October 18, 2023

Sheldon Byde | Permitting Manager
Cyrq Energy Inc.
15 W. South Temple, Suite 1900
Salt Lake City, UT 84101

RE: UIC temporary permit UNEV2007202T2023-1
Blue Mountain Geothermal Project | Humboldt County
Injection Well 34A(14-23)-22

Dear Sheldon Byde:

In accordance with NAC 445A.890, a temporary permit may be issued for a specific underground injection of fluids if the permittee has made all efforts to submit a timely application of a permit and represents that it was not practicably possible to do so. Furthermore, the permittee represents that any temporary injection will not result in the movement of fluids out of the permitted zone for injection.

The Bureau of Water Pollution Control (BWPC) in the Nevada Division of Environmental Protection (NDEP) grants authorization for injection testing in well 34A(14-23)-22 under UIC temporary permit UNEV2007202T2023-1 for up to thirty (30) days. As previously discussed, timely submission of additional materials is needed to complete the major modification of permit UNEV2007202. Once the missing information is provided, the pending application will be reviewed – and, following technical review and approval, the site permit will be modified to reflect addition of the above-referenced well.

Please read the terms and conditions of the attached permit carefully and contact me at the email address or phone number listed below if you have any questions.

Respectfully,

Andrew L. Kowler, Ph.D. | Environmental Scientist
Underground Injection Control Program
Bureau of Water Pollution Control
akowler@ndep.nv.gov | (775) 687-9428

Encl: UIC temporary permit UNEV2007202T2023-1

Ecc: Jo Bannon, VP | Cyrq Energy Inc.
Jeffrey Kinder, Deputy Administrator | NDEP
Andrew Dixon, Bureau Chief | NDEP-BWPC
Donette Barreto, Branch Supervisor | NDEP-BWPC Permits Branch
Dustin Holcomb, Program Manager | NDOM Fluid Minerals Program
Alex Jensen, Program Manager | BLM Nevada Fluid Minerals Program
Tai Subia, Geothermal Lead | BLM Winnemucca District

STATE OF NEVADA
DIVISION OF ENVIRONMENTAL PROTECTION

TEMPORARY AUTHORIZATION TO INJECT/DISCHARGE

In compliance with the provisions of the Nevada Revised Statutes (NRS) 445A and the Underground Injection Control (UIC) Regulations in the Nevada Administrative Codes (NAC) 445A.810 - 445A.925, the following permittee is authorized to inject and discharge from the wells described below in accordance with the limitations, requirements, and other conditions set forth herein.

TEMPORARY UIC PERMIT INFORMATION	
General	**Information**
UIC Permit	UNEV2007202T2023-1
Site/Facility	Blue Mountain Geothermal Field
Permittee	Cyrq Energy Inc.
Permittee Mailing Address	15 W. South Temple, Ste. 1900 | SLC, UT 84101
Property Owner(s)	see Attachment 1
Well Owner/Operator	Cyrq Energy Inc.
Well Owner/Operator Address (if different from Permittee)	
Municipality & County	Humboldt County
Wells Authorized for Injection	One (1): see Attachment 1
Associated WPC Discharge Permit(s)	None
Reporting Frequency	December 19, 2023 & subsequent IMR
Purpose	Testing of experimental technology: Flow testing (off-line from plant production stream) in support of forthcoming application for major modification of UNEV2007202
Terms & Conditions	
Well Information & Injection Parameter Limits	Attachment 1
Permit Conditions & Requirements	Attachment 2 (see submission requirements – due by October 30, 2023)
Injection Monitoring Report Checklist	Attachment 3
Chemical Analyte List(s)	Attachment 4

Coverage for the well shall become effective at midnight on: October 19, 2023

Coverage shall expire at midnight on: November 18, 2023

Andrew Kowler, Ph.D. | Environmental Scientist
Nevada Underground Injection Control Program
NDEP Bureau of Water Pollution Control | Permits Branch

October 18, 2023
Date

ATTACHMENT 1

Well Information & Injection Parameter Limits

Well ID (Kettleman #)	**34A(14-23)-22**
API	27-013-90146
NDOM Well/Permit No.	1505
Well Completion Date	June 5, 2023
APN	NA
Property Owner	BLM (Lease No. NVN-77668)
Well Status & Type	New Injection Well
Legal Description (PLSS: MDB&M)	T36N, R34E, Sec 22 ($SE/_4$ of $NE/_4$)
Location (Lat/Long: WGS 84)	N40º 58″ 55.708″ N, 118º 9′ 16″ W
Injection Zone	7,300 - 8,000 ft bgs (TVD)
Maximum Injection Pressure (Wellhead)	2,280 psig
Maximum Injection Rate	2,000 gpm

ATTACHMENT 2

PART I

I.A. EFFLUENT LIMITATIONS, MONITORING AND OTHER REQUIREMENTS

Schedule of Compliance Section

I.A.1.

