ه م ۲	000) Hubbs			17 - 338
Form 3160-3 (March 2012) UNITED STATES DEPARTMENT OF THE I BUREAU OF LAND MAN APPLICATION FOR PERMIT TO	NTERIOR AGEMEN 7 DRILL OR	JUN 2 6 201	<u>ос</u> г		0137 1, 2014 e Name
Ia. Type of work: ✓ DRILL □ REENTE Ib. Type of Well: ✓ Oil Well □ Gas Well ○ Other	_	ngle Zone 🗌 Multip	10 7000	7 If Unit or CA Agreement, 8. Lease Name and Well No CABALLO 23 FED 704H	G
2. Name of Operator EOG RESOURCES INC 7377)	(include area code)	le Zone	9. API Well No. 30-025-4 10. Field and Pool, or Explore RED HILLS, / WC-025 S2	3678 9 (9808) 53336D
4. Location of Well (Report location clearly and in accordance with any At surface SESW / 300 FSL / 1790 FWL / LAT 32.10960 At proposed prod. zone NENW / 230 FNL / 2061 FWL / LAT	03 / LONG -	103.5458774	9965	11. Sec., T. R. M. or Blk and SEC 23 / T25S / R33E / 1	Survey or Area
 14. Distance in miles and direction from nearest town or post office* 20 miles 15. Distance from proposed* location to nearest 230 feet property or lease line, ft. (Also to nearest drig. unit line, if any) 	16. No. of a 1480	cres in lease	17. Spacin 320	LEA ng Unit dedicated to this well	NM
 Distance from proposed location* to nearest well, drilling, completed, 577 feet applied for, on this lease, ft. 	19. Proposed	l Depth t / 22481 feet	20. BLM FED: N	/BIA Bond No. on file IM2308	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3342 feet	22 Approxir 07/01/201 24. Attac		rt*	23. Estimated duration 25 days	
 The following, completed in accordance with the requirements of Onshor Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office). 	re Oil and Gas	Order No.1, must be at 4. Bond to cover th Item 20 above). 5. Operator certific	ne operatio	his form: ons unless covered by an existin formation and/or plans as may b	
25. Signature (Electronic Submission) Title		<i>(Printed/Typed)</i> Wagner / Ph: (432)	686-3689	Date 02/1	5/2017
Regulatory Specialsit Approved by (Signature) (Electronic Submission)	Cody	<i>(Printed/Typed)</i> Layton / Ph: (575)2	34-5959	Date 06/0	09/2017
Supervisor Multiple Resources Application approval does not warrant or certify that the applicant hold conduct operations thereon. Conditions of approval, if any, are attached.		SBAD table title to those right	ts in the su	bject lease which would entitle th	ne applicant to
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a ci States any false, fictitious or fraudulent statements or representations as	rime for any pe to any matter w	erson knowingly and w vithin its jurisdiction.	villfully to	make to any department or agen	cy of the United

(Continued on page 2)



*(Instructions on page 2)

KZE /26/17

WAFMSS

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

APD ID: 10400011286

Operator Name: EOG RESOURCES INC

Well Name: CABALLO 23 FED

Well Type: OIL WELL

Submission Date: 02/15/2017 Federal/Indian APD: FED Well Number: 704H

Well Work Type: Drill

Application

Section 1 - General

APD ID:	10400011286	Tie to previous NOS?	Submission Date: 02/15/2017
BLM Office	: CARLSBAD	User: Stan Wagner	Title: Regulatory Specialsit
Federal/Ind	ian APD: FED	Is the first lease penetrate	ed for production Federal or Indian? FED
Lease num	ber: NMNM108503	Lease Acres: 1480	
Surface acc	cess agreement in place?	Allotted?	Reservation:
Agreement	in place? NO	Federal or Indian agreem	ent:
Agreement	number:		
Agreement	name:		
Keep applie	cation confidential? NO		
Permitting	Agent? NO	APD Operator: EOG RES	OURCES INC
Operator le	tter of designation:		
Keep applie	cation confidential? NO		

Operator Info

Operator Organization Name: EOG RESOURCES INC Operator Address: 1111 Bagby Sky Lobby2 Operator PO Box: Operator City: Houston State: TX Operator Phone: (713)651-7000 Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO	Mater Development Plan name
Well in Master SUPO? NO	Master SUPO name:
Well in Master Drilling Plan? NO	Master Drilling Plan name:

