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:	**UNEV96200 (Previously NVS000000001)**
Facility Name:	**Blackburn Oil Field**
Facility Address:	**Pine Valley, Eureka Co. 34 miles south of Carlin on Hwy 278**
Permittee:	**Grant Canyon Oil & Gas, LLC**
Permittee Address:	**5299 DTC Blvd, Suite 840** **Greenwood Village, Colorado 80111**
Legal Description:	**Section 7 & 8, T.27N., R.52E. MDB&M, Eureka County, Nevada**
Number of Permitted Wells:	**Four (4) Class 2D and 2R**
Other Permitted Discharges:	**N/A**
Reporting Frequency:	**Quarterly**

Facility Description

This permit covers up to four (4) injection wells.

Wells currently authorized for injection:	**Year approved by NDOM** as Injection Well
1. #12	**1985 – Water disposal**
2. #3	**2008 – Air injection, possible water disposal**
3. #21	**2016 – Water disposal**
4. #16	**2009 – Air injection (currently operating as a production well)**

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

This permit shall become effective: **August 27, 2025 (tentative date).**
This permit shall expire at midnight: **August 27, 2030 (tentative date).**

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

_____ _____
Lisa Aleman, Environmental Scientist — Date
Bureau of Water Pollution Control

Schedule of Compliance

a. The permittee shall complete all the scheduled requirements in **Table 2** to remain in compliance with the issued permit.
b. The permittee shall achieve compliance with the conditions, limitations and requirements of the permit at the commencement of relevant activity.
c. The Division may, upon the request of the permittee, and after public notice, revise or modify a schedule of compliance in an issued permit if the Division determines good and valid cause exists for such revision.

Table 2- Schedule of Compliance

Requirement	NAC Reference	Date from UNEV96200 Renewal
Mechanical Integrity Testing: Well #3: MIT part I and part II must be performed Well #12: MIT part I and part II must be performed Well #21: MIT part I and part II must be performed	NAC 445A.9.16 NAC 445A.920	Within 180 days
Update Operation and Maintenance Manual. (See NDEP Form "UIC Minimum Info Requirements for O&M manual" on the Underground Injection Control website home page)	NAC 445A.869	Within 180 days
Provide updated and current maps from Form 202 Attachment as per the form requirements. Multiple requirements may be displayed on one map	NAC 445A.867	Within 180 days
Provide updated and current maps and cross sections from Form 202 Attachment B per the form requirements.	NAC 445A.867 NAC 445A.868	Within 180 days

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 – UIC Form U120, including mechanical integrity test, and submit 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	45 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 to NDEP.	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 UIC Form U240 to NDEP.	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 report.	Within 5 days	Submit a written 5-Day Report with a detailed description of the event (See II.A).	n/a

PART I

A. INJECTION LIMITATIONS, MONITORING AND OTHER REQUIREMENTS

1. During the period beginning on the effective date of this permit and lasting through the expiration date, the Permittee is authorized to inject 1) water produced in conjunction with conventional oil and gas production and Nevada Division of Environmental Protection (Division) approved additives, and 2) air for enhanced recovery as authorized below. A maximum number of four (4) injection wells as described on page 1 are allowed under this permit.

2. The permittee shall inject only those naturally produced fluids, air, and Division approved additives, from the field (or other fields within the area having prior written approval from the Division) as authorized below. All chemical additives that come, or may come, into contact with injected water shall have written authorization (UIC Form U240) from the Division 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 UIC Form U230, and UIC Form U240 for each chemical to be used prior to disposal for approval).

3. The permittee shall submit **quarterly reports** (four reports each calendar year) by the last day of the month following the end of the previous quarter which contains the following data:

    a. Parameters in the UIC Monitoring Report Requirements and Checklist (Attachment 1)
    b. For each month in the reporting period, the **pH, Temperature (°F) and Electric Conductivity (µmhos/cm)** which shall be recorded during the last week of the month. The operator shall purchase equipment (e.g. EC meters) necessary to measure these parameters and maintain them on site, 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.
    c. The annular fluid pressure recorded weekly
    d. The injectate shall be tested by the permittee for all parameters included in "UIC Sample List – Class 2 Wells" (which can be found on the BWPC forms webpage) upon request of the Division.
    e. Reporting shall be completed as specified in Part I.B.5.

