

Well Name: VACA RIDGE 20	Well Location: T24S / R34E / SEC 20 / SWSE / 32.197614 / -103.489825	County or Parish/State: LEA / NM
Well Number: 01	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMNM17241	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002528534	Well Status: Inactive	Operator: EOG RESOURCES INCORPORATED

Notice of Intent

Sundry ID: 2709642

Type of Submission: Notice of Intent	Type of Action: Plug and Abandonment
Date Sundry Submitted: 01/05/2023	Time Sundry Submitted: 11:32
Date proposed operation will begin: 01/30/2023	

Procedure Description: EOG PROPOSES TO PLUG THIS WELL USING THE ATTACHED PROCEDURE, CURRENT AND PPROPOSED WBD ATTACHED

Surface Disturbance

Is any additional surface disturbance proposed?: No

Approval Subject to
General Requirements and
Special Stipulations
Attached

NOI Attachments

Procedure Description

Vaca_Ridge_20_Fed__1_P_A_Procedure_20230105113209.pdf

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Operator

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

Operator Electronic Signature: KAY MADDOX

Signed on: JAN 05, 2023 11:32 AM

Name: EOG RESOURCES INCORPORATED

Title: Regulatory Specialist

Street Address: 5509 CHAMPIONS DR.

City: MIDLANDState: TX

Phone: (432) 638-8475

Email address: KAY_MADDOX@EOGRESOURCES.COM

Field

Representative Name:

Street Address:

City:State:Zip:

Phone:

Email address:



Vaca Ridge 20 Fed #1
API # 30-025-28534
660' FSL & 1980' FEL – Sec. 20-24S-34E
Lea County, New Mexico

AFE # 118562

Executive Summary: Plug and abandon well.

TD: 15,136' **PBTD:** 10,904' **GL:** 3,519' **KB:**

Surface Casing: 13 $\frac{3}{8}$ " 54.5# H-40 at 599'. Cemented with 500 sx. Cement circulated.
1st Intermediate: 9 $\frac{5}{8}$ " 36# K-55 at 5,173'. Cemented with 2,250 sx. Cement circulated.
2nd Intermediate: 7" 26# S-95 & P-110 at 12,990'. Cemented with 2,050 sx. TOC at 5,300' by TS.
Production Liner: 4 $\frac{1}{2}$ " 15.1# S-95 at 12,590'-15,136'. Cemented with 270 sx.
2nd Production Liner: 4 $\frac{1}{2}$ " 13.5# L-80 at 8,961'-10,997'. Cemented with 230 sx.
Producing Interval: Bone Spring perms at 9,208'-10,805'

P&A Procedure:

1. Notify BLM 24 hours prior to commencing work.
2. MIRU well service unit and all necessary safety equipment. Kill the well, ND WH and NU BOP.
3. Release packer at 8,580' and POOH with 2 $\frac{7}{8}$ " tbg to lay down packer and BHA.
4. TIH with bit and scraper through TOL (at 8,961') down to 9,190' inside 4 $\frac{1}{2}$ " 13.5# csg. POOH.
5. **Tag PBTD and spot 25 sxs on top. Class H.**
6. TIH with 4 $\frac{1}{2}$ " CIBP to 9,185', set CIBP, tag to ensure no movement, circulate plugging mud, and then spot 45 sx class "H" cement on top of CIBP from 9,185'-**8821'** (this covers CIBP and top of Bone Spring). Pick up, reverse tubing clean, and POOH to WOC. **Leak Test CIBP.**
7. **Spot cement from 8050' to 7870'. 37 sxs Class H. (3000' between plugs)**
8. RU WL to RIH to tag TOC then perf 7" csg at 5,364'. POOH w/ WL.
9. TIH to spot/squeeze 105 sx Class "C" cement plug from 5,364'-5,023' inside and outside 7" csg (this will cover top of Delaware and 9 $\frac{5}{8}$ " csg shoe). Pick up, reverse tubing clean and POOH to WOC.
10. RU WL to RIH to tag TOC then perf 7" casing at **3784'**. POOH w/ WL.
11. TIH to spot/squeeze **41** sx Class "C" cement plug from **3784' to 3646'** inside and outside 7" csg (this will cover base of salt). Pick up, reverse tubing clean and POOH to WOC.
12. RU WL to RIH to tag TOC then perf 7" casing at **1684'**. POOH w/ WL.
13. TIH to spot/squeeze 35 sx Class "C" cement plug from **1684' to 1567'** inside and outside 7" csg (this will cover top of salt). Pick up, reverse tubing clean and POOH to WOC.
14. RU WL to RIH to tag TOC then perf 7" casing at 650'. POOH w/ WL.
15. Circulate 200 sx Class "C" cmt plug from 660'-surface. **(In/Out)**



- 14. Dig out cellar, cut off wellhead and verify cement behind all casing strings.
- 15. Install dry hole marker, clean location and RDMO.

