.6	-631.6	1,039.8	-532.0	12.00	12.00	0.00	
12,400.0	22.85	359.60	12,282.9	-622.5	1,039.7	-523.0	12.00	12.00	0.00	
12,425.0	25.85	359.60	12,305.7	-612.2	1,039.7	-512.7	12.00	12.00	0.00	
12,450.0	28.85	359.60	12,327.9	-600.8	1,039.6	-501.3	12.00	12.00	0.00	
12,475.0	31.85	359.60	12,349.4	-588.1	1,039.5	-488.7	12.00	12.00	0.00	
12,500.0	34.85	359.60	12,370.3	-574.4	1,039.4	-475.0	12.00	12.00	0.00	
12,525.0	37.85	359.60	12,390.5	-559.6	1,039.3	-460.3	12.00	12.00	0.00	
12,550.0	40.85	359.60	12,409.8	-543.7	1,039.2	-444.5	12.00	12.00	0.00	
12,575.0	43.85	359.60	12,428.3	-526.9	1,039.1	-427.8	12.00	12.00	0.00	
12,600.0	46.84	359.60	12,445.8	-509.1	1,038.9	-410.1	12.00	12.00	0.00	
12,625.0	49.84	359.60	12,462.5	-490.4	1,038.8	-391.5	12.00	12.00	0.00	
12,650.0	52.84	359.60	12,478.1	-470.9	1,038.7	-372.1	12.00	12.00	0.00	
12,675.0	55.84	359.60	12,492.6	-450.6	1,038.5	-351.9	12.00	12.00	0.00	
12,700.0	58.84	359.60	12,506.1	-429.5	1,038.4	-330.9	12.00	12.00	0.00	
12,725.0	61.84	359.60	12,518.5	-407.8	1,038.2	-309.3	12.00	12.00	0.00	
12,750.0	64.84	359.60	12,529.7	-385.5	1,038.1	-287.1	12.00	12.00	0.00	
12,775.0	67.84	359.60	12,539.7	-362.6	1,037.9	-264.3	12.00	12.00	0.00	
12,800.0	70.84	359.60	12,548.6	-339.2	1,037.8	-241.0	12.00	12.00	0.00	
12,825.0	73.84	359.60	12,556.1	-315.4	1,037.6	-217.3	12.00	12.00	0.00	
12,850.0	76.84	359.60	12,562.5	-291.2	1,037.4	-193.3	12.00	12.00	0.00	
12,875.0	79.84	359.60	12,567.5	-266.7	1,037.3	-168.9	12.00	12.00	0.00	
12,900.0	82.84	359.60	12,571.3	-242.0	1,037.1	-144.3	12.00	12.00	0.00	
12,925.0	85.84	359.60	12,573.7	-217.1	1,036.9	-119.6	12.00	12.00	0.00	
12,950.0	88.84	359.60	12,574.9	-192.2	1,036.7	-94.7	12.00	12.00	0.00	
12,959.7	90.00	359.60	12,575.0	-182.5	1,036.7	-85.1	12.00	12.00	0.00	
13,000.0	90.00	359.60	12,575.0	-142.2	1,036.4	-45.0	0.00	0.00	0.00	

## EOG Resources

## Planning Report



<b>Database:</b>	EDM 5000.14	<b>Local Co-ordinate Reference</b>	Well #722H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	KB @ 3330.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3330.0usft
<b>Site:</b>	Dogwood 23 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#722H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1		