APD Print Report 03/30/2017

Highlight All Changes

Zip: 77002

Operator Name: EOG RESOURCES INC		
Well Name: CABALLO 23 FED	Well Number: 704H	
Well Name: CABALLO 23 FED	Well Number: 704H	Well API Number:
Field/Pool or Exploratory? Field and Poo	Field Name: RED HILLS	Pool Name: WC-025 S253336
s the proposed well in an area containi	other mineral resources? NATURAL GA	S,OIL
Describe other minerals:		
s the proposed well in a Helium produc	on area? N Use Existing Well Pad? NO	New surface disturbance?
Type of Well Pad: MULTIPLE WELL	Multiple Well Pad Name:	Number: 703H/704H
Well Class: HORIZONTAL	CABALLO 23 FED Number of Legs: 1	
Well Work Type: Drill		
Well Type: OIL WELL		
Describe Well Type:		
Well sub-Type: INFILL		
Describe sub-type:		
Distance to town: 20 Miles	stance to nearest well: 577 FT Dis	tance to lease line: 230 FT
Reservoir well spacing assigned acres I	easurement: 320 Acres	
Well plat: Caballo 23 Fed 704H signed	C-102_02-14-2017.pdf	
Well work start Date: 07/01/2017	Duration: 25 DAYS	
Section 3 - Well Location T	ble	
Survey Type: RECTANGULAR		
Describe Survey Type:		
Datum: NAD83	Vertical Datum: NAVD88	
Survey number:		
STATE: NEW MEXICO	Meridian: NEW MEXICO PRINCIP	PAL County: LEA
Latitude: 32.1096003	Longitude: -103.5458774	

SHL

Leg #: 1

Latitude: 32.1096003Longitude: -103.5458774Elevation: 3342MD: 0TVD: 0Lease Type: FEDERALLease #: NMNM108503NS-Foot: 300NS Indicator: FSLEW-Foot: 1790EW Indicator: FWLTwsp: 25SRange: 33ESection: 23Aliquot: SESWLot:Tract:

Operator Name: EOG RESOURCES INC Well Name: CABALLO 23 FED

STATE: NEW MEXICO Meridian: NEW MEXICO PRINCIPAL County: LEA Latitude: 32.1089199 Longitude: -103.545 KOP Elevation: -8567 TVD: 11909 MD: 11917 Leg #: 1 Lease Type: FEDERAL Lease #: NMNM108503 NS-Foot: 53 NS Indicator: FSL EW-Foot: 2047 EW Indicator: FWL **Twsp: 25S** Range: 33E Section: 23 Aliquot: SESW Lot: Tract: STATE: NEW MEXICO Meridian: NEW MEXICO PRINCIPAL County: LEA Latitude: 32,109684 Longitude: -103.545 PPP Elevation: -9016 MD: 12477 TVD: 12358 Leg #: 1 Lease Type: FEDERAL Lease #: NMNM108503 **NS-Foot: 300** NS Indicator: FSL EW-Foot: 2061 EW Indicator: FWL Twsp: 25S Range: 33E Section: 23 Aliquot: SESW Lot: Tract: STATE: NEW MEXICO Meridian: NEW MEXICO PRINCIPAL County: LEA Latitude: 32.1368919 Longitude: -103.545 EXIT Elevation: -9060 MD: 22381 TVD: 12402 Leg #: 1 Lease Type: FEDERAL Lease #: NMNM108503 NS-Foot: 330 NS Indicator: FNL EW-Foot: 2061 EW Indicator: FWL Twsp: 25S Range: 33E Section: 14 Aliquot: NENW Lot: Tract: **STATE: NEW MEXICO** Meridian: NEW MEXICO PRINCIPAL County: LEA Latitude: 32.1371671 Longitude: -103.5449965 BHL Elevation: -9060 MD: 22481 **TVD:** 12402 Leg #: 1 Lease Type: FEDERAL Lease #: NMNM108503 **NS-Foot: 230** NS Indicator: FNL EW-Foot: 2061 EW Indicator: FWL

Well Number: 704H

Well Name: CABALLO 23 FED	Well Number	: 704H	
Twsp: 25S	Range: 33E	Section: 14	
Aliquot: NENW	Lot:	Tract:	
	Drilling Plan		
Section 1 - Geologic Fo	ormations		
D: Surface formation	Name: RUSTLER		
.ithology(ies):			
ANHYDRITE			
	· .		
Elevation: 2217	True Vertical Depth: 1125	Measured Depth: 1125	
/ineral Resource(s):			
NONE			
s this a producing formation? N			
D: Formation 1	Name: TOP SALT		
_ithology(ies):			
SALT			
Elevation: 587	True Vertical Depth: 1630	Measured Depth: 1630	
/ineral Resource(s):			
NONE			
s this a producing formation? N			
D: Formation 2	Name: BASE OF SALT		
ithe leavy (i.e.)			
.ithology(ies):			
SALT			
Elevation: -2583	True Vertical Depth: 4800	Measured Depth: 4800	
/ineral Resource(s):			
NONE			

Well Name: CABALLO 23 FED	Well Number	: 704H	
D: Formation 3	Name: LAMAR		
Lithology(ies):			
LIMESTONE			
Elevation: -2831	True Vertical Depth: 5048	Measured Depth: 5048	
Mineral Resource(s):			
NONE			
Is this a producing formation? N			
ID: Formation 4	Name: BELL CANYON		
Lithology(ies):			
SANDSTONE			
Elevation: -2870	True Vertical Depth: 5087	Measured Depth: 5087	59
Mineral Resource(s):			
NATURAL GAS			
OIL	,		
Is this a producing formation? N			
ID: Formation 5	Name: CHERRY CANYON		
Lithology(ies):			
SANDSTONE			
Elevation: -3952	True Vertical Depth: 6169	Measured Depth: 6169	
Mineral Resource(s):			
NATURAL GAS			
OIL			
Is this a producing formation? N			
D: Formation 6	Name: BRUSHY CANYON		
Lithology(ies):			
SANDSTONE			

