

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

**IN RE NEW MEXICO OIL CONSERVATION DIVISION'S
APPLICATION FOR ORDER TO AMEND APDS OF ENUMERATED
WELLS AND TO ORDER TEMPORARY CESSATION OF
ASSOCIATED DRILLING AND COMPLETION ACTIVITIES CASE NO. 22472**

The New Mexico Oil Conservation Division (“Division”) submits this Application for an Order to amend its approval of the Applications for Permit to Drill (“APD”) for the following API(s) (collectively the “Wells”):

1. Marathon Oil Permian, LLC, OGRID 372098
 - a. API 30-015-44692, Well Name *CATAPULT 1 WXY FEE #003H*
2. Matador Production Company, OGRID 228937
 - a. API 30-015-46590, Well Name *HAZEL INEZ #204H*
 - b. API 30-015-46596, Well Name *HAZEL INEZ #203H*
3. Mewbourne Oil Company, OGRID 14744
 - a. API 30-015-48077, Well Name *Sandlot 9-8 WOPM Fee 1H*
 - b. API 30-015-46003, Well Name *MIGHTY DUCKS 16 15 W0MP STATE COM #001H*
 - c. API 30-015-46808, Well Name *MIGHTY DUCKS 15 16 W0PM STATE COM #001H*
 - d. API 30-015-46807, Well Name *MIGHTY DUCKS 15 16 W0IL STATE COM #002H*
 - e. API 30-015-48053, Well Name *MIGHTY DUCKS 15 16 W0HE STATE COM #001H*

- f. API 30-015-48078, Well Name *Sandlot 9-8 WOIL Fee 1H*
 - g. API 30-015-48054, Well Name *MIGHTY DUCKS 15 16 W0AD STATE COM #001H*
 - h. API 30-015-48087, Well Name *CITY SLICKERS 28 29 W0AD FEE #001H*
 - i. API 30-015-48079, Well Name *Sandlot 9-8 WOHE Fee 1H*
 - j. API 30-015-48080, Well Name *Sandlot 9-8 W0AD Fee 1H*
 - k. API 30-015-46228, Well Name *SQUINTS 4 5 W0IJ FEE #001H*
 - l. API 30-015-47305, Well Name *WATERBOY 27 26 W0DA FEE #001H*
 - m. API 30-015-45584, Well Name *DOUBTFIRE 25 30 W0MP FEE COM #001H*
 - n. API 30-015-45580, Well Name *DOUBTFIRE 25 30 B3MP FEE #001H*
 - o. API 30-015-45583, Well Name *DOUBTFIRE 25 30 W0MP FEE COM #002H*
4. Tap Rock Operating, LLC, OGRID 372043
- a. API 30-015-46687, Well Name *OLD CHUB FEDERAL COM #131H*
 - b. API 30-015-46686, Well Name *OLD CHUB FEDERAL COM #201H*
 - c. API 30-015-46675, Well Name *OLD CHUB FEDERAL COM #205H*
 - d. API 30-015-46672, Well Name *OLD CHUB FEDERAL COM #202H*
 - e. API 30-015-46685, Well Name *OLD CHUB FEDERAL COM #207H*
 - f. API 30-015-46688, Well Name *OLD CHUB FEDERAL COM #132H*
5. WPX Energy Permian, LLC, OGRID 246289
- a. API 30-015-42355, Well Name *OLD CAVERN FEE #001*
 - b. API 30-015-47294, Well Name *COLLIE 35 34 22 27 FEE #402H*
 - c. API 30-015-42381, Well Name *SMEDLEY FEE #001*

6. The Division is managing a remediation project for the Carlsbad Brine Well which lies in proximity to the proposed location of drilling and completion for the Wells.
7. The Carlsbad Brine Well is an abandoned brine well situated beneath the town of Carlsbad, New Mexico.
8. The mining of salt from the Carlsbad Brine Well created a subsurface cavern (“Cavity”).
9. The Cavity lies beneath substantial public resources, infrastructure, and surface development, including the Carlsbad Irrigation District’s main canal, a mobile home park, a church, two commercial operations, the intersection of US Highways 285 and 62/180, and a groundwater aquifer.
10. The Carlsbad Brine Well commenced operation in 1978, continuously operating under various ownership until its closure in 2008. On May 9, 2010, the current operator, I&W, Inc. of Artesia, filed for bankruptcy, and the state of New Mexico assumed responsibility for the Cavity’s remediation.
11. The Division estimates that the Carlsbad Brine Well produced more than six million barrels of brine and more than 220,000 cubic yards of salt were removed from the Well between 1978 and 2010.
12. The Division became aware of the potential for catastrophic collapses in brine wells following the collapse of the Jim’s Water Service and Loco Hills Water Disposal wells in July and November of 2008, respectively. In both instances, the depth from the surface to the salt formation was less than 500 feet and the estimated width of the caverns exceeded 300 feet.

13. The Division determined that the stability of a brine well cavern is a function of the depth and size of the cavern and the strength of the rocks forming the cavern roof.
14. The Division determined in 2008 that the Cavity shared significant characteristics, including depth to salt and breadth of cavern, with the Jim's Water Service and Loco Hills Water Disposal wells, and as a result, the Cavity presented a significant risk of catastrophic collapse with the potential to materially impact public resources and infrastructure in the area.
15. Beginning in 2009, the Division began characterizing and monitoring the Cavity, and took various actions, including installing monitors, establishing an alarm system, and coordinating with local agencies to develop emergency and contingency plans to address potential catastrophic collapse.
16. Beginning in 2013, the Division evaluated methodologies to stabilize the Cavity.
17. Beginning in 2018, the Division retained AMEC Environment & Infrastructure, Inc. (now Wood Environment & Infrastructure Solutions, Inc.) (collectively "Wood") to conduct in-situ backfilling of the Cavity.
18. The purpose of ongoing in-situ backfilling is to reduce the void space of the Cavity to the maximum extent feasible, reducing the likelihood that continued raveling of the Cavity's roof structure will cause or contribute to either surface subsidence or collapse or the migration of pressurized brine into the immediately overlying groundwater aquifer.
19. The Cavity currently exists in a state of partial collapse. The roof structure over the void space appears to have substantially but partially collapsed between 2000 and 2010.
20. In 2019, Wood commenced to backfill the Cavity with grout, which appears to have stabilized the southern extent of the Cavity.

