

Revised Fact Sheet

Applicant: **Montalban Oil & Gas Operations, Inc**

Site Location: **Pondera County, Montana**

Permit Number(s):

MT52439-12514

How to Comment:

The public notice is posted at EPA Region 8 UIC program's website: <https://www.epa.gov/node/99201#public-notice>. The public will have until September 26, 2025 to provide comments on the proposed changes to the draft permit and aquifer exemption.

Submit written comments online at <https://www.regulations.gov/docket/EPA-R08-OW-2025-0852> under docket # EPA-R08-OW-2025-0852

Comments may also be sent by mail to:
Wendy Cheung
U.S. EPA Region 8
Mail Code: 8WD-SDU
1595 Wynkoop Street
Denver, CO 80202-1129

Public Hearing

A public hearing will be held during the public notice period on Tuesday, September 23, 2025, from 5:30pm to 8:00 pm at the Conrad High School, 308 S Illinois St, Conrad, MT 59425.

The public may also provide written and/or verbal comments during the EPA public hearing.

Additional Information

For additional information, please consult the EPA contact, Wendy Cheung, at (303) 312-6242. To learn more about EPA's Underground Injection Control program, visit <https://www.epa.gov/uic/underground-injection-control-epa-region-8-co-mt-nd-sd-ut-and-wy>

Summary

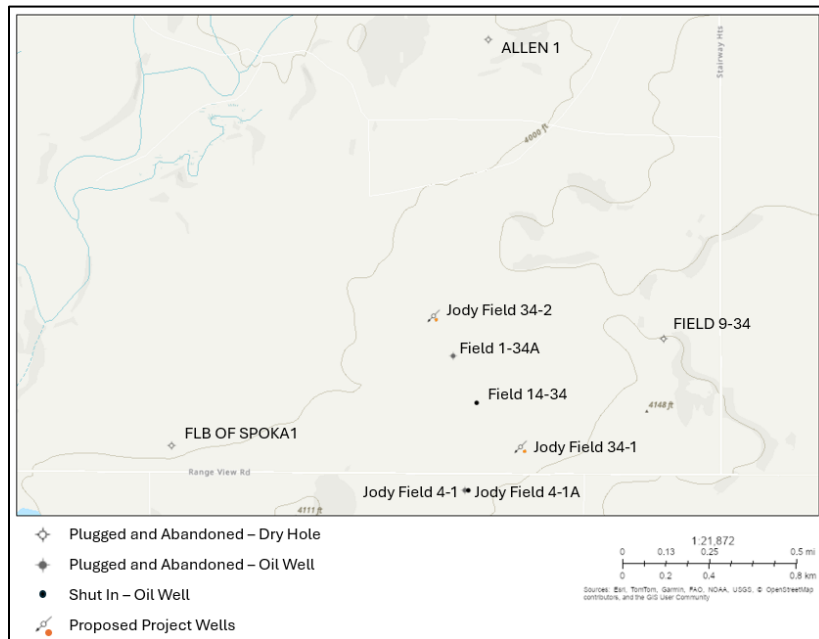
EPA proposes to approve Montalban Oil & Gas Operations, Inc's (MOGO's) request to convert an existing Class II well to a Class V well under an individual permit. MOGO currently operates Jody Field 34-2 as a Class II well regulated by the Montana Board of Oil and Gas Conservation Commission for the disposal of fluids related to oil and gas production. In addition to continued oil and gas related waste disposal, MOGO proposes to inject wastewater generated from renewable feedstocks, which may include, but are not limited to, vegetable oils (such as soybean oil and canola oil), animal fats (such as beef tallow, choice white grease, and poultry fat) distiller's corn oil, and used cooking oil. The well would be permitted as a Class V well because of the injectate type and because it is constructed above the Devonian Duperow Aquifer, which is considered a USDW in some areas of the Basin. To prevent endangerment to underground sources of drinking water (USDWs) in accordance with the Safe Drinking Water Act, and consistent with EPA Region 8 practice, the Agency is requiring the well meet the standards of Class I wells. Injection will occur into the Mississippian Madison Aquifer Formation at depths between 3,418 ft and 3,499 ft below the ground surface. EPA previously approved an aquifer exemption for MOGO's current Class II operations. EPA is also proposing to vertically expand the previously approved aquifer exemption for the entirety of the Madison Formation.

