

# Additional Information

2nd Extension Request  
11/4/2021



November 4, 2021

New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**VIA EMAIL**

Attn: Mr. Phillip Goetze, UIC Manager

*Re: 2<sup>nd</sup> Request to Extend Expiration Date for NMOCD Permits SWD-2021 pertaining to Trove Energy & Water, LLC's WLC Mid Federal SWD No.2, (API No.30-025-47453) located in Section 23, T25S-R33E, NMPM, Lea County, New Mexico.*

Dear Mr. Goetze,

In the first extension request for this permit last year, I described to you the timing of how the Covid pandemic impacted the plans for this well. The situation has impacted all of Trove Energy & Water, LLC's business plans but this one still stands out to us as the original permits were being approved at the exact time the entire country was shutting down and entered a phase of extended suspension of so many things. Since then, the political climate and other factors have impacted the potential of a full recovery of the growth trend of the oil and gas industry compared to pre-pandemic levels. However, we along with industry remain hopeful and are vigilant in efforts to move from stabilization to again growing the business. As emphasis moves to recycling efforts, also being investigated by Trove, new SWD capacity will still be needed even as the new permitting efforts have slowed. It seems to the extent possible; it would behoove all involved to retain the viability of existing permits considering the applicant's time committed to the research and preparation of a complete C-108 application to the processing, review and approval by the Oil Conservation Division and other regulatory agencies.

Trove's efforts to recover and reengage its negotiations with operators we believe will again have a need for the disposal capacity Trove SWDs will offer. We believe the industry will continue recovery in coming months and still hope to spud this well sometime in 2022.

I have reviewed the subject Area of Review and determined that no impactful changes have taken place. EOG Resources did drill and complete what last year had been several new well spots in the Upper Wolfcamp. We are in regular communications with EOG as the subject wells may very well have the need for additional disposal options to be opened up by EOG.

Trove is moving forward and as things continue to recover, intends to complete a new SWD every 6-9 months once the first SWD is completed. We therefore request an appropriate extension of one year for the subject permit SWD-2021 for an expiration date of December 16, 2022.

If you or your staff has any questions, please do not hesitate to call or email me.