Well Name: CABALLO 23 FED	Well Number:	704H
Mineral Resource(s):		
NATURAL GAS		
OIL		
Is this a producing formation? N		
ID: Formation 7	Name: BONE SPRING LIME	
Lithology(ies):		
LIMESTONE		
Elevation: -6975	True Vertical Depth: 9192	Measured Depth: 9192
Mineral Resource(s):		
NONE		
Is this a producing formation? N		
ID: Formation 8	Name: BONE SPRING 1ST	
Lithology(ies):		
SANDSTONE		
Elevation: -7951	True Vertical Depth: 10168	Measured Depth: 10168
Mineral Resource(s):		
NATURAL GAS		
OIL		
Is this a producing formation? N		
ID: Formation 9	Name: BONE SPRING 2ND	
Lithology(ies):		
SANDSTONE		
Elevation: -8510	True Vertical Depth: 10727	Measured Depth: 10727
Mineral Resource(s):		
NATURAL GAS		
OIL		

Operator Name: EOG RESOURCES	INC		
Well Name: CABALLO 23 FED	Well Number:	704H	
ID: Formation 10	Name: BONE SPRING 3RD		
Lithology(ies):			
SANDSTONE			
Elevation: -9597	True Vertical Depth: 11814	Measured Depth: 11814	
Mineral Resource(s):			
NATURAL GAS			
OIL			
Is this a producing formation? N			
ID: Formation 11	Name: WOLFCAMP		
Lithology(ies):			
SHALE			
Elevation: -10055	True Vertical Depth: 12272	Measured Depth: 12272	
Mineral Resource(s):			
NATURAL GAS		X	
OIL			
Is this a producing formation? Y			
Section 2 - Blowout Pr	overtion		
JELIUIZ BIUWOULFI			

Biomouth reve

Pressure Rating (PSI): 5M

Rating Depth: 12402

Equipment: The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (5000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOPE will be tested in accordance with Onshore Oil and Gas order No. 2.

Requesting Variance? YES

Variance request: Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line). Variance is requested to wave the centralizer requirements for the 7-5/8" FJ 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 wave any centralizer requirements for the 5-1/2" FJ 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 surry, for the entire length of the 6-3/4" hole interval to maximize cement slurry.

Testing Procedure: Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 3500/ 250 psig. The surface casing will be tested to 1500 psi for 30 minutes. Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 3500/ 250 psig. The intermediate casing will be tested to 2000 psi for 30 minutes. Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

Well Name: CABALLO 23 FED

Well Number: 704H

Choke Diagram Attachment:

Caballo 23 Fed Com 703H 5 M Choke Manifold Diagram (3-21-14)_02-14-2017.pdf

Caballo 23 Fed Com 704H 5 M Choke Manifold Diagram (3-21-14)_02-14-2017.pdf

BOP Diagram Attachment:

Caballo 23 Fed Com 704H 5 M BOP Diagram (8-14-14)_02-14-2017.pdf

Section 3 - Casing

String Type: SURFACE	Other String Type:
Hole Size: 14.75	
Top setting depth MD: 0	Top setting depth TVD: 0
Top setting depth MSL: 3342	
Bottom setting depth MD: 1150	Bottom setting depth TVD: 1150
Bottom setting depth MSL: 2192	
Calculated casing length MD: 1150	
Casing Size: 10.75	Other Size
Grade: J-55	Other Grade:
Weight: 40.5	
Joint Type: STC	Other Joint Type:
Condition: NEW	
Inspection Document:	
Standard: API	
Spec Document:	
Tapered String?: N	
Tapered String Spec:	
Safety Factors	

Collapse Design Safety Factor: 1.125 Joint Tensile Design Safety Factor type: BUOYANT Body Tensile Design Safety Factor type: BUOYANT Casing Design Assumptions and Worksheet(s): Burst Design Safety Factor: 1.25 Joint Tensile Design Safety Factor: 1.6 Body Tensile Design Safety Factor: 1.6

Operator Name: EOG RESOURCES IN	IC
Well Name: CABALLO 23 FED	Well Number: 704H
String Type: INTERMEDIATE	Other String Type:
Hole Size: 9.875	
Top setting depth MD: 0	Top setting depth TVD: 0
Top setting depth MSL: 3342	
Bottom setting depth MD: 1000	Bottom setting depth TVD: 1000
Bottom setting depth MSL: 2342	
Calculated casing length MD: 1000	
Casing Size: 7.625	Other Size
Grade: HCP-110	Other Grade:
Weight: 29.7	
Joint Type: LTC	Other Joint Type: Flushmax III
Condition: NEW	
Inspection Document:	
Standard: API	
Spec Document:	
Tapered String?: N	
Tapered String Spec:	
Safety Factors	

