Form 3160-5 (June 2019)

# UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 202

DEPARTMENT OF THE INTERIOR	
BUREAU OF LAND MANAGEMENT	

BURE	EAU OF LAND MANAGEMENT		5. Lease Seriai No.	NMNM119276
Do not use this fo	OTICES AND REPORTS ON Worm for proposals to drill or to Use Form 3160-3 (APD) for suc	o re-enter an	6. If Indian, Allottee	or Tribe Name
SUBMIT IN T	TRIPLICATE - Other instructions on pag	ne 2	7. If Unit of CA/Agre	eement, Name and/or No.
1. Type of Well  Oil Well  Gas W	/ell Other		8. Well Name and No	MODELO 10 FED COM/218H
<del>_</del>		9. API Well No. 30-0		
2. Name of Operator EOG RESOURC		<i>(</i> : 1 1 1 )		
a. Address 1111 BAGBY SKY LOB	BY 2, HOUSTON, TX 770 3b. Phone No. (713) 651-70		10. Field and Pool or TRISTE DRAW; E	
4. Location of Well (Footage, Sec., T.,R SEC 10/T24S/R32E/NMP	.,M., or Survey Description)		11. Country or Parish LEA/NM	s, State
12. CHEC	CK THE APPROPRIATE BOX(ES) TO INI	DICATE NATURE	OF NOTICE, REPORT OR OT	HER DATA
TYPE OF SUBMISSION		TYP	E OF ACTION	
✓ Notice of Intent	Acidize Deep Alter Casing Hydr	oen raulic Fracturing	Production (Start/Resume) Reclamation	Water Shut-Off Well Integrity
Subsequent Report	Casing Repair New	Construction	Recomplete	Other
		and Abandon	Temporarily Abandon	
Final Abandonment Notice	Convert to Injection Plug peration: Clearly state all pertinent details, i	Back	Water Disposal	
is ready for final inspection.)  EOG respectfully requests an a  Modelo 10 Fed Com 218H API  Update casing and cement pro			-	the operator has detennined that the site
STAR HARRELL / Ph: (432) 848-91	( , , , , , , , , , , , , , , , , , , ,	Regulatory Title	Specialist	
Signature (Electronic Submission)		Date 05/29/2024		
	THE SPACE FOR FED	ERAL OR STA	TE OFICE USE	
Approved by				
KEITH P IMMATTY / Ph: (575) 988	Title		05/31/2024 Date	
	ned. Approval of this notice does not warran quitable title to those rights in the subject leduct operations thereon.		RLSBAD	
Title 18 U.S.C Section 1001 and Title 43	U.S.C Section 1212, make it a crime for an	ny person knowingl	and willfully to make to any d	epartment or agency of the United States

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 State any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

#### **GENERAL INSTRUCTIONS**

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

#### SPECIFIC INSTRUCTIONS

*Item 4* - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

#### **NOTICES**

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

(Form 3160-5, page 2)

#### **Additional Information**

#### **Location of Well**

 $0. \ SHL: TR\ D\ /\ 390\ FNL\ /\ 718\ FWL\ /\ TWSP: \ 24S\ /\ RANGE: \ 32E\ /\ SECTION: \ 10\ /\ LAT: \ 32.2382449\ /\ LONG: \ -103.6687224\ (\ TVD: \ 0\ feet\ ,\ MD: \ 0\ feet\ )$  PPP: TR\ D\ /\ 100\ FNL\ /\ 830\ FWL\ /\ TWSP: \ 24S\ /\ RANGE: \ 32E\ /\ SECTION: \ 10\ /\ LAT: \ 32.2390436\ /\ LONG: \ -103.6683586\ (\ TVD: \ 12054\ feet\ ,\ MD: \ 12073\ feet\ ) BHL: TR\ L\ /\ 1419\ FSL\ /\ 990\ FWL\ /\ TWSP: \ 24S\ /\ RANGE: \ 32E\ /\ SECTION: \ 15\ /\ LAT: \ 32.2142002\ /\ LONG: \ -103.6683721\ (\ TVD: \ 12319\ feet\ ,\ MD: \ 21214\ feet\ )

### EOG – PRODUCTION BRADENHEAD FOR SHALLOW WELL DESIGNS (INTERMEDIATE CASING BELOW SALT AND ABOVE DELAWARE GROUP)

EOG is approved to bradenhead cement the production interval in well designs in which the Delaware group is accessible as proposed for the wells listed in the sundry.

Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.

- a. First stage: Operator will cement with intent to reach the top of the Brushy Canyon
- b. Second stage: Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified.

Operator has proposed to pump down Intermediate X Production annulus. Operator must top out cement after the bradenhead squeeze and verify cement to surface. Operator can also check TOC with Echo-meter. CBL must be run from TD of the Production casing to surface if confidence is lacking on the quality of the bradenhead squeeze cement job. Submit results to BLM.

If cement does not tie-back into the previous casing shoe, a third stage remediation BH may be performed. The appropriate BLM office shall be notified.

Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.



#### Modelo 10 Fed Com 218H (FKA 709H) API #: 30-025-51991 Variances

EOG respectfully requests the below variances to be applied to the above well:

- Variance is requested to waive the centralizer requirements for the intermediate casing in the intermediate hole. An expansion additive will be utilized, in the cement slurry, for the entire length of the intermediate interval to maximize cement bond and zonal isolation.
- Variance is also requested to waive the centralizer requirements for the production casing in the production hole. An expansion additive will be utilized, in the cement slurry, for the entire length of the production interval to maximize cement bond and zonal isolation.
- 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 use a 5,000 psi annular BOP with the 10,000 psi BOP stack.
- EOG Resources requests the option to contract a Surface Rig to drill, set surface casing, and Cement on the subject well. After WOC 8 hours or 500 psi compressive strength (whichever is greater), the Surface Rig will move off so the wellhead can be installed. A welder will cut the casing to the proper height and weld on the wellhead (both "A" and "B" sections). The weld will be tested to 1,500 psi. All valves will be closed and a wellhead cap will be installed (diagram attached). If the timing between rigs is such that EOG Resources would not be able to preset the surface, the Primary Rig will MIRU and drill the well in its entirety per the APD.

EOG requests the additional variance(s) in the attached document(s):

- EOG BLM Variance 3a b BOP Break-test and Offline Intermediate Cement
- EOG BLM Variance 4a Salt Section Annular Clearance
- EOG BLM Variance 5a Alternate Shallow Casing Designs



#### **Break-test BOP & Offline Cementing:**

EOG Resources Inc. (EOG) respectfully requests a variance from the minimum standards for well control equipment testing of ECFR Title 43 Part 3172.6(b)(9)(iv) to allow a testing schedule of the blow out preventer (BOP) and blow out prevention equipment (BOPE) along with Batch Drilling & Offline cement operations to include the following:

- Full BOPE test at first installation on the pad.
- Full BOPE test every 21 days.
- This test will be conducted for 5M rated hole intervals only.
- Each rig requesting the break-test variance is capable of picking up the BOP without damaging components using winches, following API Standard 53, Well Control Equipment Systems for Drilling Wells (Fifth edition, December 2018, Annex C. Table C.4) which recognizes break testing as an acceptable practice.
- Function tests will be performed on the following BOP elements:
  - Annular **à** during each full BOPE test
  - Upper Pipe Rams **à** On trip ins where FIT required
  - Blind Rams **à** Every trip
  - Lower Pipe Rams à during each full BOPE test
- Break testing BOP and BOPE coupled with batch drilling operations and option to offline cement and/or remediate (if needed) any surface or intermediate sections, according to attached offline cementing support documentation.
- After the well section is secured, the BOP will be disconnected from the wellhead and walked with the rig to another well on the pad.
- TA cap will also be installed per Wellhead vendor procedure and pressure inside the
  casing will be monitored via the valve on the TA cap as per standard batch drilling
  ops.