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)	
13,055.2	90.00	359.60	12,575.0	-87.0	1,036.0	9.9	0.00	0.00	0.00	
<b>FTP (Dogwood 23 Fed Com #722H)</b>										
13,100.0	90.00	359.60	12,575.0	-42.2	1,035.7	54.5	0.00	0.00	0.00	
13,200.0	90.00	359.60	12,575.0	57.8	1,035.0	154.0	0.00	0.00	0.00	
13,300.0	90.00	359.60	12,575.0	157.8	1,034.3	253.5	0.00	0.00	0.00	
13,400.0	90.00	359.60	12,575.0	257.8	1,033.6	353.0	0.00	0.00	0.00	
13,500.0	90.00	359.60	12,575.0	357.8	1,032.9	452.5	0.00	0.00	0.00	
13,600.0	90.00	359.60	12,575.0	457.8	1,032.2	552.0	0.00	0.00	0.00	
13,700.0	90.00	359.59	12,575.0	557.8	1,031.5	651.5	0.00	0.00	0.00	
13,800.0	90.00	359.59	12,575.0	657.8	1,030.8	751.0	0.00	0.00	0.00	
13,900.0	90.00	359.59	12,575.0	757.8	1,030.1	850.5	0.00	0.00	0.00	
14,000.0	90.00	359.59	12,575.0	857.8	1,029.3	950.0	0.00	0.00	0.00	
14,100.0	90.00	359.59	12,575.0	957.8	1,028.6	1,049.5	0.00	0.00	0.00	
14,200.0	90.00	359.59	12,575.0	1,057.8	1,027.9	1,149.0	0.00	0.00	0.00	
14,300.0	90.00	359.59	12,575.0	1,157.8	1,027.2	1,248.5	0.00	0.00	0.00	
14,400.0	90.00	359.59	12,575.0	1,257.8	1,026.5	1,348.0	0.00	0.00	0.00	
14,500.0	90.00	359.59	12,575.0	1,357.8	1,025.8	1,447.5	0.00	0.00	0.00	
14,600.0	90.00	359.59	12,575.0	1,457.8	1,025.1	1,547.0	0.00	0.00	0.00	
14,700.0	90.00	359.59	12,575.0	1,557.8	1,024.3	1,646.4	0.00	0.00	0.00	
14,800.0	90.00	359.59	12,575.0	1,657.8	1,023.6	1,745.9	0.00	0.00	0.00	
14,900.0	90.00	359.59	12,575.0	1,757.8	1,022.9	1,845.4	0.00	0.00	0.00	
15,000.0	90.00	359.58	12,575.0	1,857.8	1,022.2	1,944.9	0.00	0.00	0.00	
15,100.0	90.00	359.58	12,575.0	1,957.8	1,021.4	2,044.4	0.00	0.00	0.00	
15,200.0	90.00	359.58	12,575.0	2,057.8	1,020.7	2,143.9	0.00	0.00	0.00	
15,300.0	90.00	359.58	12,575.0	2,157.8	1,020.0	2,243.4	0.00	0.00	0.00	
15,400.0	90.00	359.58	12,575.0	2,257.8	1,019.3	2,342.9	0.00	0.00	0.00	
15,500.0	90.00	359.58	12,575.0	2,357.8	1,018.5	2,442.4	0.00	0.00	0.00	
15,600.0	90.00	359.58	12,575.0	2,457.8	1,017.8	2,541.9	0.00	0.00	0.00	
15,700.0	90.00	359.58	12,575.0	2,557.8	1,017.1	2,641.4	0.00	0.00	0.00	
15,800.0	90.00	359.58	12,575.0	2,657.8	1,016.3	2,740.9	0.00	0.00	0.00	
15,900.0	90.00	359.58	12,575.0	2,757.8	1,015.6	2,840.4	0.00	0.00	0.00	
16,000.0	90.00	359.58	12,575.0	2,857.8	1,014.8	2,939.9	0.00	0.00	0.00	
16,100.0	90.00	359.58	12,575.0	2,957.8	1,014.1	3,039.4	0.00	0.00	0.00	
16,200.0	90.00	359.58	12,575.0	3,057.8	1,013.4	3,138.9	0.00	0.00	0.00	
16,300.0	90.00	359.57	12,575.0	3,157.7	1,012.6	3,238.4	0.00	0.00	0.00	
16,400.0	90.00	359.57	12,575.0	3,257.7	1,011.9	3,337.9	0.00	0.00	0.00	
16,500.0	90.00	359.57	12,575.0	3,357.7	1,011.1	3,437.3	0.00	0.00	0.00	
16,600.0	90.00	359.57	12,575.0	3,457.7	1,010.4	3,536.8	0.00	0.00	0.00	
16,700.0	90.00	359.57	12,575.0	3,557.7	1,009.6	3,636.3	0.00	0.00	0.00	
16,800.0	90.00	359.57	12,575.0	3,657.7	1,008.9	3,735.8	0.00	0.00	0.00	
16,900.0	90.00	359.57	12,575.0	3,757.7	1,008.1	3,835.3	0.00	0.00	0.00	
17,000.0	90.00	359.57	12,575.0	3,857.7	1,007.4	3,934.8	0.00	0.00	0.00	
17,100.0	90.00	359.57	12,575.0	3,957.7	1,006.6	4,034.3	0.00	0.00	0.00	
17,200.0	90.00	359.57	12,575.0	4,057.7	1,005.9	4,133.8	0.00	0.00	0.00	
17,300.0	90.00	359.57	12,575.0	4,157.7	1,005.1	4,233.3	0.00	0.00	0.00	
17,400.0	90.00	359.57	12,575.0	4,257.7	1,004.4	4,332.8	0.00	0.00	0.00	
17,500.0	90.00	359.56	12,575.0	4,357.7	1,003.6	4,432.3	0.00	0.00	0.00	
17,600.0	90.00	359.56	12,575.0	4,457.7	1,002.8	4,531.8	0.00	0.00	0.00	
17,700.0	90.00	359.56	12,575.0	4,557.7	1,002.1	4,631.2	0.00	0.00	0.00	
17,800.0	90.00	359.56	12,575.0	4,657.7	1,001.3	4,730.7	0.00	0.00	0.00	
17,900.0	90.00	359.56	12,575.0	4,757.7	1,000.6	4,830.2	0.00	0.00	0.00	
18,000.0	90.00	359.56	12,575.0	4,857.7	999.8	4,929.7	0.00	0.00	0.00	
18,100.0	90.00	359.56	12,575.0	4,957.7	999.0	5,029.2	0.00	0.00	0.00	