Collapse Design Safety Factor: 1.125 Joint Tensile Design Safety Factor type: BUOYANT Body Tensile Design Safety Factor type: BUOYANT Casing Design Assumptions and Worksheet(s): Burst Design Safety Factor: 1.25 Joint Tensile Design Safety Factor: 1.6 Body Tensile Design Safety Factor: 1.6

Operator Name: EOG RESOURCES INC Well Name: CABALLO 23 FED Well Number: 704H String Type: PRODUCTION **Other String Type:** Hole Size: 6.75 Top setting depth MD: 0 Top setting depth TVD: 0 Top setting depth MSL: 3342 Bottom setting depth TVD: 10800 Bottom setting depth MD: 10800 Bottom setting depth MSL: -7458 Calculated casing length MD: 10800 Other Size Casing Size: 5.5 Grade: OTHER Other Grade: P-110EC Weight: 20 Joint Type: OTHER Other Joint Type: DWC/C-IS MS Condition: NEW Inspection Document: Standard: API Spec Document: Tapered String?: N **Tapered String Spec: Safety Factors**

Collapse Design Safety Factor: 1.125 Joint Tensile Design Safety Factor type: BUOYANT Body Tensile Design Safety Factor type: BUOYANT Casing Design Assumptions and Worksheet(s):

Burst Design Safety Factor: 1.25 Joint Tensile Design Safety Factor: 1.6 Body Tensile Design Safety Factor: 1.6

Operator Name: EOG RESOURCES INC Well Name: CABALLO 23 FED Well Number: 704H String Type: PRODUCTION **Other String Type:** Hole Size: 6.75 Top setting depth MD: 10800 Top setting depth TVD: 10800 Top setting depth MSL: -7458 Bottom setting depth MD: 22481 Bottom setting depth TVD: 12402 Bottom setting depth MSL: -9060 Calculated casing length MD: 11681 Other Size Casing Size: 5.5 Grade: OTHER Other Grade: P-110EC Weight: 20 Joint Type: OTHER Other Joint Type: VAM SFC Condition: NEW **Inspection Document:** Standard: API Spec Document: Tapered String?: N **Tapered String Spec: Safety Factors**

Collapse Design Safety Factor: 1.125 Joint Tensile Design Safety Factor type: BUOYANT Body Tensile Design Safety Factor type: BUOYANT Casing Design Assumptions and Worksheet(s): Burst Design Safety Factor: 1.25 Joint Tensile Design Safety Factor: 1.6 Body Tensile Design Safety Factor: 1.6

(, ,	
Operator Name: EOG RESOURCES	INC
Well Name: CABALLO 23 FED	Well Number: 704H
String Type: INTERMEDIATE	Other String Type:
Hole Size: 8.75	
Top setting depth MD: 3000	Top setting depth TVD: 3000
Top setting depth MSL: 342	
Bottom setting depth MD: 11300	Bottom setting depth TVD: 11300
Bottom setting depth MSL: -7958	
Calculated casing length MD: 8300	
Casing Size: 7.625	Other Size
Grade: HCP-110	Other Grade:
Weight: 29.7	
Joint Type: OTHER	Other Joint Type: Flushmax III
Condition: NEW	
Inspection Document:	
Standard: API	
Spec Document:	
Tapered String?: N	
Tapered String Spec:	
Safety Factors	

Collapse Design Safety Factor: 1.125 Joint Tensile Design Safety Factor type: BUOYANT Body Tensile Design Safety Factor type: BUOYANT Casing Design Assumptions and Worksheet(s): Burst Design Safety Factor: 1.25 Joint Tensile Design Safety Factor: 1.6 Body Tensile Design Safety Factor: 1.6

Well Name: CABALLO 23 FED

Well Number: 704H

String Type: INTERMEDIATE	Other String Type:
Hole Size: 9.875	
Top setting depth MD: 1000	Top setting depth TVD: 1000
Top setting depth MSL: 2342	
Bottom setting depth MD: 3000	Bottom setting depth TVD: 3000
Bottom setting depth MSL: 342	
Calculated casing length MD: 2000	
Casing Size: 7.625	Other Size
Grade: OTHER	Other Grade: P-110EC
Weight: 29.7	
Joint Type: OTHER	Other Joint Type: SLIJ II
Condition: NEW	
Inspection Document:	
Standard: API	
Spec Document:	
Tapered String?: N	
Tapered String Spec:	

Safety Factors

Collapse Design Safety Factor: 1.125 Joint Tensile Design Safety Factor type: BUOYANT Body Tensile Design Safety Factor type: BUOYANT Casing Design Assumptions and Worksheet(s): Burst Design Safety Factor: 1.25 Joint Tensile Design Safety Factor: 1.6 Body Tensile Design Safety Factor: 1.6