4. The permittee shall be limited to a maximum injection rate of **15,000 bbls/day** and at no time shall the injection rate of any well be high enough to cause an increase in injection pressure above the maximum allowed.

5. Well Specific Limitations

    a. Injection in **Blackburn #3** shall be limited to the following:
        i. Injection of 1) water produced by the operator in conjunction with conventional oil and gas production, along with Division approved production and well stimulation additives and 2) ambient air for enhanced recovery.
        ii. The maximum injection pressure, measured at the wellhead, shall not exceed the following pressures, depending on the nature of injection:
            1. Water injection only – 1,700 psi
            2. Air injection only – 3,850 psi
        iii. Injection is limited to the Indian Wells Formation, Chainman Formation, and Devonian Nevada Formation.
        iv. Prior to the commencement of water injection, an external MIT must be completed and approved as described in part I.A.16.

v. Co-injection is **not** permitted; any pilot projects or future co-injection plans must be authorized by the Division before co-injection begins.

b. Injection in **Blackburn #12** shall be limited to the following:
   i. Injection of water produced by the operator in conjunction with conventional oil and gas production, along with Division-approved production and well stimulation additives.
   ii. The maximum injection pressure, measured at the wellhead, shall not exceed 1,700 psi during operation of the well.
   iii. Injections are limited to the Devonian Nevada Formation.

c. Injection in **Blackburn #16** shall be limited to the following:
   i. Injection of ambient air for enhanced recovery.
   ii. The maximum injection pressure, measured at the wellhead, shall not exceed the 3,850 psi during operation of the well.
   iii. Injections are limited to the Devonian Nevada Formation.

d. Injection in **Blackburn #21** shall be limited to the following:
   i. Injection of water produced by the operator in conjunction with conventional oil and gas production, along with Division-approved production and well stimulation additives.
   ii. The maximum injection pressure, measured at the wellhead, shall not exceed the 1,800 psi during operation of the well.
   iii. Injection is limited to the lower Indian Wells, Chainman Formation, and Devonian Nevada Formation.

6. Injection Well Packers

a. In Blackburn Well #12, a Baker R-2 Lock Set Packer, or equivalent, shall be set and maintained at or below 7,997 feet, the top of the zone for injection, between the 7 inch intermediate casing and the 2 7/8 inch tubing and below the top of the cemented annular space.

b. In Blackburn # 3, a Baker Model R Double Grip Packer, or equivalent, shall be set and maintained below the top of the cemented annular space.

c. In Blackburn # 16, a Baker Model R-3 Packer, or equivalent, shall be set and maintained below the top of the cemented annular space.

d. In Blackburn # 21, a Baker Model Hornet Packer, or equivalent, shall be set 6581 feet and maintained below the top of the cemented annular space.

e. 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.

7. 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. The Administrator **must be notified within twenty (24) hours** of any loss of mechanical integrity.

8. The permittee shall always keep a copy of the current permit and Operations and Maintenance (O&M) manual on site.

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

10. Injection practices shall not cause injectate or groundwater to surface at or near the injection points, and shall not cause any physical, biological, or chemical (including inorganic) degradation of groundwater pursuant to UIC regulations, including baseline groundwater values to be exceeded.

11. Produced fluids shall be disposed in such a manner they do not present a hazard to livestock, wildlife or the beneficial use of the waters of the State.

12. 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.

13. 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.

14. 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 of responsibilities, liabilities, or penalties established by any other State, federal, or local jurisdiction.

15. The annular space between the tubing and the intermediate casing and the tubing and the liner above the packer shall be filled and maintained with produced water or an equivalent annular fluid, and a corrosion prevention additive. The Permittee shall notify the Division **within 24 hours** when there is a change in the annular fluid content, volume or pressure. The annular space parameters shall be checked at least weekly. The annular space between the tubing and the intermediate casing shall not have pressure at the surface/wellhead. Air injection wells may be authorized to be configured without this requirement.