This revised fact sheet explains changes to the original draft permit and proposed aquifer exemption for the Jody Field 34-2 well that was public noticed in 2023. However, it also leaves in place explanations for the unchanged draft permit conditions from the 2023 draft permit. EPA Region 8 received numerous comments during the 2023-2024 public comment period. Some commenters raised concerns about the potential for fluid migration. Because of these concerns, the Region performed additional modeling to consider the natural hydraulic gradient. The Region now proposes the following modifications only: an expanded aquifer exemption boundary and Area of Review (AOR) compared to the original draft permit based on the additional modeling. Region 8 is re-opening the public comment period to accept comments only on the draft modifications, which includes the area of review in Attachment II of the draft permit and the new aquifer exemption boundary described in the proposed revised Aquifer Exemption Record of Decision.

Basis for Draft Permit Conditions (Summary)

The proposed permit conditions are based on the applicable regulatory provisions of 40 CFR parts 2, 124, 144, 146 and 147, which are designed to protect public health and drinking water from unsafe underground injection practices. Well specific restrictions are derived, in accordance with these provisions, from an evaluation of data gathered from pertinent sources. This information is outlined in the administrative record, which includes data that the applicant was required to submit as part of the permit application process. EPA considered the adequacy of the minimum or standard monitoring and testing requirements in the draft permit. These requirements are important for detecting potential endangerment and consider the well construction, local geology, identification of available Underground Sources of Drinking Water (USDWs) water quality data, characterizations of the injected fluid, and operator compliance history.

Site Map



Final Decision and Right to Appeal

EPA will consider all comments received during the 2023 to 2024 comment period and during any hearing held and any comments received specific to the modified area of review and aquifer exemption boundary prior to making a final decision. You have the right to appeal the decision if you submit a comment during the comment period or participate in a public hearing. If you have a right to appeal, appeal of the permit and its conditions must be made to the Environmental Appeals Board within 30 days after EPA Region 8 serves notice of issuance of the final permit decision. The final decision on the permit can be appealed in federal court only after all agency review procedures have been exhausted. Please refer to 40 CFR §124.19 for additional detail on the permit appeal process. The aquifer exemption is a separate decision from the permit decision. Aquifer exemption decisions are final agency actions, and appeals must be before the appropriate federal circuit court of appeals in accordance with 42 U.S.C. § 300j-7(a)(2).

Aquifer Exemption

The Jody Field 34-2 well was initially authorized to inject into the Sawtooth and Madison Formations by the Montana Board of Oil and Gas Conservation (MBOGC). On March 15, 2010, EPA issued an aquifer exemption for 20 feet of the Sawtooth Formation and 13 feet of the Madison Formation in a 0.25-mile radius from the wellbore in accordance with 40 CFR §§144.7 and 146.4. EPA determined that the 20 feet of presumed Sawtooth Formation is actually a dense calcareous transitional deposit that is part of the Upper Madison Formation and not a separate USDW, as detailed in the technical analysis included in the administrative record.

A workover to acidize and deepen the well was approved by MBOGC in August 2022, and the workover was conducted in September 2022. Jody Field 34-2 was deepened by 68 feet for a total open hole height of 81 feet across the Madison. No injection has occurred since the well was deepened, except for the injection of clean water used to conduct a step rate test. The well workover revealed that there was not a confining zone of less permeable layers in the lower Madison Formation directly beneath the bottom of the original well depth, as previously assumed in the first aquifer exemption. Since the Madison Formation is most likely hydraulically connected and there is not sufficient evidence of less permeable layers within the lower Madison Formation, a vertical expansion of the aquifer exemption is proposed for the entire Madison Aquifer to an approximate depth of 3,700 feet for continued injection.

