STATE OF NEVADA
DIVISION OF ENVIRONMENTAL PROTECTION

AUTHORIZATION TO INJECT/DISCHARGE

In compliance with the provisions of the Nevada Revised Statutes (NRS 445A) and the Nevada Underground Injection Control Regulations (NAC 445A.810 through 445A.925), the following Permittee is authorized to discharge from the facility described below in accordance with limitations, requirements and other conditions set forth in Parts I and II hereof.

Permit Number:	**UNEV2009200**
Facility Name:	**Munson Ranch Oilfield**
Facility Address:	**See legal description**
Permittee:	**Makoil, Inc.**
Permittee Address:	**7700 Irvine Center Drive, Suite 420** **Irvine, CA 92618**
Property Owner:	**Public land, managed by BLM**
Owner Address:	
Legal Description:	**Section 11 & 24, T9N, R56E, Railroad Valley, Nye County, NV**
Number of Permitted Wells:	**Two (2) Class 2 Disposal Wells (2D)**
Other Permitted Discharges:	**None**
Reporting Frequency:	**Quarterly**

Facility Description

This permit covers up to two injection wells:

Approved wells	Year Approved
11-23	1990
24-3	1989

NOTE: Reference the permit fact sheet for specific details on the facility and wells, and permit history.

This permit shall become effective: **January 18, 2026 (tentative date).**
This permit shall expire at midnight: **January 18, 2031 (tentative date).**

The UIC renewal application is due 180 days prior to permit expiration.
Annual Fee Due: **July 1 of each year.**

_____ _____

Bret Allen, UIC Supervisor — Date
Bureau of Water Pollution Control

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Table 1 -Permittee shall notify the Division when:

Activity	Time Frame	Required Action to NDEP	Approval required
Construction of new, or conversion of existing well to, injection well		Submit Sundry Notice to NDOM, see NDEP website for any required documentation, or contact NDEP with questions about MIT testing. Provide approved Sundry Notice to NDEP.	NDOM approval
Initial injection to well	30 days prior notice to NDEP	UIC Completion Report, including mechanical integrity test, and submitting water sample results.	Written approval to inject from NDEP after submission of Completion Report.
Any modification of injection well	Before work over	Submit Sundry Notice to NDOM, see NDEP website for any required documentation, or contact NDEP with questions about MIT testing.	NDOM approval
	Before placing well back into service.	Submit completion report to NDEP, water sample if necessary.	NDEP written approval
Testing of injection well / MITs	30 days prior notice	Submit proposal to NDEP.	NDEP written approval
Construction of production well	within 60 days after completion of work	Submit well schematic with entry info, and results of water sample(s) of produced well water.	n/a
Major modification of production well	within 60 days after completion of work	Submit updated well schematic, and results of water sample from well (examples: deepening, perforate casing, etc.).	n/a
Chemical Treatment of water or Tracer tests	30 days prior notice	Submit chemical information on UIC Form U240.	NDEP written approval
Well Stimulation/ Acidization		Submit Sundry Notice to NDOM.	NDOM approval
Chemical or petroleum spills greater than 25 gallons or 3 cu yds of effected soil or spills greater than Reportable Quantity listed in 40 CFR 302.4	As soon as possible but no later than the end of one working day	Contact Division of Emergency Management (775-688-2830) and Division of Environmental Protection (888-331-6337).	n/a
Discovery of spills or noncompliance	Within 5 days	Submit a written 5-Day Report with a detailed description of the event (See II.A).	n/a

Schedule of Compliance

1. The permittee shall complete all the scheduled requirements in Table 1 & 2 to remain in compliance with the issued permit.
2. The permittee shall achieve compliance with the conditions, limitations and requirements of the permit at the commencement of relevant activity.
3. The Administrator may, upon the request of the permittee, and after public notice, revise or modify a schedule of compliance with an issued permit if he determines good and valid cause (such as a strike, materials shortage or other event over which the permittee has little or no control) exists for such revision.