a. **Prior to injection:** Permittee must have fully established and implemented monitoring conditions and requirements in Attachment 3.

b. **Within one (1) week following collection of water samples:**
Permittee must provide proof of collection of pre-injection samples for water quality analyses per schedule on UIC form U230 (Attachment 3, Table 1); a copy of the U230 must be provided to NDEP as proof of submission to a laboratory approved by the State of Nevada Safe Drinking Water Program for analysis of parameters, and concentration levels for constituents on the chemical analyte lists (Attachment 4), within one week of sample collection.

c. **A complete application for major modification (forms U200 & U202) of UIC permit UNEV2007202 must be submitted by October 30, 2023.**

d. The Administrator may, after public notice, revise or modify a schedule of compliance in an issued permit if he determines valid cause.

e. The Permittee shall achieve compliance with the conditions, limitations, and requirements of the permit at the commencement of the permitted activity and maintain compliance through permit expiration.

General Section

I.A.2. During the period beginning on the effective date of this permit and lasting through the expiration date on page 1 of this permit, the Permittee is authorized to:

a. Inject geothermal fluids into the **well(s) listed in Table A of this permit (Attachment 2)** into the zone below the casing shoe of each well with the intent of recharging injected water into the same aquifer; and

I.A.3. All facilities and ancillaries encompassed by this permit shall conform to the plans and specifications filed with the Nevada Division of Environmental Protection and shall be maintained in good working order at all times.

I.A.4. Extraction, conveyance, and injection must be accomplished in a manner that prevents introduction of foreign substances not covered by this permit. All fluids extracted will be disposed of by injection with the exception of those discharges approved under Part I.A.2 with constraints listed under the Fluids Section.

I.A.5. The Permittee shall comply with all provisions of the UIC regulations, Nevada Administrative Code (NAC) 445A.810 - 445A.925, and all 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.

I.A.6. 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.

I.A.7. **This permit cannot be renewed**, and no fee for Annual Review and Services fee shall be assessed.

Limits Section

I.A.8. Injection shall be limited by the Permittee as specified below:

a. The injection pressure at the wellhead shall not exceed the maximum pressure as calculated per NAC 445A.911 (2). Calculations for all future wells and following workovers which introduce new injection zones shall be submitted to and approved by the Division prior to use of the well. Limits for existing wells are listed in Attachment 1.

b. The temperature of discharged fluids shall not cause: 1) degradation to ground water; 2) degradation of well integrity; and/or 3) harm to the public, wildlife and/or environment.

c. **Injected water shall remain in the geothermal zone/reservoir identified through the UIC application process**. Injected water must not migrate into unauthorized "fresh" water zones, shallow formations and/or up to the surface.

d. **The combined wellhead injection rate for authorized injection activity shall not exceed 2,000 gpm.**

I.A.9. The Permittee is constrained to inject only those natural produced fluids from the project area that have received prior written approval from the Division. **Introduction of chemical additives to the production or injection stream under this temporary permit requires written authorization from the Division via approval of UIC form U240 specific to this permit.**

Fluids Section

I.A.10. Geothermal 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. **Discharge basins associated with the permitted wells shall be fenced off and maintained** in **proper manner at all times so as to not allow wildlife or livestock to be endangered by these constructed devices or the water within them.** If **any wildlife is trapped or found dead in basins, the Nevada Department of Wildlife shall be contacted immediately.**

Fluids derived from maintenance procedures or well testing may only be diverted on a short-term basis to *separately-permitted* onsite holding/discharge basins constructed for such discharges. **All discharge basins must be constructed according to the approved plan submitted and reviewed under the Schedule of Compliance (O&M Manual). Fluid volumes discharged to these basins shall be reported pursuant to TABLE 1 (Attachment 3).**

I.A.11. No chemical additives shall be added to the geothermal fluids prior to injection or disposal without prior written approval by the Division (UIC Form U240 Chemical Request form). The use of any type of chemical additive in the injectate may require modification of monitoring requirements. All approved U240 Chemical Request forms shall be maintained in the UIC O&M Manual for operations conducted under this temporary permit. **All chemical additives shall be inventoried and the concentration, amount, and rate added shall be reported; wastewater from the cooling tower shall not be discharged to the injection wells on this permit.**

Monitoring and Sampling Section

I.A.12. **The Permittee is required to notify the Division immediately upon becoming aware of:**

a. elevated water levels,

b. constituents in any wells or surface waters being monitored under the terms of this permit that are outside the normal range of values for that site,

c. any leaks to geothermal process water in heat exchanger units,

d. any other non-compliance with this permit pursuant to Part II.A.2.