## EOG Resources

## Planning Report



<b>Database:</b>	EDM 5000.14	<b>Local Co-ordinate Reference</b>	Well #722H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	KB @ 3330.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3330.0usft
<b>Site:</b>	Dogwood 23 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#722H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1		

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)	
18,200.0	90.00	359.56	12,575.0	5,057.7	998.3	5,128.7	0.00	0.00	0.00	
18,233.3	90.00	359.56	12,575.0	5,091.0	998.0	5,161.8	0.00	0.00	0.00	
FED PP (Dogwood 23 Fed Com #722H)										
18,300.0	90.00	359.56	12,575.0	5,157.7	997.5	5,228.2	0.00	0.00	0.00	
18,400.0	90.00	359.56	12,575.0	5,257.7	996.7	5,327.7	0.00	0.00	0.00	
18,500.0	90.00	359.56	12,575.0	5,357.7	996.0	5,427.2	0.00	0.00	0.00	
18,600.0	90.00	359.56	12,575.0	5,457.7	995.2	5,526.7	0.00	0.00	0.00	
18,700.0	90.00	359.56	12,575.0	5,557.7	994.4	5,626.2	0.00	0.00	0.00	
18,800.0	90.00	359.57	12,575.0	5,657.7	993.7	5,725.6	0.00	0.00	0.00	
18,900.0	90.00	359.57	12,575.0	5,757.7	992.9	5,825.1	0.00	0.00	0.00	
19,000.0	90.00	359.57	12,575.0	5,857.7	992.2	5,924.6	0.00	0.00	0.00	
19,100.0	90.00	359.57	12,575.0	5,957.7	991.4	6,024.1	0.00	0.00	0.00	
19,200.0	90.00	359.57	12,575.0	6,057.7	990.7	6,123.6	0.00	0.00	0.00	
19,300.0	90.00	359.57	12,575.0	6,157.7	989.9	6,223.1	0.00	0.00	0.00	
19,400.0	90.00	359.57	12,575.0	6,257.7	989.2	6,322.6	0.00	0.00	0.00	
19,500.0	90.00	359.57	12,575.0	6,357.7	988.4	6,422.1	0.00	0.00	0.00	
19,600.0	90.00	359.58	12,575.0	6,457.7	987.7	6,521.6	0.00	0.00	0.00	
19,700.0	90.00	359.58	12,575.0	6,557.7	986.9	6,621.1	0.00	0.00	0.00	
19,800.0	90.00	359.58	12,575.0	6,657.6	986.2	6,720.6	0.00	0.00	0.00	
19,900.0	90.00	359.58	12,575.0	6,757.6	985.5	6,820.1	0.00	0.00	0.00	
20,000.0	90.00	359.58	12,575.0	6,857.6	984.7	6,919.6	0.00	0.00	0.00	
20,100.0	90.00	359.58	12,575.0	6,957.6	984.0	7,019.1	0.00	0.00	0.00	
20,200.0	90.00	359.58	12,575.0	7,057.6	983.3	7,118.6	0.00	0.00	0.00	
20,300.0	90.00	359.58	12,575.0	7,157.6	982.6	7,218.0	0.00	0.00	0.00	
20,400.0	90.00	359.59	12,575.0	7,257.6	981.8	7,317.5	0.00	0.00	0.00	
20,500.0	90.00	359.59	12,575.0	7,357.6	981.1	7,417.0	0.00	0.00	0.00	