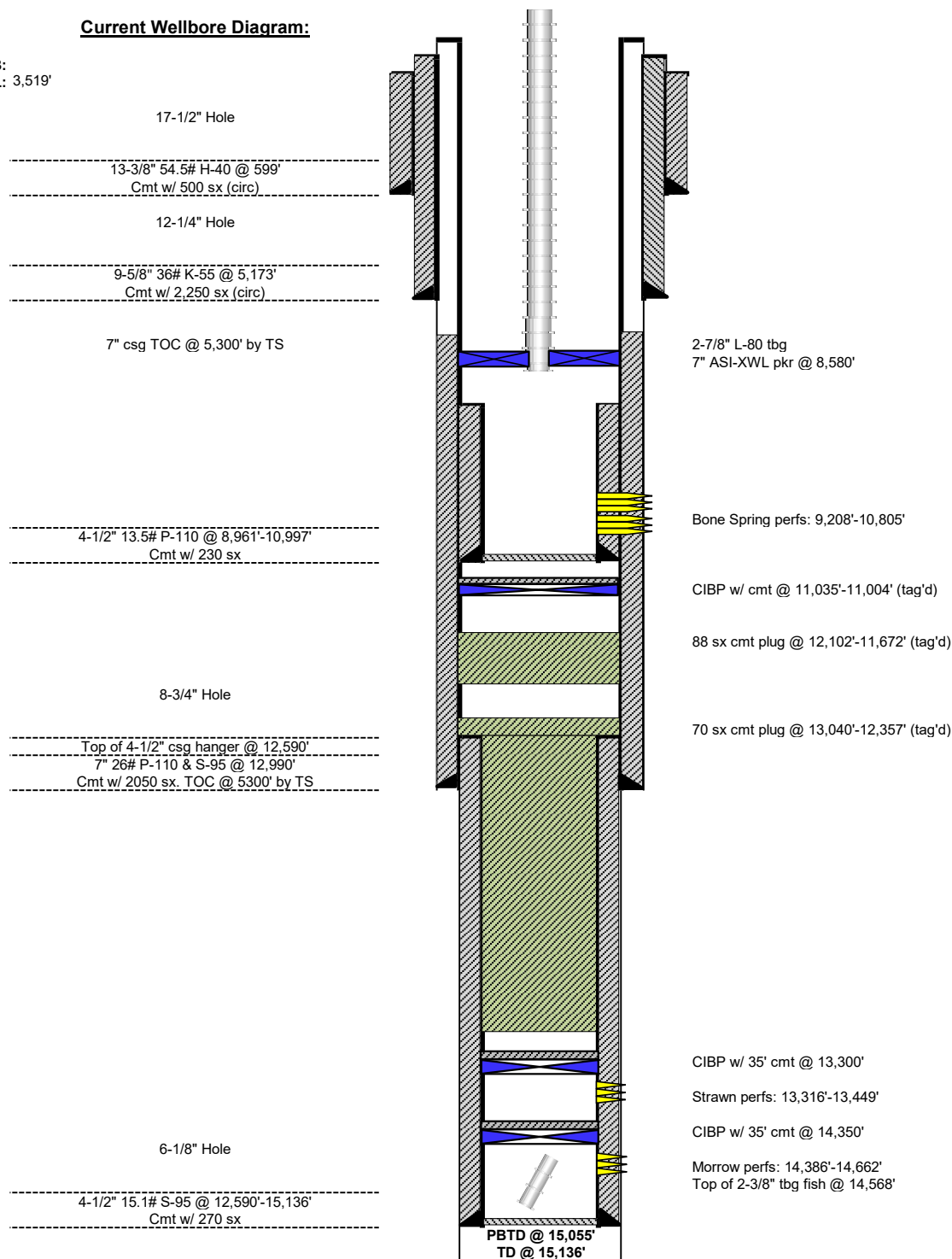
Production Engineer: Brice A. Letcher Date: 1/3/2023
Brice A. Letcher, P.E.