Depending on the magnitude of the change, the Division may require the Permittee to conduct a hydrogeologic investigation, increase monitoring, cease injection and/or any other actions deemed necessary by the Division so as to determine the cause and/or any necessary mitigation.

I.A.13. **The Permittee shall notify the Division in writing immediately upon becoming aware of any situation that prevents access to any of the monitoring wells/points.** The reason for inaccessibility and corrective action measures necessary to resolve the situation shall be noted in the next UIC report.

I.A.14. Monitoring and Sampling Requirements are as follows (Tables in Attachment 1):

a. Water samples and water level monitoring shall be taken in accordance with **TABLE 1 (Attachment 3).**
b. The items in **TABLE 1** shall be monitored by the Permittee and be reported in accordance with Part I.A.16.

I.A.15. The Permittee shall include a copy of the UIC monitoring report in the semi-annual report due July 28, 2023.

Permit reports shall contain:

a. Check list form (with items checked off) listed in **Attachment 3** of this permit.
b. All items identified under Attachment 1.

I.A.16. Reporting

Monitoring results and other requirements obtained during this monitoring period shall be summarized for each month and reported **no later than the thirty (30) days following the cessation of injection activities or the expiration date, whichever occurs soonest**. Permittee-signed hard copies of these, and all other reports required herein, shall be submitted to the following address:

Nevada Division of Environmental
Protection Bureau of Water
Pollution Control
Attn: UIC Program (Injection Monitoring Report)
901 S. Stewart Street, Suite
4001 Carson City, NV 89701

Well Construction and Workover Section

I.A.17. The Permittee shall construct all production, test and other wells in compliance with all State and federal regulations such that unauthorized releases do not occur. When standard or routine maintenance procedures for **injection well cleanouts** are developed such procedures will be submitted to the Division for approval and included in the UIC O&M manual. Following any stimulation, acidizing or other treatment of the injection well(s), the Permittee shall submit details of the activity/treatment in the next UIC report or by separate cover.

I.A.18. **Mechanical Integrity Testing:** The Permittee shall conduct mechanical integrity tests **(MIT)** on the injection well(s) if there is evidence of fluid loss.

I.A.19. **These tests must demonstrate that there are no significant leaks in the injection well casing and that there is no significant fluid movement behind the casing.** The Division may, by written notice, require the Permittee to demonstrate mechanical integrity in light of any evidence for loss of mechanical integrity.

The following must occur for each test on each well:

a. Determine what internal and external mechanical integrity tests are the best for each injection well covered by this permit based on the static and maximum flow rate conditions, and well construction;
b. Submit a plan 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; **Important: Reference the requirements of the MIT Summary Report below to ensure plan contains how field notes will be taken, information is recorded, and discussion on testing interpretation and conclusions**
c. Give 48-hour notice to the Division as to date and time of test(s) in order for Division staff or their representatives to witness the test;
d. Compile and submit MIT Summary Report, including relevant logs and interpretative reports, to the Division within 90 days after the completion of the tests;
e. The MIT Summary Report shall contain the following information:
    1. Conditions of the injection well(s) prior to the test (e.g. static, injecting at #### gpm, etc.);
    2. 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, etc.;
    3. Interpretation and conclusions of the test results stating whether each well meets the internal and external regulatory requirements in UIC regulations. This part should be done in conjunction with the service company.
    4. If the holder of the permit or the Division finds that the injection well fails to demonstrate mechanical integrity dming 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.

I.A.20. An approved plan for plugging and abandonment has been submitted to and on file with the Division. If the Permittee or 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 and become a part of the permit.

I.B. GENERAL MONITORING AND RECORD KEEPING

I.B.1. Samples and measurements taken as required herein shall be representative of the volume and/or nature of the subject of interest.

I.B.2. Minimum Requirements for Sampling and Monitoting

a. A laboratory certified by the State of Nevada must perform analyses. Testing methods for constituents must be EPA or Division approved and meet drinking water analysis requirements.
b. The detection limits for the constituents listed above must be at least as low as primary or secondary drinking water standards when applicable.
c. When sampling for radioactive constituents, ensure the laboratory reports only the adjusted gross alpha, as the drinking water standard of 15 pCi/L is an adjusted standard that subtracts radon and uranium from the total activity. Uranium is added in List 2 to verify value and additional activity.

d. The UIC Program requires inorganic analyses of metals for "Total Metals" in which samples are not filtered and are preserved with a weak acid in the field. Any exceptions to this policy must be requested and pre-approved by the DIC program prior to the sampling event. It must be clearly stated on all reports which analyses were performed.

e. All gauges used for compliance with this permit shall be calibrated pursuant to O&M manual and documented in the monitoring reports.

f. Water samples shall be 1) collected by grab method, and 2) unfiltered for metals analysis; unless otherwise approved by the Division in writing.

g. Annual samples shall be collected during the same month each year.

h. **Each UIC water sample** shall be **collected using UIC Form D230**, **a copy** of which **shall be:**

(1) **sent to the UIC Program upon submission to the laboratory as proof of submission;**

(2) **included, along with the results of analyses, in the final UIC report.**

i. 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.