20,600.0	90.00	359.59	12,575.0	7,457.6	980.4	7,516.5	0.00	0.00	0.00	
20,700.0	90.00	359.59	12,575.0	7,557.6	979.7	7,616.0	0.00	0.00	0.00	
20,800.0	90.00	359.59	12,575.0	7,657.6	978.9	7,715.5	0.00	0.00	0.00	
20,900.0	90.00	359.59	12,575.0	7,757.6	978.2	7,815.0	0.00	0.00	0.00	
21,000.0	90.00	359.59	12,575.0	7,857.6	977.5	7,914.5	0.00	0.00	0.00	
21,100.0	90.00	359.59	12,575.0	7,957.6	976.8	8,014.0	0.00	0.00	0.00	
21,200.0	90.00	359.60	12,575.0	8,057.6	976.1	8,113.5	0.00	0.00	0.00	
21,300.0	90.00	359.60	12,575.0	8,157.6	975.4	8,213.0	0.00	0.00	0.00	
21,400.0	90.00	359.60	12,575.0	8,257.6	974.7	8,312.5	0.00	0.00	0.00	
21,500.0	90.00	359.60	12,575.0	8,357.6	974.0	8,412.0	0.00	0.00	0.00	
21,600.0	90.00	359.60	12,575.0	8,457.6	973.3	8,511.5	0.00	0.00	0.00	
21,700.0	90.00	359.60	12,575.0	8,557.6	972.6	8,611.0	0.00	0.00	0.00	
21,800.0	90.00	359.60	12,575.0	8,657.6	971.9	8,710.5	0.00	0.00	0.00	
21,900.0	90.00	359.60	12,575.0	8,757.6	971.2	8,810.0	0.00	0.00	0.00	
22,000.0	90.00	359.61	12,575.0	8,857.6	970.5	8,909.5	0.00	0.00	0.00	
22,100.0	90.00	359.61	12,575.0	8,957.6	969.8	9,009.0	0.00	0.00	0.00	
22,200.0	90.00	359.61	12,575.0	9,057.6	969.1	9,108.5	0.00	0.00	0.00	
22,300.0	90.00	359.61	12,575.0	9,157.6	968.5	9,208.0	0.00	0.00	0.00	
22,400.0	90.00	359.61	12,575.0	9,257.6	967.8	9,307.5	0.00	0.00	0.00	
22,500.0	90.00	359.61	12,575.0	9,357.6	967.1	9,407.0	0.00	0.00	0.00	
22,600.0	90.00	359.61	12,575.0	9,457.6	966.4	9,506.5	0.00	0.00	0.00	
22,700.0	90.00	359.61	12,575.0	9,557.6	965.8	9,606.0	0.00	0.00	0.00	
22,800.0	90.00	359.61	12,575.0	9,657.6	965.1	9,705.5	0.00	0.00	0.00	
22,900.0	90.00	359.62	12,575.0	9,757.6	964.4	9,805.0	0.00	0.00	0.00	
23,000.0	90.00	359.62	12,575.0	9,857.6	963.7	9,904.5	0.00	0.00	0.00	
23,100.0	90.00	359.62	12,575.0	9,957.6	963.1	10,004.0	0.00	0.00	0.00	
23,200.0	90.00	359.62	12,575.0	10,057.6	962.4	10,103.5	0.00	0.00	0.00	

## EOG Resources

## Planning Report



<b>Database:</b>	EDM 5000.14	<b>Local Co-ordinate Reference</b>	Well #722H
<b>Company:</b>	EOG Resources - Midland	<b>TVD Reference:</b>	KB @ 3330.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	KB @ 3330.0usft
<b>Site:</b>	Dogwood 23 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#722H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.1		