Well Name: Vaca Ridge 20 Fed #1
Location: 660' FSL & 1980' FEL Sec. 20-24S-34E
County: Lea, NM
Lat/Long: 32.197628, -103.4897919 NAD83
API #: 30-025-28534
Spud Date: 12/30/83
Compl. Date: 3/30/84



Current Wellbore Diagram:

KB:
GL: 3,519'



Formation Tops

Top of Salt	1,600
Bottom of Salt	3,800
Delaware	5,314
Bone Spring	9,135
Wolfcamp	12,030
Strawn	13,248
Atoka	13,678
Morrow Lime	13,730
Morrow CL	14,380

Not to Scale

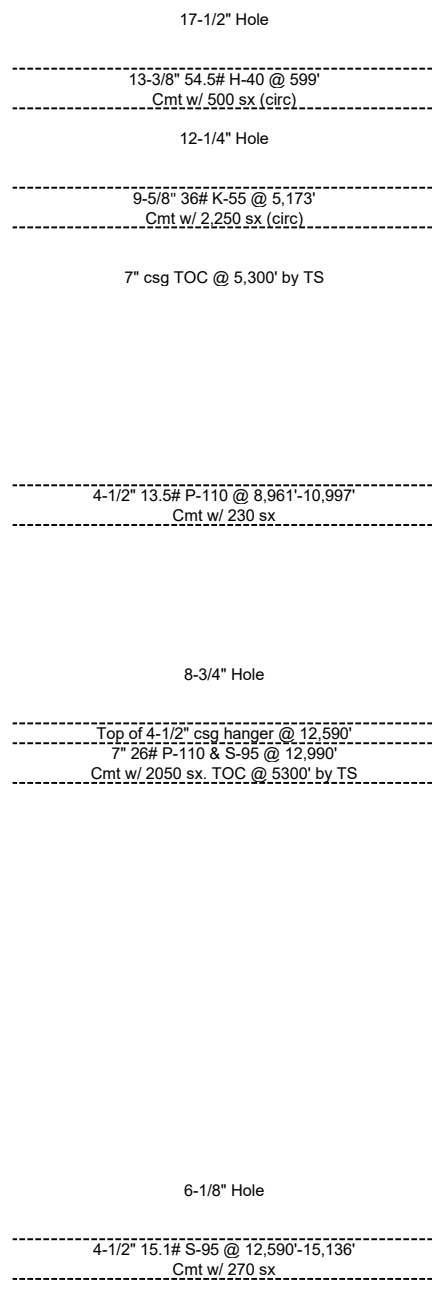
By: BAL 1/3/23

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Location: 660' FSL & 1980' FEL Sec. 20-24S-34E
County: Lea, NM
Lat/Long: 32.197628, -103.4897919 NAD83
API #: 30-025-28534
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Proposed P&A Wellbore Diagram:

KB:
GL: 3,519'



Install DH marker
 Verify cmt to surface

Perf/sqz 200 sx cmt plug @ 650'-surface
 Covers 13-3/8 csg shoe

Perf/sqz 35 sx cmt plug @ 1,650'-1,540' (tag)
 Covers top of Salt
 Perf/sqz 40 sx cmt plug @ 3,850'-3,720' (tag)
 Covers bottom of Salt
 Perf/sqz 105 sx cmt plug @ 5,364'-5,023' (tag)
 Covers top of Delaware & 9-5/8 csg shoe

CIBP w/ 45 sx cmt @ 9,185'-8,831' (tag)
 Covers perms, top of BSPG & top of liner

Bone Spring perms: 9,208'-10,805'

CIBP w/ cmt @ 11,035'-11,004' (tag'd)

88 sx cmt plug @ 12,102'-11,672' (tag'd)

70 sx cmt plug @ 13,040'-12,357' (tag'd)

Approval Subject to
 General Requirements and
 Special Stipulations
 Attached

CIBP w/ 35' cmt @ 13,300'

Strawn perms: 13,316'-13,449'

CIBP w/ 35' cmt @ 14,350'

Morrow perms: 14,386'-14,662'
 Top of 2-3/8" tbg fish @ 14,568'

PBTD @ 15,055'
 TD @ 15,136'

Formation Tops

Top of Salt	1,600
Bottom of Salt	3,800
Delaware	5,314
Bone Spring	9,135
Wolfcamp	12,030
Strawn	13,248
Atoka	13,678
Morrow Lime	13,730
Morrow CL	14,380