Blind Rams

Roadside Kill

Test plug

## **Break Test Diagram (HCR valve)**

HCR

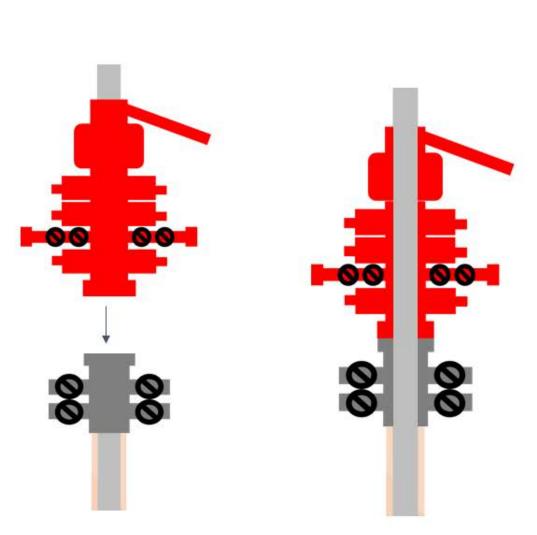
Testing this break

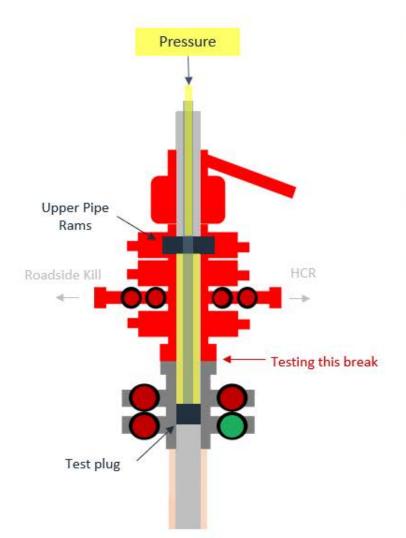
#### Steps

Pressure

- 1. Set plug in wellhead (lower barrier)
- 2. Close Blind Rams (upper barrier)
- 3. Close roadside kill
- 4. Open HCR (pressure application)
- 5. Open wellhead valves below test plug to ensure if leak past test plug, pressure won't be applied to wellbore
- 6. Tie BOP testers high pressure line to main choke manifold crown valve
- 7. Pressure up to test break
- 8. Bleed test pressure from BOP testing unit

## **Break Test Diagram (Test Joint)**





#### Steps

- Set plug in with test joint wellhead (lower barrier)
- 2. Close Upper Pipe Rams (upper barrier)
- 3. Close roadside kill
- 4. Close HCR
- Open wellhead valves below test plug to ensure if leak past test plug, pressure won't be applied to wellbore
- 6. Tie BOP testers high pressure line to top of test joint
- 7. Pressure up to test break
- Bleed test pressure from BOP testing unit



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#### **Cement Program**

1. No changes to the cement program will take place for offline cementing.

#### **Summarized Operational Procedure for Intermediate Casing**

- 1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment back pressure valves.
  - a. Float equipment is equipped with two back pressure valves rated to a minimum of 5,000 psi.
- 2. Land production casing on mandrel hanger through BOP.
  - a. If casing is unable to be landed with a mandrel hanger, then the casing will be cemented online.
- 3. Break circulation and confirm no restrictions.
  - a. Ensure no blockage of float equipment and appropriate annular returns.
  - b. Perform flow check to confirm well is static.
- 4. Set pack-off
  - a. If utilizing a fluted/ported mandrel hanger, ensure well is static on the annulus and inside the casing by filling the pipe with kill weight fluid, remove landing joint, and set annular packoff through BOP. Pressure test to 5,000 psi for 10 min.
  - b. If utilizing a solid mandrel hanger, ensure well is static on the annulus and inside the casing by filling the pipe with kill weight fluid. Pressure test seals to 5,000 psi for 10 min. Remove landing joint through BOP.
- 5. After confirmation of both annular barriers and the two casing barriers, install TA plug and pressure test to 5,000 psi for 10 min. Notify the BLM with intent to proceed with nipple down and offline cementing.
  - a. Minimum 4 hrs notice.
- 6. With the well secured and BLM notified, nipple down BOP and secure on hydraulic carrier or cradle.
  - a. Note, if any of the barriers fail to test, the BOP stack will not be nippled down until after the cement job has concluded and both lead and tail slurry have reached 500 psi.
- 7. Skid/Walk rig off current well.
- 8. Confirm well is static before removing TA Plug.
  - a. Cementing operations will not proceed until well is under control. (If well is not static, notify BLM and proceed to kill)
  - b. Casing outlet valves will provide access to both the casing ID and annulus. Rig or third party pump truck will kill well prior to cementing.
  - c. Well control plan can be seen in Section B, Well Control Procedures.
  - d. If need be, rig can be moved back over well and BOP nippled back up for any further remediation.