## 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)
23,300.0	90.00	359.62	12,575.0	10,157.6	961.7	10,203.0	0.00	0.00	0.00
23,400.0	90.00	359.62	12,575.0	10,257.6	961.1	10,302.5	0.00	0.00	0.00
23,412.4	90.00	359.62	12,575.0	10,270.0	961.0	10,314.9	0.00	0.00	0.00
PBHL (Dogwood 23 Fed Com #722H)									

## 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 (Dogwood 23 Fed Com #722H) - plan hits target center - Point	0.00	0.01	12,097.5	-660.0	1,040.0	372,059.00	786,955.00	32° 1' 13.419 N	103° 32' 26.966 W
FTP (Dogwood 23 Fed Com #722H) - plan hits target center - Point	0.00	0.01	12,575.0	-87.0	1,036.0	372,632.00	786,951.00	32° 1' 19.089 N	103° 32' 26.964 W
PBHL (Dogwood 23 Fed Com #722H) - plan hits target center - Point	0.00	0.01	12,575.0	10,270.0	961.0	382,989.00	786,876.00	32° 3' 1.582 N	103° 32' 26.952 W
FED PP (Dogwood 23 Fed Com #722H) - plan hits target center - Point	0.00	0.01	12,575.0	5,091.0	998.0	377,810.00	786,913.00	32° 2' 10.331 N	103° 32' 26.964 W



**PECOS DISTRICT  
SURFACE USE  
CONDITIONS OF APPROVAL**

**Dogwood Fed Com**  
**Lease Number      NMNM 122622**  
**NMNM 121490**  
**NMNM 0002965A**

**Well Pads, Access Roads,  
Flowlines/Gas Lift Lines  
EOG Resources, Inc.**

**Well Pad 1** – Center of pad: 300' FNL & 990' FEL

Dogwood 26 Fed Com #741H

Surface Hole Location: 250' FNL & 974' FEL, Section 26, T. 26 S., R. 33 E.

Bottom Hole Location: 100' FNL & 660' FEL, Section 14, T. 26 S., R. 33 E.

Dogwood 26 Fed Com #742H

Surface Hole Location: 250' FNL & 1007' FEL, Section 26, T. 26 S., R. 33 E.

Bottom Hole Location: 100' FNL & 1320' FEL, Section 14, T. 26 S., R. 33 E.

**Well Pad 2** – Center of pad: 411' FNL & 2576' FEL

Dogwood 26 Fed Com #743H

Surface Hole Location: 352' FNL & 2585' FEL, Section 26, T. 26 S., R. 33 E.

Bottom Hole Location: 100' FNL & 1980' FEL, Section 14, T. 26 S., R. 33 E.

Dogwood 26 Fed Com #744H

Surface Hole Location: 374' FNL & 2610' FEL, Section 26, T. 26 S., R. 33 E.

Bottom Hole Location: 100' FNL & 2633' FWL, Section 14, T. 26 S., R. 33 E.

Dogwood 26 Fed Com #745H

Surface Hole Location: 396' FNL & 2634' FEL, Section 26, T. 26 S., R. 33 E.

Bottom Hole Location: 100' FNL & 1980' FWL, Section 14, T. 26 S., R. 33 E.

**Well Pad 3** – Center of pad: 300' FNL & 774' FWL

Dogwood 26 Fed Com #746H

Surface Hole Location: 250' FNL & 791' FWL, Section 26, T. 26 S., R. 33 E.

Bottom Hole Location: 100' FNL & 1320' FWL, Section 14, T. 26 S., R. 33 E.

Dogwood 26 Fed Com #747H

Surface Hole Location: 250' FNL & 758' FWL, Section 26, T. 26 S., R. 33 E.

Bottom Hole Location: 100' FNL & 660' FWL, Section 14, T. 26 S., R. 33 E.