Not to Scale
 By: BAL 1/3/23

Sundry ID 2709642

Plug Type	Top	Bottom	Length	Tag	Sacks	Cement Class	Notes
Surface Plug	0.00	100.00	100.00	Tag/Verify			
Shoe Plug	543.01	649.00	105.99	Tag/Verify	189.00	C	Perf and squeeze from 650' to surface. (In 106 sxs/Out 83 sxs)
Top of Salt @ 1634	1567.66	1684.00	116.34	Tag/Verify	34.00	C	Perf and squeeze from 1684' to 1567'. WOC and Tag. (In 19 sxs/Out 15 sxs) Verify at surface.
Base of Salt @ 3734	3646.66	3784.00	137.34	Tag/Verify	41.00	C	Perf and squeeze from 3784' to 3646'. WOC and Tag. (In 23 sxs/Out 18 sxs)
Shoe Plug	5071.27	5223.00	151.73	Tag/Verify			
Delaware @ 5314	5210.86	5364.00	153.14	If solid base no need to Tag (CIBP present and/or Mechanical Integrity Test), If Perf & Sqz then Tag, Leak Test all CIBP if no Open Perforations	83.00	C	Perf and squeeze from 5364' to 5071'. (In 48 sxs/Out 35 sxs) WOC and Tag.
3000' between plugs @ 8000	7870.00	8050.00	180.00	If solid base no need to Tag (CIBP present and/or Mechanical Integrity Test), If Perf & Sqz then Tag, Leak Test all CIBP if no Open Perforations	37.00	H	Spot cement from 8050' to 7870'.
Top of Liner @ 8961	8821.39	9011.00	189.61	base no			
Bonesprings @ 9135	8993.65	9185.00	191.35	base no			

				If solid base no need to Tag (CIBP present and/or Mechanical Integrity Test), If Perf & Sqz then Tag, Leak Test all CIBP if no Open Perforations			
CIBP Plug	9150.00	9185.00	35.00		47.00	H	Set CIBP at 9185'. Spot cement from 9185' to 8821'. WOC and Tag. Leak Test CIBP.
Perforations Plug (If No CIBP)	9158.00	10855.00	1697.00	Tag/Verify	25.00	H	Tag PBTD and spot 25 sxs on top.
Shoe Plug	10753.87	10963.00	209.13	Tag/Verify			
Shoe Plug	10753.87	10963.00	209.13	Tag/Verify			

No more than 2000' is to be allowed between plugs in open hole, and no more than 3000' between plugs in cased hole.

Class H >7500'

Class C <7500'

Fluid used to mix the cement in R111P shall be saturated with the salts common to the section penetrated, and in suitable proportions, but not more than 3% calcium chloride by weight of cement will be considered the desired mixture whenever possible.

Medium, Secretary: Top of salt to surface If no salt take the deepest fresh water or Karst Depth

High, Critical: Bottom of Karst to surface or Deepest fresh water, whichever is greater

R111P: 50 Feet from Base of Salt to surface.

Class C: 1.32 ft³/sx

Class H: 1.06 ft³/sx

Onshore Order 2.III.G Drilling Abandonment Requirements: "All formations bearing usable-quality water, oil, gas, or geothermal resources, and/or a prospectively valuable deposit of minerals shall be protected.

Cave Karst/Potash Cement	Low		
Shoe @	599.00		
Shoe @	5173.00		
Shoe @	10913.00	TOC @	5300.00
Shoe @	10913.00	TOC @	8961.00
Perforatons Top @	9208.00	Perforations	10805.00
		CIBP @	9185.00

**BUREAU OF LAND MANAGEMENT
Carlsbad Field Office
620 East Greene Street
Carlsbad, New Mexico 88220
575-234-5972**

**Permanent Abandonment of Federal Wells
Conditions of Approval (LPC Habitat)**

Failure to comply with the following Conditions of Approval may result in a Notice of Incidents of Noncompliance (INC) in accordance with 43 CFR 3163.1.

1. Plugging operations shall commence within **ninety (90)** days from the approval date of this Notice of Intent to Abandon.

If you are unable to plug the well by the 90th day provide this office, prior to the 90th day, with the reason for not meeting the deadline and a date when we can expect the well to be plugged. Failure to do so will result in enforcement action.

The rig used for the plugging procedure cannot be released and moved off without the prior approval of the authorized officer. Failure to do so may result in enforcement action.