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- e. Diagram for rig positioning relative to offline cementing can be seen in Figure 4.
- 9. Rig up return lines to take returns from wellhead to pits and rig choke.
  - a. Test all connections and lines from wellhead to choke manifold to 5,000 psi high for 10 min.
  - b. If either test fails, perform corrections and retest before proceeding.
  - c. Return line schematics can be seen in Figure 3.
- 10. Remove TA Plug from the casing.
- 11. Install offline cement tool.
  - a. Current offline cement tool schematics can be seen in Figure 1 (Cameron) and Figure 2 (Cactus).
- 12. Rig up cement head and cementing lines.
  - a. Pressure test cement lines against cement head to 80% of casing burst for 10 min.
- 13. Break circulation on well to confirm no restrictions.
  - a. If gas is present on circulation, well will be shut in and returns rerouted through gas buster.
  - b. Max anticipated time before circulating with cement truck is 6 hrs.
- 14. Pump cement job as per plan.
  - a. At plug bump, test casing to 0.22 psi/ft or 1500 psi, whichever is greater.
  - b. If plug does not bump on calculated, shut down and wait 8 hrs or 500 psi compressive strength, whichever is greater before testing casing.
- 15. Confirm well is static and floats are holding after cement job.
  - a. With floats holding and backside static:
    - i. Remove cement head.
  - b. If floats are leaking:
    - i. Shut-in well and WOC (Wait on Cement) until tail slurry reaches 500 psi compressive strength and the casing is static prior to removing cement head.
  - c. If there is flow on the backside:
    - i. Shut in well and WOC until tail slurry reaches 500 psi compressive strength. Ensure that the casing is static prior to removing cement head.
- 16. Remove offline cement tool.
- 17. Install night cap with pressure gauge for monitoring.
- 18. Test night cap to 5,000 psi for 10 min.



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#### **Example Well Control Plan Content**

#### A. Well Control Component Table

The table below, which covers the cementing of the <u>5M MASP (Maximum Allowable Surface Pressure) portion of the well</u>, outlines the well control component rating in use. This table, combined with the mud program, documents that two barriers to flow can be maintained at all times, independent of the BOP nippled up to the wellhead.

Intermediate hole section, 5M requirement

Component	RWP
Pack-off	10M
Casing Wellhead Valves	10M
Annular Wellhead Valves	5M
TA Plug	10M
Float Valves	5M
2" 1502 Lo-Torque Valves	15M

#### **B.** Well Control Procedures

Well control procedures are specific to the rig equipment and the operation at the time the kick occurs. Below are the minimal high-level tasks prescribed to assure a proper shut-in while circulating and cementing through the Offline Cement Adapter.

#### **General Procedure While Circulating**

- 1. Sound alarm (alert crew).
- 2. Shut down pumps.
- 3. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
- 4. Confirm shut-in.
- 5. Notify tool pusher/company representative.

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- 6. Read and record the following:
  - a. SICP (Shut in Casing Pressure) and AP (Annular Pressure)
  - b. Pit gain
  - c. Time
  - d. Regroup and identify forward plan to continue circulating out kick via rig choke and mud/gas separator. Circulate and adjust mud density as needed to control well.

#### **General Procedure While Cementing**

- 1. Sound alarm (alert crew).
- 2. Shut down pumps.
- 3. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
- 4. Confirm shut-in.
- 5. Notify tool pusher/company representative.
- 6. Open rig choke and begin pumping again taking returns through choke manifold and mud/gas separator.
- 7. Continue to place cement until plug bumps.
- 8. At plug bump close rig choke and cement head.
- 9. Read and record the following
  - a. SICP and AP
  - b. Pit gain
  - c. Time
  - d. Shut-in annulus valves on wellhead

#### **General Procedure After Cementing**

- 1. Sound alarm (alert crew).
- 2. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
- 3. Confirm shut-in.
- 4. Notify tool pusher/company representative.
- 5. Read and record the following:
  - a. SICP and AP
  - b. Pit gain
  - c. Time
  - d. Shut-in annulus valves on wellhead