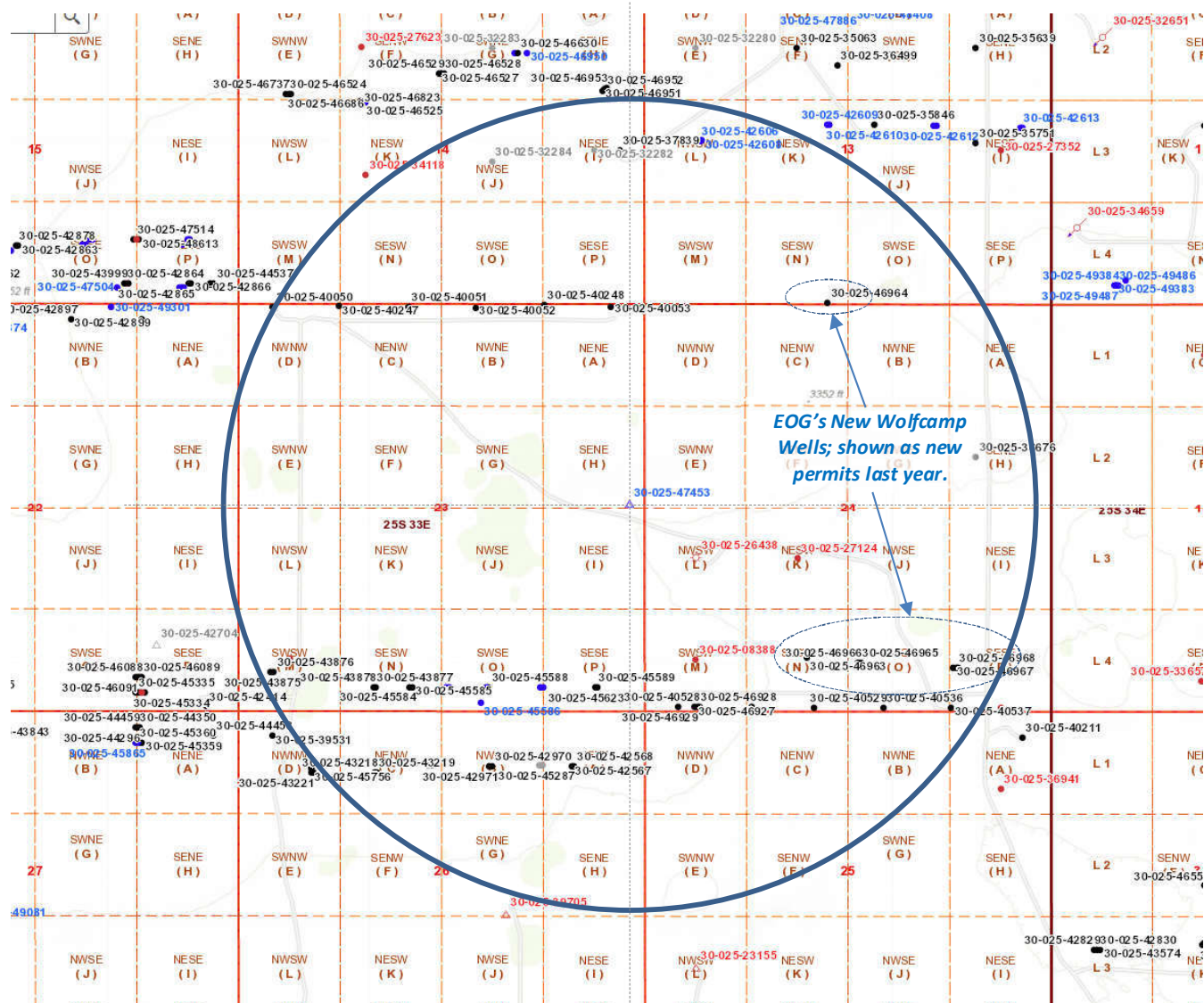
Best regards,

A handwritten signature in blue ink, appearing to read 'Ben Stone', is written over a white background.

Ben Stone, SOS Consulting, LLC  
Agent for Trove Energy & Water, LLC

Attachments: AOR Map; Previous Ext map; Original AOR Map; Previous Extension; SWD-2021  
Cc: Project file

**WLC Mid Federal SWD #2 – Permit Extension AOR – 11/04/2021**  
*Second Extension Request (SWD-2021 Permit Date 12/16/2019)*



All aspects of the one-mile AOR remain the same as last year except EOG has drilled and completed the well spots previously shown as new permits. No other new locations have been staked.

All lease ownership and operated wells are identical. (Last year's extension request AOR map, next page.) COG and Newkumet remain the offset lessees and operators and were notified during the original C-108 process.