2. **Notification:** Contact the appropriate BLM office at least 24 hours prior to the commencing of any plugging operations. For wells in Chaves and Roosevelt County, call 575-627-0272; Eddy County, call 575-361-2822; Lea County, call 575-689-5981.

3. **Blowout Preventers:** A blowout preventer (BOP), as appropriate, shall be installed before commencing any plugging operation. The BOP must be installed and maintained as per API and manufacturer recommendations. The minimum BOP requirement is a 2M system for a well not deeper than 9,090 feet; a 3M system for a well not deeper than 13,636 feet; and a 5M system for a well not deeper than 22,727 feet.

4. **Mud Requirement:** Mud shall be placed between all plugs. Minimum consistency of plugging mud shall be obtained by mixing at the rate of 25 sacks (50 pounds each) of gel per 100 barrels of **brine** water. Minimum nine (9) pounds per gallon.

5. **Cement Requirement:** Sufficient cement shall be used to bring any required plug to the specified depth and length. Any given cement volumes on the proposed plugging procedure are merely estimates and are not final. Unless specific approval is received, no plug except the surface plug shall be less than 25 sacks of cement. Any plug that requires a tag will have a minimum WOC time of 4 hours.

In lieu of a cement plug across perforations in a cased hole (not for any other plugs), a bridge plug set within 50 feet to 100 feet above the perforations shall be capped with 25 sacks of cement. If a bailer is used to cap this plug, 35 feet of cement shall be sufficient. **Before pumping or bailing cement on top of CIBP, tag will be required to verify depth. Based on depth, a tag of the cement may be deemed necessary.**

Unless otherwise specified in the approved procedure, the cement plug shall consist of either Neat Class "C", for up to 7,500 feet of depth or Neat Class "H", for deeper than 7,500 feet plugs.

6. Below Ground Level Cap (Lesser Prairie-Chicken Habitat): All casing shall be cut-off at the base of the cellar or 3 feet below final restored ground level (whichever is deeper). **The BLM is to be notified a minimum of 4 hours prior to the wellhead being cut off to verify that cement is to surface in the casing and all annuluses. Wellhead cut off shall commence within ten (10) calendar days of the well being plugged. If the cut off cannot be done by the 10th day, the BLM is to be contacted with justification to receive an extension for completing the cut off.** Upon the plugging and subsequent abandonment of wells that are located in lesser prairie-chicken habitat, the casings shall be cut-off at the base of the cellar or 3 feet below final restored ground level (whichever is deeper). The well bore shall then be covered with a metal plate at least ¼ inch thick and welded in place. A weep hole shall be left in the plate and/or casing.

NMOCD also requires the operator to notify NMOCD when this type of dry hole marker is used. This can be done on the subsequent report of abandonment which is submitted to the BLM after the well is plugged. State that a below ground cap was installed as required in the COA's from the BLM.

7. Subsequent Plugging Reporting: Within 30 days after plugging work is completed, file one original and three copies of the Subsequent Report of Abandonment, Form 3160-5 to BLM. The report should give in detail the manner in which the plugging work was carried out, the extent (by depths) of cement plugs placed, and the size and location (by depths) of casing left in the well. **Show date well was plugged.**

8. Trash: All trash, junk and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

Following the submission and approval of the Subsequent Report of Abandonment, surface restoration will be required. See attached reclamation objectives.

Timing Limitation Stipulation/ Condition of Approval for Lesser Prairie-Chicken:

From March 1st through June 15th annually, abandonment activities will be allowed except between the hours from 3:00 am and 9:00 am. Normal vehicle use on existing roads will not be restricted



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Carlsbad Field Office
620 E. Greene St.
Carlsbad, New Mexico 88220-6292
www.blm.gov/nm



In Reply Refer To: 1310

Reclamation Objectives and Procedures

Reclamation Objective: Oil and gas development is one of many uses of the public lands and resources. While development may have a short- or long-term effect on the land, successful reclamation can ensure the effect is not permanent. 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. At final abandonment, well locations, production facilities, and access roads must undergo “final” reclamation so that the character and productivity of the land and water are restored.

The long-term objective of final reclamation is to set the course for eventual ecosystem restoration, including the restoration of the natural vegetation community, hydrology, and wildlife habitats. In most cases this means returning the land to a condition approximating or equal to that which existed prior to the disturbance. The final goal of reclamation is to restore the character of the land and water to its pre-disturbance condition. The operator is generally not responsible for achieving full ecological restoration of the site. Instead, the operator must achieve the short-term stability, visual, hydrological, and productivity objectives of the surface management agency and take steps necessary to ensure that long-term objectives will be reached through natural processes.