Table 2- Schedule of Compliance		
Requirement	**NAC Reference**	**Date From UNEV2009200 Renewal**
Map 4 – Property Boundaries & Land Ownership • Must show public/private ownership and landowner names. • Must extend 1 mile beyond facility boundaries, not just within the AOR.	NAC 445A.867	Within 180 days
Submit specifications for all injection pumps, including make, model, and key operating parameters such as maximum injection rate and pressure.	NAC 445A.867	Within 180 days
Provide proposed average injection pressure (psi), rate (gpm or bbls/day), and fluid volume (gallons or bbls) for each well included in the application.	NAC 445A.867	Within 180 days
List all chemicals proposed for use, including those for corrosion control, scale inhibition, oil/water separation, or other purposes. Submit Form U240 – Chemical Use Request and product sheets for each chemical.	UIC Form U200: UIC Permit Application	Within 180 days
• Describe standard field sampling and QA/QC procedures, including use of UIC Form U230. • Include a statement confirming injection will cease if a well fails or receiving water is degraded. • Provide the NDEP Spill Hotline number and website in the O&M manual. • Attach all relevant U240 Chemical Use forms.		

PART I. PERMIT SPECIFIC CONDITIONS

A. INJECTION LIMITATIONS

I.A.1. Permitted Injections

During the period beginning on the effective date of this permit and lasting through the expiration date, the Permittee is authorized to inject water produced in conjunction with conventional oil production. A maximum number of two (2) injection wells as described on page 1 are allowed under this permit.

I.A.2. Injection and Disposal Authorization Requirements

The permittee is constrained to inject only those naturally produced fluids from the Munson Ranch Oilfield, or other fields within the area having prior written approval from the Division. All chemical additives that come, or may come, into contact with the injected water shall have written authorization (UIC Form 0240) from the NDEP prior to use. The permittee may dispose of well stimulation wastewater from other wells owned by the permittee after receiving written approval from the UIC Program (submit oil well water chemistry and U240 for each chemical to be used prior to disposal for approval).

I.A.3. Injection Rate and Annular Pressure Limitations

1. The Permittee shall be limited by the following for all wells:
    a. A maximum **combined injection rate of 8,000 bbls/day**.
    b. At no time shall the injection rate of any well be high enough to cause an increase in injection pressure above the maximum allowed.
    c. Injection shall be limited to water produced in conjunction with conventional oil production.
    d. The annular space between the tubing and casing above the packer shall be filled and maintained with produced water or an equivalent annular fluid, and corrosion inhibitors as necessary.
    e. The annular space between the tubing and the intermediate casing shall not have pressure at the surface/wellhead.
    f. The Permittee shall notify the Division **within 24 hours** when there is a change in the annular fluid content, volume or pressure.
    g. The Permittee may request an increase in the injection rate limit by submitting a written request which identifies the reason for additional volumes and the source of additional produced water.

I.A.4. Well Specific Limitations

1. Injection in **Munson Ranch Well 11-23** shall be limited to the following:
    a. The maximum injection pressure, measured at the wellhead, shall **not exceed 1,518 psig**.
    b. Injection is limited to the Paleozoic formation into 0.5” holes in 5.5” casing from 4,608 to 4,758 feet.
    c. A Baker Model A-2 Lock Set Packer, or equivalent, shall be set and maintained at or below the Paleozoic rock formation contact between the 5.5" intermediate casing and the 2 7/8" tubing and below the top of the cemented annular space. The packer, tubing, all casing strings and cement shall be maintained to prevent the movement of fluids into or between

underground sources of drinking water.

2. Injection in **Munson Ranch Well 24-3** shall be limited to the following:
    a. The maximum injection pressure, measured at the wellhead, shall **not exceed 1,300 psig**.
    b. Injection is limited to the Oligocene Ignimbrites of the Garret Ranch Volcanics into perforations from 4,340 to 4,385 feet and 4,680 to 4,730 feet.
    c. A Baker Model A-2 Lock Set Packer, or equivalent, shall be set and maintained at 4,320 feet. The packer, tubing, all casing strings and cement shall be maintained to prevent the movement of fluids into or between underground sources of drinking water.
    d. Well 24-3 has an aquifer exemption as specified in NAC 445A.855.2(c).