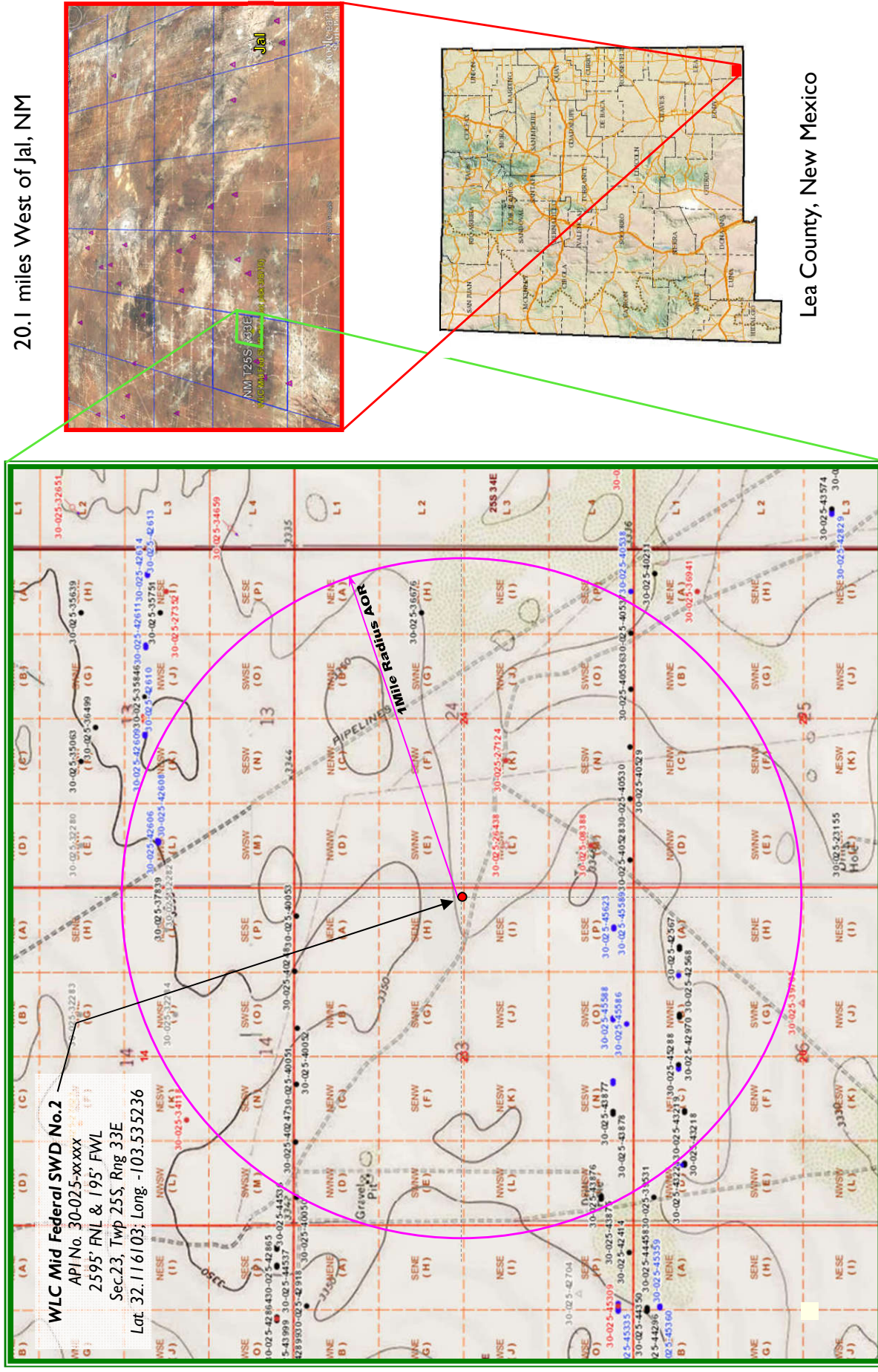
**EOG's new well completions in the area increase the likelihood that the WLC Mid Federal #2 SWD will be required for the additional disposal volume capacity in the future.**

EOG's new Wolfcamp permits...



# WLC Mid Federal SWD Well No.2 – One Mile Area of Review / Overview Map

(Attachment to NMOCD Form C-108, Application for Authority to Inject.)



State of New Mexico  
Energy, Minerals and Natural Resources Department

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Michelle Lujan Grisham  
Governor

Sarah Cottrell Propst  
Cabinet Secretary

Todd E. Leahy, JD, PhD  
Deputy Secretary

Adrienne Sandoval, Director  
Oil Conservation Division



November 24, 2020

Trove Energy and Water, LLC (OGRID 372488)  
c/o Ben Stone

**RE: Administrative Order SWD-2021; Extension of Deadline to Inject**  
Well: WLC M Federal SWD No. 2 (API 30-025-47453)  
Located: Unit H, Sec 23, T25S, R33E, NMPM, Lea County, New Mexico  
Order Date: December 16, 2019  
Injection formations: Devonian and Silurian formations; 17150 feet to 19250 feet

Dear Mr. Stone:

Reference is made to your November 19, 2020 request on behalf of Trove Energy and Water, LLC (the "operator") to extend the deadline to commence injection stipulated in order SWD-2021 for the above referenced well for reasons outlined in your correspondence. The current deadline date to commence injection under said order is December 16, 2020.