21. In December of 2019, the Division became aware of a previously undetected void space exceeding an additional 98,000 cubic yards within the northern extent of the Cavity. The Division responded by switching the backfill material from grout to sand backfill.
22. After backfilling the Cavity with more than 100,000 cubic yards of sand, the Division determined that a significant percentage of the injected sand had settled into open spaces in the rubble pile on the floor of the Cavity, and that an additional minimum of 60,000 cubic yards of sand would be required to complete the remediation, and temporarily suspended the backfilling due to a lack of available appropriations.
23. In August of 2020, Wood evaluated the risk currently posed by the partially filled void space and determined that the remaining void in the Cavity continued to pose a significant risk to groundwater and of surface subsidence or collapse that could adversely affect public resources and infrastructure.
24. To date, the state of New Mexico, Eddy County, and the City of Carlsbad have invested approximately \$85 million in the remediation of the Cavity.
25. The Division recommenced remediation of the Cavity on September 13, 2021, with sand injection commencing on October 13, 2021.
26. Additionally, the Division recently completed a sonar survey, which discovered that in or about February 2021, approximately ten (10) feet of roof consisting of 920 cubic yards of rock collapsed in the southwest part of the void space.
27. The Division estimates that the Cavity remediation will be completed during the spring of 2022.

28. The additional roof collapse indicated in the most recent sonar survey indicates the heightened sensitivity of the roof structure and the need to complete the remediation process.
29. Operator's planned drilling and completion activity poses a potential risk of harm to stability of the Cavity and the successful completion of its remediation, with consequent potential risk of harm to life, property, environment, and public resources and infrastructure.
30. Pursuant to NMSA 1978, § 70-2-6, the Division has jurisdiction over the parties and the subject matter herein.
31. The Division is authorized to make orders "to prevent crude petroleum oil, natural gas or water from escaping from strata in which it is found into other strata." NMSA 1978, § 70-2-12(B)(2).
32. The Division is authorized to make orders "to require wells to be drilled, operated and produced in such manner as to prevent injury to neighboring leases or properties." NMSA 1978, § 70-2-12(B)(7).
33. "The division may impose conditions on an approved permit to drill, deepen or plug back." 19.15.14.10 NMAC.
34. Due to the increased damage to the Cavity discovered during current remediation activities, to protect the Well and the ongoing remediation of the Cavity, and to prevent collateral injury to life, property, environment, and public resources and infrastructure, it is necessary to amend the enumerated APDs and to order cessation of drilling and completion activities associated with those APDs for a period of forty-five (45) days.

WHEREFORE, the Division respectfully requests an Order requiring Operators of all listed APIs to cease and desist from all drilling or completion activities associated with the Wells for a period of forty-five (45) days.

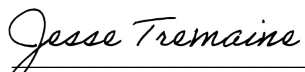
WHEREFORE, the Division respectfully requests an Order amending Operators' APDs for the wells to include the following conditions of approval, applicable to commencement of activity after forty-five (45) days from the date of this Order:

- A. Operator shall provide to OCD 60 days' notice where possible, or within 72 hours of scheduling drilling or completion activities if less than 60 days, prior to the start of any drilling or completion activities at the referenced wells. In all instances, such notice shall be provided no less than 14 days prior to the start of any such activities.
- B. The Division retains the right to require the cessation of any drilling or completion activities associated with the APDs due to concerns about potential impacts to ongoing or completed remediation activities at the Carlsbad brine well,
 - i. If the Division orders cessation pursuant to this provision, it shall do so in a written communication (email is sufficient) simultaneously submitted to Operator that contains a high-level rationale for the Division's cessation order. The duration of the initial period for such cessation may be as follows:
 1. up to 45 days if Operator is more than 45 days from starting actual drilling or completion activities; or
 2. if Operator is within 45 days from starting actual drilling or completion activities, or is conducting actual drilling or completion

activities, the initial period of cessation shall be limited to 72 hours (not including weekend or holiday time);

3. whichever cessation period in paragraph 62(c)(i)(1) or (2) applies shall be referred to hereafter the “Initial Period”.
- ii. If the Division’s concerns, as summarized in its written communication, are not resolved to the Division’s satisfaction in its sole discretion during the Initial Period (up to 45 days or 72 hours, whichever is applicable), the Division may extend any such cessation until the earlier of (i) 45 additional days or (ii) a hearing before the Division; provided, however, that no cessation shall be authorized for a cumulative period of more than 90 days without a Division hearing.
- iii. During the Initial Period or any extension thereof, the Division and each affected Operator shall discuss the Division’s rationale for the cessation order and make a good faith effort to determine whether the Operator’s current or planned operations can be carried out in a manner satisfactory to the Division.

Respectfully submitted,



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CERTIFICATE OF SERVICE

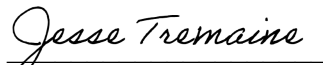
I hereby certify that a copy of this pleading was mailed electronically on December 17, 2021 to:

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