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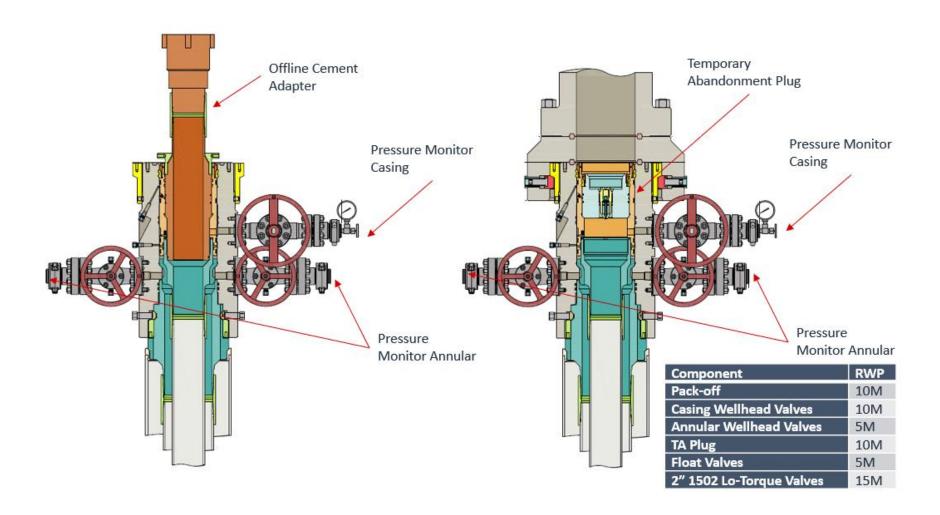
Figure 1: Cameron TA Plug and Offline Adapter Schematic





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Figure 2: Cactus TA Plug and Offline Adapter Schematic