It is the Division's understanding from your correspondence that since the date of issuance of this permit, no additional wells that penetrate the approved injection interval were drilled in the one-mile Area of Review (AOR) and no new affected parties have been identified in the AOR. Therefore, the extension request could be reviewed administratively for approval.

The Division finds that for reasons you have stated, the granting of this request to extend this administrative order is in the interest of conservation, will prevent waste, and will protect the environment. Therefore, the deadline to commence injection for the existing order is hereby extended until **December 16, 2021**.

All requirements of the above referenced administrative order and agreements in the application remain in full force and effect. Any additional extension of the deadline to commence injection for this administrative order will not be considered unless the operator has already commenced drilling of the referenced well. Otherwise, the injection authority shall expire under the terms of the extended administrative order and the operator shall be required to submit a new application to obtain injection authority for the referenced well.

ADRIENNE SANDOVAL  
Director

AS/dhr  
cc: Oil Conservation Division - Hobbs District Office  
Order SWD-2021



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Energy, Minerals and Natural Resources Department

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Administrative Order SWD-2021  
December 16, 2019

**ADMINISTRATIVE ORDER  
OF THE OIL CONSERVATION DIVISION**

Pursuant to the provisions of Division Rule 19.15.26.8(B) NMAC, Trove Energy and Water, LLC (the "operator") seeks an administrative order for its WLC-M Federal SWD Well No. 2 (the "proposed well") with a location of 2595 feet from the North line and 195 feet from the East line, Unit letter H of Section 23, Township 25 South, Range 33 East, NMPM, Lea County, New Mexico, for the purpose of commercial disposal of oil field produced water.

**THE DIVISION DIRECTOR FINDS THAT:**

The application has been duly filed under the provisions of Division Rule 19.15.26.8(B) NMAC and satisfactory information has been provided that affected parties, have been notified and no objections have been received within the prescribed waiting period. The applicant has presented satisfactory evidence that all requirements prescribed in Division Rule 19.15.26.8 NMAC have been met and the operator is in compliance with Division Rule 19.15.5.9 NMAC.

Application for Disposal in Devonian and Silurian Formations: Due to the potential for the projected injection volume of the proposed well to impact an area greater than the one-half mile radius applied in Division Form C-108 and Division rule, the applicant has provided the following supplementary information:

1. Notification following Division Rule 19.15.26.8(B) NMAC for a radius of one mile from the surface location of the proposed well;
2. An expanded Area of Review for wells penetrating the disposal interval for a radius of one mile from the surface location of the proposed well; and
3. A statement by a qualified person assessing the potential of induced-seismic events associated with the disposal activities for the predicted service life of the proposed well.

**IT IS THEREFORE ORDERED THAT:**

The applicant, Trove Energy and Water LLC (OGRID 372488), is hereby authorized to utilize its WLC-M Federal SWD Well No. 2 (API 30-025-Pending) with a location of 2595 feet from the North line and 195 feet from the East line, Unit letter H of Section 23, Township 25 South, Range 33 East, NMPM, Lea County, New Mexico, for disposal of oil field produced water (UIC Class II only) through open-hole completion into an interval consisting of the Devonian and

Silurian formations from approximately 17,150 feet to approximately 19,250 feet. Injection will occur through internally-coated, 5.5-inch or smaller tubing within the 7.625-inch liner and a packer set within 100 feet of the top of the disposal interval. This permit does not allow disposal into:

1. The Woodford Shale and formations above the lower contact of the Woodford Shale;
2. Formations below the Silurian formations including the Montoya formation and the Ellenburger formation (lower Ordovician); and
3. Any lost circulation intervals directly on top and obviously connected to these formations.