I.A.5. UIC Permit Compliance, Integrity, and Reporting Obligations

1. If the holder of the permit or the Division finds the injection well fails to demonstrate mechanical integrity during a test or a loss of mechanical integrity becomes evident during operation, the operation of the injection well must be stopped immediately and may not be resumed until approved by the Division. The Administrator must be notified within twenty (24) hours of any loss of mechanical integrity.

2. The Permittee shall comply with the conditions of Table 1 and 2 of this permit and notify the Division upon occurrence of any activity listed.

3. Injection practices shall not cause injectate or groundwater to surface at or near the injection points. Injection practices shall not cause any physical, biological, or chemical (including inorganic) degradation of groundwater pursuant to UIC regulations. Injection practices shall not cause objectionable odors or any surface hazards.

4. All solid, toxic or hazardous waste shall be disposed of in accordance with the rules and regulations of this Division. All spills and releases shall be reported as required by Nevada Revised Statutes.

5. At no time shall injectate or surface discharge cause baseline groundwater values to be exceeded. Produced fluids shall be disposed in such a manner that they do not present a hazard to livestock, wildlife or the beneficial use of the waters of the State.

6. The Permittee shall submit the annual review and services fee in accordance with NAC 445A.872 no later than July 1st of every year following permit issuance and every year thereafter until the permit is cancelled.

7. If the Permittee intends to renew permit upon expiration, the renewal application shall be submitted no later than 180 days prior to permit expiration pursuant to NAC 445A.882.

8. The Permittee shall comply with all provisions of the UIC regulations, NAC 445A.810 through 445A.925 inclusive, and all other pertinent laws and regulations. Nothing in this permit relieves the Permittee from responsibilities, liabilities, or penalties established by any other State, federal, or local jurisdiction.

PART II. PERMIT COMPLIENCE - REQUIREMENTS AND STANDARDS

A. MECHANICAL INTEGRITY TESTING

II.A.1. Tests for Mechanical Integrity

The Permittee shall conduct mechanical integrity tests (MITs) on the two injection wells. These tests must demonstrate there are no significant leaks in the injection well casing (Part 1 Internal) and demonstrate there is no significant fluid movement behind the casing (Part 2 External) including checks for leaks and behind-casing flow at all key locations such as casing shoes, liner tops, liner laps, and above the top of liner or casing perforations.

II.A.2. Frequency

1. The Division may, by written notice, require the permittee to demonstrate mechanical integrity if loss of mechanical integrity is evidenced by well failure or by other information.
    a. An internal MIT must be completed every two and half years on all injection wells.
    b. An external MIT must be completed every five years on water injection wells. Cementing records may not be sufficient for demonstration, unless a written exception is provided by the Division.
    c. The permittee shall conduct an internal MIT whenever the tubing is removed from the well or the packer is reset.

2. In addition, the Permittee shall conduct mechanical integrity testing prior to returning any injection well to service that has been shut in for a period of two years or more, to ensure continued compliance with integrity requirements.

II.A.3. Loss or Failure to Demonstrate Mechanical Integrity

If the holder of the permit or the Division finds that the injection well fails to demonstrate mechanical integrity during a test or a loss of mechanical integrity becomes evident during operation, the operation of the injection well must be stopped immediately and may not be resumed until approved by the Division.

II.A.4. MIT Proposals

Submit MIT Proposals for each injection well to demonstrate the integrity of the well to the Division forty-five (45) days prior to the test(s) being conducted to receive approval of said methodology and plan. MIT Proposals shall include:

1. Permit number and facility name.
2. Identify which internal and external MIT tests are the best for each injection well covered by this permit based on the static and maximum flowrate conditions and well construction.
3. Include proposed testing flowrates and pressures.
4. Submit an MIT Procedure. Reference the requirements of the MIT Summary Report below to ensure the plan contains how field notes will be taken, information is recorded, and discussion on testing interpretation and conclusions.
5. Include a copy of any approved U240 form relevant to the chemicals being used for the test(s), if any.
6. Provide the most recent, up to date, annotated well(s) diagrams and schematics.