16. The permittee shall meet the requirements of NAC 445A.917 and 44A5.918 for mechanical integrity prior to use of the well and must conduct a mechanical integrity test (MIT) at the prescribed interval. The permittee must receive approval from the Division prior to conducting any MIT. Following approval of the MIT, the permittee shall notify the Division of the date and time of testing as soon as scheduled and no later than forty-eight (48) hours in advance to allow NDEP staff or representatives to witness the MIT(s). The proposed method to demonstrate the integrity of each well will be reviewed by the Division within forty-five (45) days after submission of a request to approve said methodology. The results of the test, including relevant logs and interpretive reports, must be submitted to the Division within ninety (90) days after the completion of the tests. 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. All approval requests and test results shall be submitted as specified in Part I.B.5.

    a. An internal MIT must be completed every two and half years on both water and air 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

17. All facilities and ancillaries encompassed by this permit shall conform to the plans and specifications filed with the Division and shall be always maintained in good working order. No changes shall be made to the system without prior written approval from the Division.

18. 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. MONITORING AND REPORTING REQUIREMENTS

1. Samples taken in compliance with the monitoring requirements specified in this permit shall be taken at the sampling port at the injection wellhead.

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

    a. 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.
    b. 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.
    c. Results shall be reported in mg/L unless otherwise noted.
    d. The Division may increase or decrease the monitoring of any parameter for good cause.
    e. Analyses shall be performed by a laboratory certified by the State of Nevada. Testing methods for parameters must be EPA or Division approved.
    f. 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.
    g. 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.

3. Samples and measurements taken as required herein shall be representative of the volume and/or nature of the subject of interest.

4. Recording of Results

    For each measurement or sample taken pursuant to the requirements of this permit, the Permittee shall record the following information:
    a. the exact place, date, and time of sampling
    b. the dates the analyses were performed
    c. the person(s) who performed the analyses
    d. the analytical techniques or methods used
    e. the results of all required analyses; and
    f. the precision and accuracy of the analytical data.

5. 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 quarterly reporting period. Signed copies of these, and all other reports required herein, shall be submitted to the UIC Branch:

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

6. 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.

7. 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 three (3) years or longer if required by the Director.

8. 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 II

A. MANAGEMENT REQUIREMENTS

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.

2. Noncompliance Notification

   a. Notification shall be provided as soon as possible but no later than the end of the first working day after the violation.

b. 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 Division with the following information:
   i. The exact dates, times, and duration of noncompliance.
   ii. The specific cause of noncompliance and exact location.
   iii. An estimated volume unauthorized discharge if applicable.
   iv. Identification of which injection well(s) are affected.
   v. The corrective actions taken and anticipated time of continuance.
   vi. Steps taken or planned to reduce, eliminate, and prevent recurrence of noncompliance.

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. The permittee shall promptly notify the Administrator in writing, of each spill, in accordance with the procedure specified in Part II.A.2 above.

4. Facilities Operation

The permittee shall always maintain in good working order and operate as efficiently as possible, all treatment or control facilities, devices or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

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.

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.

B. RESPONSIBILITIES

1. Right of Entry

a. The permittee shall allow the Division's authorized representatives, upon the presentation of credentials:
   i. 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; and
   ii. 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.

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 Division within 10 days of such change. All permit transfers shall be approved by the Division.

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.

4. Permit Modification, Suspension or Revocation

   a. 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:
      i. Violation of any terms or conditions of this permit
      ii. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts
      iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the effluent or discharge.

6. Civil and Criminal Liability

   a. Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.
   b. 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.
   c. 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.

ATTACHMENT 1

UIC Monitoring Report Requirements and Checklist UNEV96200
Please submit this completed page with every monitoring report

- ■ 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 chemical analyses required by Part I.A.3, including copies of original lab reports, submitted in the 1st quarterly report of the calendar year (due January 28th annually).

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 fluid injected and the mean, lowest and highest injection rate (in bbls/day or gpm) for each injection well.

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

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

6. ___ Summary narrative analysis of monitoring activities for the three (3) month quarterly reporting 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, workovers, any spills or releases at the site, the type of action taken, and all tests performed on the wells within the project area.

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 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 (total depth, perforated zones, etc.) and status (**due January 28th annually**).

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