*Prior to commencing disposal, the operator shall submit mudlog and geophysical logs information, to the Division's District geologist and Santa Fe Engineering Bureau, showing evidence agreeable that only the permitted formation is open for disposal including a summary of depths (picks) for contacts of the formations which the Division shall use to amend this order for a final description of the depth for the injection interval. If significant hydrocarbon shows occur while drilling, the operator shall notify the Division's District office and the operator shall be required to receive written permission prior to commencing disposal.*

*The operator shall circulate to surface the cement for the 9.625-inch production casing.*

*If cement does not circulate on any casing string, the operator shall run a cement bond log (CBL) or other log to determine top of cement and shall notify the Hobbs District with the top of cement on the emergency phone number prior to continuing with any further cement activity with the proposed well. If cement did not tie back into the next higher casing shoe, the operator shall perform remedial cement job to bring cement, at a minimum, 200 feet above the next higher casing shoe.*

*The operator shall run a CBL (or equivalent) for the 7.625-inch liner to demonstrate the placement of cement and the cement bond with the tie-in with 9.625-inch casing string. The operator shall provide a copy of the CBL to the Division's District office prior to commencing disposal.*

*Prior to commencing disposal, the operator shall obtain a bottom-hole pressure measurement representative of the open-hole completion. This information shall be provided with the written notice of the date of commencement of disposal.*

**IT IS FURTHER ORDERED THAT:**

The operator shall take all steps necessary to ensure that the disposed water enters only the approved disposal interval and is not permitted to escape to other formations or onto the surface. This includes the completion and construction of the well as described in the application and, if necessary, as modified by the District Supervisor.

After installing tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer



setting depth to assure casing integrity.

The well shall pass an initial mechanical integrity test ("MIT") prior to initially commencing disposal and prior to resuming disposal each time the disposal packer is unseated. All MIT procedures and schedules shall follow the requirements in Division Rule 19.15.26.11(A) NMAC. The Division Director retains the right to require at any time wireline verification of completion and packer setting depths in this well.

Without limitation on the duties of the operator as provided in Division Rules 19.15.29 and 19.15.30 NMAC, or otherwise, the operator shall immediately notify the Division's District I office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

If the disposal well fails a MIT or if there is evidence that the mechanical integrity of said well is impacting correlative rights, the public health, any underground sources of fresh water, or the environment, the Division Director shall require the well to be shut-in within 24 hours of discovery and the operator shall redirect all disposal waters to another facility. The operator shall take the necessary actions to address the impacts resulting from the mechanical integrity issues in accordance with Division Rule 19.15.26.10 NMAC, and the well shall be tested pursuant to Rule 19.15.26.11 NMAC prior to returning to injection.

The wellhead injection pressure on the well shall be limited to **no more than 3430 psi**. In addition, the disposal well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressure to the maximum allowable pressure for this well.

The Director of the Division may authorize an increase in tubing pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the disposed fluid from the target formations. Such proper showing shall be demonstrated by sufficient evidence including but not limited to an acceptable step-rate test.

The operator shall notify the supervisor of the Division's District I office of the date and time of the installation of disposal equipment and of any MIT so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of disposal to the Division's District I office. The operator shall submit monthly reports of the disposal operations that includes number of days of operation, injection volume, and injection pressure on Division Form C-115, in accordance with Division Rules 19.15.26.13 and 19.15.7.24 NMAC.

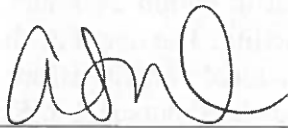
The injection authority granted under this order is not transferable except upon Division approval. The Division may require the operator to demonstrate mechanical integrity of any injection well that will be transferred prior to approving transfer of authority to inject.

The Division may revoke this injection order after notice and hearing if the operator is in violation of Rule 19.15.5.9 NMAC.

The disposal authority granted herein shall terminate one (1) year after the effective date of this Order if the operator has not commenced injection operations into the subject well. One year after the last date of reported disposal into this well, the Division shall consider the well abandoned, and the authority to dispose will terminate *ipso facto*. The Division, upon written request mailed by the operator prior to the termination date, may grant an extension thereof for good cause.

Compliance with this Order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the disposal authority granted herein.



ANDRIENNE SANDOVAL  
Director

AS/dhr

cc: Oil Conservation Division – Hobbs District Office  
Admin. Appl. No. pMAM1908648314  
Bureau of Land Management – Carlsbad Field Office

Attachment: C-108 well completion diagram