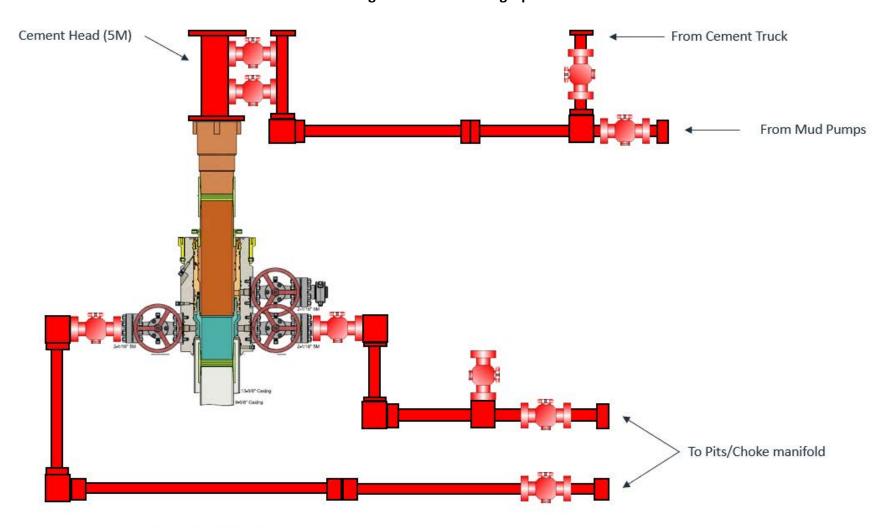


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Figure 3: Back Yard Rig Up

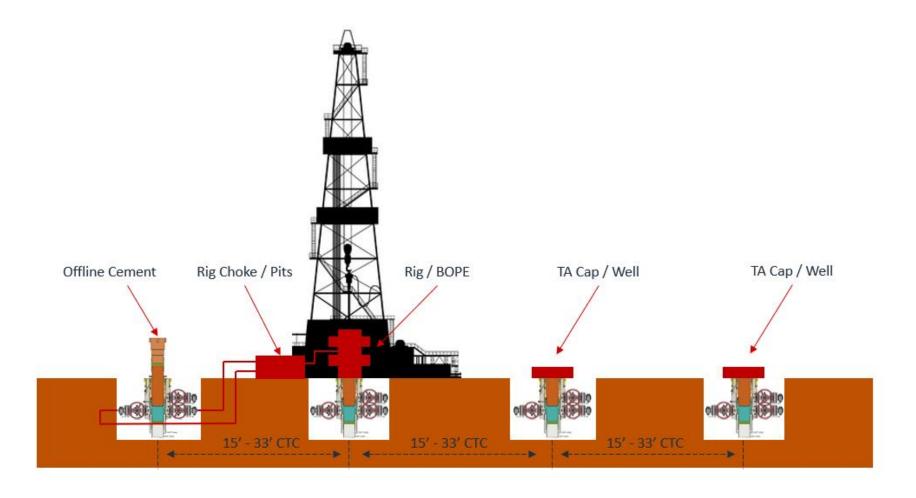


\*\*\* All Lines 10M rated working pressure

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Figure 4: Rig Placement Diagram



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#### **Revised Permit Information 03/27/2024:**

Well Name: Modelo 10 Fed Com 218H; FKA Modelo 10 Fed Com 709H

Location: SHL: 390' FNL & 718' FWL, Section 10, T-24-S, R-32-E, LEA Co., N.M. BHL: 1419' FSL & 990' FWL, Section 15, T-24-S, R-32-E, LEA Co., N.M.

#### 1. CASING PROGRAM

Hole	Interv	al MD	Interva	d TVD	Csg			
Size	From (ft)	To (ft)	From (ft)	To (ft)	OD	Weight	Grade	Conn
16"	0	1,250	0	1,250	13-3/8"	54.5#	J-55	STC
11"	0	4,772	0	4,760	9-5/8"	40#	J-55	LTC
7-7/8"	0	8,957	0	8,923	6"	22.3#	P110-EC	DWC/C IS
6-3/4"	8,957	18,400	8,923	9,500	5-1/2"	20#	P110-EC	DWC/C IS MS

\*\*For highlighted rows above, variance is requested to run entire string of either 6" or 5-1/2" casing string above due to availablility.

Variance is requested to waive the centralizer requirements for the 9-5/8" casing in the 11" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 11" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive any centralizer requirements for the 6" and 5-1/2" casings in the 7-7/8" and 6-3/4" hole sizes. An expansion additive will be utilized, in the cement slurry, for the entire length of the 7-7/8" and 6-3/4" hole intervals to maximize cement bond and zonal isolation.

EOG requests permission to allow deviation from the 0.422" annulus clearance requirement for the intermediate (salt) section from Onshore Order #2 under the following conditions:

- The variance is not applicable within the Potash Boundaries or Capitan Reef areas.
- Operator takes responsibility to get casing to set point in the event that the clearance causes stuck pipe issues.

#### 2. CEMENTING PROGRAM:

		Wt.	Yld	Slurry Description
Depth	No. Sacks	ppg	Ft3/sk	Sidily Description
1,250'	330	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl2 + 0.25 lb/sk Cello-Flake
13-3/8''				(TOC @ Surface)
	160	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 1050')
4,760'	470	12.7	2.22	Lead: Class C + 10% NaCl + 6% Bentonite Gel + 3% MagOx (TOC @
9-5/8''				Surface)
	160	14.8	1.32	Tail: Class C + 10% NaCL + 3% MagOx (TOC @ 3822')
18,400'	1000	14.8	1.32	Bradenhead squeeze: Class C + 3% Salt + 1% PreMag-M + 6% Bentonite
6''				Gel (TOC @ surface)
	1330	13.2	1.52	Tail: Class H + 5% NEX-020 + 0.2% NAC-102 + 0.15% NAS-725 + 0.5% NFL-
				549 + 0.2% NFP-703 + 1% NBE-737 + 0.3% NRT-241 (TOC @ 7,169')



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

Cement integrity tests will be performed immediately following plug bump.

Note: Cement volumes based on bit size plus at least 25% excess in the open hole plus 10% excess in the cased-hole overlap section.

EOG requests variance from minimum standards to pump a two stage cement job on the 6" and 5-1/2" production casing strings with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (7,169') and the second stage performed as a 1000 sack bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 400 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (1.32 yld, 14.8 ppg) will be executed as a contingency. Top will be verified by Echo-meter.