To achieve these objectives, remove any/all contaminants, scrap/trash, equipment, pipelines and powerlines **(Contact service companies, allowing plenty of time to have the risers and power lines and poles removed prior to reclamation, don't wait till the last day and try to get them to remove infrastructure)**. Strip and remove caliche, contour the location to blend with the surrounding landscape, re-distribute the native soils, provide erosion control as needed, rip (across the slope and seed as specified in the original APD COA. **This will apply to well pads, facilities, and access roads.** Barricade access road at the starting point. If reserve pits have not reclaimed due to salts or other contaminants, submit a plan for approval, as to how you propose to provide adequate restoration of the pit area.

1. The Application for Permit to Drill or Reenter (APD, Form 3160-3), Surface Use Plan of Operations must include adequate measures for stabilization and reclamation of disturbed lands. Oil and Gas operators must plan for reclamation, both interim and final, up front in the APD process as per Onshore Oil and Gas Order No. 1.
2. For wells and/or access roads not having an approved plan, or an inadequate plan for surface reclamation (either interim or final reclamation), the operator must submit a proposal describing the procedures for reclamation. For interim reclamation, the appropriate time for submittal would be when filing the Well Completion or Recompletion Report and Log (Form 3160-4). For final reclamation, the appropriate time for submittal would be when filing the Notice of Intent, or the Subsequent Report of Abandonment, Sundry Notices and Reports on Wells (Form 3160-5). Interim reclamation is to be completed within 6 months of well completion, and final reclamation is to be completed within 6 months of well abandonment.
3. The operator must file a Subsequent Report Plug and Abandonment (Form 3160-5) following the plugging of a well.
4. Previous instruction had you waiting for a BLM specialist to inspect the location and provide you with reclamation requirements. If you have an approved Surface Use Plan of Operation and/or an approved Sundry Notice, you are free to proceed with reclamation as per approved APD. If you

- have issues or concerns, contact a BLM specialist to assist you. It would be in your interest to have a BLM specialist look at the location and access road prior to the removal of reclamation equipment to ensure that it meets BLM objectives. Upon conclusion submit a Form 3160-5, Subsequent Report of Reclamation. This will prompt a specialist to inspect the location to verify work was completed as per approved plans.
5. The approved Subsequent Report of Reclamation will be your notice that the native soils, contour and seedbed have been reestablished. If the BLM objectives have not been met the operator will be notified and corrective actions may be required.
 6. It is the responsibility of the operator to monitor these locations and/or access roads until such time as the operator feels that the BLM objective has been met. If after two growing seasons the location and/or access roads are not showing the potential for successful revegetation, additional actions may be needed. When you feel the BLM objectives have been met submit a Final Abandonment Notice (FAN), Form 3160-5, stating that all reclamation requirements have been achieved and the location and/or access road is ready for a final abandonment inspection.
 7. At this time the BLM specialist will inspect the location and/or access road. If the native soils and contour have been restored, and the revegetation is successful, the FAN will be approved, releasing the operator of any further liability of the location and/or access road. If the location and/or access road have not achieved the objective, you will be notified as to additional work needed or additional time being needed to achieve the objective.

If there are any questions, please feel free to contact any of the following specialists:

Jim Amos
Supervisory Petroleum Engineering Tech/Environmental Protection Specialist
575-234-5909 (Office), 575-361-2648 (Cell)

Arthur Arias
Environmental Protection Specialist
575-234-6230

Crisha Morgan
Environmental Protection Specialist
575-234-5987

Jose Martinez-Colon
Environmental Protection Specialist
575-234-5951

Mark Mattozzi
Environmental Protection Specialist
575-234-5713

Robert Duenas
Environmental Protection Specialist
575-234-2229

Trishia Bad Bear, Hobbs Field Station
Natural Resource Specialist
575-393-3612

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
District IV
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

COMMENTS

Action 182057

COMMENTS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 182057
	Action Type: [C-103] NOI Plug & Abandon (C-103F)

COMMENTS

Created By	Comment	Comment Date
john.harrison	Accepted for record - NMOCD JRH 3/22/23 BLM approved P&A 1/30/23	3/22/2023

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
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1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
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CONDITIONS

Action 182057

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Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 182057
	Action Type: [C-103] NOI Plug & Abandon (C-103F)

CONDITIONS

Created By	Condition	Condition Date
john.harrison	None	3/22/2023