Caballo 23 Fed Com 704H BLM Plan_02-14-2017.pdf

Section 4 - Cement

Casing String Type: INTERMEDIATE

Well Name: CABALLO 23 FED

Well Number: 704H

Stage	Tool	Depth:
-------	------	--------

Lead		
Top MD of Segment: 0	Bottom MD Segment: 0	Cement Type: 0
Additives: 0	Quantity (sks): 0	Yield (cu.ff./sk): 0
Density: 0	Volume (cu.ft.): 0	Percent Excess:

Casing String Type: PRODUCTION

Stage	Tool	Depth:
Lood		

<u>Lead</u>		
Top MD of Segment: 0	Bottom MD Segment: 0	Cement Type: 0
Additives: 0	Quantity (sks): 0	Yield (cu.ff./sk): 0
Density: 0	Volume (cu.ft.): 0	Percent Excess: 0

Casing String Type: INTERMEDIATE

Stage Tool Depth:

Lead

Top MD of Segment: 0	Bottom MD Segment: 0	Cement Type: 0
Additives: 0	Quantity (sks): 0	Yield (cu.ff./sk): 0
Density: 0	Volume (cu.ft.): 0	Percent Excess:

Casing String Type: SURFACE

Stage Tool Depth:

Lead

Top MD of Segment: 0	Bottom MD Segment: 1150	Cement Type: Class C
Additives: Class C + 4.0% Bentonite +	Quantity (sks): 400	Yield (cu.ff./sk): 1.73
0.6% CD-32 + 0.5% CaCl2 + 0.25 lb/sk Cello-Flake (TOC @ Surface)	Volume (cu.ft.): 692	Percent Excess: 25
Pansity: 13.5		. •
	Bottom MD Segment: 1150	Cement Type: Class C
Top MD of Segment: 1150	Quantity (sks): 200	Yield (cu.ff./sk): 1.34
Additives: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate Density: 14.8	Volume (cu.ft.): 268	Percent Excess: 25

Casing String Type: INTERMEDIATE

Well Name: CABALLO 23 FED

Well Number: 704H

Stage Tool Depth:

Lead

Top MD of Segment: 0	Bottom MD Segment: 11300	Cement Type: Class C
Additives: Class C + 5% Gypsum + 3%		Yield (cu.ff./sk): 1.38
CaCl2 pumped via Bradenhead (TOC @ surface) Pensity: 14.8	Volume (cu.ft.): 3105	Percent Excess: 25
	Bottom MD Segment: 11300	Cement Type: Class H
Top MD of Segment: 11300	Quantity (sks): 550	Yield (cu.ff./sk): 1.2
Additives: 50:50 Class H:Poz + 0.25% CPT20A + 0.40% CPT49 + 0.20% CPT35 + 0.80% CPT16A + 0.25% CPT503P pumped conventionally Density: 14.4	Volume (cu.ft.): 660	Percent Excess: 25
Casing String Type: PRODUCTION		
Stage Tool Depth:		x
<u>Lead</u>		
Top MD of Segment: 10800	Bottom MD Segment: 22481	Cement Type: Class H
Additives: Class H + 0.1% C-20 +	Quantity (sks): 850	Yield (cu.ff./sk): 1.26
0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 10800') Density: 14.1	Volume (cu.ft.): 1071	Percent Excess: 25

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: (A) A Kelly cock will be kept in the drill string at all times, (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times. (C) H2S monitoring and detection equipment will be utilized from surface casing point to TD. **Describe the mud monitoring system utilized:** An electronic pit volume totalizer (PVT) will be utilized on the circulating system to monitor pit volume, flow rate, pump pressure and stroke rate.

Circulating Medium Table

Operator Name: EOG RESOURCES INC Well Name: CABALLO 23 FED Well Number: 704H Top Depth: 1150 Bottom Depth: 11300 Mud Type: SALT SATURATED Min Weight (Ibs./gal.): 8.8 Max Weight (lbs./gal.): 10 Density (lbs/cu.ft.): Gel Strength (lbs/100 sq.ft.): PH: Viscosity (CP): Filtration (cc): Salinity (ppm): Additional Characteristics: Top Depth: 11300 Bottom Depth: 22481 Mud Type: OIL-BASED MUD Min Weight (Ibs./gal.): 10 Max Weight (lbs./gal.): 14 Density (lbs/cu.ft.): Gel Strength (lbs/100 sq.ft.): PH: Viscosity (CP): Filtration (cc): Salinity (ppm): Additional Characteristics: Top Depth: 0 Bottom Depth: 1150 Mud Type: WATER-BASED MUD Min Weight (lbs./gal.): 8.6 Max Weight (lbs./gal.): 8.8 Density (lbs/cu.ft.): Gel Strength (lbs/100 sq.ft.): PH: Viscosity (CP): Filtration (cc): Salinity (ppm): Additional Characteristics:

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Open-hole logs are not planned for this well.