7. Include signature block and certify the MIT Proposal contents to be accurate and correct.

II.A.5. Forty-Eight (48) hour Notice
Give 48-hour notice to the Division as to the date and time of the test(s) for the Division staff or their representatives to witness the test.

II.A.6. MIT Summary Report
Compile and submit the MIT Summary Report, including relevant logs and interpretative reports, to the Division within ninety (90) days after the completion of the test. The MIT Summary Report shall contain the following information:

1. Permit number and facility name.
2. Conditions of the injection well(s) prior to the test (e.g. static, injecting at ### gpm, etc.).
3. Conditions of the well(s) during the test(s), such as, but not limited to, operating conditions of the well, water level, changes in status/conditions of the well during the test, anomalies witnessed prior to or during the test, gauge calibration and condition for any gauges used.
4. Interpretation and conclusions of the test results stating whether each well meets the internal and external regulatory requirements in the UIC regulations. This part should be done in conjunction with the service company.
5. Include the most up to date, annotated, well completion diagram for each well.
6. Chemical safety data sheet for any chemicals injected during the test.
7. Use UIC MIT Form U111 to document the test for each individual well.

B. MONITORING AND REPORTING REQUIREMENTS

II.B.1. Quarterly UIC Monitoring and Reporting Requirements
The Permittee shall submit a **quarterly report** by the 28th day of the month following the end of the previous quarter which contains the following data:

1. Parameters included in the UIC Monitoring Report Summary and Check.
2. For each month in the reporting period, the **pH, Temperature (°F) and Electric Conductivity** shall be recorded during the last week of the month. Operator shall maintain equipment (e.g. EC meters) on-site as necessary to measure these parameters, and measurements shall be taken every quarter with these devices. Injection samples shall be taken at the sampling port on injection wellhead for each individual injection well injecting water.
3. The annular fluid pressure is to be recorded weekly.
4. At the request of the Division, the injectate shall be tested for all parameters included in UIC Sample List, Class 2 (found on NV UIC website).
5. Reporting shall be completed as specified in Part I.B.6.
6. Samples taken in compliance with the monitoring requirements specified in this permit shall be taken at the sampling port on the injection pipeline.

II.B.2. Water Sampling and Analytical Requirements
Samples of fluid from the location(s) identified in Part II.B.1 shall be collected and analyzed under the following conditions:

1. The analytical method detection limits for all listed parameters shall be recorded in all monitoring

reports and exceedance of a primary, or enforceable secondary drinking water standard (as listed in NAC 445A.455), set by federal or state regulations shall not occur, unless a naturally occurring receiving-aquifer constituent is established to be higher than the drinking water standard.

2. Sampling for metals shall be collected, unfiltered, preserved with an acid in the field and analyzed as "Total Metals." Any exceptions to this policy must be requested and pre-approved by the UIC program prior to sampling. It must be clearly stated on all reports which analyses were used.
3. Results shall be reported in mg/L unless otherwise noted.
4. The Division may increase or decrease the monitoring of any parameter for good cause.
5. Analyses shall be performed by a laboratory certified by the State of Nevada. Testing methods for parameters must be EPA or Division approved.
6. All UIC water samples shall be collected using UIC Form U230, and the completed U230 forms submitted for each water sample with the UIC report.
7. Test procedures for the analyses of required constituents shall comply with applicable analytical methods cited in 40 CFR 141 and under state of Nevada Drinking Water Program approved analytical methods, under which such procedures may be required, unless other procedures are approved by the Administrator.
8. Samples and measurements taken as required herein shall be representative of the volume and/or nature of the subject of interest.

II.B.3. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the Permittee shall record the following information:

1. Exact place, date, and time of sampling.
2. Dates the analysis were performed.
3. The person(s) who performed the analyses.
4. The analytical techniques or methods used.
5. Results of all required analysis.
6. Precision and accuracy of the analytical data.