**TABLE OF CONTENTS**

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
  - Hydrology
- ☐ **Construction**
  - Notification
  - Topsoil
  - Closed Loop System
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- ☐ **Road Section Diagram**
- ☐ **Production (Post Drilling)**
  - Well Structures & Facilities
  - Pipelines
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment & Reclamation**

## **I. GENERAL PROVISIONS**

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

## **II. PERMIT EXPIRATION**

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

## **III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES**

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

## **IV. NOXIOUS WEEDS**

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

## V. SPECIAL REQUIREMENT(S)

### **Hydrology:**

The entire well pad(s) will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank or 24 hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

When crossing ephemeral drainages the pipeline(s) will be buried to a minimum depth of 48 inches from the top of pipe to ground level. Erosion control methods such as gabions and/or rock aprons should be placed on both up and downstream sides of the pipeline crossing. In addition, curled (weed free) wood/straw fiber wattles/logs and/or silt fences should be placed on the downstream side for sediment control during construction and maintained until soils and vegetation have stabilized. Water bars should be placed within the ROW to divert and dissipate surface runoff. A pipeline access road is not permitted to cross these ephemeral drainages. Traffic should be diverted to a preexisting route. Additional seeding may be required in floodplains and drainages to restore energy dissipating vegetation.

Prior to pipeline installation/construction a leak detection plan will be developed. The method(s) could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.



## **VI. CONSTRUCTION**

### **A. NOTIFICATION**

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

### **B. TOPSOIL**

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

### **C. CLOSED LOOP SYSTEM**

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

### **D. FEDERAL MINERAL MATERIALS PIT**

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

### **E. WELL PAD SURFACING**

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

### **F. EXCLOSURE FENCING (CELLARS & PITS)**

**Exclosure Fencing**

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

**G. ON LEASE ACCESS ROADS****Road Width**

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

**Surfacing**

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

**Crowning**

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

**Ditching**

Ditching shall be required on both sides of the road.

**Turnouts**

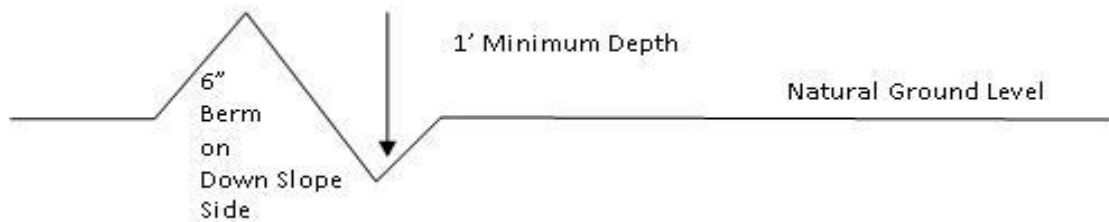
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

**Drainage**

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

### Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

### Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

### Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

### Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

### Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

**Construction Steps**

1. Salvage topsoil
2. Construct road

3. Redistribute topsoil
4. Revegetate slopes



Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.



## **VII. PRODUCTION (POST DRILLING)**

### **A. WELL STRUCTURES & FACILITIES**

#### **Placement of Production Facilities**

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

#### **Exclosure Netting (Open-top Tanks)**

Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

#### **Chemical and Fuel Secondary Containment and Exclosure Screening**

The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

#### **Open-Vent Exhaust Stack Exclosures**

The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

#### **Containment Structures**

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

### **Painting Requirement**

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

## **B. PIPELINES**

### **BURIED PIPELINE STIPULATIONS**

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.
4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other

pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of 36 inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be 30 feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed 30 feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)
- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed 30 feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)
- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

- |                                                        |                                                  |
|--------------------------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> seed mixture 1                | <input type="checkbox"/> seed mixture 3          |
| <input type="checkbox"/> seed mixture 2                | <input type="checkbox"/> seed mixture 4          |
| <input checked="" type="checkbox"/> seed mixture 2/LPC | <input type="checkbox"/> Aplomado Falcon Mixture |

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

17. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

18. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

- a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
- b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

## **VIII. INTERIM RECLAMATION**

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

## **IX. FINAL ABANDONMENT & RECLAMATION**

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

## Seed Mixture for LPC Sand/Shinnery Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)\* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed\* per acre:

<u>Species</u>	<u>lb/acre</u>
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

\*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed



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**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS  
  
Action 23204

CONDITIONS OF APPROVAL

Operator:	EOG RESOURCES INC	P.O. Box 2267	Midland, TX79702	OGRID:	7377	Action Number:	23204	Action Type:	C-103A
OCD Reviewer									Condition
pkautz									None