Further, based on additional modeling detailed in the Supplemental Technical Analysis, the Region has determined that it is appropriate to modify the aquifer exemption boundary that was proposed in 2023. The lateral extent of the modified aquifer exemption is proposed to be expanded, consistent with the modeling results, to account for the natural hydraulic gradient and accommodate for at least 10,000 years of migration of injected fluids. As detailed in the modified 2025 Aquifer Exemption (AE) Record of Decision (ROD), the two former proposed 2023 AEs have been combined into one

proposed 2025 AE that extends 2.1 miles downgradient from Jody Field 34-2. The shape of the new proposed 2025 AE was determined by the direction of groundwater flow and travel distance of the injectate; therefore, the boundary in the upgradient direction is closer to the wells, as the injectate will not travel as far in that direction. The new proposed AE area is depicted in Figure 1 of the modified 2025 AE ROD and Figure 4 of the Supplemental Technical Analysis. Additional detail about the AE can be found in these referenced documents.

To ensure fluids remain within the AE boundary, the permit establishes a Class V maximum cumulative injection volume limitation of 7,156,173 bbls, which accounts for previously injected volume of 205,090 bbls into Jody Field 34-2. The volume limitation remains unchanged from the 2023 draft permit. The volume calculation assumes a porosity of 9.7% for the injection zone, which was derived from a porosity log from the nearby well Field 1-34, located approximately 0.13 miles southeast of Jody Field 34-2. The estimated porosity falls within the range found in the literature and is consistent with the porosity log from Jody Field 34-1, which is 0.5 miles away. Additional details on the volume calculation and the porosity evaluation are included in the technical analysis as part of the administrative record.

The Madison aquifer is considered a USDW because its quantity can serve a public water system and the TDS is less than 10,000 mg/L. EPA proposes to exempt the Madison Formation from protection of the Safe Drinking Water Act for the purposes of this permitted activity in accordance with §§144.7 and 146.4. The applicant has provided information to demonstrate the Madison Formation does not currently serve as a source of drinking water and cannot and will not serve as a source of drinking water.

Principal Facts Considered for the Permit

Area of Review (AOR) Analysis: EPA Region 8 has modified the AOR for this permit from a ¼-mile fixed radius to a 2.1-mile fixed radius around the well bore. Region 8 chose to use the fixed radius method in 40 C.F.R. § 146.6(b) over the zone of endangering influence method, because using the fixed radius method is a regulatory requirement for UIC wells in Montana. See 40 C.F.R. § 147.1355. This modification can be found in Attachment II of the revised draft permit. Based on concerns raised in public comments about fluid migration, the Region performed additional modeling and incorporated hydraulic gradient into this analysis. This additional analysis indicated that injectate from this well could travel up to 2.1 miles downgradient of the well. See Supplemental Technical Analysis, p.6. Consistent with 40 C.F.R. § 146.6(b), EPA also considered the injection volume, chemistry of injected and formation fluids, hydrogeology, population and groundwater use and dependence, and historical practices in the area. See Supplemental Technical Analysis, p.7.

Following this review, EPA determined that 2.0 miles is an appropriate AOR. Within this area, the Region reviewed potential breaches or paths of migration to adjacent USDWs and found five plugged and abandoned wells and two shut-in wells that penetrate the injection zone. The well locations are presented in the Site Map above. The injection zone is isolated in each of these wells; therefore, the wells in the AOR are not a conduit for fluid to migrate from the injection zone into USDWs above the Madison Formation. Based on EPA's technical analysis, which is documented in the administrative record, EPA concluded that there are no AOR wells in need of corrective action. See Supplemental Technical Analysis, p.7.

Site Geology: The injection zone is within the Mississippian Madison Aquifer, which is between the depths of 3,418 feet and approximately 3,700 feet below ground surface (ft bgs). The confining zone immediately above the injection zone consists of the Swift, Rierdon, and Sawtooth Formations from a depth of 3,203 ft bgs to 3,418 ft bgs, and is free of known transmissive faults or fractures within the AOR. Immediately below the injection zone, are the Mission Canyon, Lodgepole, Three Forks and Potlach Formations (~3,700 – 4,900 ft bgs), providing confinement for the Duperow (lowermost USDW with an approximate top at 4,900' ft bgs). EPA considered the geologic characteristics of and relationships between the injection zone, confining zone, and lowermost USDW within the AOR and has determined that the geologic setting for injection, long term containment, and isolation of injected fluids is protective of USDWs, as detailed in the technical analysis included in the administrative record.