II.B.4. Reporting

Monitoring results and other requirements obtained during the previous three months shall be summarized for each month and reported no later than the last day of the month following the completed reporting period. Signed copies of these, and all other reports required herein, shall be submitted to the UIC Compliance Coordinator at the following address:

Nevada Division of Environmental Protection
Bureau of Water Pollution Control
ATTN: Injection Monitoring Report
901 South Stewart Street, Suite 4001
Carson City, NV 89701

II.B.5. Additional Monitoring by Permittee

If the Permittee monitors any parameter at the locations(s) designated herein more frequently than required by this permit or monitors additional parameters other than required by this permit, using approved

analytical methods as specified above, the results of such monitoring results shall be made available to the Division upon request.

II.B.6. Records Retention
All records and information resulting from the monitoring activities required by this permit, including all records and analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of five (5) years or longer if required by the Director.

II.B.7. Modification of Monitoring Frequency, Location and Sample Type
After considering monitoring data, discharge flow and receiving water conditions, the Division may, for just cause, modify the monitoring frequency, location and/or sample type by issuing an Order to the Permittee.

PART III. PERMIT MANAGEMENT AND RESPONSIBILITIES

A. MANAGEMENT REQUIREMENTS

III.A.1. Change in Effluents or Discharge
All effluents or discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any constituent identified in this permit more frequently than or at a level more than that authorized shall constitute a violation of the permit. Any anticipated facility expansions, or treatment modifications which will result in new, different, or increased effluents or discharges must be reported by submission of a new application or, if such changes will not violate the limitations specified in this permit, by notice to the permit issuing authority of such changes. Following such notice, the permit may be modified to specify and limit any constituents not previously limited.

III.A.2. Noncompliance Notification
1. Notification shall be provided verbally as soon as possible but no later than the end of the first working day after the violation.
2. 5-Day Report: A written Report shall be submitted to the Division within five (5) days if, for any reason, the permittee is unable to or does not comply with the conditions, requirements and limitations specified in this permit. The permittee shall provide the Administrator or his representative with the following information:
    a. The exact dates, times, and duration of noncompliance.
    b. The specific cause of noncompliance and exact location.
    c. An estimated volume unauthorized discharge if applicable.
    d. Identification of which injection well(s) are affected.
    e. The corrective actions taken and anticipated time of continuance.
    f. Steps taken or planned to reduce, eliminate, and prevent recurrence of noncompliance.

III.A.3. Spills
The permittee is responsible for carrying out notification in the event of a spill. If the permittee has acknowledged that a spill greater than 25 gallons or 3 cubic yards has occurred, notify the Division through

the **NDEP Spill Hotline, 1-888-331-6337** as soon as possible and no later than one working day from the time of discovery. The permittee shall promptly notify the Administrator in writing, of each spill, in accordance with the procedure specified in Part II.A.2 above.

III.A.4. Facilities Operation
The permittee shall maintain all treatment and control systems, devices, and ancillary facilities in good working order and operate them efficiently to ensure compliance with this permit. All components must conform to the approved plans and specifications filed with the Division of Environmental Protection. No modifications to the system may be made without prior written approval from the Division.

III.A.5. Adverse Impact
The permittee shall take all reasonable steps, including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying effluent or discharge, to minimize any adverse impact to waters of the State resulting from noncompliance with any limitations specified in this permit.

III.A.6. Bypassing
Any diversion from or bypass of facilities necessary to maintain compliance with the terms and conditions of this permit is prohibited except where unavoidable to prevent loss of life or severe property damage. The Division will have the final authority in the determination of whether a discharge is deemed unavoidable. The permittee shall promptly notify the Administrator in writing of each such diversion or bypass, in accordance with the procedure specified in Part II.A.2 above.