#### 3. MUD PROGRAM:

Depth (TVD)	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,250'	Fresh - Gel	8.6-8.8	28-34	N/c
1,250' – 4,760'	Brine	9.0-10.5	28-34	N/c
4,760' – 18,400'	Oil Base	8.8-9.5	58-68	N/c - 6



### 4. VARIANCE REQUESTS:

EOG requests the additional variance(s) in the attached document(s):

Variances requested include (supporting documents attached):

- BOP Break Testing for 5M Intermediate Intervals (EOG BLM Variance 3a\_b)
- Offline Cementing for Surface and Intermediate Intervals (EOG BLM Variance 3a\_b)
- Salt Interval Washout Annular Clearnace (EOG BLM Variance 4a)



#### 8. TUBING REQUIREMENTS:

EOG respectively requests an exception to the following NMOCD rule:

• 19.15.16.10 Casing AND TUBING RQUIREMENTS:

J (3): "The operator shall set tubing as near the bottom as practical and tubing perforations shall not be more than 250 feet above top of pay zone."

With horizontal flowing and gas lifted wells an end of tubing depth placed at or slightly above KOP is a conservative way to ensure the tubing stays clean from debris, plugging, and allows for fewer well interventions post offset completion. The deeper the tubulars are run into the curve, the higher the probability is that the tubing will become stuck in sand and or well debris as the well produces over time. An additional consideration for EOT placement during artificial lift installations is avoiding the high dog leg severity and inclinations found in the curve section of the wellbore to help improve reliability and performance. Dog leg severity and inclinations tend not to hamper gas lifted or flowing wells, but they do effect other forms of artificial lift like rod pump or ESP (electric submersible pump). Keeping the EOT above KOP is an industry best practice for those respective forms of artificial lift.



390' FNL 718' FWL **Proposed Wellbore** 

KB: 3666' GL: 3641'

**Section 10** 

T-24-S, R-32-E

API: 30-025-\*\*\*\*

**TOC: Surface Bit Size: 16''** 13-3/8", 54.5#, J-55, STC @ 0' - 1,250' Bit Size: 11" 9-5/8", 40.#, J-55, LTC @ 0' - 4,760' Lateral: 18,400' MD, 9,500' TVD **Upper Most Perf:** Bit Size: 7-7/8"|Bit Size: 6-3/4" 100' FNL & 990' FWL Sec. 10 6", 22.3#, P110-EC, DWC/C IS **Lower Most Perf:** 1419' FSL & 990' FWL Sec. 15 @ 0' - 8,923' BH Location: 1419' FSL & 990' FWL Sec. 15, T-24-S, R-32-E 5-1/2", 20.#, P110-EC, DWC/C IS MS @ 8922-1/2" - 18,400' KOP: 9,040' MD, 9,023' TVD

EOC: 9,790' MD, 9,500' TVD



#### 1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

#### 2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	1,165'
Tamarisk Anhydrite	1,225'
Top of Salt	1,460'
Base of Salt	4,655'
Lamar	4,895'
Bell Canyon	4,922'
Cherry Canyon	5,690'
Brushy Canyon	7,169'
Bone Spring Lime	8,800'
Leonard (Avalon) Shale	8,967'
1st Bone Spring Sand	9,975'
2nd Bone Spring Shale	10,220'
2nd Bone Spring Sand	10,559'
3rd Bone Spring Carb	11,099'
3rd Bone Spring Sand	11,864'
Wolfcamp	12,219'
TD	9,500'

### 3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	0- 400'	Fresh Water
Bell Canyon	4,922'	Oil
Cherry Canyon	5,690'	Oil
Brushy Canyon	7,169'	Oil
Leonard (Avalon) Shale	8,967'	Oil
1st Bone Spring Sand	9,975'	Oil
2nd Bone Spring Shale	10,220'	Oil
2nd Bone Spring Sand	10,559'	Oil

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 Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 349629

#### **CONDITIONS**

Operator:	OGRID:
EOG RESOURCES INC	7377
5509 Champions Drive	Action Number:
Midland, TX 79706	349629
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

#### CONDITIONS

Created By	Condition	Condition Date
pkautz	ALL PREVIOUS COA'S APPLY	6/1/2024