Injection Pressure: The injection pressure is limited to a maximum of 688 psi to prevent injection pressures from initiating new or propagating existing fractures in the injection zone, and from causing movement of injection or formation fluids into USDWs. EPA calculated a protective limit using the formula included in the permit along with site-specific values of 3,418 feet depth to the top of the open hole, wastewater injectate specific gravity of 1.004, and injection zone fracture gradient of the which is 0.634 psi/ft. The fracture gradient was calculated using step-rate test data from the well. The calculated specific gravity value used is an estimate. The injection pressure limit value will be updated and may change after the specific gravity of the injectate is obtained, which is a permit condition prior to authorizing injection. Additional

details on the step rate test analysis and the injection pressure limit calculation are included in the technical analysis as part of the administrative record.

Injection Volume Limitation: This condition remains unchanged from the 2023 draft permit. It limits cumulative injection volume to 7,156,173 bbls. Including an injection volume limitation in the permit ensures that the injectate will remain within the area of the aquifer that has been exempted and prevents endangerment to the underground sources of drinking water outside of the exempted area. In this case, the injection rate and duration used in the model were based on the cumulative injection volume limitation in each draft permit. As explained further in the Supplemental Technical Analysis, the model indicates that this volume of fluid will not migrate beyond 2.1 miles downgradient over a 10,000 year period. See Supplemental Technical Analysis, p.6.

Injection Well Construction: The well was designed and is constructed so that injection occurs through tubing set within the innermost casing in a manner that is protective of USDWs. The well is designed to be mechanically sound, to provide adequate zonal isolation, and to be monitored for mechanical integrity during operations. Well components include layers consisting of tubing, casing, and cement where tubing size, tubing type, cement quality, cement placement, and cement quantity were also considered. The well will be monitored to ensure that there are no leaks and to confirm that injected fluids are reaching the intended injection zone. EPA considered the suitability of construction materials and well design for the injection activity, including the prevention of corrosion from injected fluids, and has concluded that well construction requirements in the permit are protective of USDWs. The well is drilled to a depth of 3,499 feet.

Plugging and Abandonment: When the well is no longer needed, it will be permanently plugged and abandoned. The applicant has utilized a Letter of Credit to demonstrate their ability to cover plugging costs. EPA considered the well construction and site geology in determining the sufficiency of the plugging and abandonment plan and concluded that it will protect USDWs. EPA also concluded that the surety of resources is adequate to plug the well in a manner that is protective of USDWs.

Seismic Activity (Earthquakes): The proposed UIC area is located several miles east of mapped faults in an area with low earthquake risk. No mapped or known faults lie within the AOR. EPA considered the potential for hazards regarding seismic activity within the vicinity of the site and found no concerns related to the ability of the geologic setting to safely withstand injection if such potential exists, as documented in the administrative record.

Historical Property: EPA reviewed the National Park Service National Register of Historic Places database for historic properties located in Pondera County. No properties were found in the vicinity of the well and therefore EPA proposes to find that there will be no potential to affect such properties consistent with its obligations under the National Historic Preservation Act.

Endangered Species: EPA considered its obligations under Endangered Species Act and found no impacts related to endangered species or their critical habitat. Based on EPA's analysis which is documented in the administrative record, the footprint of the surface activities will not change despite the proposed expansion of the AE and AOR and no additional surface impacts beyond the existing well pad are planned.

Tribes: EPA considered its obligations under the 1984 EPA Policy for the Administration of Environmental Programs on Indian Reservations. While the location of the proposed Class V injection well is outside of Indian country, EPA will notify the tribal government of the Blackfeet Indian Tribe of EPA's proposed permit due to its relative proximity to the Tribe's Reservation.