List of open and cased hole logs run in the well:

DS

Coring operation description for the well: None

Well Name: CABALLO 23 FED

Well Number: 704H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 7416

Anticipated Surface Pressure: 4687.55

Anticipated Bottom Hole Temperature(F): 181

Anticipated abnormal proessures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Caballo 23 Fed Com 704H H2S Plan Summary_02-14-2017.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Caballo 23 Fed Com 704H Planning Report_02-14-2017.pdf

Caballo 23 Fed Com 704H Wall Plot_02-14-2017.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Caballo 23 Fed Com 704H 5.500in 20.00 VST P110EC VAM SFC Spec Sheet_02-14-2017.pdf Caballo 23 Fed Com 704H 5.500in 20.00 VST P110EC DWC_C-IS MS Spec Sheet_02-14-2017.pdf Caballo 23 Fed Com 704H 7.625in 29.7 P110EC VAM SLIJ-II_02-14-2017.pdf Caballo 23 Fed Com 704H BLM Plan_02-14-2017.pdf Caballo 23 Fed Com 704H 7.625in 29.70 P-110 FlushMax III Spec Sheet_02-14-2017.pdf Caballo 23 Fed Com 704H Proposed Wellbore_02-14-2017.pdf Caballo 23 Fed Com 704H Rig Layout_02-14-2017.pdf

Other Variance attachment:

Caballo 23 Fed Com 704H Co-Flex Hose Certification_02-14-2017.PDF Caballo 23 Fed Com 704H Co-Flex Hose Test Chart_02-14-2017.pdf

SUPO

Well Name: CABALLO 23 FED

Well Number: 704H

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Caballo 23 Fed 704H vicinity map_02-13-2017.pdf

Existing Road Purpose: ACCESS, FLUID TRANSPORT

ROW ID(s)

ID:

Do the existing roads need to be improved? NO Existing Road Improvement Description: Existing Road Improvement Attachment: Row(s) Exist? YES

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Caballo 23 Fed 704H well site_02-13-2017.pdf

Caballo 23 Fed Com infrastructure sketch_02-13-2017.pdf

Feet

New road type: RESOURCE

Length: 904

Width (ft.): 24

Max slope (%): 2

Max grade (%): 20

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 24

New road access erosion control: Newly constructed or reconstructed roads will be constructed as outlined in the BLM "Gold Book" and to meet the standards of the anticipated traffic flow and all anticipated weather requirements as needed. Construction will include ditching, draining, crowning and capping or sloping and dipping the roadbed as necessary to provide a well-constructed and safe road. We plan to grade and water twice a year. **New road access plan or profile prepared?** NO

New road access plan attachment:

Access road engineering design? NO

Access road engineering design attachment:

Access surfacing type: OTHER

Well Name: CABALLO 23 FED

Well Number: 704H

Access topsoil source: ONSITE

Access surfacing type description: 6" of Compacted Caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: An adequate amount of topsoil/root zone will be stripped by dozer from the proposed well location and stockpiled along the side of the well location as depicted on the well site diagram / survey plat. **Access other construction information:**

Access miscellaneous information:

Number of access turnouts:

Access turnout map:

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: No drainage crossings

Road Drainage Control Structures (DCS) description: N/A

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Additional Attachment(s):

Section 3 - Location of Existing Wells

Existing Wells Map? YES Attach Well map: Caballo 23 Fed 704H radius map_02-13-2017.pdf Existing Wells description:

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT Estimated Production Facilities description: Production Facilities description: Caballo 23 Fed Com Central Battery in SW/4 of Section 23 Production Facilities map: Caballo 23 Fed Com infrastructure sketch_02-13-2017.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Well Name: CABALLO 23 FED

Water source use type: OTHER

Describe type:

Source latitude:

Source datum:

Water source permit type: WATER RIGHT

Source land ownership: FEDERAL

Water source transport method: PIPELINE, TRUCKING

Source transportation land ownership: FEDERAL

Water source volume (barrels): 0

Source volume (gal): 0

Well Number: 704H

Water source type: RECYCLED

Source longitude:

Source volume (acre-feet): 0

Water source and transportation map:

Caballo 23 Fed Com Water Source and Caliche_02-13-2017.pdf

Water source comments:

New water well? NO

New Water Well Info

Well latitude:	Well Longitude:	Well datum:
Well target aquifer:		
Est. depth to top of aquifer(ft):	Est thickness of aqui	fer:
Aquifer comments:		
Aquifer documentation:		
Well depth (ft):	Well casing type:	
Well casing outside diameter (in.):	Well casing inside diam	neter (in.):
New water well casing?	Used casing source:	
Drilling method:	Drill material:	S.,
Grout material:	Grout depth:	
Casing length (ft.):	Casing top depth (ft.):	
Well Production type:	Completion Method:	
Water well additional information:		
State appropriation permit:		
Additional information attachment:		