III.A.7. Plugging & Abandonment Requirements
An approved plan for plugging and abandonment has been submitted to the Division and is on file. If the permittee or the Division determines at a future date that the plugging and abandonment plan requires modification, the modified plan, upon approval by the Division, will be incorporated into the file. The permittee has posted a bond with the Department of Interior, Bureau of Land Management, sufficient to cover the cost of plugging and abandonment. The bond must be maintained in good standing and cannot be cancelled without the Division's approval.

B. RESPONSIBILITIES

III.B.1. Right of Entry

1. The permittee shall allow the Administrator and/or his authorized representatives, upon the presentation of credentials:
    a. To enter upon the permittee's premises where a source is located or in which any records are required to be kept under the terms and conditions of this permit.
    b. To have access to, and to copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to perform any necessary sampling to determine compliance with this permit or to sample any effluent or discharge.

III.B.2. Transfer of Ownership or Control

In the event of any change in control or ownership, the permittee shall notify the succeeding owner or controller in writing of the existence of this permit. A copy of the said notice shall be forwarded to the Administrator within ten (10) days of such change. The transfer of all permits shall be approved by the Administrator of the Division of Environmental Protection.

III.B.3. Availability of Reports

Except for data determined to be confidential under NRS 445A.665, all reports prepared in accordance with the terms of this permit shall be available for public inspection. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in NRS 445A.705.

III.B.4. Permit Modification, Suspension or Revocation

1. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
    a. Violation of any terms or conditions of this permit.
    b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts.
    c. A change in any condition that requires either a temporary or permanent reduction or elimination of the effluent or discharge.

III.B.5. Civil and Criminal Liability

1. Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.
2. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation.
3. The issuance of this permit does not convey any property rights, in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, State or local laws or regulations.

III.B.6. Abbreviation Notes

1. PSIG: Pounds per Square Inch Gauge
2. MCFPD: Million Cubic Feet per Day
3. UIC: Underground Injection Control
4. MIT: Mechanical Integrity Test
5. GPM: Gallons Per Minute
6. BBLS: Barrels
7. AOR: Area of Review
8. O&M: Operations & Maintenance
9. EPA: U.S. Environmental Protection Agency

ATTACHMENT 1

UIC Monitoring Report Summary and Check List for UNEV2009200. Please submit this completed page with every group of quarterly reports. Use the Quarterly Class II Disposal/Injection Monitoring Form (UIC Form 100) to submit the information.

Submit this completed page with every group of quarterly reports.

- Please check to ensure all conditions required by the UIC permit are in the report.
- Check off each item below that is in the report.

Use the Quarterly Class II Disposal/Injection Monitoring Form (UIC Form 100) to submit the information.

1. ___ The results of the field measurements required by Part I.A.3, pH, temperature, and Electrical Conductivity.

2. ___ For each month in the reporting period, the total volume of fluid produced for each well (in gal/month). Submit in spreadsheet or copies of Division of Minerals Monthly Production Forms as attachment to Form 100.

3. ___ For each month in the reporting period, the total volume of air injected (mcfpd[1]) and the mean, lowest and highest injection rate for each injection well.

4. ___ For each month in the reporting period, the mean, lowest and highest injection pressure, in psig.

5. ___ Summary narrative analysis of monitoring activities for that six (6) month period. The narrative shall include, but not be limited to, any problems encountered that had or have the potential to have affected the well integrity or the water quality, any spills or releases at the site, the type of action taken, and all tests performed on the wells within the project area.

6. ___ For each month in the reporting period, list weekly measurements of the annular pressure, in psig. If the value is not zero, the permittee must determine the cause of the pressure and provide an explanation. 5-day notification is required by the permit.

7. ___ A list of all chemical additives used, including but not limited to, scale and corrosion inhibitors, etc., which were used during the previous quarter. Include product name, introduction rate, total amount/volume used during the reporting period, and amount of chemicals currently stored on-site. **Use the Quarterly Class II Disposal/Injection Monitoring Form to submit the above information.**

8. ___ Annual list of all site-related production, injection, observation, and test wells. Include construction information and status.

*The purpose of this checklist is to assist the Permittee and the UIC program staff in ensuring that all required monitoring information is submitted.