I.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 using UIC Form D230:

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.

I.B.4. Additional Monitoring by Permittee

If the Permittee monitors any constituent at the locations(s) designated herein more frequently than required by this permit, or monitors additional constituents 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.

I.B.5. 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.

I.B.6. 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 modifying this permit.

PART II

II.A. MANAGEMENT REQUIREMENTS

II.A. I. 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 in excess of 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.

II.A.2. Noncompliance Notification

If, for any reason, the Permittee does not comply with or will be unable to comply with the conditions, requirements and limitations specified in this permit, the Permittee shall provide the Director with the following information immediately, in writing:

a. **A description of the noncompliance; and,**
b. **The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncompliance.**

11.A.3. Facilities Operation

The Permittee shall at all times 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.

II.A.4. 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.

11.A.5. 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.

II. B. RESPONSIBILITIES

II.B.1. **Right of Entry**

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; and**
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.**

II.B.2. **Transfer of Ownership or Control**

In the event of any change in ownership or control, the Permittee shall notify the succeeding owner of the existence of this permit, in writing, at the earliest possible date to allow sufficient

time for the succeeding owner to demonstrate financial responsibility to the Division within 30 days prior to transfer of ownership. The letter shall include the date agreed upon by both parties for the transfer of ownership. A copy of the letter shall be forwarded to the Administrator. The Administrator may require modification, or revocation with subsequent reissuance of the permit, to change the name of the new Permittee and incorporate additional requirements as deemed necessary due to any changes made to the injection wells or system by the new Permittee. The Administrator of the Division of Environmental Protection shall approve all transfers of permits.

II.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.710.

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

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; or
c. A change in any condition that requires either a temporary or permanent reduction or elimination of the effluent or discharge.

II.B.5. 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 prope1ty or any invasion of personal rights, nor any infdngement of Federal, State or local laws or regulations.

Attachment 3

UIC MONITORING REPORT SUMMARY & CHECK-LIST

- Submit this completed check-list form with every UIC monitoring report
- Establish monitoring plan in accordance with Table 1 (below)
- Please **include all check-list items in** the **UIC monitoring report**, to be **submitted** to the NDEP UIC **within** thirty (**30**) **days following** the **cessation of injection or permit expiration date, whichever** occurs **soonest**, **and incorporate** each UIC monitoring **report into** the **subsequent Injection Monitoring Report for** UNEV2007202
- Check each UIC monitoring report to ensure that it satisfies all permit conditions

TABLE 1

INJECTION PARAMETER	MONITORING FREQUENCY & LOCATION
Injection Rate (gpm)	Twice-daily (12-hr) readings from instantaneous direct-reading monitoring gauge at wellhead.
Injection Pressure (psi)	Twice-daily (12-hr) readings from instantaneous direct-reading monitoring gauge at wellhead.
Injection Temperature (°F)	Twice-daily (12-hr) readings on conventional analog gauge at wellhead.
Water Quality Analytes	Immediately before injection & on the final day of injection, collect sample of produced fluid from port at (1) production wells, (2) production piping immediately upstream of plant inlet, and (3) injection wellheads or after injection pumps.
Water discharges to reserve basin on or adjacent to the permitted well (Attachment 1)	Must be authorized under separate discharge permit

Check off each of the items below that has been included in the UIC monitoring report.

1. ☐ This check list form

2. ☐ All reporting requirements in accordance with Table 1 (above)

3. ☐ According to the schedule in Table 1 (Attachment 3) above: (1) each water sample must be collected and sent to a laboratory for analysis of the parameters and constituents identified in the analyte list(s), and (2) a copy of the sample collection form, U230, must be submitted along with each sample, and (3) included in the UIC monitoring report along with the results

4. ☐ For each day in the reporting period: total volume (gal) of fluid injected, in addition to the mean-average, lowest (non-zero), and highest injection rates (gpm) for each injection well must be measured

5. ☐ For each day in the reporting period: mean-average, lowest, and highest injection pressures (psi) for each injection well must be measured

6. ☐ For each day in the reporting period: lowest and highest injection temperatures (°F) for each injection well must be measured

7. ☐ A table listing all production and injection wells, test wells, and monitoring wells, including the following information: installation date, permit numbers (if permitted by other agencies), dates of active injection or production during and before the monitoring/reporting period, well depth, slotted/perforated and/or open depths, ,type, operational status, name/ID, location,and any other relevant information.

8. ☐ A table listing all chemical additives put into circulation above-ground or in wells, including the following information: product name, chemical composition, concentration, rate (mL/min), and total volume used per day.