Well Name: CABALLO 23 FED

Well Number: 704H

Section 6 - Construction Materials

Construction Materials description: Caliche will be supplied from pits shown on the attached caliche source map. Caliche utilized for the drilling pad will be obtained either from an existing approved mineral pit, or by benching into a hill, which will allow the pad to be level with existing caliche from the cut, or extracted by "Flipping" the well location. A mineral material permit will be obtained from BLM prior to excavating any caliche on Federal Lands. Amount will vary for each pad. The procedure for "Flipping" a well location is as follows: * -An adequate amount of topsoil/root zone (usually top 6 inches of soil) will be stripped from the proposed well location and stockpiled along the side of the well location as depicted on the well site diagram/survey plat. -An area will be used within the proposed well site dimensions to excavate caliche. Subsoil will be removed and stockpiled within the surveyed well pad dimensions. -Once caliche/surfacing mineral is found, the mineral material will be excavated and stock piled within the approved drilling pad dimensions. -Then, subsoil will be pushed back in the excavated hole and caliche will be spread accordingly across the entire well pad and road (if available). -Neither caliche, nor subsoil will be stock piled outside of the well pad dimensions. Topsoil will be stockpiled along the edge of the pad as depicted in the Well Site Layout or survey plat. * In the event that no caliche is found onsite, caliche will be hauled in from a BLM approved caliche pit or other established mineral pit. A BLM mineral material permit will be acquired prior to obtaining any mineral material from BLM pits or federal land.

Construction Materials source location attachment:

Caballo 23 Fed Com Water Source and Caliche_02-13-2017.pdf

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drill fluids and produced oil and water from the well during drilling and completion operations will be stored safely and disposed of properly in an NMOCD approved disposal facility. Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly. Human waste and grey water will be properly contained of and disposed of properly. After drilling and completion operations; trash, chemicals, salts, frac sand, and other waste material will be removed and disposed of properly at a state approved disposal facility. **Amount of waste:** 0 barrels

Waste disposal frequency : Daily

Safe containment description: Steel Tanks

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: COMMERCIAL FACILITY Disposal type description:

Disposal location description: Trucked to NMOCD approved disposal facility

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

Reserve pit length (ft.) Reserve pit width (ft.)

Reserve pit depth (ft.)

Reserve pit volume (cu. yd.)

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Well Name: CABALLO 23 FED

Well Number: 704H

Cuttings area volume (cu. yd.)

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? YES

Description of cuttings location Closed Loop System. Drill cuttings will be disposed of into steel tanks and taken to an NMOCD approved disposal facility. Cuttings area length (ft.) Cuttings area width (ft.)

Cuttings area depth (ft.)

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

Caballo 23 Fed 704H well site_02-13-2017.pdf Caballo 23 Fed 704H pad site_02-13-2017.pdf Caballo 23 Fed Com 704H Rig Layout_02-14-2017.pdf **Comments:** Exhibit 2A-Wellsite & Exhibit 2B-Padsite Rig Layout Exhibit 4

Section 10 - Plans for Surface Reclamation

Type of disturbance: NEW

Recontouring attachment:

Caballo 23 Fed 704H interim reclamation_02-13-2017.pdf

Drainage/Erosion control construction: Proper erosion control methods will be used on the area to control erosion, runoff, and siltation of the surrounding area.

Drainage/Erosion control reclamation: The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and that erosion is controlled.

Wellpad long term disturbance (acres): 2.772039

Wellpad short term disturbance (acres): 4.178145

Operator Name: EOG RESOURCES INC	
Well Name: CABALLO 23 FED	Well Number: 704H
Access road long term disturbance (acres): 0.498072	Access road short term disturbance (acres): 0.498072
Pipeline long term disturbance (acres): 0.5179063	Pipeline short term disturbance (acres): 0.86317724
Other long term disturbance (acres): 0	Other short term disturbance (acres): 0
Total long term disturbance: 3.7880173	Total short term disturbance: 5.5393944

Reconstruction method: In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads. Areas planned for interim reclamation will be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.

Topsoil redistribution: Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts and fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites. **Soil treatment:** Re-seed according to BLM standards. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, and that erosion is controlled.

Existing Vegetation at the well pad: Grass, forbs, and small woody vegetation, such as mesquite will be excavated as the topsoil is removed. Large woody vegetation will be stripped and stored separately and respreads evenly on the site following topsoil respreading. Topsoil depth is defined as the top layer of soil that contains 80% of the roots. In areas to be heavily disturbed, the top 6 inches of soil material, will be stripped and stockpiled on the perimeter of the well location and along the perimeter of the access road to control run-on and run-off, to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils.

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation. **Existing Vegetation Community at the road attachment:**

Existing Vegetation Community at the pipeline: All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation. **Existing Vegetation Community at the pipeline attachment:**

Existing Vegetation Community at other disturbances: All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation. **Existing Vegetation Community at other disturbances attachment:**

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

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Well Name: CABALLO 23 FED

Well Number: 704H

Total pounds/Acre:

Seed harvest description attachment:

Seed Management

Seed Table

Seed type:Seed source:Seed name:Source name:Source name:Source address:Source phone:Seed cultivar:Seed cultivar:Seed use location:PLS pounds per acre:Proposed seeding season:

Seed Summary

Seed Type

Pounds/Acre

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: Stan	Last Name: Wagner
Phone: (432)686-3689	Email: stan wagner@eogresources.com

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, erosion is controlled, and free of noxious weeds. Weeds will be treated if found. Weed treatment plan attachment:

Monitoring plan description: Reclamation will be completed within 6 months of well plugging. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, erosion is controlled, and free of noxious weeds.

Monitoring plan attachment:

Success standards: N/A

Pit closure description: NA

Pit closure attachment:

Well Number: 704H

Section 11 - Surface Ownership

Disturbance type: WELL PAD Describe: Surface Owner: BUREAU OF LAND MANAGEMENT Other surface owner description: BIA Local Office: BOR Local Office: COE Local Office: DOD Local Office: NPS Local Office: State Local Office: Willtary Local Office: USFWS Local Office: USFS Region: USFS Forest/Grassland:

USFS Ranger District:

 Fee Owner: Oliver Kiehne
 Fee Owner Address: P.O. Box 135 Orla, TX 79770

 Phone: (575)399-9281
 Email:

 Surface use plan certification: NO
 Surface use plan certification document:

 Surface access agreement or bond: Agreement
 Surface Access Agreement Need description: surface use agreement

 Surface Access Bond BLM or Forest Service:
 BLM Surface Access Bond number:

 USFS Surface access bond number:
 USFS Surface access bond number:

Well Name: CABALLO 23 FED

Well Number: 704H

Section 12 - Other Information

Right of Way needed? NO

Use APD as ROW?

ROW Type(s):

ROW Applications

SUPO Additional Information: An onsite meeting was conducted 01/31/17. Poly lines are planned to transport water for operations. Will truck if necessary. See attached SUPO Plan. **Use a previously conducted onsite?** YES

Previous Onsite information: Onsite meeting conducted 01/31/17.

Other SUPO Attachment

Caballo 23 Fed_704H SUPO_02-13-2017.pdf CABALLO_23_FED_COM_704H Combined_02-14-2017.PDF Caballo 23 Fed 704H signed C-102_02-14-2017.pdf

PWD

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Well Name: CABALLO 23 FED

Well Number: 704H

Produced Water Disposal (PWD) Location: PWD surface owner: Lined pit PWD on or off channel: Lined pit PWD discharge volume (bbl/day): Lined pit specifications: Pit liner description: Pit liner manufacturers information: Precipitated solids disposal: Decribe precipitated solids disposal: Precipitated solids disposal permit: Lined pit precipitated solids disposal schedule: Lined pit precipitated solids disposal schedule attachment: Lined pit reclamation description: Lined pit reclamation attachment: Leak detection system description: Leak detection system attachment: Lined pit Monitor description: Lined pit Monitor attachment: Lined pit: do you have a reclamation bond for the pit? Is the reclamation bond a rider under the BLM bond? Lined pit bond number: Lined pit bond amount: Additional bond information attachment: Section 3 - Unlined Pits Would you like to utilize Unlined Pit PWD options? NO Produced Water Disposal (PWD) Location: PWD surface owner: Unlined pit PWD on or off channel: Unlined pit PWD discharge volume (bbl/day): Unlined pit specifications: Precipitated solids disposal: Decribe precipitated solids disposal:

Precipitated solids disposal permit:

PWD disturbance (acres):

PWD disturbance (acres):

Well Name: CABALLO 23 FED

Well Number: 704H

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number:

Assigned injection well API number?

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

Injection well name: Injection well API number:

PWD disturbance (acres):

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Well Name: CABALLO 23 FED

Well Number: 704H

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location: PWD surface owner: Surface discharge PWD discharge volume (bbl/day): Surface Discharge NPDES Permit? Surface Discharge NPDES Permit attachment: Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location: PWD surface owner: Other PWD discharge volume (bbl/day): Other PWD type description: Other PWD type attachment: Have other regulatory requirements been met? Other regulatory requirements attachment:

Bond Info

Bond Information

Federal/Indian APD: FED BLM Bond number: NM2308 BIA Bond number: Do you have a reclamation bond? NO Is the reclamation bond a rider under the BLM bond? Is the reclamation bond BLM or Forest Service? BLM reclamation bond number: Forest Service reclamation bond number: Forest Service reclamation bond attachment: Reclamation bond number:

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PWD disturbance (acres):

PWD disturbance (acres):

Well Name: CABALLO 23 FED

Well Number: 704H

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

Operator Certification

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: Stan Wagner		Signed on: 02/15/2017
Title: Regulatory Specialsit		
Street Address: 5509 Champions	Drive	
City: Midland	State: TX	Zip: 79702
Phone: (432)686-3689		
Email address: Stan_Wagner@ec	ogresources.com	
Field Representative		
Representative Name: James E	Barwis	
Street Address: 5509 Champion	ns Drive	н
City: Midland	State: TX	Zip: 79706
Phone: (432)425-1204		
Email address: james_barwis@	eogresources.com	
	Payment Info	
Payment		

APD Fee Payment Method: BLM DIRECT CBS Receipt number: 3764449

